

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, with a wisdom that never loses sight of the final destiny, the issues, the changes, and the problems that arise in every life.

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 that 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's degrees, it is necessary to complete all the requirements listed in one of the programs in this chapter.

MAJORS AND MINORS

The Major is defined as a bloc of courses totalling at least 24 hours of upper level work in a single discipline; it is sometimes supported by a Minor, which is a bloc of courses totalling at least 12 hours of upper level work. The Minor is defined specifically in the departmental listings.

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

For the Bachelor of Arts degree, possible majors:

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

For the Bachelor of Science degree, possible majors:

Biology	Home Economics	Pre dentistry
Chemistry	(General or Dietetics)	Pre medicine
Computer Science	Mathematics	Psychology
Criminal Justice	Medical Technology	Social Work
Data Processing	Physical Science	
Geology	Physics	

Other programs leading to the bachelor's degree:

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

Established Interdisciplinary Majors

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 chairperson of the committee.

Individually Designed Interdisciplinary Majors

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

GENERAL REQUIREMENTS FOR ALL BACHELOR OF ARTS PROGRAMS

A minimum of 120 semester hours of approved coursework must be presented for the B.A. degree. At least 54 semester hours must be completed at the 300-400 level. For limitations on credit and restrictions on courses, consult the chairperson and the dean. For specific departmental or program requirements consult program schedules A1 through A20 or the department chairperson or the program director.

	<i>Semester Hours</i>
Major concentration	30-45
At least 24 semester hours must be 300-400 level	
Breadth requirement (See Distribution Table below)	49-70
Program and general electives	5-41

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. The choice of electives should be approved by the Chairperson or Dean since some restrictions exist.

DISTRIBUTION TABLE FOR BREADTH REQUIREMENT

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

<i>Type of Requirement</i>	<i>All Programs Semester Hours</i>
Natural Science and Mathematics 7-12 Biology, Chemistry, Geology, Physics, Mathematics, and Computer Science. At least 4 semester hours must be in an approved natural science course (Biology, Chemistry, Geology, Physics) with an accompanying laboratory.	
Social and Behavioral Science 12 Anthropology, Economics, Finance, Political Science, Psychology, Sociology, and, with the approval of the chairperson of the major department or the director of the program, appropriate courses in Afro-American Studies, Management, Criminal Justice, Education, Marketing, Military Science, Social Work, or ASI. At least 3 semester hours must be in Anthropology, Economics, Political Science, Psychology, or Sociology. At least one unit of 6 semester hours in a single discipline is required with at least 3 semester hours from the 300-400 level. ¹	
Humanities 18 American Studies, Communication Arts, English, History, Humanities Studies, Languages, Performing and Visual Arts, Philosophy, Religious Studies, and, with approval of the chairperson of the major department or the director of the program, courses in Afro-American Studies or ASI. At least one unit of 9 semester hours in a humanities area with at least 3 semester hours from 300-400 level courses (except Languages and Performing and Visual Arts, in which a unit may be satisfied with 9 semester hours at any level). ¹ The remaining 9 semester hours of electives are to be chosen from one or more other departments within the humanities. (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.	

¹Students 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.

GENERAL REQUIREMENTS FOR ALL BACHELOR OF SCIENCE PROGRAMS

For specific requirements consult program schedules S1 through S16 or the department chairperson or the program director.

	<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.

Program and general electives to total at least 120.

The choice of electives should be approved by the Chairperson or Dean since some restrictions exist.

Cumulative grade point average required 2.0

A standard cumulative grade point average of 2.0 in the major, the minor, and in the total program is required for graduation.

GRADUATION REQUIREMENTS

1. It is the responsibility of the student to file his/her Candidate for Graduation Card in the office of the Dean of the College of Arts and Sciences.

2. For graduation, it is necessary that the student successfully complete an approved program of studies in the College; 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 grade point 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 consisting of 24 semester hours. (Fifteen must be chosen from the recommended American courses as listed in Group A, B, or C below. The other 9 must be non-American courses in the same group.)
 - b. A second area, consisting of 9 semester hours, to be chosen from one of the two remaining groups listed below;
 - c. A third area, consisting of 6 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, 306, 344.

Group B

HST 350, 359, 360, 364, 365, 385¹, 390, 398, 399, 450, 454, 455, 456, 472, 475, 476
 477, 478, 479, 499¹.
 PHL 304, 310, 311, 314, 320, 323, 330, 331, 340¹, 361.
 REL 326, 327, 364¹, 367, 372, 373, 408¹, 428¹, 448, 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, 351, 361, 363, 443, 461, 462, 471.
 SOC 303, 328, 333, 343, 351, 439.
 ANT 250, 310, 315, 406, 449.
 SWK 337.

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

²Each 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.

No minor is required of American Studies majors.

PROGRAM—A1: BACHELOR OF ARTS WITH AN INTER-DISCIPLINARY MAJOR IN AMERICAN STUDIES¹

	<i>Semester Hours</i>
American Studies 300, 301, 400	9
First area electives from Group A, B, or C, as listed above	24
Second area electives from one of the two remaining groups	9

Third area electives from the remaining group	6
Natural Science and Mathematics	7
Social and Behavioral Science	12
Humanities	18
Philosophy and/or Religious Studies	12
Communication Skills	0-10
General academic electives to total at least	120

¹See also Distribution Table for Bachelor of Arts programs.

FACULTY

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

UNDERGRADUATE CURRICULUM ADVISORY COMMITTEE

Alexander, Arons, Berk, Bregenzer, Henninger, Howard, Ihlanfeldt, Kimble, Kunkel, Ryan

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 various peoples. 3 sem. hrs.

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

AMS 400. INTERDISCIPLINARY RESEARCH: Study of the principles of interdisciplinary scholarship; what can and probably cannot be accomplished by it; successful interdisciplinary accomplishments. Students will complete interdisciplinary projects. 3 sem. hrs.

AMS 405. TOPICS IN AMERICAN CULTURE: 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: Course which brings the methods of interdisciplinary inquiry directly to bear upon characteristic American activities. 3-9 sem. hrs.
Prerequisite: interdisciplinary course work, instructor's permission.



ANTHROPOLOGY (ANT)

Anthropology is the study of people at all times and places. It emphasizes understanding total cultural systems. The Department of Sociology and Anthropology offers a minor in anthropology. Students intending to minor in anthropology should consult with the departmental chairperson to plan their selection of courses which must include ANT 150 and four courses at the 300/400 level.

FACULTY

Stanley L. Saxton, *Chairperson of the Department of Sociology and Anthropology*

Professors: Dickson, Huth

Associate Professors: Bregenzer, Saxton

Assistant Professors: Baldwin, Miller, Skerl

Instructor: McNamee

COURSES OF INSTRUCTION

ANT 110. PERSPECTIVES ON URBAN PEOPLE: Human problems in an urban setting from the perspectives of biology, economics, history, philosophy, political science, psychology, sociology, anthropology, and social work. 3 sem. hrs.

ANT 150. CULTURAL ANTHROPOLOGY: Basic principles of cultural anthropology. Survey of human adaptation to and adjustment of the environment by means of culture; comparison of ways of life among peoples of the world for inferences toward understanding human behavior. Required for anthropology minors. 3 sem. hrs.

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

ANT 300. EVOLUTION OF PEOPLE AND CULTURE: Survey of human biological and cultural evolution from prehuman ancestors to settled city-states. Also considers contemporary peoples at various levels of social complexity. 3 sem. hrs.

ANT 310. CULTURE AND PERSONALITY: Survey of studies investigating the relationship between cultural environment and the individual. Material drawn from both literate and nonliterate 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 emergence of civilization in a number of regions including China, India, Mesopotamia, Egypt, Mexico, and Peru. 3 sem. hrs.

ANT 351. CULTURES OF THE CARIBBEAN: Variety of African- and Old World-derived cultures in the Caribbean and on its borders. Social-scientific topics such as effects of mothercentered 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 Aztec, 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: Consideration of the origins and diversity of American Indian cultures north of the Rio Grande, with attention to language, cultural adaptation to environment, and acculturation without assimilation. The present situation of the Indian in relation to the surrounding 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 readings of special interest investigated under the guidance of an anthropology staff member. Permission of the chairperson. *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	21
Biology electives (may include other sciences)	19
Supporting sciences	30
College requirements (ENG, SPE, PHL/REL)	22
Humanities electives	12
Social-Behavioral Science electives	12
General electives	12
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Biology core courses required of all majors: the general biology sequence (BIO 151, 152, 152L, 201L), Genetics (BIO 412) Sophomore and Senior Seminar (BIO 299, 420), one organism/environment course with lab (Group A), one physiology/molecular biology course with lab (Group B). (Substitute other biology labs if lecture choices are BIO 401 and/or BIO 441).

Biology electives (six courses) are chosen from any of the areas of Biology (Groups A, B, C below). At least one lab course must accompany these electives. With permission of the Chairman, students may select some electives from biology graduate courses. Interested students may carry out independent study and research projects for academic credit (Biological Problems, BIO 421-422, 1 to 2 cr. hrs.).

<i>Group A</i>	<i>Group B</i>
BIO 314, 314L Plant Biology	BIO 403, 403L Physiology
BIO 401 Evolution	BIO 411, 411L Bacteriology
BIO 430, 430L Ecology	BIO 440, 440L Cell Biology
BIO 452, 452L Aquatic Biology	BIO 441 Plant Physiology
BIO 461, 461L Invertebrate Zoology	BIO 442, 442L Developmental Biology

Group C
All other biology courses
(See Courses of Instruction)

Because of differing career plans, majors may take some middle or upper level elective courses in other science or engineering departments as long as the courses have direct relevance to the major in biology. However, biology majors must have a minimum of twenty-four semester hours of 300/400 level *biology* courses.

Supporting sciences. A Bachelor of Science in Biology assumes supporting courses in other science and/or technical areas. Biology majors are required to complete a year of calculus (or if so indicated by math placement, precalculus and calculus I), 2 years of chemistry (with labs) including organic chemistry, and a year of introductory physics (with labs).

College requirements. Two English courses (ENG 111, 112). Students with initial placement in ENG 112 or 114 must take an additional English elective. SPE 101 is required and should be taken in the freshman year. Twelve semester hours of Philosophy and/or Religious Studies.

Humanities electives are meant to strengthen the student's appreciation of the aesthetic and spiritual life. A minimum of 12 semester hours should be selected from art,

American Studies, communication arts, English, history, language, literature, music, performing and visual arts, philosophy, theater, religious studies, etc. A full year of a modern foreign language is strongly recommended. (The College requirements of English, speech, philosophy and/or religious studies do not fulfill this requirement.)

Social-Behavioral Science electives are people-oriented courses and help students to better understand modern social problems. A minimum of 12 semester hours should be selected from anthropology, criminal justice, economics, political science, psychology, social work, sociology, etc.

General electives are those courses in any Arts and Sciences area taken simply for their general educational value. With the Chairman's permission, some general electives may be taken in the School of Business Administration and the School of Education.

PROGRAM—SI: BACHELOR OF SCIENCE WITH A MAJOR IN BIOLOGY¹

Dept.	No.	Course	1st Term ²	2nd Term
Freshman Year				
BIO	100	Freshman Seminar	1-0-0	
BIO	151-152	Concepts of Biology ³	3-0-3 ²	3-3-4
CHM	123-124	General Chemistry	3-3-4	3-3-4
MTH	112-113	Introductory Calculus ⁴	3-0-3	3-0-3
ENG	111-112	College Composition ⁵	4-0-4	3-0-3
—	—	College requirement ⁶	3-0-3	3-0-3
			17	17
Sophomore Year				
BIO	201L	Biology Lab Investigations	0-3-1	
BIO	299	Sophomore Seminar		1-0-1
BIO	—	Biology core elective ⁷		3-3-4
CHM	313-314	Organic Chemistry	3-3-4	3-3-4
PHY	201-202	Physics ⁸	3-2-4	3-2-4
—	—	College requirement ⁶	3-0-3	
—	—	Humanities/Social-Behavioral science ⁹	3-0-3	3-0-3
			15	16
Junior Year				
BIO	412	General Genetics	3-0-3	
BIO	—	Biology core elective ⁷	3-3-4	
BIO	—	Biology electives ¹⁰		6-3-7
—	—	College requirement ⁶	3-0-3	
—	—	Humanities/Social-Behavioral science ⁹	3-0-3	3-0-3
—	—	General electives ¹¹	3-0-3	6-0-6
			16	16
Senior Year				
BIO	420	Senior Seminar ¹²	1-0-1	
BIO	—	Biology electives ¹⁰	6-0-6	6-0-6
—	—	College requirement ⁶	3-0-3	
—	—	Humanities/Social-Behavioral sciences ⁹	6-0-6	6-0-6
—	—	General elective ¹¹		3-0-3
			16	15

¹Consult *General Requirements* for all Bachelor of Science Programs.

²For example, 3-0-3 means 3 hrs. class, 0 hrs. lab., 3 sem. hrs. credit.

³Qualified students may be invited to take part in 2nd term Honors Lab sections of BIO 152.

⁴Placement test may necessitate initial course in precalculus (MTH 101). Depending on background and interests, two calculus sequences are available, MTH 112-113, MTH 118-119. (See Mathematics Courses of Instruction.)

⁵See information under Biology Curriculum Description: *College requirements*. English elective if 1st term placement was ENG 112 or 114.

⁶See information under Biology Curriculum Description: *College requirements*. SPE 101; 12 sem. hrs. of PHL and/or REL.

⁷See information under Biology Curriculum Description: *Biology core courses*. One lab course each from Group A and Group B.

⁸Depending on mathematics background and interests, two physics sequences are available, PHY 201-202; PHY 196-207-208. Students opting for the 196-207-208 lecture sequence must take the 201-202 labs.

⁹See information under Biology Curriculum Description: *Humanities and Social-Behavioral science electives*. 12 sem. hrs. in each group.

¹⁰See information under Biology Curriculum Description: *Biology electives*.

¹¹See information under Biology Curriculum Description: *General electives*.

¹²Can be taken 1st or 2nd term.

FACULTY

Charles J. Chantell, *Chairperson*

Professors: Bajpai, Geiger, Jaffee, McDougall, Noland

Associate Professors: Burky, Chantell, Lauferweiler, Ramsey, Shay, Schwelitz

Adjunct Associate Professor: Fleischman

Clinical Associate Professors: Moss, Stull, Taylor

Assistant Professors: Rowe, Turgeon, Williams

Adjunct Assistant Professor: Kordenat

COURSES OF INSTRUCTION

BIO 101. GENERAL BIOLOGY I: A study of the more important biological processes and principles through analysis and synthesis, dealing 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 3-hour lab. per week stressing the investigational and experimental approach. 1 sem. hr.

BIO 102. GENERAL BIOLOGY II: A continuation of BIO 101, stressing 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 3-hour lab. per week. 1 sem. hr.

✓ **BIO 114. BIOLOGICAL SCIENCE:** Introduction to the various biological sciences for nonscience majors, stressing principles that apply to all forms of life, taking examples from plant, animal, and microbial life. 3 sem. hrs.

✓ **BIO 114L. BIOLOGICAL SCIENCE LABORATORY:** Course to demonstrate and emphasize principles discussed in BIO 114. One 2-hour lab. per week. 1 sem. hr.

BIO 151. Concepts of Biology I: 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 biological laboratory procedures and instrumentation through a series of experimental exercises employing a wide variety of organisms. 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: 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 300. MOLECULAR BIOLOGY: A survey of cell biology, molecular genetics and biochemistry. The course is designed for non-biology students who are transferring into one of the biological science majors in the sophomore or junior year.
3 sem. hrs.

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

BIO 307. FUNCTIONAL ANATOMY: A review of clinical human anatomy and physiology. For medical technology majors only.
1 sem. hr.

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. For medical technology majors only. One 3-hour lab. per week. Prerequisite: One year of introductory biology.
1 sem. hr.

BIO 309. COMPARATIVE ANATOMY OF THE VERTEBRATES: Study of the changes that have occurred in the chordate body with the passage of time, and analysis of their significance. Prerequisite: Minimum of one year of introductory biology.
3 sem. hrs.

BIO 309L. COMPARATIVE ANATOMY LABORATORY: Course to accompany BIO 309 lecture. Dissection and study of representative vertebrate animals. Two 3-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: Consideration of structure, function, reproduction, and inheritance as applicable in the plant patterns of life. Emphasis 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 320. MARINE BIOLOGY: An introduction to the diversity of marine life including the physical-chemical environment. Third Term only.
2 sem. hrs.

BIO 320L. MARINE BIOLOGY LABORATORY: Examination of marine organisms and processes. Lab work conducted on UD campus and at selected off-campus field sites in the South. Third Term only. *2 sem. hrs.*

BIO 380. MEDICAL TECHNOLOGY SEMINAR: Discussion to relate academic courses and clinical laboratory sciences. Prerequisite: Junior standing. *1 sem. hr.*

BIO 398. HEREDITY AND SOCIETY: Survey of the fundamental principles of inheritance and the application of genetics to contemporary problems of society. Topics such as genetic engineering, the green revolution, environmental mutagenesis. Not open to biological science majors. *3 sem. hrs.*

BIO 399. THE BIO-ECOLOGY OF MAN: A readings-discussion course dealing with human 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 151-152, CHM 123-124; CHM 313-314 recommended. *3 sem. hrs.*

BIO 403L. PHYSIOLOGY LABORATORY: Course to accompany BIO 403. Systematic approach to the acquisition and interpretation of information about the physiology of living systems. *1 sem. hr.*

BIO 407. EMBRYOLOGY: Analysis of vertebrate development with emphasis on 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. One 4-hour period per week. *2 sem. hrs.*

BIO 411. GENERAL BACTERIOLOGY: Rigorous introductory course stressing the physiology, cultivation, and classification of bacteria; their role in medicine, agriculture, and industry. Prerequisites: BIO 101-102 or 151-152; CHM 313-314 recommended. *3 sem. hrs.*

BIO 411L. GENERAL BACTERIOLOGY LABORATORY: Course to accompany BIO 411. Two 2-hour periods per week. *2 sem. hrs.*

BIO 412. GENERAL GENETICS: 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. Chairperson's permission. *1-2 sem. hrs.*

BIO 422. BIOLOGICAL PROBLEMS: Library research problems. Topics arranged with faculty advisors. Chairperson's permission. *1-2 sem. hrs.*

BIO 425. PARASITOLOGY: 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 425L. PARASITOLOGY LABORATORY: Course to accompany BIO 425. The recognition of common human parasites. Study of both living and preserved forms. One 3-hour period per week.

1 sem. hr.

BIO 430. ECOLOGY: Interrelationship of plants, animals, and microorganisms with the physical-chemical environment: nutrient cycles, energy flow, ecosystems, and factors affecting 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 151-152; 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 441. PLANT PHYSIOLOGY: Current concepts concerning the physiology of higher plants. Topics include uptake and transfer of materials, metabolism, and the regulation of growth and reproduction. Prerequisite: One year of general biology.

3 sem. hrs.

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 DIVERSITY: Broad survey of the major divisions of the plant kingdom; consideration of algae, fungi, bryophytes, vascular plant groups; their generalized life histories, ecological and physiological characteristics evolutionary relationships.

3 sem. hrs.

BIO 444L. PLANT DIVERSITY LABORATORY: Laboratory studies of the plant groups, including life cycles, evolutionary, physiological and ecological adaptations. One 3-hour lab. per week.

1 sem. hr.

BIO 446. PLANT DEVELOPMENT: Study of the major organ systems of the vascular plants with emphasis on the nature of their cell-types and tissue composition and their patterns of development.

3 sem. hrs.

BIO 446L. PLANT DEVELOPMENT AND PHYSIOLOGY LABORATORY: Laboratory to complement BIO 441 and BIO 446.

1 sem. hr.

BIO 450. COMPARATIVE ANIMAL PHYSIOLOGY: Organized on a function-system basis, the course deals with environment-organism interaction and with integrative systems of the principal phyla of animals.

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: Survey 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. *3 sem. hrs.*

BIO 461L. INVERTEBRATE ZOOLOGY LABORATORY: Course to accompany BIO 461. One 3-hour lab. per week. *1 sem. hr.*

BIO 462. ADVANCED GENETICS: Analysis of the nature of the gene and gene action. Particular attention is given to genetic regulation and to recent advances in molecular genetics. Prerequisites: BIO 412, CHM 314. *2 sem. hrs.*

BIO 462L. ADVANCED GENETICS LABORATORY: 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); a survey of the bacteria causing disease in man. BIO 411, 411L recommended but not required. *3 sem. hrs.*

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

CHEMISTRY (CHM)

The B.A. program in chemistry provides a framework of scientific courses which serve as a preparation for a number of interdisciplinary professions. The rigidity and rigor of the traditional B.S. curriculum has been modified in the B.A. program, most notably in the areas of mathematics, physics, and advanced chemistry. The program is sufficiently flexible to afford a wide selection of courses in the humanities. Science courses may be chosen to provide a preparation for professions such as medicine, dentistry, optometry, veterinary medicine, biochemistry, education, and law, as well as for employment in many other areas which require a background in science.

PROGRAM—A3: BACHELOR OF ARTS WITH A MAJOR IN CHEMISTRY¹

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ²	<i>2nd Term</i>
Freshman Year				
ENG	111-112	College Composition I and II ³	4-0-4 ²	3-0-3
CHM	123-124	General Chemistry ⁴	3-3-4	3-3-4
MTH	112-113	Introductory Calculus I and II ⁵	3-0-3	3-0-3
—	—	Humanities/social science elective ⁶		3-0-3
—	—	Religious Studies/Philosophy elective	3-0-3	
SPE	101	Speech ³		3-0-3
CHM	100	Arts and Sciences Orientation	1-0-0	
—	—	Elective	3-0-3	
			17	16
Sophomore Year				
CHM	201	Quantitative Analysis ⁴	2-4-4	
MTH	215	Basic Statistics ⁵		3-0-3
PHY	201-202	General Physics ⁴	3-3-4	3-3-4
—	—	Religious Studies/Philosophy elective	3-0-3	
—	—	Humanities/social science elective ⁶	3-0-3	3-0-3
—	—	Elective		6-0-6
			14	16
Junior Year				
CHM	313-314	Organic Chemistry ⁷	3-3-4	3-3-4
—	—	Elective	3-0-3	3-0-3
CHM	—	Chemistry electives ⁸	3-0-3	3-0-3
—	—	Humanities/social science electives ⁶	6-0-6	3-0-3
—	—	Religious Studies/Philosophy elective		3-0-3
			16	16
Senior Year				
CHM	302	Physical Chemistry ⁹	3-0-3	
CHM	309	Chemical Literature		1-0-1
—	—	Religious Studies/Philosophy elective		3-0-3
CHM	—	Chemistry electives ¹⁰	3-0-3	3-0-3
—	—	Humanities/social science elective ⁶	6-0-6	6-0-6
—	—	Electives	3-0-3	3-0-3
			15	16

¹See General Requirements for the B.A. Degree.

²For example: 3-0-3 means 3 class hrs., 0 lab. hrs., 3 sem. hrs. of credit.

³The 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.

⁴May substitute more advanced course depending on background, placement test, or permission of department chairperson.

⁵May substitute MTH 118-119 for MTH 112-113 - 215.

⁶Humanities electives must total at least 18 sem. hrs. Social science courses must total at least 12 sem. hrs. See also Distribution Table for Bachelor of Arts programs.

⁷CHM 315L-316L may be elected to satisfy laboratory requirements.

⁸Must 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.

⁹May substitute CHM 303-304.

¹⁰Must include either two additional courses listed in footnote 8, or two related sciences approved by the chairperson.

The B.S. program in chemistry is a rigorous curriculum which satisfies the requirements of the American Chemical Society for the training of professional chemists. Students who choose this program of study normally have a career in chemistry as their objective.

PROGRAM—S2: BACHELOR OF SCIENCE WITH A MAJOR IN CHEMISTRY¹

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term²</i>	<i>2nd Term</i>
Freshman Year				
CHM	100	Freshman Seminar	1-0-0	
CHM	123-124	General Chemistry	3-3-4 ²	3-3-4
MTH	118-119	Analytical Geometry and Calculus I and II	4-0-4	4-0-4
PHY	196	General Physics		3-3-4
ENG	111-112	College Composition I and II ³	4-0-4	3-0-3
SPE	101	Speech ³	3-0-3	
			15	15
Sophomore Year				
CHM	201	Quantitative Analysis	2-4-4	
CHM	313-314	Organic Chemistry	3-0-3	3-0-3
CHM	315L-316L	Organic Chemistry Laboratory	0-3-1	0-6-2
		Religious Studies/Philosophy elective ⁴		3-0-3
MTH	218	Analytical Geometry and Calculus III	4-0-4	
PHY	207-208	General Physics II and III	3-3-4	3-3-4
		Elective ⁵		3-0-3
			16	15
Junior Year				
CHM	303-304	Physical Chemistry	3-3-4	3-3-4
CHM	309	Chemical Literature		1-0-1
		Foreign Language ⁶	4-0-4	4-0-4
CHM	417	Inorganic Chemistry		3-0-3
		Religious Studies/Philosophy elective ⁴	3-0-3	3-0-3
		Elective ⁵	6-0-6	
			17	15

Senior Year			
CHM 405	Qualitative Organic Analysis	1-6-3	
CHM 415	Analytical Chemistry		2-6-4
CHM 497	Seminar	1-0-1	
CHM —	Chemistry elective ⁷	3-0-3	3-0-3
— —	Humanities/Social science elective ⁸	3-0-3	3-0-3
— —	Religious Studies/Philosophy elective ⁴	3-0-3	
— —	Elective ⁵	3-0-3	6-0-6
		16	16

¹Consult General Requirements for all Bachelor of Science programs.

²For example 3-3-4 means 3 class hrs., 3 lab hrs., 4 sem. hrs. of credit.

³Every 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.

⁴Any course in religious studies or philosophy for which the student has the necessary prerequisites.

⁵Any course for which the student has the necessary prerequisites.

⁶For advanced placement, consult chairperson, Department of Languages.

⁷Chemistry electives include CHM 404, 412, 451, 452, 498, 499. 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.

⁸Any course in humanities or social sciences for which the student has the necessary prerequisites.

FACULTY

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

Professors: Chudd, Eveslage, Lucier, Michaelis

Associate Professors: Fox, Fratini, Keil, Knachel, Singer

Clinical Associate Professor: Spencer

Clinical Assistant Professor: Hilt

Adjunct Assistant Professor: Tamborski

COURSES OF INSTRUCTION

CHM 110. GENERAL CHEMISTRY: A terminal course for the nonscience major involving fundamental chemical principles and their applications to problems of modern society. 3 sem. hrs.

CHM 110L. GENERAL CHEMISTRY LABORATORY: Laboratory course to complement CHM 110. 1 sem. hr.

CHM 115. COLLEGE PREPARATORY CHEMISTRY: A one-term course for students desiring to enter a science or engineering program but whose background is insufficient for CHM 123-124. 3 sem. hrs.

CHM 115L. COLLEGE PREPARATORY CHEMISTRY LABORATORY: Laboratory course to complement CHM 115. 1 sem. hr.

CHM 123-124. GENERAL CHEMISTRY: Comprehensive treatment of the fundamentals of general chemistry. Prerequisite: Competence in high school chemistry or successful completion of CHM 115. A placement exam is available for students whose background is doubtful. 6 sem. hrs.

CHM 123L-124L. GENERAL CHEMISTRY LABORATORY: Laboratory course to complement CHM 123-124. One 3-hour laboratory session per week. 2 sem. hrs.

CHM 126L. QUANTITATIVE ANALYSIS LABORATORY: Laboratory course primarily for chemistry majors. One 4-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 4-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: Course for chemistry majors and chemical engineers. Three lecture hours per week. Prerequisite: CHM 201 or equivalent; corequisite: MTH 218. 6 sem. hrs.

CHM 303L-304L. PHYSICAL CHEMISTRY LABORATORY: Course to accompany CHM 303-304. One 3-hour laboratory 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. Prerequisite: CHM 123-124; successful completion of CHM 313 required to begin CHM 314. 6 sem. hrs.

CHM 313L-314L. ORGANIC CHEMISTRY LABORATORY: Course designed for students in the life sciences. Common separation, purification, and analytical techniques including chromatography and spectroscopy. One 3-hour laboratory per week. Prerequisites: CHM 123L and 124L or 126L. Successful completion of CHM 313L required to begin CHM 314L. 2 sem. hrs.

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

CHM 404. SPECIAL TOPICS IN PHYSICAL CHEMISTRY: Thorough treatment of certain topics such as macromolecules, spectroscopy, photochemistry, and radiation chemistry. Second term, each year. 3 sem. hrs.

CHM 405. QUALITATIVE ORGANIC ANALYSIS: Systematic study of the reactions of functional groups and of 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. Two 3-hour laboratory periods per week. Second term, each year. 2 sem. hrs.

CHM 412. INTERMEDIATE ORGANIC CHEMISTRY: Modern theory and practice of organic chemistry. May include structure-reactivity relationships, reaction mechanism, and synthetic topics not normally treated in introductory courses. Prerequisite: CHM 313-314 and senior standing. First term, each year. 3 sem. hrs.

CHM 415. ANALYTICAL CHEMISTRY: Methods of analysis based on modern instrumentation, including chemical, electrical, and spectral methods. Prerequisites: CHM 126L, and 302 or 303-304. 2 sem. hrs.

CHM 415L. ANALYTICAL CHEMISTRY LABORATORY: Course to accompany CHM 415. Two 3-hour laboratory sessions each week. Prerequisites: CHM 303L-304L. Second term, each year. *2 sem. hrs.*

CHM 417. INORGANIC CHEMISTRY: Introductory course in fundamentals of modern inorganic chemistry: atomic structure, principles of structure and bonding, acid-base chemistry, periodicity, coordination compounds, nonaqueous solvents, electrochemistry, molecular symmetry, and the chemistry of selected representative elements. *3 sem. hrs.*

CHM 420. BIOCHEMISTRY: A course dealing with the fundamentals of biochemistry. Prerequisite: CHM 314. 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 chairperson required. Prerequisite: Senior standing. *2 to 6 sem. hrs.*



COMMUNICATION ARTS (COM)

The department of Communication Arts encourages co-curricular activities: Speech and Debate, Flyer News, WDCR radio, WVUD radio, Public Relations Student Society of America, Society of Professional Journalists, Sigma Delta Chi/Alpha Epsilon Rho, and Advertising Club.

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

SPE 101 is a prerequisite for all COM, JRN, and SPE courses listed as 300 or above. The course requirements for Communication Arts majors are 36 semester hours distributed as follows:

For General Major in Communication Arts:

- 1. SPE 101 and COM 200.
- 2. At least one upper-level course in each of the following: Speech Communication, Broadcasting, Journalism, and allied areas, and electives in the field selected through consultation with the department chairperson.

For Concentrated Major in Communication Arts:

Broadcasting:

- 1. SPE 101; COM 200; SPE 306; SPE 316; SPE 409.
- 2. 6 hours from Communication Arts courses; 6 hours from Journalism courses.
- 3. 9 hours from any Communication Arts, Journalism, or Speech courses.

Journalism:

- 1. SPE 101; COM 200; JRN 300; JRN 400.
- 2. 6 hours from Communication Arts courses; 6 hours from Speech courses.
- 3. 12 hours from any Communication Arts, Journalism, or Speech courses.

Public Relations:

- 1. SPE 101; COM 200; COM 401; COM 455; JRN 300.
- 2. 6 hours from Journalism courses; 6 hours from Speech courses.
- 3. 9 hours from any Communication Arts, Journalism, or Speech courses.

PROGRAM—A4: BACHELOR OF ARTS WITH A MAJOR IN COMMUNICATION ARTS¹

	<i>Semester Hours</i>
Major program	36
Mathematics and natural science (at least 4 sem. hrs. in natural science with laboratory)	7-12
Anthropology, economics, political science, psychology, sociology (at least one)	3
Two units of 12 sem. hrs. each selected from anthropology, economics, political science, psychology, sociology, management, criminal justice, education, marketing, military science (At least 6 sem. hrs. in each unit must be 300-400 level.)	24
Two units of 12 semester hours each selected from English, history, languages, philosophy, religious studies, performing and visual arts. (If English, philosophy, or religious studies is chosen, then the unit of 12 sem. hrs. must be beyond what is already required by the University. At least 6 sem. hrs. in each unit must be 300-400 level.)	24
University requirements	12-19
English 111-112	0-7 sem. hrs.
Philosophy and/or Religious Studies	12 sem. hrs.
General academic electives to total at least	120

¹See also Distribution Table for Bachelor of Arts programs.

FACULTY

Donald B. Morlan, *Chairperson*

Professors: Biersack, Morlan

Associate Professors: Blatt, Kiernan, Rang, Trent, Wolff

Assistant Professors: Harwood, Hawkins, Jones, Lain, Lawson, Weatherly

Instructors: Nolan, Williams

Part-Time Instructors: Dougherty, Vargo

COURSES OF INSTRUCTION

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

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 MGT 409.) 3 sem. hrs.

COM 307. TECHNICAL WRITING: A course designed for administrators, engineers, scientists, and people in business; writing and language as a communication 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 330. INTERVIEWING FOR COMMUNICATION AND BUSINESS: Analysis of communication in structured dyadic interaction. Emphasis on the following types of interviews: information-gathering, employment, appraisal, and persuasive. Application through role playing and feedback systems. 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: Permission of department chairperson. 3 sem. hrs.

COM 398. COMMUNICATION INTERNSHIP: Educational work experience in a communication capacity for an approved organization. Interns are supervised by organization staff and university faculty. Prerequisites: 24 hours in Communication Arts and permission of department chairperson. 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. 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, cultures, and 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 solutions to communication and public relations problems. *3 sem. hrs.*

COM 491. PUBLIC RELATIONS INTERNSHIP: Practical Public Relations participation in an approved organization eight hours weekly. Class meetings, oral presentation, analytical report required. Prerequisites: COM 401 or 455. *3 sem. hrs.*



COMPUTER SCIENCE (CPS)

PROGRAM—S3: BACHELOR OF SCIENCE WITH A MAJOR IN COMPUTER SCIENCE¹

Minimum graduation requirements are distributed as follows:

COMPUTER SCIENCE—basic programming, CPS 140, 245, 248, and 24 semester hours in upper-level courses, including CPS 342, 346, 353.

MATHEMATICS—basic calculus and normally 12 semester hours beyond calculus including linear algebra. Differential equations, abstract algebra, and statistics are recommended.

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.

SCIENCES—normally 12 semester hours; PHY 196, 207 recommended.

COMPOSITION AND SPEECH SKILLS—a certain level of proficiency is required in these skills. 0-10 semester hours as prescribed by the College.

ELECTIVES—additional courses to attain the required 120 semester hours. More detailed information may be obtained from the department.

¹Consult the General Requirements for all Bachelor of Science programs.

PROGRAM—S3A: BACHELOR OF SCIENCE WITH A MAJOR IN DATA PROCESSING¹

Minimum graduation requirements are distributed as follows:

COMPUTER SCIENCE—basic programming, CPS 140, 245, 248, and 24 semester hours in upper-level courses, including CPS 342, 346, 353.

MATHEMATICS—basic calculus and statistics—for example, MTH 112, 113, 367, 368.

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.

SCIENCES—a minimum of 3 semester hours in a physical science.

COMPOSITION AND SPEECH SKILLS—a certain level of proficiency is required in these skills. 0-10 semester hours as prescribed by the College.

ELECTIVES—additional courses to attain the required 120 semester hours. More detailed information may be obtained from the department.

¹Consult the General Requirements for all Bachelor of Science programs.

FACULTY

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

Professor: Jehn

Associate Professors: Kester, Schoen

Assistant Professor: Neuendorf

Adjunct Associate Professor: Lokai

COURSES OF INSTRUCTION

All courses numbered 310 and above may require programming ability in Fortran, Cobol, and PL/I.

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 248. INTERMEDIATE PROGRAMMING: Advanced topics and programming techniques in FORTRAN, PL/I, and Assembler. Fee. *3 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. *3 sem. hrs.*

CPS 342. DATA STRUCTURES: Basic concepts of data; linear lists, strings, arrays, and orthogonal lists; representation of trees and graphs; multilinked structures; symbol tables and searching techniques; sorting techniques. 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. NUMERICAL METHODS I: Introduction to error analysis, solution to nonlinear equations, matrices, and solutions of linear systems of equations, eigenvalues and eigen vectors, applications. Prerequisites: MTH 113 or 218. Fee. *3 sem. hrs.*

CPS 354. NUMERICAL METHODS II: Interpolation and approximation of functions, numerical differentiation and integration, solution of ordinary differential equations, boundary value problems, applications. Prerequisites: MTH 113 or 218. Fee. *3 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. *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 424. DISCRETE EVENT SIMULATION TECHNIQUES: Simulation models; random number generation testing; special purpose simulation languages such as GPSS and GASP IV; statistical analysis of output; regenerative models; trace-driven models. Emphasis on models related to computer operating system design and performance evaluation. Fee. Prerequisites: CPS 342, MTH 367 or equivalent. *3 sem. hrs.*

CPS 430. DATA BASE MANAGEMENT SYSTEMS: Physical and logical organization of data files; hierarchical, network, and relational data base models; data definition language and data manipulation language of a commercial data base management system such as IDMS; query languages. Fee. Prerequisites: CPS 342, 346. *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 mathematical and nonnumeric areas. Prerequisites: CPS 342, 346. Fee. *4-6 sem. hrs.*

CPS 446. OPERATING SYSTEM PRINCIPLES: Models and algorithms pertinent to the design of computer operating systems; concurrent processes including synchronization, communication, and deadlock problems; process and device scheduling policies; memory management, including virtual memory techniques and paging policies, design of file systems, reliability and protection. Prerequisites: CPS 342, 346. *3 sem. hrs.*

CPS 455. NUMERICAL ANALYSIS I: Error analysis, mathematical development of functional approximation including interpolation, quadrature, numerical differentiation, solution of ordinary differential equations. Prerequisites: CPS 353, MTH 219, 362. *3 sem. hrs.*

CPS 456. NUMERICAL ANALYSIS II: Mathematical development of the method of least squares, minimax approximation, solution of partial differential equations, applications. Prerequisites: CPS 353, MTH 219, 362. *3 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 or lab work in such areas as artificial intelligence, computer architecture, information retrieval, microprogramming, multiprogramming techniques, numerical analysis, time-sharing topics. By arrangement. May be taken more than once for additional credit. Prerequisite: permission of the department. *1-3 sem. hrs.*

CRIMINAL JUSTICE (CRJ)

Program S4, leading to the Bachelor of Science with a Major in Criminal Justice, 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 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 program.

Proficiency examinations for limited CRJ credit are available only to majors who are in-service personnel, i.e., 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 chairperson of the department in which the minor is taken, in order to be fully informed.

The University of Dayton's criminal justice faculty believe that the effective functioning of a criminal justice system is essential to an orderly society. Therefore, they are committed to the education of students who will be capable of performing and developing within the system at the highest level. The faculty are also committed to fostering in their students a critical theory of criminal justice as well as the requisite knowledge, abilities, and skills in order that they will strive to improve the quality and efficiency of any operation within the criminal justice system in which they engage.

PROGRAM—S4: BACHELOR OF SCIENCE WITH A MAJOR IN
CRIMINAL JUSTICE¹

OPTION A

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

	<i>Semester Hours</i>
<i>Criminal Justice</i>	30
CRJ 200 Principles of Criminal Justice	3
CRJ 213 Criminal Law	3
CRJ 300 Law of Evidence	3
CRJ 315 Criminal Procedure	3
Electives in Criminal Justice	18

<i>Social and Behavioral Sciences</i>	24
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 OR	
POL 306 Public Policy Analysis	3
PSY 101 Introduction to Psychology	3
PSY 341 Social Psychology	3
SOC 327 Criminology and Penology	3
SOC 351 Cities: Urban Communities, Problems, and Planning	3
<i>Humanities</i>	25
ENG 111-112 College Composition I and II	7
ENG 272 Expository Writing OR	
ENG 374 Argumentation	3
Philosophy and/or Religious Studies electives	9
PHL 310 Social Philosophy OR	
PHL 314 Philosophy of Law	3
SPE 101 Fundamentals of Effective Speaking	3
<i>Natural Sciences with accompanying laboratory</i> ²	8
<i>Quantitative Studies</i>	9
ACC 301 Financial Reporting and Administration	3
CPS 300 Computer Science for (Named Area)	3
MTH 207 Statistical Methods for the Behavioral Sciences ³	3
<i>General Electives (300/400 level courses encouraged)</i> for program total to reach a minimum of	120

¹Consult General Requirements for all Bachelor of Science programs.

²Natural Sciences are: biology, chemistry, geology, physics, physical science.

³Prerequisite for MTH 207 is two years of high school algebra. Students who have not had two years of high school algebra should first take MTH 107. All students are required to complete MTH 207.

OPTION B: TRANSFER PROGRAM

To be admitted as a major in the S4 program under Option B, a transfer student must have received an accredited associate degree in corrections, law enforcement, policy administration, police science, or a similar field of criminal justice, and must have a 2.5 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. 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>
Accounting	(ACC 301) 3
American Government	(POL 201) 3
Criminology	(SOC 327) 3
English	(ENG 111-112) 7
Introduction to Psychology	(PSY 101) 3
Natural Science electives with laboratory ¹	8
Statistics ²	(MTH 207) 3

*Criminal Justice Electives (300/400 level)*³ 15

Social and Behavioral Sciences 15

ECO 203 Principles of Microeconomics 3

POL 301 The American Judicial Process 3

POL 305 Introduction of Public Administration OR

POL 306 Public Policy Analysis 3

PSY 341 Social Psychology 3

SOC 351 Cities: Urban Communities,
Problems, and Planning 3

Humanities 18

ENG 272 Expository Writing OR

ENG 374 Argumentation 3

Philosophy and/or Religious Studies 9

PHL 310 Social Philosophy OR

PHL 314 Philosophy of Law 3

SPE 101 Fundamentals of Effective Speaking 3

CPS 300 Computer Science for (Named Area) 3

*General Electives (300/400 level encouraged) for the transfer
program, excluding prerequisite requirements, to reach a
minimum of*⁴ 66

¹Natural Sciences are: biology, chemistry, geology, physics, physical science.

²Prerequisite for MTH 207 is two years of high school algebra. Students who have not had two years of high school algebra should first take MTH 107. All students are required to complete MTH 207.

³Courses selected should not duplicate course work completed in the associate degree program.

⁴The total baccalaureate degree program must contain a minimum of 120 semester hours. Consult General Requirements for all Bachelor of Science programs.

FACULTY

James A. Adamitis, *Director*
Assistant Professors: Adamilis, Ingram
Adjunct Instructors: Apolito, Aultman, Brannon, Connell, Dodsworth, Koenig,
Koerner, Lehmann, Terry

COURSES OF INSTRUCTION

- CRJ 200. PRINCIPLES OF CRIMINAL JUSTICE: An introduction to the field of criminal justice, stressing 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 300. LAW OF EVIDENCE: A comprehensive study of the rules of evidence, evaluation of evidence and proof (testimonial and physical), and the function of evidence within the criminal justice system. Prerequisite: A course in criminal law. 3 sem. hrs.

CRJ 315. CRIMINAL PROCEDURE: Fundamentals of criminal procedure: arrest, search, and seizure; interrogation, Constitutional limitations upon state and federal rules of criminal procedure. 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 323. MANAGEMENT AND TREATMENT OF OFFENDERS: Theory and practice of conducting and writing social investigations for agencies within the administration of justice, as well as managing and treating criminal offenders in community settings. Prerequisite: a course in corrections. *3 sem. hrs.*

CRJ 325. COMMUNITY AND PUBLIC RELATIONS: Contemporary problems pertaining to criminal justice community relations: training programs, image development, and policies for releasing information to the mass media. *3 sem. hrs.*

CRJ 327. CORPORATE SECURITY MANAGEMENT: Comprehensive managerial approach to developing adequate security systems; emphasis on personnel identification and theft control procedures including intra-security surveys for deterring espionage, sabotage, and subversive line/staff activities. *3 sem. hrs.*

CRJ 330. ORGANIZED CRIME: Social, psychological, and legal factors characterizing criminal careers; regional, political, and financial factors influencing organized crime. *3 sem. hrs.*

CRJ 333. FOUNDATIONS OF CRIMINAL HOMICIDE: Theories and concepts pertinent to the various classes of homicide and the effects certain heinous crimes have had on the regulatory aspects of the legal system. Emphasis on distinguishing characteristics historically pertaining to culpable, justifiable, and excusable homicide. *3 sem. hrs.*

CRJ 336. COMPARATIVE CRIMINAL JUSTICE SYSTEMS: Survey of cross-cultural uniformities and diversities in law enforcement agencies, correctional systems, and the courts 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. Consideration of theoretical approaches to understanding violent change in political institutions; the continuum between violence and nonviolence in revolution, revolt, campus dissent, and political assassination. Emphasis on the roles of criminal justice and government agencies in meeting political dissent. *3 sem. hrs.*

CRJ 405. LABOR RELATIONS IN JUSTICE ADMINISTRATION: The role of law in collective bargaining; the activities of labor organizations; the impact certain unions have had on the administration of justice and law enforcement. *3 sem. hrs.*

CRJ 407. CONSUMER LAW: Analysis of crimes against the consumer; legal systems, consumer structures, and agencies used to establish, advance, and litigate consumers' rights and protections. *3 sem. hrs.*

CRJ 410. VICTIMOLOGY: The victimal justice process as an integral part of the criminal justice system; analysis of the penal couple and victimal receptivity with emphasis on victim-offender relationships, rape, and victim compensation. *3 sem. hrs.*

CRJ 416. DRUG ABUSE: Physical and behavioral variables contributing to drug abuse and narcotic addiction; assessment of several rehabilitation programs and medical treatment centers; emphasis on law and drug abuse cases. *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. Prerequisites: permission of the instructor; an introductory course in criminal justice.

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.

3 sem. hrs.

CRJ 495. INTERNSHIP IN CRIMINAL JUSTICE I: Supervised experience in a criminal justice or law enforcement agency solely in a civilian capacity. Open to pre-service criminal justice majors only; in-service students do not qualify. Students who enroll for internship credit are NOT given a stipend NOR are they permitted to register for CRJ 498 or 499. Credit granted ONLY under the University's option 2 policy. Prerequisites: Junior status, 2.5 cumulative point average and permission of the director of criminal justice.

3 sem. hrs.

CRJ 496. INTERNSHIP IN CRIMINAL JUSTICE II: Continuation of CRJ 495.

3 sem. hrs.

CRJ 498. COOPERATIVE EDUCATION IN CRIMINAL JUSTICE I: Structured educational work experience for full-time pre-service criminal justice majors only. Career development and financial assistance for those who qualify and are placed through the University of Dayton's Office of Cooperative Education. Students who enroll for cooperative education credit are not permitted to register for CRJ 495 or 496. Credit granted only under the University's option 2 policy. Prerequisites: Sophomore status, 2.5 cumulative average, and permission from the director of cooperative education and the director of criminal justice.

3 sem. hrs.

CRJ 499. COOPERATIVE EDUCATION IN CRIMINAL JUSTICE II: Continuation of CRJ 498.

3 sem. hrs.

ECONOMICS (ECO)

In cooperation with the Department of Economics and Finance in the School of Business Administration, the College of Arts and Sciences 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 many areas of study 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 ECONOMICS¹

	<i>Semester Hours</i>
Economics	30
ECO 203, 204, 346, 347, and 18 sem. hrs. of upper-division electives.	
Natural Science and Mathematics	7-12
MTH 207 or MTH 112-113 is required. In addition, at least 4 sem. hrs. must be in an approved natural science course (biology, chemistry, geology, physics) with an accompanying laboratory.	
Social and Behavioral Science	12
Anthropology, political science, psychology, sociology, and, with the approval of the chairperson of the major department or program, appropriate courses in Afro-American studies, management, criminal justice, education, marketing, military science, social work, or ASI. At least 3 sem. hrs. must be in anthropology, political science, psychology, or sociology. At least one unit of 6 sem. hrs. in a single discipline required with at least 3 sem. hrs. from the 300-400 level.	
Humanities	18
American studies, communication arts, English, history, humanities studies, languages, performing and visual arts, philosophy, religious studies, and, with approval of chairperson of the major department or program, courses in Afro-American studies or ASI. At least 1 unit of 9 sem. hrs. in a humanities area with at least 3 sem. hrs. from 300-400 level courses (except languages and performing and visual arts, in which a unit may be satisfied with 9 sem. hrs. at any level). The remaining 9 sem. hrs. of electives are to be chosen from one or more other departments within the humanities. (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 on this matter should be sought in the Office of the Dean.	

¹See also General Requirements for all Bachelor of Arts programs.

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 chairperson or assistant chairperson.

Students majoring in English must complete at least 36 semester hours of English courses, including Freshman Composition, at least 24 of them at the 300-400 level. Of the 24 semester hours of upper-level courses, English majors must take at least 3 semester hours in each of three of the following categories: (1) Literary Periods—ENG 407, 410, 414, 433, 438, 444, 448, 451, 453, 455; (2) Major Authors—ENG 362, 405, 431; (3) Literary Genres—ENG 317, 319, 320, 324, 329, 330; (4) Writing—ENG 308, 310, 312, 316, 368, 370, 372, 374, 376, or 378.

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 department chairperson for advisor assignment.

English minors must take 12 semester hours of upper divisional (300-400) courses in addition to the composition requirement.

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

PROGRAM—A6: BACHELOR OF ARTS WITH A MAJOR IN ENGLISH¹

	<i>Semester Hours</i>
English	36
Natural Science and Mathematics	7
Social and Behavioral Science	12
Humanities	18
Philosophy and/or Religious Studies	12
Communication Skills	0-10
General academic electives to total at least	120

¹See also Distribution Table for Bachelor of Arts programs.

FACULTY

Michael H. Means, *Chairperson*

Alex J. Cameron, *Assistant Chairperson*

Professors: August, Bedard, Cochran, Patrouch

Associate Professors: Arons, Cameron, Henninger, Kimbrough, Labadie, Macklin, K. Marre, Martin, Means, Murphy, Pici, Ruff, Stockum

Assistant Professors: Farrelly, Horst, L. Marre, Palumbo

COURSES OF INSTRUCTION

ENG 111. COLLEGE COMPOSITION I: Reading analysis and writing proficiency development. 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 documented 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 poetry. 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 short plays. 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 modes. Novels will be selected from English, American, and/or European literature. Prerequisite: ENG 112 or its equivalent. 3 sem. hrs.

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 333. IMAGES OF WOMEN IN LITERATURE: An examination of significant literary works through the ages, each of which portrays one of the traditional images of women. 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. 3 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. 3 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. 1-6 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. *3 sem. hrs.*

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. *3 sem. hrs.*

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 five degree programs:

Bachelor of Arts with a Major in Fine Arts (A7)

Bachelor of Fine Arts with a Major in Studio Art (A8)

Bachelor of Fine Arts with a Major in Commercial Design (A8A)

Bachelor of Fine Arts with a Major in Crafts (A8B)

Bachelor of Fine Arts with Teacher Certification (A8C)

Minors are required to take 19 semester hours in art, 6 of which must be in upper level courses. All art students, regardless of their programs, are required to take ART 104 and ART 112 before taking intermediate and advanced courses.

A student entering a degree program is required to present an art portfolio for placement within the program at the Freshmen Review which is scheduled at the end of the first term. This portfolio should consist 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. Transfer students entering B.F.A. program must present a similar portfolio at the end of their first term.

Second-term sophomores as well as those students in the degree programs who have completed 23 semester hours of art must participate in a faculty critique during the spring term. All seniors in the B.F.A. program must present graduation portfolios. 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 ARTS¹

University/College Requirements:

Semester Hours

Communication Skills 0-10

Philosophy and/or Religious Studies 12 12-22

Major Program²—Required Courses:

Studio

Drawing—ART 104, 206, or 207 6

Design—ART 112, 216 6

Graphics—ART 251 3

Painting—ART 226 3

Sculpture—ART 231 3

Crafts—ART 261 or 263 2

Ceramics—ART 240 3

Photography—PHO 101 3 29

Other

History—ART 273, 274 plus elective 9

Art Electives 6

Total in ART 44

Breadth Requirements:

Natural Science and Mathematics 7

Social and Behavioral Science 12

Humanities 18 37

PROGRAM—A8: BACHELOR OF FINE ARTS WITH A MAJOR
IN STUDIO ART

Freshman Year	
1st Term	2nd Term
ART 104 3	ART 206 3
ART 112 3	ART 216 3
ART 273 3	ART 274 3
ENG 111 ⁴ or Breadth Requirement 4	PHO 101 3
SPE 101 ⁴ or Breadth Requirement 3	ENG 112 ⁴ or Breadth Requirement 3
16	15
Sophomore Year	
1st Term	2nd Term
ART 207 3	ART 227 3
ART 226 3	ART 231 3
ART 251 or 355 3	Philosophy or Religious Studies 3
Art History Elective 3	Art History Elective 3
Breadth Requirement ¹ 3	Breadth Requirement ¹ 3
15	15
Junior Year	
1st Term	2nd Term
ART 232 3	Philosophy or Religious Studies 3
Philosophy or Religious Studies 6	Art Elective 3
Art Electives ² 5	Breadth Requirement ¹ 6
Breadth Requirement ¹ 3	Major Area of Concentration ³ 5
17	17
Senior Year	
1st Term	2nd Term
ART 495 1	ART 496 1
Art Electives ² 5	Art Electives ² 5
Breadth Requirement ¹ 6	Breadth Requirement ¹ 6
Major Area of Concentration ³ 5	Major Area of Concentration ³ 5
17	17
Semester Hours	
University/College Requirements ⁴	22
Major Program—Required Courses	47
Art Electives	18
Area of Concentration ³	15
Total in ART	80
Breadth Requirements ¹	27
Total	129

¹Breadth Requirements: Two units of 6-9 semester hours each selected from the Departments of Psychology, Sociology/ Anthropology, Political Science, Mathematics, Science, Economics, Marketing, Management, Education, Home Economics. (12-15 semester hours required.)

Two units of 6-9 semester hours each selected from the Departments of Languages, English, History, Communication Arts, Philosophy, Religious Studies. (If English, Philosophy, Religious Studies, or Communication Arts is chosen, then the requirement excludes the semester hours already required by the University.) (12-15 semester hours required.)

²The course of 3 semester hours plus 2 semester hours ART 490 Independent Study or 2 semester hours crafts.

³Major area of concentration of 300-400 level courses (15 semester hours).

⁴University/College Requirements: SPE 101, ENG 111-112, Philosophy and/or Religious Studies 12 semester hours.

Portfolio required toward end of first term before program placement for regular as well as transfer students. Portfolio required for graduation; it must consist of a minimum of 20 works (10 in the major area of concentration and 10 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 second last term before graduation. ART 496 must be taken in the last term before graduation. A graduating senior may present a one-person show in lieu of the portfolio. The senior must present a written proposal for a show one year in advance for faculty approval. A faculty member acts as advisor, and the senior includes a written account of the show's development along with his exhibit. The show should include the strongest works in the area of concentration, as well as other media.

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

PROGRAM—A8A: BACHELOR OF FINE ARTS WITH A MAJOR IN COMMERCIAL DESIGN

Freshman Year

1st Term

ART 104	3
ART 112	3
ART 273	3
ENG 111 or Breadth Requirement	4
SPE 101 or Breadth Requirement	3
	<hr/>

16

2nd Term

ART 206	3
ART 216	3
ART 274	3
PHO 101	3
ENG 112 or Breadth Requirement	3
	<hr/>

15

Sophomore Year

1st Term

ART 193	3
ART 207	3
ART 226	3
ART 251	3
ART 299	2
Philosophy or Religious Studies	3
	<hr/>

17

2nd Term

ART 218	3
ART 252	3
ART 345	3
PHO 201	3
MKT 205	3
Technical Graphics	2
	<hr/>

17

Junior Year

1st Term

ART 319	2
ART 413	3
MKT 420	3
Philosophy or Religious Studies	3
Breadth Requirement	6
	<hr/>

17

2nd Term

ART 399	3
ART 414	3
PHO 330	3
Philosophy or Religious Studies	3
Breadth Requirement	3
	<hr/>

15

Senior Year		
1st Term	2nd Term	
ART 355	ART 499	1
ART 498	Art Elective	3
MKT 421	Marketing Elective	3
Philosophy or Religious Studies	Art/Photography Elective	3
Art Elective	Breadth Requirement	6
Breadth Requirement		16
		16
University/College Requirements (See listing for Program A8 for Bachelor of Fine Arts.)		Semester Hours 22
Major Program—Required Courses		68
Art/Photography Electives		9
Total in Art		77
Breadth Requirements (See Listing for Program A8 for Bachelor of Fine Arts.)		30
Total		129

Portfolio required toward end of first term before program placement for regular as well as transfer students. Portfolio required for graduation; it must consist of a minimum of 20 works (10 in the major area of concentration and 10 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 second last term before graduation. ART 496 must be taken in the last term before graduation. A graduating senior may present a one-person show in lieu of the portfolio. The senior must present a written proposal for a show one year in advance for faculty approval. A faculty member acts as advisor, and the senior includes a written account of the show's development along with his exhibit. The show should include the strongest works in the area of concentration, as well as other media.

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

PROGRAM—A8B: BACHELOR OF FINE ARTS WITH A MAJOR IN CRAFTS

Freshman Year		
1st Term	2nd Term	
ART 104	ART 206	3
ART 112	ART 216	3
ART 273	ART 274	3
ENG 111 or Breadth Requirement ..	PHO 101	3
SPE 101 or Breadth Requirement ...	ENG 112 or Breadth Requirement ..	3
		15
		16
Sophomore Year		
1st Term	2nd Term	
ART 191	ART 192	2
ART 206	ART 231	3
ART 226	Philosophy or Religious Studies	3
ART 240	Breadth Requirement	3
Philosophy or Religious Studies	Craft Electives	4-5
Art History Elective		
		17
		15-16

Junior Year	
<i>1st Term</i>	<i>2nd Term</i>
Philosophy or Religious Studies	Philosophy or Religious Studies
Breadth Requirement	Breadth Requirement
Art History Elective	Art Elective
Craft Electives	Craft Electives
16-17	16

Senior Year	
<i>1st Term</i>	<i>2nd Term</i>
ART 495	ART 496
Art Elective	Art Elective
Breadth Requirement	Breadth Requirement
Major Area of Concentration	Major Area of Concentration
17	16

University/College Requirements (See listing for	<i>Semester Hours</i>
Program A8 for Bachelor of Fine Arts.)	22
Major Program—Required Courses	39
Art/Craft Electives	28
Area of Concentration	13
Total in ART	80
Breadth Requirements (See listing for Program A8 for Bachelor of Fine Arts.)	27
Total	129

Two areas of major concentration in senior year are recommended. Portfolio required toward end of first term before program placement for regular as well as transfer students. Portfolio required for graduation; it must consist of a minimum of 20 works (10 in the major craft area and 10 showing a variety of media) properly presented. The portfolio is submitted to the faculty one month before graduation. ART 495 must be taken in the second term before graduation. ART 496 must be taken in the last term before graduation. A graduating senior may present a one-person show in lieu of the portfolio. The senior must present a written proposal for a show one year in advance for faculty approval. A faculty member acts as advisor, and the senior includes a written account of the show's development along with his exhibit. The show should include the strongest works in the area of concentration, as well as other media.

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

Electives	17-27
Total	120

¹See also Distribution Table for Bachelor of Arts programs. The general requirements for 54 upper-level hours (300-400) of the Bachelor of Arts degree is reduced for Fine Arts majors by exception. Consult counselors for specific information.

²Portfolio required toward end of first term before program placement for regular as well as transfer students. Graduation portfolio is optional for this program but highly recommended for students entering graduate school

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

PROGRAM—A8C: BACHELOR OF FINE ARTS WITH TEACHER CERTIFICATION (E-11)

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.

Freshman Year

1st Term	2nd Term
ART 104	ART 207
ART 112	ART 216
ART 273	ART 261
ENG 111 or Breadth Requirement	ART 274
SPE 101 or Breadth Requirement	PHO 101
	ENG 112 or Breadth Requirement
16	17

Sophomore Year

1st Term	2nd Term
ART 191	ART 231
ART 207	ART 341
ART 226	ART 363 or 263
ART 251	PHL 320
PHL 103	EDS 351
EDF 208	Breadth Requirement
17	16

Junior Year

1st Term	2nd Term
ART 240	ART 355
EDS 416	EDS 455
Art Elective	Philosophy or Religious Studies
Art History Elective	Art Elective
Mathematics Elective	Breadth Requirement
Natural Science Elective	History Elective
17	17

Senior Year

1st Term	2nd Term
ART 241	ART 496
ART 483	EDF 419
ART 495	EDS 415
Art Electives	
History Elective	
16	16

University/College Requirements (See listing for Program A8 for Bachelor of Fine Arts)	Semester hours
Major Program — 300 hours of observation in the schools are required before student teaching. Required courses, except ART 496 must be taken before placement in student teaching.	22
Required Courses	56
Art Electives	10
Total in ART	66

Education Requirements	25
Breadth Requirements	19
Total	132

Portfolio required toward end of first term before program placement for regular as well as transfer students. Portfolio required for graduation; it must consist of a minimum of 20 works (10 in the major area of concentration and 10 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 second last term before graduation. ART 496 must be taken in the last term before graduation. A graduating senior may present a one-person show in lieu of the portfolio. The senior must present a written proposal for a show one year in advance for faculty approval. A faculty member acts as advisor, and the senior includes a written account of the show's development along with his exhibit. The show should include the strongest works.

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

All education courses to be taken in sequence except EDF 419 and EDS 415 which may be taken together.

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

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.

Students seeking a B.F.A. with teacher certification are encouraged to attend summer school between the Junior and Senior years.

FACULTY

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

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

Associate Professors: Plogman, Weber

Assistant Professors: Barrish, Fiehler, Richardson, Zahner

Instructors: Hitt, Strohmaier

Part-time Instructors: Black, Fowler, Schooley

COURSES OF INSTRUCTION

ART 101. FUNDAMENTALS AND MATERIALS OF ART: A course 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. INTRODUCTORY DRAWING: Introduction of basic visual concepts, various drawing media, and approaches to experimental technique. Emphasis on perspective, perceptual awareness, and expressive freedom. Open to all students except art majors. *2 sem. hrs.*

ART 104. INTRODUCTORY DRAWING: Introduction of basic visual concepts, various drawing media, and approaches to experimental technique. Emphasis on perspective, perceptual awareness, and expressive freedom. ART 104 includes an introduction to figure drawing. Art majors only. Model fee. *3 sem. hrs.*

ART 111. 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. Open to all students except art majors. *2 sem. hrs.*

ART 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. *3 sem. hrs.*

ART 181. ENJOYMENT OF ART: A course to develop a greater capacity to enjoy as well as understand contemporary art expression. Emphasis on understanding the creative process and investigating the artist's point of view and relationship to audience. Open to all students except art majors. One 3-hour session each week. *3 sem. hrs.*

ART 191-192. LETTERING AND CALLIGRAPHY: Application of the drawn letter and the designed letter to posters, books, inscriptions, and manuscripts through class assignments and projects. Prerequisite for ART 192 is ART 191 or permission. *4 sem. hrs.*

ART 193. COMMERCIAL CALLIGRAPHY: This course is a combination of ART 191 and 192 and is specifically designed in its content to fit the needs of the commercial design students. Only commercial design students will be permitted to enroll in this course. *3 sem. hrs.*

ART 206. ANATOMICAL DRAWING: Studies from the nude model, skeleton, anatomy diagrams, and drawings of the masters. Emphasis on skeletal-muscular structure, external contour, and "norms" for proportion. Prerequisites: ART 104. Model fee. *3 sem. hrs.*

ART 207. FIGURE DRAWING: 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. *3 sem. hrs.*

ART 216. DESIGN AND COLOR: The study of color based principally on Alber's theory of color and its use in expressing and integrating various designs. Prerequisites: ART 112, or permission of instructor. *3 sem. hrs.*

ART 218. THREE-DIMENSIONAL DESIGN COMMERCIAL: Investigation of materials, processes, and three-dimensional aesthetic principles of advantage to the commercial designer. Prerequisites: ART 112 and 216. *3 sem. hrs.*

ART 226-227. INTRODUCTORY PAINTING: Painting in oil, acrylics, and watercolor: still life, landscape, figure, and abstraction; emphasis on composition and techniques; use of imaginative subject matter. Prerequisite for ART 227 is ART 226 or permission. *4 sem. hrs.*

ART 228-229. WATERCOLOR: Basic principles and techniques of transparent watercolors. Emphasis on 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 or 104, 111 or 112, 226-227. Model Fee. *3 sem. hrs. each*

ART 231-232. SCULPTURE: Consideration of forms as a means of developing an understanding of mass, shape, and control of medium. Use of wide range of materials with emphasis on the integration of their characteristics with the expression. Prerequisite for ART 232 is ART 231 or permission. Studio fee. *3 sem. hrs. each*

ART 240. INTRODUCTORY CERAMICS, HAND BUILDING: Introduction to the basic methods of working in clay by way of coil and slab. Emphasis on originality and proper methods. Prerequisites: ART 103 or 104, 111 or 112, or permission of instructor. Studio Fee. *3 sem. hrs.*

ART 241. INTERMEDIATE CERAMICS, WHEEL THROWING: Introduction to the basic methods of working clay by way of the wheel. Emphasis on originality and proper methods. Prerequisites: ART 103 or 104, 111 or 112, 240 or permission of instructor. Studio Fee. *3 sem. hrs.*

ART 251. GRAPHIC ARTS: Basic principles of relief printing applied to the linoleum cut and the woodcut; registration, use of color, and aesthetics of the relief print; discussion of printing papers, inks, proper matting procedures, and new relief techniques. Studio fee. *3 sem. hrs.*

ART 252. GRAPHIC ARTS: The intaglio printing process as it is applied to acid etching: the use of hard and soft ground etching, the art of the aquatint. Emphasis 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. *3 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 or 104, 111 or 112, or permission of instructor. Studio fee. *2 sem. hrs.*

ART 263. JEWELRY CONSTRUCTION: Original design emphasized. Construction procedures are employed rather than casting, smithing, or forging. Silver soldering is taught as an integral part of the course. Prerequisites: ART 103 or 104, 111 or 112. Studio fee. *2 sem. hrs.*

ART 273. SURVEY OF ART I: A survey of Western art and significant historical and cultural influences from prehistory through the medieval and Gothic periods. Open to all University students. *3 sem. hrs.*

ART 274. SURVEY OF ART II: A continuation of ART 273, beginning with the Renaissance and continuing through the baroque and rococo periods. Open to all University students. *3 sem. hrs.*

ART 275. SURVEY OF ART III: Survey of art history from transformations in late 18th-century art through the 20th century contemporary art. Open to all University students. *3 sem. hrs.*

ART 281. CREATIVE FIBER DESIGN: Investigation of soft sculpture, macrame, stitchery, and textile printing. Experiences with fiber media and processes will be oriented around perception and developing an awareness of the characteristics of fiber properties. *2 sem. hrs.*

ART 299. SOPHOMORE COMMERCIAL DESIGN SEMINAR: A series 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. Use of accumulated knowledge from previous drawing experiences to develop individual creativity and original style. Prerequisites: ART 206-207 or permission. Prerequisite for ART 304 is ART 303. Model fee. *3 sem. hrs. each*

ART 319. STUDIO: A faculty-supervised time block that allows art majors to pursue work in a variety of media as an extension of their regular courses. Art majors only with permission of advisor. Repeatable up to 8 sem. hrs. Grade option 2. *1 sem. hr.*

ART 321-322. ADVANCED PAINTING: A continuation of ART 226-227, with increased emphasis on personal interpretation of the subject and on various painting media 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. *3 sem. hrs. each*

ART 325. FIGURE PAINTING: Fundamentals and practice of painting from the model. Both representational and abstract approaches; stress on technical quality and personal expression. Prerequisites: ART 103-104, 207, 226-227, or permission of instructor. Model fee. *3 sem. hrs.*

ART 326. NEW FORMS PAINTING: Investigation of techniques 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. *3 sem. hrs.*

ART 327. PAPIER COLLÉ—THE ART OF COLLAGE: Survey of collage works of such artists as Picasso, Schwitters, Motherwell, and Rauschenberg; assemblage exercises. *3 sem. hrs.*

ART 331-332. ADVANCED SCULPTURE: Contemporary consideration of sculptural form. Individual expression, employing modern techniques and experimental as well as traditional materials. Prerequisites: ART 231-232. Studio fee. *6 sem. hrs.*

ART 340-342. ADVANCED CERAMICS WORKSHOP: Advanced individual work in any or all of the following areas: handbuilding, wheel throwing, glaze theory and investigation, production pottery or ceramic sculpture. Prerequisite: ART 240 and 241. Studio fee. *6 sem. hrs.*

ART 341. WEAVING: Exploration of fabrics with emphasis on the functional aspects of handweaving, including use of the loom. Fiber construction, basketry, stitchery, hooking, batik, and macrame. Prerequisites: ART 111-112. Studio fee. *2 sem. hrs.*

ART 345. TYPOGRAPHY: Introduction to typography for those entering the commercial design field. Type styles, type measurements, preparing copy for printing. *3 sem. hrs.*

ART 355-356. SILK SCREEN-SERIGRAPHY: Basic principles and techniques of the silk screen process; all operations of screen printing 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. *6 sem. hrs.*

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

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

ART 377. WOMEN ARTISTS: AN HISTORICAL SURVEY: An historical survey of women artists from Middle Ages to the present with particular emphasis on current revisionist literature and exhibitions. Open to all University students. *3 sem. hrs.*

ART 399. JUNIOR COMMERCIAL ILLUSTRATION: A seminar program to acquaint the commercial design student with current illustration techniques and to develop studio skills for commercial reproduction. Prerequisites: ART 104, 206, 207, 299, 413. *3 sem. hrs.*

ART 413-414. COMMERCIAL DESIGN: Commercial techniques such as layout, keyline, preparing roughs, color separation, illustration type, investigated through design problems. Prerequisites: ART 112, 216 or permission of instructor. *6 sem. hrs.*

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

ART 472. ART IN THE TWENTIETH CENTURY: The development of 20th-century art, covering the early cubistic movement, abstract expressionism, and 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: Study of major artists and movements in European art, beginning with the late 18th century and continuing through the Impressionist and Post-Impressionist periods in the 19th century. *3 sem. hrs.*

ART 474. CONTEMPORARY TRENDS IN THE VISUAL ARTS: Seminar for senior fine arts majors only, treating only post-1950s trends in painting, sculpture, architecture, new methods and materials in graphics, and theories in current art criticism. Prerequisite: Six semester hours of survey in art history. *3 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; actual teaching experience in children's classes. Art education majors only. *4 sem. hrs.*

ART 483W. ELEMENTARY SCHOOL ART: Workshop to give the regular elementary classroom teacher 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. SPECIAL PROBLEMS: A course reserved for art students devoted to advanced individual work in the following designated art fields; 490 — Air brush; 490D — Drawing; 590E — Enameling; 490G — Graphics; 490T — Art History; 490J — Jewelry; 490L — Lettering and Calligraphy; 490M — Ceramics; 490N — Design; 490P — Painting; 490R — Lithography; 490S — Sculpture; 490Z — General Fine Arts. Approval based on academic standing and instructor-division head permission. Repeatable up to 15 sem. hrs. *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 498-499. GRADUATION PORTFOLIO IN COMMERCIAL DESIGN: The portfolio is a graduation requirement for a BFA degree in commercial design. Evaluation and preparation of a portfolio of professional quality work; resume writing, job interview techniques. An approval of the portfolio by the faculty and selected professionals is required for graduation. Prerequisites: ART 299. Grade option 2. *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 that serves individual needs. Since only the basic University requirements must be met, 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

Admission requirements for the Bachelor of General Studies are the same as those for any other degree now offered in the College of Arts and Sciences.

Candidacy for the Bachelor of General Studies 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.

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 the advisor.

The candidate must complete 120 semester hours with an overall grade point average of 2.0 or better, including

1. University requirements (15-18 semester hours),
2. a minimum of 54 semester hours of courses at the 300-400 level with a grade point average of 2.0 or better, and
3. not more than 40 semester hours of work from any one academic discipline.

The usual policy on prerequisites remains in effect in this program.



GEOLOGY (GEO)

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

PROGRAM—S5: BACHELOR OF SCIENCE WITH A MAJOR IN GEOLOGY¹

	<i>Semester Hours</i>
Geology	38
Mathematics 118-119 ²	8
Chemistry 123-124	8
Physics 201-202 ³	8
Science electives ⁴	16
Philosophy and/or Religious Studies	12
English 111-112	7
Speech 101	3
Humanities and/or Social Science electives	6
General academic electives to total at least	120

¹See General Requirements for all Bachelor of Science programs.

²May substitute MTH 112-113, with permission of department.

³May substitute PHY 196, 207 if MTH 118-119 is taken.

⁴Choose 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 chairperson 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, *Chairperson*

Professor: Springer

Associate Professor: Ritter

Assistant Professor: Gray

COURSES OF INSTRUCTION

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

GEO 109. GENERAL GEOLOGY: Introduction to the earth as a planet, its composition, structure, and evolutionary development; a brief consideration of the life of the past. 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: 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: 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: Study of the relationship of geologic factors to the problems of water supply, pollution, erosion, land use, and earth resources. Laboratory optional. Third term, 1980. *3 sem. hrs.*

GEO 208L. ENVIRONMENTAL GEOLOGY LABORATORY: Third term, 1980. *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, 1979-1980. *3 sem. hrs.*

GEO 301L. STRUCTURAL GEOLOGY LABORATORY: Course to accompany GEO 301. Two hours per week. First term, 1979-1980. *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, 1979-1980. *3 sem. hrs.*

GEO 302L. GLACIAL GEOLOGY LABORATORY: Course to accompany GEO 302. Two hours per week. Second term, 1979-1980. *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, 301. Summer. *6 sem. hrs.*

GEO 307. GEOMORPHOLOGY: Detailed study of landforms and the erosional processes that develop them. Prerequisites: GEO 115, 116, 301. Second term, 1980-1981. *3 sem. hrs.*

GEO 307L. GEOMORPHOLOGY LABORATORY: Course to accompany GEO 307. Two hours per week. Second term, 1980-1981. *1 sem. hr.*

GEO 310. STRATIGRAPHY: The interpretation of specific lithotypes and the synthesis of the stratigraphic record. Prerequisites: GEO 116, 301. Second term, 1980-1981. *3 sem. hrs.*

GEO 310L. STRATIGRAPHY LABORATORY: Course to accompany GEO 310. Two hours per week. Second term, 1980-1981. *1 sem. hr.*

GEO 401. PALEONTOLOGY: A study of animal life of the geologic past as shown by the fossil record. First term, 1979-1980. *3 sem. hrs.*

GEO 401L. PALEONTOLOGY LABORATORY: Course to accompany GEO 401. Two hours per week. First term, 1979-1980. *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, 1980-1981. *3 sem. hrs.*

GEO 403L. SEDIMENTATION LABORATORY: Course to accompany GEO 403. Two hours per week. First term, 1980-1981. *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: Study of the formation of igneous rocks. Prerequisites: GEO 201, 204, 309. First term, 1980-1981. *3 sem. hrs.*

GEO 411L. IGNEOUS PETROLOGY LABORATORY: Course to accompany GEO 411. Two hours per week. First term, 1980-1981. *1 sem. hr.*

GEO 412. INTRODUCTORY GEOCHEMISTRY: 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, 1980-1981. *3 sem. hrs.*

GEO 412L. INTRODUCTORY GEOCHEMISTRY LABORATORY: Course to accompany GEO 412. Three hours per week. Second term, 1980-1981. *1 sem. hr.*



HISTORY (HST)

The course requirement for history majors is 36 semester hours, distributed as follows:

- 1. Four courses (12 semester hours) should be selected from the HST 100/200 sequences;
- 2. HST 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 fairly equally between American and the non-American history.
- 4. Honors tutorial courses (HST 497 and 498) and HST 299 and 499 may be substituted for any course except HST 301.

The course requirement for history minors is 18 semester hours. Two courses (6 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 HISTORY¹

	<i>Semester Hours</i>
History	36
Natural Science and Mathematics	7
Social and Behavioral Science	12
Humanities	18
Philosophy and/or Religious Studies	12
Communication Skills	0-10
General academic electives to total at least	120

¹See also Distribution Table for Bachelor of Arts programs.

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.

Minors and Area Concentrations

A student may elect a minor in education under the E-11 Program or in any related disciplines within the College of Arts and Sciences. The student must consult with the department administering the discipline for the particular requirements of a minor. In addition, the student may elect any one of the four multi-disciplinary concentrations in Graduate Study in History, Pre-Law, International Affairs, Historical Administration, Preservation, and Archival Management.

1. Graduate Study in History

Ph.D. programs generally require the candidate to have a reading knowledge of French and German. Therefore, language study is necessary. Another language may sometimes be substituted. Students should consult graduate catalogues for specific requirements.

Since teaching and research are the usual outcomes of graduate study, appropriate Speech and composition courses should be taken (SPE 307 and ENG 270), and social science study is essential. Courses in Computer Science may be useful.

A student interested in graduate study must maintain a high grade point average to receive financial assistance for graduate studies, and should consult with faculty members to determine the areas where there may be openings for teaching positions in the near future.

2. Pre-Law

Student should take the following history courses as part of their 36 required hours in history:

HST 103, 104, 105	History of Western Civilization (choose two)
HST 251	American History to 1865
HST 252	American History since 1865
HST 359	U.S. Constitutional History
HST 424	The Parliamentary Concept in English History

In addition students must take at least five of the following courses:

ACC 207-208	Principles of Accounting (OR)
ACC 301	Financial Reporting and Administration
BUS 301	Business Finance
ECO 203	Principles of Microeconomics
ECO 204	Principles of Macroeconomics
ECO 442	Money, Banking, and Monetary Policy (Prerequisite: ECO 203-204)
ENG 270	College Composition III
ENG 316	Advanced Composition
MTH 207	Statistical Methods for the Behavioral Sciences
PHL 301	Practical Logic
PHL 312	Ethics
PHL 314	Philosophy of Law
POL 201	The American Political System
POL 301	The American Judicial Process
POL 411	Constitutional Law
POL 495	Internship in Law

3. International Affairs

Students should take the following courses:

- Two courses (6 credit hours) — 100 level courses (European and Third World)
- Two courses — HST 265 and one other 200 level course
- Three courses — 300 and 400 level courses (European)
- Three courses — 300 and 400 level courses (Non-American, Non-European)
- One course — HST 301 Research Seminar
- One course — HST 499 American Foreign Policy Since 1941

Students are urged to take 18 hours of modern language.

Students are urged to take at least five of the following:

ANT 250	Survey of World Cultures
ANT 351	Cultures of the Caribbean
ANT 352	Cultures of Latin America

COM 305	Propaganda Analysis
MTH 207	Statistical Methods
CRJ 336	Comparative Criminal Justice Systems
ENG 270	College Composition III
PHL 312	Ethics
POL 202	Introduction to Comparative Politics
POL 214	Principles of International Relations
POL 320-326	Comparative Politics (any course)
POL 406	International Law and Organization
POL 408	American Foreign Policy
POL 410	Comparative Foreign Policy
REL 201	Religions of the World I
REL 202	Religions of the World II
SOC 350	Population and Human Ecology
ECO 450	Comparative Economic Systems
ECO 461	International Economics
FIN 450	International Business Finance

4. Historical Administration, Preservation, and Archival Management

Students should take the following history courses as part of their 36 required hours in history:

Two courses (6 credit hours) — 100 level courses

Two courses (6 credit hours) — from HST 251, HST 252, HST 260

HST 301	Research Seminar
HST 364	History of Ohio
HST 385	Field Study
HST 479	American Architecture History and Preservation
HST 499	Topics in History

In addition, students must take at least five of the following:

ENG 270	English Composition III
MGT 102	American Business Environment
MGT 215	Principles of Management
MGT 308	Small Business Management
MGT 314	Personnel Management
COM 304	Advertising
MKT 310	Salesmanship
POL 303	State Government and Politics
POL 305	Introduction to Public Administration
POL 360	Urban Politics
POL 413	The American Bureaucracy
ACC 207-208	Principles of Accounting (OR)
ACC 301	Financial Reporting and Administration

FACULTY

Leroy V. Eid, *Chairperson*

Professors: Beauregard, Donatelli, Eid, Maras, Mathias, Rhee, Steiner

Associate Professors: Alexander, King, Soffer, Taylor, Vines

Assistant Professors: Bannan, Palermo

Adjunct Assistant Professor: Gannon

Lecturer and Counselor: Perkins

Part-time Instructors: Bell, Davis, Foltz

COURSES OF INSTRUCTION

HST 103. HISTORY OF WESTERN CIVILIZATION I: Survey from earliest times to 1453 A.D.: the social, cultural, and political aspects of the prehistoric, ancient, and medieval eras. *3 sem. hrs.*

HST 104. HISTORY OF WESTERN CIVILIZATION II: Survey from 1453 to 1815, emphasizing 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: Survey from 1815 to the present, emphasizing the era of nationalism and revolution, the new industrialism, socialism, imperialism, and 20th-century developments. *3 sem. hrs.*

HST 120. HISTORY OF ENGLAND: 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: origins of the Russian state, political and economic growth, 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; study of China and Japan in the 19th and 20th centuries, emphasizing political, religious, cultural, and economic growth. *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: Survey, covering early times to the present, to display Africa's significance by examples of political grandeur, commercial ingenuity, intellectual ferment, and religious revolutions. *3 sem. hrs.*

HST 250. HISTORY OF THE AMERICAN INDIAN: Historical and descriptive survey of the native peoples of the Americas. *3 sem. hrs.*

HST 251. AMERICAN HISTORY TO 1865: Survey of the development of the American nation from colonial times to 1865; political trends, economic and social foundations of American institutions. *3 sem. hrs.*

HST 252. AMERICAN HISTORY SINCE 1865: Survey of the development of the nation after the Civil War, stressing social, economic, and political problems. *3 sem. hrs.*

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

HST 265. DIPLOMATIC HISTORY OF THE UNITED STATES: Foundations of American foreign policy; the diplomacy of continental expansion through the 19th century; emphasis on diplomatic problems since 1898. *3 sem. hrs.*

HST 270. ECONOMIC HISTORY OF THE UNITED STATES: 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 subtitles 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 last based on the professor's field of specialization. Required for junior history majors. *3 sem. hrs.*

HST 306. INTELLECTUAL AND CULTURAL HISTORY OF MODERN EUROPE: Close analysis of people, ideas, and principal cultural developments from the Renaissance into the 20th century. *3 sem. hrs.*

HST 318. FRENCH REVOLUTION AND NAPOLEONIC ERA: Ideological, economic, social, and political background of the Revolution; analysis of the Revolutionary governments; the resulting international wars; the rise and fall of Napoleon. *3 sem. hrs.*

HST 319. THE STAMINA OF MODERN FRANCE: French history from the Bourbon Restoration in 1815 to the Fifth Republic in 1958, with emphasis on evolutionary and revolutionary factors in the political survival of the French people. *3 sem. hrs.*

HST 320. THE CHALLENGES TO MODERN ITALY: Italian history from the settlement imposed by the Congress of Vienna in 1815 to the proclamation of the republic in 1946, stressing the emergence of the Risorgimento and subsequent developments within the Kingdom of Italy. *3 sem. hrs.*

HST 323. HISTORY OF LONDON: A study of the development of London from a small Roman town to the world's first industrial metropolis. Taught in London as part of the overseas program. *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, stressing medieval and early modern background as a foundation of contemporary history. *3 sem. hrs.*

HST 329. MODERN GERMAN: Analysis of the development of the German state from 1843 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: the growth of national spirit, the impact of westernization and industrialization; transition and innovation. *3 sem. hrs.*

HST 350. ANGLO-AMERICAN FEMINISM: Historical study of the changing roles of women in Anglo-American society and the struggle for social, political, economic, legal, and educational rights from the 17th century to the present. *3 sem. hrs.*

HST 355. AMERICAN URBAN HISTORY: An historical analysis of community life in American society. Discussion focuses on the nature and development of small towns, cities, and suburbs. Particular attention is paid to communal experience, social organization, and political culture. *3 sem. hrs.*

HST 357. LATIN AMERICA IN THE 20th CENTURY: Intensive examination of revolution and reaction in today's Latin America and the implications for those who formulate U.S. foreign policy. *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 360. HISTORY OF MENTAL HEALTH CARE IN AMERICA: History of the treatment of the mentally ill in America from colonial times to the present. 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 385. FIELD STUDY: Practical approach to history through field study and work with historical societies and architectural preservation boards. 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 398. HISTORY OF BLACKS IN UNITED STATES: 1526-1900: Study of the saga of black people in the U.S. from 1526 until 1900. Course is also offered as Afro-American Studies 241. 3 sem. hrs.

HST 399. HISTORY OF BLACKS IN UNITED STATES: 1900 TO PRESENT: Study of the saga of black people in the U.S. from 1900 to the present. Course is also offered as Afro-American Studies 242. 3 sem. hrs.

HST 402. MAIN CURRENTS IN ANCIENT HISTORY: Aspects of the civilization of the Ancient Near East, Greece, and Rome, emphasizing the Hebrew world view and value system, Greek democracy, Roman political and social institutions. 3 sem. hrs.

HST 405. MEDIEVAL EUROPE: European history from the 4th to the 14th century, including birth of Middle Ages; development of Christianity; Byzantine, Islamic and Carolingian Empires; feudalism; Crusades, rise of universities; 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: From the later Reformation to the era of the French Revolution: intellectual and cultural development; political, economic, and social trends of the Old Regime. 3 sem. hrs.

HST 413. THE REVOLUTIONARY ERA, 1789-1918: A historical analysis of European nations and peoples emphasizing war and revolutions of the period as well as ideological, scientific, and technological developments. 3 sem. hrs.

HST 414. TWENTIETH CENTURY EUROPE: 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: Detailed survey and analysis of the historical development of the U.S.S.R. from the Revolution of 1917 to the present time. 3 sem. hrs.

HST 418. MILITARY HISTORY: Survey from ancient times to the present emphasizing 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 426. TUDOR-STUART ENGLAND: Study of England from 1405 to 1714: development of the national state, royal absolutism, and the Reformation; evolution of the constitutional question; diplomacy; social, economic, and cultural aspects of the period. *3 sem. hrs.*

HST 428. MODERN ENGLAND—1815 TO PRESENT: Development of England as an industrialized nation and as an empire: results of industrialization, urbanization, and loss of empire due to two world wars. *3 sem. hrs.*

HST 432. NORTH AFRICA IN MODERN TIMES: A study of Morocco, Algeria, Tunisia, and Libya since the 16th century; stress on the institutional histories of these countries that enabled them ultimately to expel European imperialism. *3 sem. hrs.*

HST 436. SOUTH AFRICA IN MODERN TIMES: Study of the establishment of the Bantu people and institutions and their subjection to assaults by Boers and British 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 slave trade, commercial revolution, religious ferment, imperialistic rivalry, and the recent independence movement. *3 sem. hrs.*

HST 438. THE MIDDLE EAST, NINETEENTH AND TWENTIETH CENTURIES: Survey of the Ottoman Empire, Iran, Egypt, and the modern states of the Middle East, emphasizing the development of nationalism and the role in international politics. *3 sem. hrs.*

HST 443. MODERN CHINA: Survey of the political, cultural, and international developments in China from the 18th century to the present. *3 sem. hrs.*

HST 447. DIPLOMATIC HISTORY OF THE FAR EAST SINCE 1840: Survey of the diplomatic relations of China, Korea, and Japan among themselves and with other powers. *3 sem. hrs.*

HST 448. JAPAN SINCE PERRY: 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 450. THE FOUNDING OF AMERICA: Foundations of American nationality and democratic growth under the British colonial system, with special attention to the economic, political, social and cultural life of the era. *3 sem. hrs.*

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

HST 455. THE AMERICAN SOUTH: 1607 TO PRESENT: Studies the role of the South in American History. *3 sem. hrs.*

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

HST 472. THE SOUTHERN APPALACHIAN REGION: A study and appraisal of the internal and external historical forces that have shaped Appalachia. *3 sem. hrs.*

HST 475. THE PROGRESSIVE PERIOD, 1900-1920: Major historical trends that dominated these years which saw the universal acceptance of America's claim to world power. 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, including Normalcy, the Depression, the evolving New Deal, and the approach to World War II. 3 sem. hrs.

HST 477. CONTEMPORARY AMERICAN HISTORY: The immediate background of contemporary political, social, and economic problems: 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 for investigation as determined by the instructor. The objective of the course is to study new interpretations of historical events. Prerequisite: general knowledge of American history. 3 sem. hrs.

HST 479. AMERICAN ARCHITECTURAL HISTORY AND PRESERVATION: A career-oriented course offering a theoretical background in historical preservation and techniques used in identification, research, and recording of historic landmarks worthy of preservation as part of the community heritage. 3 sem. hrs.

HST 482. THE HISTORY OF MEXICO: Mexican History since 1820. Origins of revolution of 1910 and its development to the present; Mexico's struggle for democracy; diplomatic and cultural relations between Mexico and the U.S. 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 subtitles 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 with a major in Home Economics is currently awarded in two areas: Home Economics (General) and Home Economics (Food and Nutrition).

Home Economics (General)

The flexible curriculum in the Home Economics (General) Program allows for a wide variety of electives. The student 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, with Education as a minor, qualifies the student for a Vocational Home Economics Certificate. The accreditation of the Home Economics Department offers the possibility of vocational certification in the School of Education (Program E-7) and the E11A program. Consult Secondary Education (EDS). See also HEC, Chapter VIII.

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

	<i>Semester Hours</i>
Home Economics	43
BIO 101-102 or CHM 123-124	8
ENG 111, 112, 200-level elective	10
Social sciences, language or history	18
Philosophy and/or Religious Studies	12
SPE 101	3
Major, minor, or electives ¹ to total at least	120

¹May be in home economics, fine arts, marketing, history, English, or requirements in the Education E11A program. The E11A program requires one course in chemistry and 51 sem. hrs. in home economics for vocational certification. Academic hours must total 120. Consult General Requirements for all Bachelor of Science programs.

PROGRAM—S6: BACHELOR OF SCIENCE WITH A MAJOR IN HOME ECONOMICS (GENERAL)¹

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term²</i>	<i>2nd Term</i>
Freshman Year				
BIO	101-102	General Biology ³	3-3-4 ²	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	3-0-3	
		Elective ⁴		3-0-3
SPE	101	Fundamentals of Effective Speech		3-0-3
		Philosophy or Religious Studies	3-0-3	
HEC	100	Freshman Orientation Seminar	1-0-0	
			14	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
HEC	225	Child Development	3-0-3
—	—	Electives ⁴	9-0-9
—	—	Philosophy or Religious Studies	3-0-3
			15
			16
Junior Year			
HEC	221	Home Management I	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	321	Consumer Education	3-0-3
HEC	328	Housing and Home Furnishings	3-0-3
—	—	Philosophy or Religious Studies	3-0-3
—	—	Elective ⁴	3-0-3
—	—	Minor, major, elective ⁴	6-0-6
			15
			15
Senior Year			
HEC	406	Home Management II	1-4-3
HEC	—	Home Economics elective	3-0-3
—	—	Philosophy or Religious Studies	3-0-3
—	—	Minor, major, elective ⁴	6-0-6
			15
			15

¹See General Requirements for all Bachelor of Science programs.

²For example, 3-0-3 means 3 class hrs., 0 lab. hrs., 3 sem. hrs. of credit.

³May substitute CHM 123-124.

⁴May be in home economics, fine arts, marketing, history, English, or requirements in the Education 11A program. The E11A program requires one course in chemistry and 51 hours in home economics for vocational certification. A minimum of 18 sem. hrs. must be completed in social sciences, language, or history. Academic hours must total 120.

Home Economics (Food and Nutrition)

The Bachelor of Science degree with a major in Home Economics (Food and Nutrition) allows for the following three areas of concentration.

Program S7a: Bachelor of Science with a major in Home Economics
(Food and Nutrition—ADA Plan IV)

Program S7b: Bachelor of Science with a major in Home Economics
(Food and Nutrition—Business Administration Field)

Program S7c: Bachelor of Science with a major in Home Economics
(Food and Nutrition—Nutrition)

Program S7a. Plan IV of the American Dietetic Association (ADA) prepares the student to function as a professional in some phase of nutritional care. Plan IV meets the standards of the ADA to enter a fifth year of study in a dietetic internship program.

REQUIREMENTS FOR THE BACHELOR OF SCIENCE WITH A MAJOR IN HOME ECONOMICS (FOOD AND NUTRITION—ADA PLAN IV)¹

	<i>Semester Hours</i>
Home Economics ^{2, 5}	39
Anthropology 150	3
Biology 101, 102, 411	13
Chemistry 123, 124, 313, 314, 420	19
Physical and Health Education 305, 306 ³	6
Psychology 101 or Sociology 101 or 204	3
Philosophy and/or Religious Studies	12
English 111, 112, 370 or 272 or 372	10
Speech 101	3
Accounting 301	3
Management 314	3
Economics 203	3
Mathematics 207 ^{4, 6}	3
General Academic Electives to total at least	120

¹Consult General Requirements for all Bachelor of Science programs.

²EDF 208 may be substituted for HEC 405.

³With permission BIO 403 may be substituted for EDD 305, 306.

⁴May substitute CPS 144 with permission.

⁵HEC 410 recommended but not required

⁶Recommended but not required.

PROGRAM—S7a: BACHELOR OF SCIENCE WITH A MAJOR IN HOME ECONOMICS (FOOD AND NUTRITION— ADA PLAN IV)¹

<i>Dept.</i>	<i>N.</i>	<i>Course</i>	<i>1st Term</i> ²	<i>2nd Term</i>
Freshman Year				
HEC	100	Arts & Sciences Orientation	1-0-0 ²	
CHM	123-124	General Chemistry	3-3-4	3-3-4
ENG	111-112	College Composition I and II	4-0-4	3-0-3
HEC	200	Introductory Foods		2-4-4
—	—	Philosophy or Religious Studies	3-0-3	
PSY	101	General Psychology ³		3-0-3
ANT	150	Cultural Anthropology	3-0-3	
SPE	101	Fundamentals of Effective Speech	3-0-3	
HEC	202	Introduction to Hospital Dietetics		1-0-1
			17	15
Sophomore Year				
BIO	101-102	General Biology	3-3-4	3-3-4
CHM	313-314	Organic Chemistry	3-3-4	3-3-4
ENG	370	Report Writing ⁷		3-0-3
HEC	303	Nutrition and Health	3-0-3	
HEC	225	Child Development I	3-0-3	
ECO	203	Principles of Microeconomics		3-0-3
MTH	207	Statistical Methods for Behavioral Sciences ^{4, 8}	3-0-3	
—	—	Philosophy or Religious Studies		3-0-3
			17	17

Junior Year			
ACC	301	Financial Reporting and Administration	3-0-3
CHM	420	Biochemistry	3-0-3
EDD	305-306	Anatomy and Physiology ⁵	3-0-3
HEC	—	Foods elective	3-0-3
HEC	304	Quantity Foods Production	3-0-3
HEC	308	Institutional Buying	3-0-3
HEC	323	Demonstration Techniques	2-0-2
—	—	Philosophy and/or Religious Studies	3-0-3
—	—	Elective	3-0-3
			15
			17

Senior Year			
BIO	411	General Bacteriology	3-4-5
HEC	318	Family Living	3-0-3
HEC	401	Advanced Nutrition	3-0-3
HEC	402	Diet Therapy	3-0-3
HEC	405	Methods of Teaching ⁶	3-0-3
HEC	407	Food Service Systems Management	3-0-3
HEC	410	Nutritional Biochemistry with Laboratory ⁸	1-3-2
MGT	314	Personnel Management	3-0-3
—	—	Elective	6-0-6
			16
			15

¹See General Requirements for all Bachelor of Science programs.

²For example, 3-0-3 means 3 class hrs., 0 lab. hrs., 3 sem. hrs. of credit

³May substitute SOC 101 or 204.

⁴May substitute CPS 144 with permission.

⁵May substitute BIO 403 ith permisson.

⁶May substitute EDF 208.

⁷May substitute ENG 272 or 372.

⁸Recommended but not required.

Program S7b: The Business Administration Field of the Food and Nutrition major prepares the student for a career in a commercial aspect of food and nutrition as well as the optional fifth year for the Master of Business Administration degree. Those who elect the fifth year must have a minimum cumulative point average of 2.5 and a GMAT score of 450 to be eligible for the MBA.

REQUIREMENTS FOR THE BACHELOR OF SCIENCE WITH A MAJOR IN HOME ECONOMICS (FOOD AND NUTRITION—BUSINESS ADMINISTRATION FIELD)¹

	Semester Hours
Home Economics	33
Biology 101, 102	8
Chemistry 123, 124	8
English 111 ² , 112, 370 or 372	10
Philosophy and/or Religious Studies	12
Psychology 101 or Sociology 101 or 204	3
Speech 101 ³	3
Economics 203, 204	6
Mathematics 112 ⁴ , 113, 207	9
Management 305, Elective	6
Accounting 301, 302	6
Finance 301	3
Marketing 305	3
General academic electives to total at least ⁵	120

¹Consult General Requirements for the Bachelor of Science programs.²General elective if first term placement is in ENG 112. See footnote #5.³General elective if waived. See footnote #5.⁴General elective if placement is in MTH 113. See footnote #5.⁵It is recommended that general electives not be taken in Home Economics or in the School of Business Administration.

**PROGRAM—S7b: BACHELOR OF SCIENCE WITH A MAJOR IN
HOME ECONOMICS (FOOD AND NUTRITION—
BUSINESS ADMINISTRATION FIELD)¹**

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term²</i>	<i>2nd Term</i>
Freshman Year				
HEC	100	Arts & Sciences Orientation	1-0-0 ²	
ENG	111-112	College Composition I and II ^{3, 8}	4-0-4	3-0-3
SPE	101	Fundamentals of Effective Speech ⁴		3-0-3
CHM	123-124	General Chemistry	3-3-4	3-3-4
PSY	101	General Psychology ⁵	3-0-3	
HEC	200	Introductory Foods		2-4-4
MTH	112-113	Introductory Calculus I and II ⁶	3-0-3	3-0-3
—	—	Philosophy/Religious Studies	3-0-3	
			17	17
Sophomore Year				
ECO	203-204	Principles of Microeconomics and Macroeconomics	3-0-3	3-0-3
BIO	101-102	General Biology	3-3-4	3-3-4
ENG	370	Report Writing ⁷	3-0-3	
HEC	225	Child Development I	3-0-3	
HEC	303	Nutrition and Health		3-0-3
—	—	Philosophy/Religious Studies		3-0-3
MTH	207	Statistical Methods for Behavioral Sciences		3-0-3
—	—	General Elective ⁸	3-0-3	
			16	16
Junior Year				
ACC	301-302	Financial Reporting and Administration and Introduction to Managerial Accounting	3-0-3	3-0-3
MGT	305	Principles of Management	3-0-3	
MKT	305	Principles of Marketing		3-0-3
HEC	321	The Consumer And Society	3-0-3	
HEC	304	Quantity Food Production	3-0-3	
HEC	308	Institutional Buying		3-0-3
HEC	318	Family Living		3-0-3
—	—	Philosophy/Religious Studies		3-0-3
—	—	General Elective ⁸	3-0-3	
			15	15
Senior Year				
FIN	301	Business Finance	3-0-3	
HEC	323	Demonstration Techniques		2-0-2
HEC	357	Food Microbiology	3-0-3	
HEC	407	Food Service Systems Management	3-0-3	
HEC	327	Experimental Foods	2-3-3	
MGT	—	Management elective		3-0-3
—	—	Philosophy/Religious Studies	3-0-3	
—	—	General Electives ⁸		10-0-10
			15	15

¹Consult General Requirements for the Bachelor of Science programs.
²For example 3-0-3 means 3 class hrs., 0 lab. hrs., 3 sem. hrs. of credit.
³General elective if first term placement is in ENG 112. See footnote #8.
⁴General elective if waived. See footnote #8.
⁵May take SOC 101 or 204.
⁶General elective if placement is in MTH 113. See footnote #8.
⁷May substitute ENG 372.
⁸It is recommended that general electives not be taken in Home Economics or in the School of Business Administration.

Program S7c. A student who selects the nutrition area of the Food and Nutrition major may function as a nutritionist or may elect to continue the study of nutrition in graduate work and research.

REQUIREMENTS FOR BACHELOR OF SCIENCE WITH A MAJOR IN HOME ECONOMICS (FOOD AND NUTRITION—NUTRITION)¹

	<i>Semester Hours</i>
Home Economics	36
Chemistry 123, 124, 313, 314, 420	19
Biology 101, 102	8
English 111 ² , 112, 370 or 372	10
Physical and Health Education 305, 306	6
Mathematics 207	3
Psychology 101 or Sociology 101 or 204	3
Speech 101 ²	3
Philosophy and/or Religious Studies	12
General academic electives to total at least	120

¹Consult General Requirements for all Bachelor of Science programs.
²General elective if waived.

PROGRAM—S7c: BACHELOR OF SCIENCE WITH A MAJOR IN HOME ECONOMICS (FOOD AND NUTRITION—NUTRITION)¹

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ²	<i>2nd Term</i>
Freshman Year				
HEC	100	Arts & Sciences Orientation	1-0-0 ²	
ENG	111-112	College Composition I and II ³	4-0-4	3-0-3
CHM	123-124	General Chemistry	3-3-4	3-3-4
		Philosophy/Religious Studies	3-0-3	3-0-3
SPE	101	Fundamentals of Effective Speech ⁴		3-0-3
HEC	200	Introductory Foods	2-4-4	
PSY	101	General Psychology ⁵		3-0-3
			15	16
Sophomore Year				
BIO	101-102	General Biology	3-3-4	3-3-4
CHM	313-314	Organic Chemistry	3-3-4	3-3-4
ENG	370	Report Writing ⁶		3-0-3
EDD	305-306	Anatomy and Physiology ⁷	3-0-3	3-0-3
HEC	225	Child Development I	3-0-3	
MTH	207	Statistical Methods for Behavioral Science		3-0-3
			14	17

Junior Year			
HEC	303	Nutrition and Health	3-0-3
HEC	323	Demonstration Techniques	2-0-2
HEC	318	Family Living	3-0-3
HEC	327	Experimental Foods	2-3-3
CHM	420	Biochemistry	3-0-3
HEC	401	Advanced Nutrition	3-0-3
HEC	410	Nutritional Biochemistry with Laboratory	1-3-2
—	—	General Electives	6-0-6
			<hr/>
			14
			17

Senior Year			
HEC	357	Food Microbiology	3-0-3
HEC	451	Advanced Nutritional Biochemistry	3-0-3
HEC	403	Community Nutrition	3-0-3
HEC	460	Seminar in Food and Nutrition	1-0-1
HEC	436	Special Problems in Nutrition	3-0-3
—	—	Philosophy/Religious Studies	3-0-3
—	—	General Electives	6-0-6
			<hr/>
			15
			15

¹Consult General Requirements for all Bachelor of Science programs.

²For example 3-0-3 means 3 class hrs., 0 lab. hrs., 3 sem. hrs. of credit.

³General elective if first term placement is 112.

⁴General elective if waived.

⁵May take SOC 101 or 204.

⁶May substitute ENG 372.

⁷May substitute BIO 403 with permission.

FACULTY

Julia A. Palmert, *Chairperson*

Associate Professors: Metzger, Schroeder

Assistant Professors: Lefler, Palmert, DeLuca

Part-time Instructors: Freeman, Yeh, Moss

COURSES OF INSTRUCTION

HEC 101. CLOTHING I: 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: Course to accompany HEC 101 lecture. One 3-hour period per week. 1 sem. hr.

HEC 105. INTRODUCTION TO RELATED ART: A study of the elements and principles of design and their application in the selecting and arranging of materials. 3 sem. hrs.

HEC 111. BASIC CLOTHING CONSTRUCTION: For non-majors only. An introduction to the sections of the commercial pattern and guide sheet, the operation of the sewing machine, basic techniques of clothing construction with a minimal emphasis on alterations. Two lecture periods per week. Laboratory required. 2 sem. hrs.

HEC 111L. BASIC CLOTHING CONSTRUCTION LABORATORY: Course to accompany HEC 111 lecture. One 3-hour period per week. Laboratory fee required. *1 sem. hr.*

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

HEC200L. INTRODUCTORY FOODS LABORATORY: COURSE TO ACCOMPANY HEC 200 lecture. Two 2-hour periods per week. *2 sem.hrs.*

HEC 202. INTRODUCTION TO HOSPITAL DIETETICS: To acquaint the student interested in a career in dietetics with the profession of dietetics and the role and responsibilities of the dietitian. Primary emphasis will be on dietetics as practiced in a hospital setting. *1 sem. hr.*

HEC 203. ELEMENTARY NUTRITION: A course designed for the non-major interested in food and nutrition. Emphasis will be placed on basic nutrition as it applies to the individual. Contemporary issues pertaining to nutrition will also be discussed. *3 sem. hrs.*

HEC 211. CLOTHING II: The application of the personal basic fitting garment to a commercial dress pattern for the construction of an underlined garment and tailored pants.

HEC 211L. CLOTHING II LABORATORY: Course to accompany HEC 211 lecture. One 3-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. HOME MANAGEMENT I: A systems approach to the study of home management and the use of resources, time, energy, money, and material goods to promote the development of home and family life from the consumer standpoint. *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. *3 sem. hrs.*

HEC 300. CULTURAL ASPECTS OF FOOD: Study of the effect of culture and food resources on food patterns and food preparation; historical evolution of food; U.S. regional food habits. Two lecture periods per week. Prerequisite: HEC 200. *2 sem. hrs.*

HEC 300L. CULTURAL ASPECTS OF FOOD LABORATORY: Course to accompany HEC 300 lecture. One 3-hour period per week. *1 sem. hr.*

HEC 303. NUTRITION AND HEALTH: Fundamental principles of normal nutrition as they relate to human needs—physical, biological, and socio-cultural. Emphasis on selection and utilization of foods during the life cycle. *3 sem. hrs.*

HEC 304. QUANTITY FOOD PRODUCTION: Basic steps of quantity food service systems. Coordinated working experience. Prerequisite: HEC 200. *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: Study of the principles of 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. *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 321. THE CONSUMER AND SOCIETY: The interrelationship of the political, economic and household systems from the consumer point of view. How to gain and use knowledge to improve consumer welfare.
3 sem. hrs.

HEC 323. DEMONSTRATION TECHNIQUES: Study of lecture-demonstration techniques. Emphasis 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 3-hour laboratory period per week.
1 sem. hr.

HEC 328. HOUSING AND HOME FURNISHINGS: Study of housing types, plans, and trends; the selection of furnishings for the home; arrangements, furniture styles, and decorative details. Prerequisite: HEC 105 or equivalent.
3 sem. hrs.

HEC 329. CHILD DEVELOPMENT PRACTICUM: Supervised experience in working 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 357. FOOD MICROBIOLOGY: A study of microorganism which is related to food-borne illnesses, the food preservation and food sanitation. Prerequisites: HEC 200, BIO 101-102.
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 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: Study of diet modification for the effective prevention and treatment of disease; health care delivery, medical technology, review of organ systems (normal and pathologic), diet counseling, menu planning, research. Prerequisite: Biochemistry, HEC 303, or permission of instructor.
3 sem. hrs.

HEC 403. COMMUNITY NUTRITION: A study of public health nutrition programs and their services to the community. An opportunity to explore alternate methods of health care delivery and preventative measures.
3 sem. hrs.

HEC 404. FASHION MERCHANDISING: Study of the movement of fashion, the promotion of fashion; advertising and display, trends in retail fashion distribution. Prerequisites: HEC 101, 105, or equivalent.
3 sem. hrs.

HEC 405. TEACHING OF HOME ECONOMICS IN SCHOOLS: 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. Prerequisite: HEC 221.
3 sem. hrs.

HEC 407. FOOD SERVICE SYSTEMS MANAGEMENT: Principles related to feeding people in institutions; personnel management, organization, administration, and cost control. *3 sem. hrs.*

HEC 410. NUTRITIONAL BIOCHEMISTRY: Biochemical and clinical methods for the study of nutrition; evaluation and interpretation of the data in relation to various nutritional status. Prerequisite: CHM 420. *1 sem. hr.*

HEC 410L. NUTRITIONAL BIOCHEMISTRY LABORATORY: Course to accompany HEC 410 lecture. One 3-hour period per week. *1 sem. hr.*

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 2-hour periods per week. First term, each year. *2 sem. hrs.*

HEC 430. PROBLEMS IN HOME FURNISHINGS: Investigation of the elements of housing and interiors from economic, functional, and aesthetic points of view. Topics may include furniture styles, various structures, costs, etc. and may vary from term to term. *3 sem. hrs.*

HEC 436. INDEPENDENT STUDY: A course to allow students to concentrate on special interests. Original investigation, independent conferences, and reports are required. Approval of department chairperson 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. *2 sem. hrs.*

HEC 437L. MEAL MANAGEMENT LABORATORY: Course to accompany HEC 437 lecture. One 2-hour period per week. *1 sem. hr.*

HEC 451. ADVANCED NUTRITIONAL BIOCHEMISTRY: Comprehensive study of the role of nutrients in the control of body metabolism. Prerequisites: CHM 420, HEC 401. *3 sem. hrs.*

HEC 460. SEMINAR IN FOOD AND NUTRITION: Survey, discussion and oral presentation of selected topics from current food and nutrition literature. May be taken twice. *1 sem. hr.*

HUMANITIES STUDIES (HMS)

No major concentration is available.
See also Classics (LNG-CLA).

INTERDEPARTMENTAL COMMITTEE

Gordon A. Neufang, *Chairperson*

K. Marre (English); Conard (Languages); Gilvary (Performing and Visual Arts); Zembaty (Philosophy); Vines (History); Martin (Religious Studies).

COURSES OF INSTRUCTION

HMS 201. THE GREEK EXPERIENCE: The development of Greek ideas and ideals in the literature, art, and archaeology of ancient Greece. Readings (in English translation) in Homer, the lyric poets, Aeschylus, Sophocles, Euripides, Aristophanes, Herodotus, Thucydides, and Plato. 3 sem. hrs.

HMS 202. 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 English translation) in Plautus, Lucretius, Catullus, Cicero, Vergil, Horace, Livy, Ovid, and Seneca. 3 sem. hrs.

HMS 301. CIVILIZATION: Interdisciplinary course using Sir Kenneth Clark's Civilization film series as the basis for exploring western thought and culture from the early Middle Ages to the present; readings pertinent to western civilization. Three instructors from three humanities disciplines. 3 sem. hrs.



INTERDISCIPLINARY STUDIES (ASI)

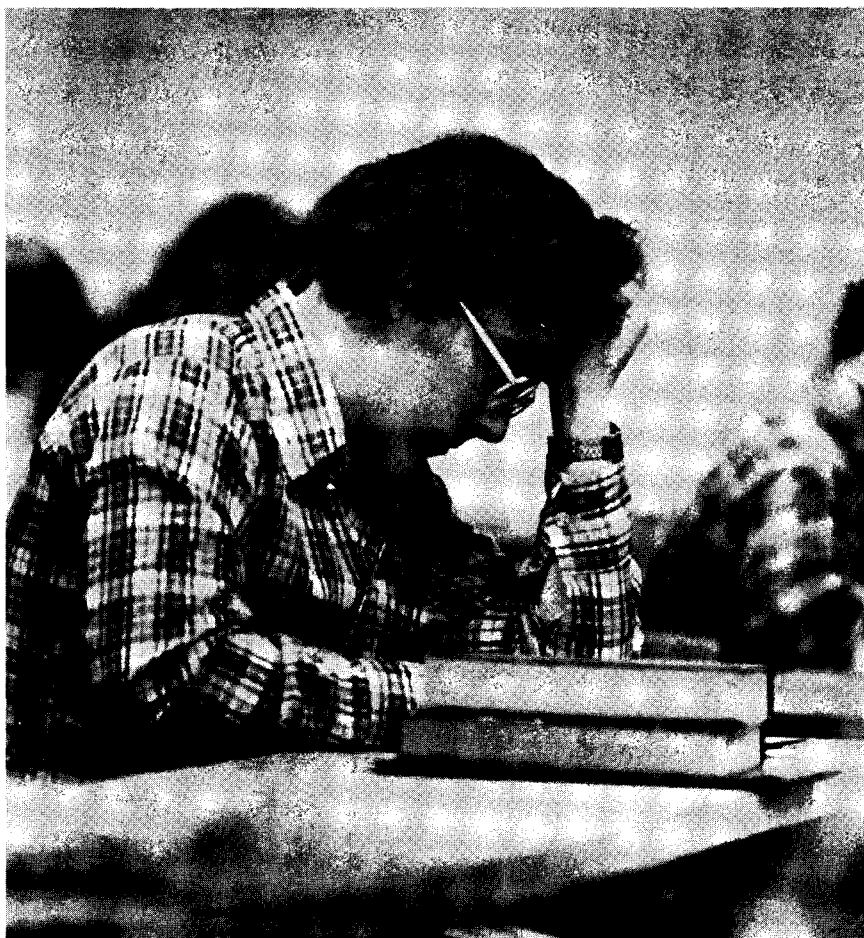
The College of Arts and Sciences constantly strives to present significant, innovative learning experience to its students. Courses and programs or activities that are interdisciplinary or multidisciplinary and therefore not offered through the traditional departmental structure are possible through authorization by the Academic Affairs Committee of the College.

All ASI credit applies toward the student's general elective requirements, but a student may petition the chairperson of a department to apply 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

For typical courses, See ASI, Chapter X.



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.

Students concentrating in journalism must take COM 200 and 30 semester hours in JRN, SPE, and COM 300-400 courses. Minors in Communication Arts concentrating in journalism take 12 semester hours from 300-400 courses.

FACULTY

Donald B. Morlan, *Chairperson of the Department of Communication Arts*

Professors: Biersack, Morlan

Associate Professors: Blatt, Kiernan, Rang, Trent, Wolff

Assistant Professors: Harwood, Hawkins, Jones, Lain, Lawson, Weatherly

Instructors: Nolan, Williams

Part-Time Instructors: Dougherty, Vargo

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. PUBLIC AFFAIRS REPORTING: Advanced reporting and newswriting. Analysis and structure of stories on all government areas. Information-gathering techniques 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. JOURNALISM WORKSHOP: Practical participation in activity with a recognized and approved journalistic organization. Available sophomore level and above, to a maximum of 6 sem. hrs. (3 may be applied to communication arts 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 403. INTERPRETATIVE AND FEATURE WRITING: Writing non-news materials: features, personality stories, columns, reviews, consumer information. New journalism. Contents and organization of feature sections. 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.

JRN 410. NEWSPAPER LAYOUT AND DESIGN: Layout and design of newspapers and newsletters. Type selection, copy preparation, cost appraisal, printing methods. 3 sem. hrs.

JUDAIC STUDIES (JUD)

The program of Judaic Studies brings Jewish scholars to this campus for specialized offerings relative to the Jewish people, the literature of the Hebrew scriptures, the archaeology and history of Israel, and 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 (on leave)*
Rev. Matthew Kohmescher, S.M., *Acting Director*
Visiting Instructors: Dr. Eric Friedland

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: Seminar with field work including contacts with Jewish agencies, synagogues, the local rabbinate. Resumé of content of JUD 304. 1 sem. hr.

JUD 307. JUDAISM: Introduction to Judaism: its history, its faith, its worship. 3 sem. hrs.

JUD 322. HISTORY OF ANCIENT ISRAEL: Survey of the 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: The development of archaeology in Palestine and its 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: The psalms in the world of the Hebrew Bible; the conceptual work 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. Prerequisite: JUD 370. 1 sem. hr.

JUD 406. JEWISH THOUGHT: 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: Survey of the history of secular Israel since 1900; the Jews under the Nazi movements; 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. Since language skills tend to be forgotten when unused, if a considerable lapse occurs in language study, the Department has found that placement is best adjusted to a lower level than that indicated above. If in doubt, call the Department of Languages, extension 2449. The department recommends that students continue the languages begun in high school in order to achieve a useful level of language skills.

A language major may arrange courses, with the approval of the departmental chairperson, 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);
3. Composite major in classical languages (Greek and Latin) 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.

PROGRAM—A10: BACHELOR OF ARTS WITH A MAJOR IN LANGUAGES

(See also Distribution Table for Bachelor of Arts programs and consult chairperson for specifics.)

	<i>Semester Hours</i>
Languages	24-45
Communication skills	0-10
Humanities ¹	18
Philosophy and/or Religious Studies	12
Natural Science and Mathematics	7
Social and Behavioral science	12
General academic electives to total at least	120

¹It is recommended that students take any courses, such as the history of a particular country or period, that 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 chairperson. In general, however, any additional language should be taken for at least two terms.

FACULTY

Gordon A. Neufang, Jr., *Chairperson*

Professors: Conard, McKenzie

Associate Professors: Neufang, Zeinz

Assistant Professors: Castello-Lamas, Chiodo, Galeano, Greely, Romaguera

CLASSICS (CLA)

COURSES OF INSTRUCTION

CLA 203. CLASSICAL MYTHOLOGY: An introduction to the principal cycles of Greek and Roman mythology, with 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

FRN 103, 104, 201, and 202 or their equivalent are prerequisite for all upper-level French courses. For advanced placement see under LNG. 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. All speakers of French welcome as guests. Repeatable up to 3 sem. hrs. Does not count toward major or minor. Grade option 2 only. Prerequisite: Enrollment in FRN 103 or equivalent proficiency. 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: 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. FRENCH COMPOSITION I: Practice in composition on topics dealing with French life and culture. Systematic vocabulary enrichment, grammar refinement, and assimilation of stylistic patterns. *3 sem. hrs.*

FRN 303. FRENCH COMPOSITION II: Continuing practice in French composition. Emphasis on correct writing and initiation to the concept of style in French prose. Prerequisite: FRN 302. *3 sem. hrs.*

FRN 305. EXPLICATION DE TEXTES: Introduction to method of analyzing literary texts, both prose and poetry. Elements of French versification. Recommended for all French majors and prospective teachers. *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 on 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 influences and continuity. Lectures, discussions, oral and written reports. Recommended for all French majors and prospective teachers. *3 sem. hrs. each*

FRN 350. FRENCH LITERATURE IN TRANSLATION: Course to acquaint nonmajors and nonminors 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 specialized areas such 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: Independent research project under the guidance of an instructor. Admission to project and number of semester hours require approval of the chairperson. *1-3 sem. hrs.*

GERMAN (GER)

(See requirements under LNG.)

COURSES OF INSTRUCTION

GER 103, 104, 201, and 202 or their equivalent are prerequisite for all upper-level German courses. For advanced placement see under LNG.

GER 103-104. ELEMENTARY GERMAN I, II: Basic elements of German language with emphasis on 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. All speakers of German welcome as guests. Repeatable up to 3 sem. hrs. Does not count toward major or minor. Grade option 2 only. Prerequisite: Enrollment in GER 103 or equivalent proficiency. *1 sem. hrs.*

GER 201. INTERMEDIATE GERMAN I: Systematic grammar review. Increased use of the language in written exercises and classroom discussions based on readings. Prerequisite: GER 104 or equivalent. *3 sem. hrs.*

GER 202. INTERMEDIATE GERMAN II: Continuation of GER 201. Exposure to the development of German civilization and culture. Reading, conversation, and composition. Prerequisite: GER 201 or equivalent. *3 sem. hrs.*

GER 304-305. SPOKEN GERMAN: Intensive drill to develop communication skills: 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 306. GERMAN COMPOSITION I: Practice in writing German based on description of common events in everyday German life and including personal and business letters. Short weekly written assignments to build vocabulary and control of idioms. *3 sem. hrs.*

GER 307. GERMAN COMPOSITION II: Continuing practice in German composition including vocabulary building and introduction to the concept of style. Prerequisite: GER 306 or permission of instructor. *3 sem. hrs.*

GER 313. SURVEY OF GERMAN LITERATURE I: German literature and its development from 750 A.D. to the end of the 17th century. 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. Study of exemplary literary works and movements of the period. *3 sem. hrs.*

GER 350. GERMAN LITERATURE IN TRANSLATION: Course to acquaint nonmajors and nonminors 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: Independent research project under the guidance of an instructor. Admission to project and number of credits require approval of chairperson. *1-3 sem. hrs.*

GREEK (GRK)

COURSES OF INSTRUCTION

GRK 103, 104, and 201 or their equivalent are prerequisite for all upper-level Greek courses. For advanced placement see under LNG.

GRK 103-104. ELEMENTARY GREEK I, II: 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, 201, and 202 or their equivalent are prerequisite for all upper-level Italian courses. For advanced placement see under LNG.

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. All speakers of Italian welcome as guests. Repeatable up to 3 sem. hrs. Does not count toward minor. Grade option 2 only. Prerequisite: Enrollment in ITA 103 or equivalent proficiency. 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, and debates. May be taken in either sequence. 3 sem. hrs. each

ITA 491. INDEPENDENT STUDY: Independent research project under the guidance of an instructor. Admission to project and number of credits require approval of chairperson. 1-3 sem. hrs.

LATIN (LAT)

COURSES OF INSTRUCTION

LAT 103, 104, 201, and 202 or their equivalent are prerequisite for all upper-level Latin courses. For advanced placement see under LNG.

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: 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, drama), satire, individual authors. Repeatable when subtitle and content change. *3 sem. hrs.*

LAT 491. INDEPENDENT STUDY: Independent research project under the guidance of an instructor. Admission to project and number of credits require approval of chairperson. *1-3 sem. hrs.*

RUSSIAN (RUS)

COURSES OF INSTRUCTION

RUS 103, 104, 201, and 202 or their equivalent are prerequisite for all upper-level Russian courses. For advanced placement see under LNG.

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 conversation and comprehension exercises, reading of graded modern and contemporary prose and poetry. Prerequisite: RUS 104 or equivalent. *3 sem. hrs. each*

SPANISH (SPN)

(See requirements under LNG.)

COURSES OF INSTRUCTION

SPN 103, 104, 201, and 202 or their equivalent are prerequisite for all upper-level Spanish courses. For advanced placement see under LNG. 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. All speakers of Spanish welcome as guests. Repeatable up to 3 sem. hrs. Grade option 2 only. Does not count toward major or minor. Prerequisite: Enrollment in SPN 103 or equivalent proficiency. *1 sem. hr.*

SPN 201-202. INTERMEDIATE SPANISH I, II: Review of the basic principles of Spanish through composition and conversation, stressing fluency. Language laboratory required. *3 sem. hrs. each*

SPN 301-302. SPANISH LITERATURE I, II: Survey of Spanish literature. Recommended for majors and prospective teachers. *3 sem. hrs. each*

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 307-308. **SPANISH COMPOSITION:** Private and commercial correspondence as basis for developing a facility to write clearly in Spanish. May be taken in either sequence. Recommended for majors and prospective teachers. *3 sem. hrs. each*

SPN 313. **EXPLICACION DE TEXTOS:** Introduction to the methods of analyzing literary texts by observing and analyzing 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:** Course to acquaint non-majors and nonminors 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:** 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:** Independent research project under the guidance of an instructor. Admission to project and number of semester hours require approval of chairperson. *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 MTH 118, MTH 119, and MTH 218 (or demonstration of proficiency) a student will, with the approval of the department elect 9 upper level courses including MTH 302, MTH 319, MTH 361 and MTH 430. Students with strong mathematical ability are encouraged to satisfy these requirements in the departmental honors program. In the senior year, mathematics majors in the honors program will be expected to enroll in one graduate course. Honors students are invited to inquire about the five year master's degree program.
- B. BREADTH REQUIREMENT
1. Seven semester hours of course work in any area of natural science or computer science, 4 semester hours of which must be in natural science with an accompanying laboratory. Majors are strongly advised to learn computer programming.
 2. Twelve semester hours of course work in social and behavioral science. (See the listing of departments in the Distribution Table for Bachelor of Arts programs.) At least one unit of 6 semester hours in a single discipline is required with at least 3 semester hours from the 300/400 level.
 3. Eighteen semester hours in the Humanities (see the listing of departments in the Distribution Table for Bachelor of Arts programs). Required is at least one unit of 9 semester hours, with at least 3 semester hours from 300/400 level courses (except languages and performing and visual arts, in which a unit may be satisfied with 9 semester hours at any level.) The remaining 9 semester hours may be chosen from one or more other departments within the humanities. The basic philosophy, religious studies, and communication skills courses do not fulfill this requirement.
 4. Twelve semester hours in religious studies and/or philosophy.
 5. Demonstration of proficiency or successful completion of SPE 101, ENG 111-112.
- C. Other requirements as listed in the General Requirements for all Bachelor of Arts programs.

PROGRAM—S8: BACHELOR OF SCIENCE 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 MTH 118, MTH 119 and MTH 218 (or demonstration of proficiency) a student will, with the approval of the department elect 9 upper level courses including MTH 302, MTH 319, MTH 361 and MTH 430. Students with strong mathematical ability are encouraged to satisfy these requirements in the departmental honors program. In the senior year, mathematics majors in the honors program will be expected to enroll in one graduate course. Honors students are invited to inquire about the five years master's program.

- B. **MINOR FIELD**—The requirement for the minor normally consists of 12 semester hours of 300/400 level courses. The chosen field may require prerequisite knowledge that could extend the total number of semester hours beyond 12. The choice of a minor and the supporting course work must be approved by the student's advisor.
- C. **ADDITIONAL REQUIREMENTS**—
1. **Communication Skills**—In addition to ENG 111, ENG 112, and SPE 101, which are College requirements, a course in programming is required of all majors, and those looking forward to research are strongly advised to elect a foreign language.
 2. **Humanities, Social and Behavioral Sciences**—A minimum of 30 semester hours, including 12 in religious studies and/or philosophy. Twelve semester hours should be concentrated in one area. 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). A minimum of 16 semester hours is required including at least one semester hour of laboratory.
 4. **University Requirements, Electives**—Students are subject to all general requirements of the University. Consult the General Requirements for all Bachelor of Science programs.

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. Honors students may wish to follow a five-year program leading to a master's degree in mathematics.

FACULTY

John W. McCloskey, *Chairperson*

Distinguished Service Professor: Schraut

Professors: Rice, Stander, Steinlage

Associate Professors: Back, Gantner, Gorton, McCloskey, Mushenheim, Peterson

Assistant Professors: Friel, Kauflin, Powder, Shaughnessy, Waldrop

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 restricted to students enrolled in the Bachelor of Engineering program; others may attend if space permits. 3 hours of class. *No credit*

MTH 099. FUNDAMENTALS OF ALGEBRA II: Continuation of MTH 098. Further topics in basic algebra: systems of linear and quadratic equations, determinants, progressions, synthetic division, approximation of roots, mathematical induction. 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 MTH 112 or MTH 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: Continuation of MTH 108. Topics chosen so that upon completion students are able to enter MTH 119. *3 sem. hrs.*

MTH 111. MATHEMATICS AND ITS CULTURAL ASPECTS: An introduction to basic concepts of algebra, geometry, probability and statistics. Also, depending on the needs and interests of the class, such topics as logic, set theory, abstract mathematical systems and intuitive topology may be studied. Prerequisite: One year of high school mathematics. *3 sem. hrs.*

MTH 112. INTRODUCTORY CALCULUS I: Basic coordinate geometry, differentiation of algebraic functions with applications to geometry. Indefinite and definite integrals with applications to the life and physical sciences. Prerequisite: MTH 101 or equivalent. Intended for students in the life and social sciences. *3 sem. hrs.*

MTH 113. INTRODUCTORY CALCULUS II: Differentiation and integration of exponential and logarithmic functions with applications to life sciences and to solution of applied differential equations with variables separable. Differentiation and integration of trigonometric functions with applications. Use of tables of integrals. Introduction to vector calculus, partial derivatives, and multiple integrals. Prerequisite: MTH 112. *3 sem. hrs.*

MTH 118. ANALYTIC GEOMETRY AND CALCULUS I: Introduction to the differential and integral calculus; differentiation and integration of algebraic and transcendental functions with applications 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, techniques of integration 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. Prerequisites: One year of high school algebra and one year of high school geometry. *3 sem. hrs.*

MTH 205. MATHEMATICAL CONCEPTS II: Recommended for students in elementary education who seek a strong background in the mathematical concepts discussed in grades 4-8. Topics include the metric system, probability and statistics, the use of calculators and elementary geometry. *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 and regression. Prerequisite: two years of high school algebra. *3 sem. hrs.*

MTH 215. BASIC STATISTICS FOR THE BIOMEDICAL SCIENCES: Probability, the binomial distribution, normal distribution, confidence intervals, tests of hypotheses, proportions, chi-square test, F-distribution, regression and 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 equations with constant coefficients, systems of equations, the Laplace transform, power series solutions, numerical methods, applications. Prerequisite: MTH 218. Credit will not be given for both MTH 219 and MTH 319. Mathematics majors are expected to take MTH 319. *3 sem. hrs.*

MTH 302. LINEAR ALGEBRA AND MATRICES: Fundamental concepts of vector spaces, determinants, linear transformations, matrices and inner product spaces. Prerequisite: MTH 218. Offered each term. *3 sem. hrs.*

MTH 302H. HONORS LINEAR ALGEBRA AND MATRICES: This course covers the same material as MTH 302. Additional topics of an enrichment nature are covered in an extra one hour per week. Prerequisite: MTH 218 and permission of the instructor. Second term each year. *4 sem. hrs.*

MTH 319. DIFFERENTIAL EQUATIONS AND ORTHOGONAL FUNCTIONS: First order equations, linear equations and linear systems, power series methods; Fourier series, boundary value problems and orthogonal functions. Prerequisite: MTH 302. Credit will not be given for MTH 219 and MTH 319. Mathematics majors take MTH 319. First term, each year. *3 sem. hrs.*

MTH 361. INTRODUCTION TO ABSTRACT ALGEBRA: Fundamental concepts of groups, rings, integral domains and fields. Prerequisite: MTH 218. First and second term, each year. *3 sem. hrs.*

MTH 361H. HONORS ABSTRACT ALGEBRA: This course covers the same material as MTH 361. Additional topics of an enrichment nature are covered in an extra one hour per week. Prerequisite: MTH 218 and permission of the instructor. First term, each year. *4 sem. hrs.*

MTH 367. STATISTICAL METHODS I: Probability distributions including 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. Mathematics majors enroll in MTH 411 instead of MTH 367. *3 sem. hrs.*

MTH 368. STATISTICAL METHODS II: Distribution-free methods including rank tests, sign tests, and Kolmogorov-Smirnov test. Method of least squares, correlation, linear regression, analysis of variance. Design of experiments. Prerequisite: MTH 367. Mathematics majors enroll in MTH 412 instead of MTH 368. *3 sem. hrs.*

MTH 370. INTRODUCTION TO HIGHER GEOMETRY: Projective, affine and hyperbolic geometries using synthetic and/or analytic techniques. Prerequisite: MTH 302. Second term, each year. *3 sem. hrs.*

MTH 376. NUMBER THEORY: Topics include Diophantine equations, Chinese Remainder Theorem, Mobius Inversion Formula, quadratic residues and the Law of Quadratic Reciprocity and Gaussian integers and integral quaternions. Prerequisite: MTH 218. First term, alternate years. *3 sem. hrs.*

MTH 395. DEVELOPMENT OF MATHEMATICAL IDEAS: Survey of the evolution of mathematical ideas from ancient times to the present. Famous men and famous problems. Chronological outline of mathematics compared with outlines in sciences, history, philosophy, and astronomy. Prerequisite: MTH 112 or MTH 118 or permission of instructor. First term, alternate years. *3 sem. hrs.*

MTH 403. APPLIED ANALYSIS I: Classical vector analysis, gradient, divergence, curl. Line and surface integrals. Fourier series with applications to partial differential equations. Prerequisite: MTH 219. Mathematics majors enroll in MTH 430 instead of MTH 403. First term, each year. *3 sem. hrs.*

MTH 404. APPLIED ANALYSIS II: Functions of a complex variable, conformal mapping, integration in the complex plane. Laurent series and residue theory. Prerequisite: MTH 219. Mathematics majors enroll in MTH 431 instead of MTH 404. Second term, each year. *3 sem. hrs.*

MTH 411. PROBABILITY AND STATISTICS I: Mathematical probability, combinatorial methods, random variables, Bayes's theorem, moments, Chebyshev's inequality, binomial, Poisson, and normal probability laws, moment-generating functions, limit theorems. Prerequisite: MTH 218. Second term, each year. *3 sem. hrs.*

MTH 412. PROBABILITY AND STATISTICS II: Distribution theory, central limit theorem, random sampling, estimation of parameters including maximum likelihood, confidence intervals, the Neyman-Pearson lemma, tests of hypotheses, likelihood ratio tests, sampling from a normal population. Prerequisite: MTH 411. First term, each year. *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 430. ANALYSIS I. Fundamental concepts of analysis: metric completeness, uniform continuity and uniform convergence; power series and interchange of limits. Prerequisite: MTH 302. First term, each year. *3 sem. hrs.*

MTH 430H. HONORS ANALYSIS I: This course covers the same material as MTH 430. Additional topics of an enrichment nature are covered in an extra one hour per week. Prerequisite: MTH 302 and permission of the instructor. First term each year. *4 sem. hrs.*

MTH 431. ANALYSIS II: An introduction to complex analysis; analytic functions and the Cauchy integral theory; Laurent series and the calculus of residues. Optional topics may include applications of the residue theory. Prerequisite: MTH 430. Second term, each year. *3 sem. hrs.*

MTH 431H. HONORS ANALYSIS II: This course covers the same material as MTH 431. Additional topics of an enrichment nature are covered in an extra one hour per week. Prerequisite: MTH 430 and permission of the instructor. Second term, each year. *4 sem. hrs.*

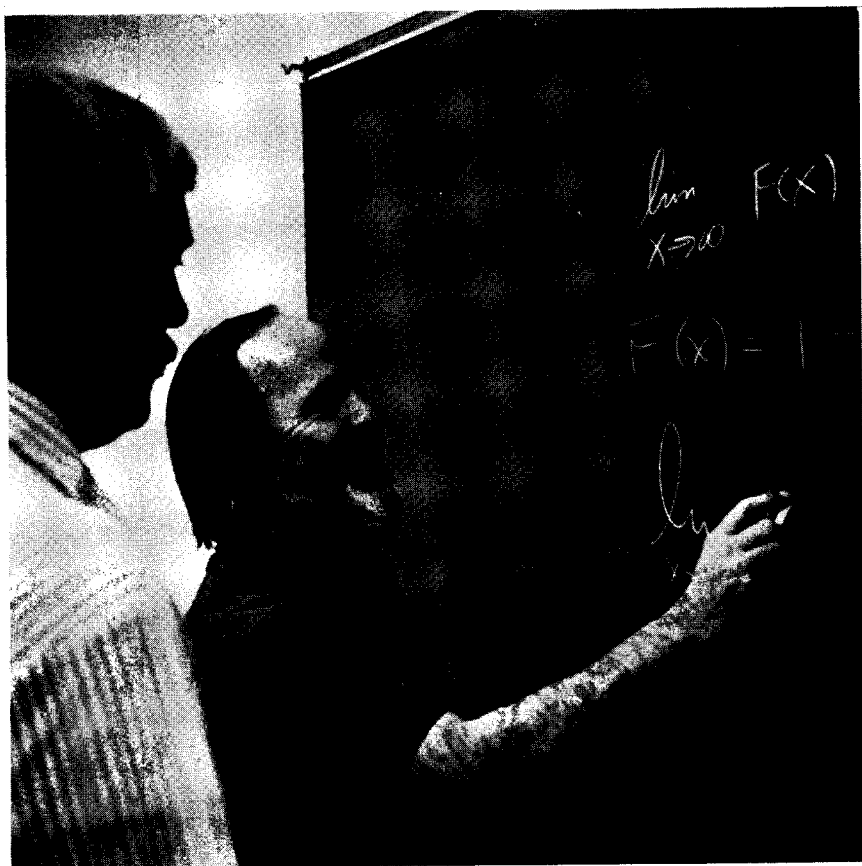
MTH 432. ANALYSIS III: Riemann-Stieltjes integrals and functions of bounded variation; the inverse function and implicit function theorems; line integrals and Green's theorem; the theorems of Stokes and Gauss. Prerequisite: MTH 430. Second term, alternate years. *3 sem. hrs.*

MTH 445H. (SPECIAL TOPICS IN NAMED AREA): Lectures in 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 chairman. *1-3 sem. hrs.*

MTH 463. APPLIED LINEAR ALGEBRA: Linear programming and its applications, game theory, linear codes and their error-correcting capabilities. Prerequisite: MTH 302.
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.
Second term, alternate years. *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 chairperson. *3 sem. hrs.*



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 in the Dayton area, or St. Luke's Medical Center in Cleveland. These schools are accredited by the National Accrediting Association for Clinical Laboratory Scientists (NAACLS) and the American Society of Clinical Pathologists through the Council on Medical Education of the American Medical Association.

Completion of the program qualifies the students to take the national examination for placement on a National Registry of Medical Technologists. Because of theoretical and practical experience in the various branches of the laboratory, the certified Medical Technologist may work 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	22
Chemistry	20
Mathematics	3
Physics	2
Science electives	8
Humanities/Social Science electives	12
English	7(6)
Speech	3
Philosophy and/or Religious Studies	12
General electives	9
Total	98(97)

This program is planned to meet the requirements of the University, the hospitals, and the NAACLS. 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 98 semester hours (or the equivalent) and 28 semester hours from the clinical courses. Consult the General Requirements for all Bachelor of Science programs.

CLINICAL YEAR

In planning for the clinical year, the affiliated student is required to make a formal application to one or more of the affiliated schools of medical technology, usually in the fall semester of the junior year. The student is then asked to arrange for an interview and a visit to the hospitals. Acceptance 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 rotation periods in the various departments of the clinical laboratories.

At the completion of the clinical year, students are granted the Bachelor of 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 Term¹</i>	<i>2nd Term</i>
Freshman Year				
BIO	100	Freshman Seminar	1-0-0	
BIO	151-152	Concepts of Biology	3-0-3 ²	3-3-4
CHM	123-124	General Chemistry	3-3-4	3-3-4
MTH	—	Calculus ³	3-0-3	
ENG	111-112	College Composition I and II ⁴	4-0-4	3-0-3
SPE	101	Fundamentals of Effective Speaking ⁵	3-0-3	
—	—	Philosophy and/or Religious Studies		3-0-3
—	—	Humanities/Social Science elective		3-0-3
			<hr/> 17	<hr/> 17
Sophomore Year				
BIO	440	Cell Biology		3-0-3
BIO	201L	Biology Laboratory Investigations	0-3-1	
BIO	307	Functional Anatomy		1-0-1
CHM	313-314	Organic Chemistry	3-3-4	3-3-4
CHM	201	Quantitative Analysis	2-4-4	
—	—	Humanities/Social Science elective	3-0-3	3-0-3
—	—	Philosophy and/or Religious Studies	3-0-3	3-0-3
—	—	General elective		3-0-3
			<hr/> 15	<hr/> 17
Junior Year				
BIO	411	General Bacteriology	3-4-5	
BIO	425	Parasitology		3-3-4
—	—	Science electives ⁶	3-3-4	3-3-4
—	—	Philosophy and/or Religious Studies	3-0-3	
—	—	Humanities/Social Science elective		3-0-3
—	—	General electives ⁷	3-0-3	3-0-3
BIO	380	Medical Technology Seminar		1-0-1
PHY	204	Introduction to Medical Electronic Instrumentation		1-2-2
			<hr/> 15	<hr/> 17

¹Consult General Requirements for all Bachelor of Science programs.

²For example, 3-0-3 means 3 class hrs., 0 lab. hrs., 3 sem. hrs. of credit.

³Placement may necessitate initial course in precalculus (MTH 101). Normally, students should take MTH 112, 118, or 128.

⁴Students placed in ENG 112 or 114 will substitute English elective during 2nd term.

⁵If SPE 101 is waived, substitute Humanities/Social Science elective.

⁶The following are recommended: BIO 403, 466, CHM 420.

⁷At least one science elective recommended.

		<i>Semester Hours</i>
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	Immunohematology	1
MET 437L	Immunohematology Laboratory	2
MET 438	Clinical Pathology	2
MET 439	Clinical Pathology Seminar	1

FACULTY

Charles J. Chantell, *Program Director*

Clinical Professors: Abramson, Bylsma, Funkhouser, Van Der Hoeven

Clinical Assistant Professors: Carrol, Cornett, Ellison, Hughes, 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, Kettering Medical Center, or St. Luke's Medical Center in Cleveland.

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 is to develop selected college-educated men and women for positions of responsibility as officers in the active Army and the Reserve components.

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 better informed 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 (normally freshman and sophomore years) and an advanced course (normally junior and senior years), and it is offered to all students for academic credit.

The basic course emphasizes practical leadership techniques and management concepts that apply equally in both military organizations and private industry. While in this phase of the program, students have no military obligation and are simply taking ROTC courses, like any other college courses for credit. Students who receive credit for the basic course and demonstrate a potential for becoming effective officers may continue to pursue a commission by enrolling in the advanced course.

The advanced course is designed to prepare students to be commissioned officers by including practical work in tactics, training, management, leadership techniques, and the exercise of command. Advanced course students are paid \$100 per month during the school year. During the summer between the junior and senior years, cadets attend a five-week ROTC Advanced Camp which allows them to apply the leadership and technical training learned in the classroom. While at camp, students are paid half a second lieutenant's salary.

All ROTC courses may be audited without credit.

The ROTC program is also available to students with three or two years remaining on campus, including graduate students. Special programs, called two-year and compression programs, have been established to allow second-semester freshmen, sophomores, and juniors or seniors who will be going on to graduate school to participate in the military science program.

There is also a special program whereby veterans and JROTC students can receive advanced placement credit in Army ROTC.

Army ROTC scholarships are available to students who participate in Army ROTC. These scholarships cover three-, two-, and one-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.

FACULTY

Lt. Col. William E. Benagh, U.S. Army, *Chairperson*

Professor: Benagh

Assistant Professors: Bell, Graves, Kozup, Lewis, Soby

Instructor: Chappell

COURSES OF INSTRUCTION

MIL 100. LEADERSHIP SKILL COURSES: Survival, Mountaineering and Rappelling, Orienteering, Marksmanship, Military Hand-to-Hand Combat, Weapons Familiarization,

Wargaming, Communication and Electronics Familiarization, Precision Drill, Leadership Reaction Course, and Physical Training. Courses are based on student interest and instructor availability. One hour weekly session required of all cadets taking courses MIL 101 through MIL 402. *No credit*

MIL 101. LEADERSHIP I: Introduction to leadership, emphasizing fundamentals and principles of leadership, characteristics of a group, and traits of a leader. Discussion of the ROTC programs and opportunities; branches and specialties available in the military. Optional field trips. *1 sem. hr.*

MIL 102. LEADERSHIP II: The mechanical aspects of leadership (management tasks), including planning, organizing, controlling, rewards and punishments, and effective communication. Extensive use of case studies in leadership and management. *1 sem. hr.*

MIL 201. MAP READING: An introduction to map reading, including identifying terrain features, using grid systems, plotting locations, intersection, resection, and using overlays. *1 sem. hr.*

MIL 202. LEADERSHIP AND TACTICS: Study of leadership as it applies to the military; introduction to basic military tactics. Tactical management, written and oral reports, tactics, and customs and courtesies of the service. Optional field trip. *1 sem. hr.*

MIL 301. MILITARY INSTRUCTION AND LEADERSHIP POSITIONS: Development of ability to express oneself clearly and accurately with emphasis on analysis of military problems, evaluation of situations, and preparation and delivery of logical solutions. Basic methods of instruction and basic military leadership positions. *2 sem. hrs.*

MIL 302. ADVANCED TACTICS: 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. Military geography, weapons systems, intelligence-gathering capabilities, troop leading procedures, and roles of various branches of the Army. One field trip required. *2 sem. hrs.*

MIL 401. LEADERSHIP AND MILITARY HISTORY: Study of combat operations and various military teams, to include military geography, current military operations, and the coordination and planning necessary between elements of the team; American military history from emergence to power in 1898 through the present, including effective and ineffective leadership, uses of the principles of war, and social attitudes towards the U.S. military. *2 sem. hrs.*

MIL 402. APPLIED LEADERSHIP AND MANAGEMENT: Analysis of selected leadership and management problems involved in unit administration and military justice. Obligations and responsibilities of an officer on active duty, including chain of command and officer-enlisted relationships. *2 sem. hrs.*

MUSIC (MUS)

The Music Division, part of the University's Performing and Visual Arts Department, is a member of the National Association of Schools of Music. The curricula and degrees of the Music Division are approved and accredited by the National Association of Schools of Music and the State of Ohio with the exception of the music therapy program, which is approved by the National Association for Music Therapy. At the University of Dayton, music students have the opportunity to enrich their cultural backgrounds through exposure to the other divisions of the Performing and Visual Arts Department (Fine Arts, Theatre, Photography), or to develop their own interdisciplinary programs.

The Music Division has numerous performing ensembles open to all students by audition: The University Choir, chamber vocal ensembles, Chamber Orchestra, Wind Ensemble, Concert Band, Marching Band and Pep Band, Jazz Lab Bands, and chamber instrumental ensembles.

The Music Division offers five degree programs:

- Bachelor of Arts with a Major in Music (A12)
- Bachelor of Music with a Major in Music Theory or Composition (A13)
- Bachelor of Music with a Major in Performance (A13A)
- Bachelor of Music with a Major in Music Therapy (A13B)
- Bachelor of Music with Teacher Certification (A13C)

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.

All prospective music students must be admitted to the University of Dayton by the Office of Admissions. In addition, all prospective students must (1) furnish the Music Division with letters of recommendation from their high school music teachers and/or performance teachers, and (2) successfully complete the performance audition, either in person or via tape recording. Specific information regarding audition requirements and dates is available from the Music Division office.

The Music Division offers the degree programs outlined below. Detailed descriptions of the contents of all of these programs are available from the Music Division office.

PROGRAM—A12: BACHELOR OF ARTS WITH A MAJOR IN MUSIC¹

	<i>Semester Hours</i>
Music Requirements:	
Theory of Music	6
Aural Skills	2
History and Literature of Music	6
Electives in Music Theory, History and Literature	10
Performance Studies	10
(Candidate will achieve junior-level proficiency in the principal performing subject. In addition, students with insufficient keyboard ability will be required to take MUS 296-297 to a specified level of keyboard proficiency.)	
Ensemble	4
Music Electives	4
	42
University/College Requirements:	
Communication Skills	0-10
Philosophy/Religious Studies electives	12 ... 12-22

Breadth Requirements:	
Natural Science and Mathematics	7
Social and Behavioral Science	12
Humanities	18
General electives	19-29
Total for the degree	120

(Note: All candidates must satisfy requirements for recital attendance, MUS 400.)

¹See also Distribution Table for Bachelor of Arts programs.

**PROGRAM—A13: BACHELOR OF MUSIC WITH A MAJOR IN
MUSIC THEORY OR COMPOSITION**

	<i>Semester Hours</i>
Music Requirements:	
Theory of Music and/or Composition	32
History and Literature of Music	9
Conducting	4
Piano Performance (a minimum of junior-level proficiency must be demonstrated)	12
Ensemble (All candidates must participate in one large ensemble each term.)	8
Music electives	22
University/College Requirements:	
Communication Skills	0-10
Philosophy/Religious Studies electives	12
Breadth Requirements:	
Two units of 6-9 hours each, selected from departments of Psychology, Sociology, Anthropology, Economics, Political Science, Marketing, Business Management, Education, Science, and Mathematics	12-15
Two units of 6-9 hours each, selected from departments of Languages, English, History, Performing and Visual Arts (other than Music), Communication Arts, Philosophy and Religious Studies. These exclude courses taken to fulfill University requirements	12-15
Total for the degree	136

Each music theory major will submit a research paper in the senior year. The subject of this paper will be chosen by the student with the advice of the faculty committee; the paper is subject to the approval of the faculty committee.

Each composition major will present a half-recital of original compositions in the junior year and a full recital of original compositions in the senior year.

All candidates will satisfy requirements for recital attendance (MUS 400).

**PROGRAM—A13A: BACHELOR OF MUSIC WITH A MAJOR IN
PERFORMANCE**

	<i>Semester Hours</i>
Music Requirements:	
Theory of Music	20
History and Literature of Music	9
Conducting	4
Performance Studies on the major instrument or voice ...	24

(In addition, the student will demonstrate performance proficiency by the presentation of a junior half-recital and a senior recital.)

Performance studies on the minor instrument or voice	....	12
(If piano is not the major instrument, it will be the minor instrument. Organ majors may choose non-keyboard minors with the consent of their advisors.)		
Ensemble	.....	8
(All candidates must participate in one large ensemble each term.)		
Music electives	.....	10 87
University/College Requirements:		
Communication Skills	.....	0-10
Philosophy/Religious Studies electives	.....	12 22
Breadth Requirements:		
Two units of 6-9 hours each, selected from departments of Psychology, Sociology, Anthropology, Economics, Political Science, Marketing, Business Management, Education, Science, and Mathematics		
	.....	12-15
Two units of 6-9 hours each, selected from departments of Languages, English, History, Performing and Visual Arts (other than Music), Communication Arts, Philosophy, and Religious Studies. These exclude Courses taken to fulfill University requirements		
	.....	12-15 27
Total for the degree	.....	136

(Note: All candidates will satisfy requirements for recital attendance, MUS 400.)

In order to enter the program leading to the Bachelor of Music with a Major in Performance, the student must be an acceptable performer in repertoire equivalent to that 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 (1) 2-part and 3-part Inventions, or Preludes and Fugues, by J. S. Bach; (2) sonatas by Haydn, Mozart, and Beethoven; (3) short compositions and at least one major work of composers from the Romantic period.

PROGRAM—A13B: BACHELOR OF MUSIC WITH A MAJOR IN MUSIC THERAPY

	<i>Semester Hours</i>
Music Requirements:	
Theory of Music and Aural Skills	16
History and Literature of Music	5
Conducting	2
Fundamentals of Orchestration	2
Performance Studies (including study on the student's principal instrument or voice, as well as specified instrumental methods courses)	22
Music Therapy	16
Recreational Music	2
Music electives	3-7
Ensemble (All candidates must participate in one large ensemble each term.)	4
MUS 489 Internship (This internship of six months is taken after the student completes all other course requirements. Upon successful completion of the internship requirement	

the student will receive the Bachelor of Music with a major in Music Therapy degree.)	2	78
Other Music Therapy Requirements:		
Psychology 101 and 363	6	
Human Anatomy or Physiology	3	9
University/College Requirements:		
Communication Skills	0-10	
Philosophy and/or Religious Studies electives	12	22
Breadth Requirements:		
Two units of 6-9 hours each, selected from departments of Psychology and Sociology	15	
Two units of 6 hours each, selected from departments of Languages, English, History, Performing and Visual Arts, Philosophy, and Religious Studies. These exclude courses taken to fulfill University requirements	12	27
Total for the degree		136

(Note: All candidates will satisfy requirements for recital attendance, MUS 400.)

The music therapy candidate will present not less than one-half recital by the senior year.

PROGRAM—A13C: BACHELOR OF MUSIC WITH TEACHER CERTIFICATION (E-11)

	<i>Semester Hours</i>	
Music Requirements:		
Theory of Music and Aural Skills	16	
History and Literature of Music	7-9	
Conducting	4	
Performance Studies (The candidate will present not less than a one-half recital by the senior year, in the principal subject. If piano is not the major, candidate will complete two to four terms of class piano. Vocal emphasis candidates will complete satisfactory accompanying requirements prior to student teaching.)	16-18	
Music Education	14-16	
Ensemble (All candidates will participate in the appropriate large ensemble each term.)	7-8	
Music electives specified by advisor	2-6	66-70
Certification and Breadth Requirements:		
Education courses (including student teaching)	25	
Natural Science and Mathematics electives	7	
History electives	6	
Humanities electives	6	44
University/College Requirements:		
Communication Skills	0-10	
Philosophy and/or Religious Studies electives	12	22
Total for the degree		132-136

(Note: All candidates will satisfy requirements for recital attendance, MUS 400.)

The candidate will choose Vocal or Instrumental Emphasis. Required ensemble participation, and proficiency in solo performance, will be appropriate to the chosen emphasis. Upon completion of the degree, the candidate will be qualified for the Ohio Special Music Certificate.

Course requirements, and performing proficiencies, will vary somewhat, depending on the chosen emphasis; details available in the Music Division.

FACULTY

Patrick S. Gilvary, *Chairperson of the Department of Performing and Visual Arts*
Lawrence E. Tagg, *Head of Music Division*

Professors: Berk, Tagg

Associate Professors: Zech

Assistant Professors: Baxter, Benedum, Kim, C. Miller, Minton, Sandness

Instructors: Blocher, Swinehart

Part-time Instructors: Foster, Green, Hinkle, Hotopp, Howard, Kleeman, Liddle, Markworth, McCutcheon, Morganstern, Pepitone, Vandevander, Varella, Weir, Zerkle, Zimmerman

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. *6 sem. hrs.*

MUS 113-114. AURAL SKILLS I: Basic technique of dictation, sight singing and rhythmic reading. Prerequisite: Placement examination. *2 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. *6 sem. hrs.*

MUS 213-215. AURAL SKILLS II: Advanced dictation, sight singing, and rhythmic reading. Prerequisite: MUS 114. *2 sem. hrs.*

MUS 235. VOICE CLASS: Principles of good singing; development of the voice; vocal literature. Minimum of 4 students required. Music majors only, with permission of instructor. *1 sem. hr.*

MUS 236. VOICE CLASS: Principles of good singing; development of the voice; vocal literature. Minimum of 4 students required. Open to all students with permission of instructor. *2 sem. hrs.*

MUS 280. MUSIC AND MOVEMENT FOR THE HANDICAPPED I: Use of music and movement in training handicapped children. Students work with AIM, Inc. for supervised training. 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 handicapped children such as the mentally retarded, blind, deaf, cerebral palsied or learning disabled. Prerequisite: MUS 280.

1 sem. hr.

MUS 285. INTRODUCTION TO MUSIC THERAPY I: History and development of music therapy; survey of theoretical bases and current trends for the use of music in therapy; 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; orientation to the profession of music therapy through lectures, readings, audiovisual materials, and field trips. Supervised field experience in music therapy. 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.

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, 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 contemporary American composers and their styles. The relationship of American music to the other arts. Open to all University students.

3 sem. hrs.

MUS 306. HISTORY OF AMERICAN JAZZ: Survey of the literature and performance practices from 1890 to the present. Includes Blues, Dixieland, Ragtime, Boogie-Woogie, Swing, Bop, Cool, Funky, and current techniques. Open to all University students.

3 sem. hrs.

MUS 311-312. EIGHTEENTH-CENTURY CONTERPOINT: Study of the contrapuntal technique of the 18th century, particularly in the instrumental works of J.S. Bach. Original compositions in forms of the invention and the fugue. Prerequisite: MUS 211.

4 sem. hrs.

MUS 317. ORGAN CLASS: Introduction to the organ, including basic performance techniques, registration, beginning literature, and hymn playing. Prerequisite: permission of instructor, demonstrable keyboard technique.

2 sem. hrs.

MUS 320. BASIC CONDUCTING: Fundamentals of baton technique; laboratory experience in conducting choral and instrumental work of the 19th and 20th centuries; cueing, scorereading, terminology. Discussion of rehearsal procedures, materials and special problems. Through study of instrumentation.

2 sem. hrs.

MUS 324. GUITAR FOR THE CLASSROOM TEACHER: Practical application of the guitar as a tool for music teaching in elementary and junior high schools to supplement or replace piano. Prerequisite: MUS 101 or equivalent. Fee.

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.

1 sem. hr.

MUS 326-336. WOODWIND INSTRUMENTS LABORATORY I-II: Introduction to the fundamentals and teaching of woodwinds with emphasis on performance. Included are demonstrations of class teaching techniques and an introduction to method books. Prerequisite: Junior standing in music education. Required of music education and music therapy students. Music majors only. Fee. *2 sem. hrs.*

MUS 327-337. BRASS INSTRUMENTS LABORATORY I-II: Introduction to the fundamentals and teaching of brass instruments with emphasis on performance. Included are demonstrations of class teaching techniques and an introduction to method books. Prerequisite: Junior standing in music education. Required of music education and music therapy students. Music majors only. Fee. *2 sem. hrs.*

MUS 328. PERCUSSION INSTRUMENTS LABORATORY: Introduction to the fundamentals and teaching of percussion instruments. Included are demonstrations of class teaching techniques and an introduction to method books. Prerequisite: Junior standing in music education. Required of music education and music therapy students. Music majors only. Fee. *1 sem. hr.*

MUS 329. STRINGED INSTRUMENTS II: Continuation of MUS 325 to further skills in teaching and performance. Concentration on cello/bass. Prerequisite: MUS 325 or equivalent, permission of the instructor. Fee. *1 sem. hr.*

MUS 330. ADVANCED INSTRUMENTAL CONDUCTING: Advanced work in the preparation of scores for the wind ensemble. Discussion of wind rehearsal techniques and the development of programming procedures. Rehearsal techniques; involves attendance at Wind Ensemble rehearsals plus actual rehearsing of the ensemble. Prerequisite: MUS 320, permission. Required for instrumental music education majors. *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 333. ORGANIZATION OF THE SCHOOL INSTRUMENTAL MUSIC PROGRAM: Organization and teaching of instrumental music in the schools; materials; survey of equipment and necessary materials. Prerequisite: Junior standing in music. *2 sem. hrs.*

MUS 334. FUNDAMENTALS OF ORCHESTRATION: A course in scoring for the symphony band and orchestra with emphasis on the wind ensemble and the orchestral wind section; scoring for individual choirs; strings, woodwinds, brass, and percussion. Prerequisite: MUS 212, permission. Required for music majors. *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. *2 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 20th-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 choral conducting skills. Practical experience with choral ensembles; attendance at University Choir required. Required for music education Vocal Emphasis majors. Prerequisite: MUS 320, junior standing in music. *2 sem. hrs.*

MUS 361. PIANO PEDAGOGY I: Systematic preparation for the development of piano technique and tone; 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: Continuation of MUS 361 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: Comprehensive survey of literature for the piano from the early keyboard music to the romantic period. Required of piano majors. Prerequisite: Permission of instructor. *2 sem. hrs.*

MUS 372. PIANO LITERATURE II: Continuation of comprehensive survey of literature of keyboard music from the romantic period to the present day. Required of piano majors. Prerequisite: Permission of instructor. *2 sem. hrs.*

MUS 385. INFLUENCE OF MUSIC ON BEHAVIOR: Review of theoretical bases and experimental evidence of the influence of music on human behavior. Characteristics of functional music in various 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. Field projects. Prerequisites: MUS 285, 286, 385. *3 sem. hrs.*

MUS 390. MUSIC ENSEMBLES: Open to all University students by audition. Required participation by music majors as specified in various degree programs.

MUS 390. UNIVERSITY CHOIR: Mixed chorus literature and music for men's chorus and women's chorus. Presents campus and community concerts. *1 sem. hr.*

MUS 390. VOCAL ENSEMBLE: *1/2 sem. hr.*

MUS 390. STRING ENSEMBLE: *1/2 sem. hr.*

MUS 390. PIANO ENSEMBLE: *1/2 sem. hr.*

MUS 390. MARCHING BAND: Plays at all home and some away football games. Its sound finds roots in jazz and rock. All freshman students may participate in any band unit including block, majorettes, and Flyerettes. *1 sem. hr.*

MUS 390. PEP BAND: *No credit*

MUS 390. CONCERT BAND: Offers varied opportunities in musical performances. Presents concerts during winter semester. *1 sem. hr.*

MUS 390. WIND ENSEMBLE: Select band that performs finest in wind literature. Presents regular concert during fall and winter terms. *1/2 sem. hr.*

- MUS 390. CHAMBER ORCHESTRA: *1 sem. hr.*
- MUS 390. BRASS CHOIR: Select ensemble of 24 brass and percussion players. Music from Renaissance to present. *1/2 sem. hr.*
- MUS 390. JAZZ LAB BAND: Jazz and rock fields. Open by audition to any student registered in band program. *1/2 sem. hr.*
- MUS 390. SMALL BRASS ENSEMBLE: *1/2 sem. hr.*
- MUS 390. PERCUSSION ENSEMBLE: *1/2 sem. hr.*
- MUS 390. WOODWIND ENSEMBLE: *1/2 sem. hr.*
- MUS 390. CLARINET CHOIR: *1/2 sem. hr.*
- MUS 390. GUITAR ENSEMBLE: *1/2 sem. hr.*
- MUS 399. PERFORMANCE STUDIES: Private instruction (one 1/2-hour lesson per week) in piano, voice, organ, violin, viola, cello, bass, flute, oboe, clarinet, bassoon, saxophone, trumpet-cornet, French horn, trombone, baritone, tuba, percussion, harp, classical and pick-style guitar, jazz piano improvisation. Permission of instructor. Fee. *2 sem. hrs.*
- MUS 400. RECITAL: All music majors are required to attend professional and student concerts and recitals, to develop critical listening experience and knowledge of repertoire. *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 harmonic and contrapuntal devices used after Bach with emphasis on contemporary music and composers. Prerequisites: Junior standing in music, permission of instructor. *4 sem. hrs.*
- MUS 417-418. SIXTEENTH-CENTURY COUNTERPOINT: 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. Prerequisite: Permission of the instructor. *4 sem. hrs.*
- MUS 420. ADVANCED ORCHESTRATION: Continuation of MUS 334. Scoring for symphony band and orchestra, studio recording ensembles, and marching band. Original compositions and arrangements, recorded readings of scores. Prerequisite: MUS 334, permission. *2 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 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. Formal analysis of symphonies of classic, romantic, and contemporary composers. Prerequisites: MUS 211-212. *4 sem. hrs.*

MUS 485. PSYCHOLOGICAL FOUNDATIONS OF MUSIC I: Study of the psychosocio-physiological processes involved in responses 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 MUS 485. Study of research through review of literature on experimental studies of 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: Minimum of 6 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 STUDIES: Private instruction (one one-hour lesson per week) in the same subjects as MUS 399. Permission of instructor. *4 sem. hrs.*

MUSIC FEES: The following fees include practice privileges.

		<i>Term Fee</i>
MUS 296-299	Class Piano	\$15.00
MUS 325	Stringed Instruments I (class)	15.00
MUS 326-336	Reed and Woodwind Instruments Laboratory (class)	15.00
MUS 327-337	Brass Instruments Laboratory (class)	15.00
MUS 329	Stringed Instruments II (class)	15.00
MUS 399	Performance studies: 1 private lesson weekly	50.00
MUS 499	Performance studies: 2 private lessons weekly	95.00

PERFORMING AND VISUAL ARTS (PVA)

At the University of Dayton, "performing and visual arts" is an umbrella term for music, theatre, fine arts, and photography. The Performing and Visual Arts Department has four corresponding divisions, operating autonomously and offering major programs in fine arts, commercial design, art education, music, performance, music theory or composition, music therapy, music education, photography, and theatre. The department also offers a variety of possibilities to students interested in intra-departmental studies.

The Performing and Visual Arts Department holds with a policy of performance and production in all its divisions. Requirements in portfolios, gallery showings, auditions, recitals, large and small ensembles, concerts, and major and experimental productions assure the student of professional as well as academic challenge.

See, elsewhere in this chapter, Fine Arts (ART), Music (MUS), Photography (PHO), and Theatre (THR). See also ART and MUS in Chapter VIII.



PHILOSOPHY (PHL)

The objective of the philosophy major program is to provide students with the opportunity to understand contemporary philosophy in view of the history of philosophy.

Students major in philosophy for a variety of reasons. Some enroll in philosophy as a pre-professional program leading to careers in law, education, social service, health care, commerce, public service, and the religious life. Some major in philosophy in preparation for advanced graduate study leading to teaching, research, or service. Still others major in philosophy to assure a broad liberal education in view of their personal interest in philosophical studies.

Philosophy majors are encouraged to develop a second major or several concentration areas in view of their educational and career objectives. Early counseling and the flexibility of the B.A. degree permit structural options in a variety of areas for philosophy majors.

Students majoring in other disciplines are encouraged to double-major in philosophy or develop concentrations in philosophy germane to their academic programs.

MAJOR REQUIREMENTS: Beyond PHL 103, the philosophy major consists of 30 semester hours of 300-400 coursework. Of these, the following are required: PHL 431 (Plato and Aristotle); PHL 432 (Descartes and Hume); and one philosophical seminar from PHL 461 (Contemporary Epistemology), PHL 462 (Contemporary Ethics), or PHL 463 (Contemporary Metaphysics).

MINOR REQUIREMENTS: Beyond PHL 103, the philosophy minor consists of 15 semester hours of 300/400 coursework. Of these, at least one course must be at the 400 level in addition to any 490 directed readings course that might be taken.

ELECTIVES: Philosophy majors and minors may choose coursework at the 300-400 level from among the following areas:

- Human nature, values, and ethics
- Logic, scientific method, and knowledge
- Great ideas in Western philosophy
- Current philosophic world-views
- Special philosophy courses
- Advanced courses in philosophy

For details see Courses of Instruction and consult the chairperson. Course Registration Guides available in Miriam 607 should also be consulted.

PROGRAM—A14: BACHELOR OF ARTS WITH A MAJOR IN PHILOSOPHY¹

	<i>Semester Hours</i>
Philosophy	30
Natural science	8
Mathematics	3
Social and behavioral science	12
Humanities	18
Religious Studies/Philosophy	12

Philosophy courses taken to satisfy the University requirement in religious studies and/or philosophy (e.g., PHL 103) do not normally count towards the 30 hours of 300/400 philosophy coursework required for the major.

Communication skills	0-10
Electives	27-37

A minimum of 120 semester hours is needed for the degree, but additional hours are encouraged in accord with student objectives.

¹See also Distribution Table for Bachelor of Arts programs.

FACULTY

Raymond M. Herbenick, *Chairperson*
Professor: Nersoyan
Associate Professors: Herbenick, Kunkel, Monasterio, Tibbetts, Ulrich
Assistant Professors: Payne, Quinn, Richards, Rinderly, Thompson, Vallicella, Zembaty
Instructor: Johnson

COURSES OF INSTRUCTION

BASIC COURSE

PHL 103. INTRODUCTION TO PHILOSOPHY: Central concerns that philosophers have addressed and continue to address: nature of philosophy, the place of persons in the world, moral responsibility, problems of human knowledge, existence, and God. Prerequisite to upper-level courses. 3 sem. hrs.

HUMAN NATURE, VALUES AND ETHICS

PHL 304. PHILOSOPHY OF HUMAN NATURE: The nature of human beings; the functions of consciousness, the possibility of freedom, the sources of values, and the goals of human life. 3 sem. hrs.

PHL 310. SOCIAL PHILOSOPHY: The concepts of liberty, justice, and equality as they relate to social problems such as punishment and rehabilitation, insanity and responsibility, privacy, population regulation, economic injustice, environmental degradation, discrimination and reverse discrimination. 3 sem. hrs.

PHL 311. PHILOSOPHY OF RELIGION: The main issues involved in religious belief and practice, such as the relationship between reason and revelation; critical presentation of views of main writers in the field. 3 sem. hrs.

PHL 312. ETHICS: Various types of moral and ethical theory in the Western tradition and major problems such as the extent of human responsibility and the conditions for making ethical judgments. 3 sem. hrs.

PHL 313. BUSINESS ETHICS: Review of general ethical theory; ethical assessments of incidents that often occur in commerce affecting employees, employers, consumers, competitors, or the local community. 3 sem. hrs.

PHL 314. PHILOSOPHY OF LAW: Major concepts of law to include the nature of law, legal reasoning, liberty, justice, responsibility, punishment. 3 sem. hrs.

PHL 315. MEDICAL ETHICS: Introduction to morality in general and inquiry into the major moral problems of medical practice: human life and the preservation of its integrity. *3 sem. hrs.*

PHL 316. ENGINEERING ETHICS: Introduction to ethical issues in engineering by developing theories of moral justification and codes of ethics for engineers, and by applying these theories and codes to moral issues in engineering. *3 sem. hrs.*

PHL 320. PHILOSOPHY OF ART: Theories and applications of art expressed by philosophers, artists, and critics; the role of appreciation of various art forms in the context of human values. *3 sem. hrs.*

PHL 323. PHILOSOPHY OF LITERATURE: Examination of philosophical concepts in clarifying literary works by such authors as Dostoevsky, Hesse, Camus, Tolstoy. *3 sem. hrs.*

PHL 331. SCIENCE, OBJECTIVITY, AND VALUES: A study of three interrelated issues: the limits of scientific methodology; science as a social institution; and science and human values. *3 sem. hrs.*

LOGIC, SCIENTIFIC METHOD AND KNOWLEDGE

PHL 301. PRACTICAL LOGIC: Introduction to sound patterns of ordinary reasoning; study of valid rules of mediate and immediate deductive inference and corresponding fallacies; categorical syllogism, hypothetical syllogism, chain arguments. *3 sem. hrs.*

PHL 302. SYMBOLIC LOGIC: Concentrated study of the valid forms of deductive argument and proof in the propositional logic and in predicate logic; study of formal systems and of logic and language. *3 sem. hrs.*

PHL 305. INDUCTIVE LOGIC: Patterns of inference found in most natural and social sciences; methods and rules of determining inductive probability of arguments; justification of induction; Goodman's paradox; alternative interpretations of the probability calculus. *3 sem. hrs.*

PHL 306. PHILOSOPHY OF KNOWLEDGE: Various criteria, origins, and definitions of knowledge proposed by common sense, science, philosophy, and mysticism; questions of evidence, consistency, and validity pertaining to the problem of truth and belief. *3 sem. hrs.*

PHL 308. METAPHYSICS: Issues and problems under such topics as appearance and reality; universals; relations of mind and matter; the nature of persons and personal identity, causality; freedom and determinism. *3 sem. hrs.*

PHL 330. PHILOSOPHY OF SCIENCE: Study of the presuppositions and implications of scientific inquiry from a humanistic viewpoint; explanation in science, the relation between facts and theories, and problems of verification. *3 sem. hrs.*

PHL 481. MATHEMATICAL LOGIC: Properties (consistency, completeness, decidability, independence, etc.) of first-order predicate calculi; the Lowenheim-Skolem theorem, Godel's incompleteness theorem, applications to the foundations of mathematics. Same as CPS 481 and MTH 481 formerly. Prerequisite: PHL 302 or equivalent competency. *3 sem. hrs.*

GREAT IDEAS IN WESTERN PHILOSOPHY

PHL 350. CLASSIC GREEK PHILOSOPHY: The Greek origins of Western scientific, philosophical, and political thought; relationships to current thought; ideas of the pre-Socratics, Plato, and Aristotle in their cultural contexts. *3 sem. hrs.*

PHL 351. CLASSIC ISLAMIC, CHRISTIAN, JEWISH PHILOSOPHY: Major philosophical problems from the 4th through the 16th centuries and their importance in shaping current beliefs and traditions in the Augustinian, Jewish, Islamic, Persian, Thomist, and Oxford cultural settings; human action, conscience, freedom, and law. *3 sem. hrs.*

PHL 352. MODERN PHILOSOPHY: Development of philosophy in the 17th, 18th and 19th centuries, with emphasis on problems in the theory of knowledge, the philosophy of mind, and the relation between knowledge and human action for their impact on later philosophy. *3 sem. hrs.*

PHL 353. CONTEMPORARY PHILOSOPHY: Some of the major philosophical movements in the 20th century such as existentialism, pragmatism, positivism, or linguistic analysis. *3 sem. hrs.*

CURRENT PHILOSOPHIC WORLD-VIEWS

PHL 355. EASTERN PHILOSOPHY: Introduction to the ways of Asian wisdom, considering Oriental philosophy as a specialized learning directed to the attainment of enlightenment and equanimity. *3 sem. hrs.*

PHL 356. CHRISTIAN PHILOSOPHY: Major issues such as the relation of faith to reason, the relation of science to faith, and the problem of natural law; works by contemporary philosophers such as Kierkegaard, Marcel, Maritain, Noonan, and Plantinga. *3 sem. hrs.*

PHL 357. PROCESS PHILOSOPHY: Metaphysical positions that resulted from the impact of evolutionary thought and contemporary physics upon Western philosophy. Special emphasis on Bergson and Whitehead. *3 sem. hrs.*

PHL 358. MARXIST PHILOSOPHY: Introduction to the thought of Karl Marx through a study of the historical setting of the man and his writings, along with recent interpretations of his thought. *3 sem. hrs.*

PHL 359. PHENOMENOLOGY: The historical origin of phenomenology, its nature, goals, and scope; impact on the social sciences, psychology, and psychiatry with emphasis on the thought of Husserl and his students. *3 sem. hrs.*

PHL 360. EXISTENTIALISM: Major themes found in representatives of the existentialist movement, such as human freedom, the absurdity of human existence, the primacy of action, and the roles of speculation and the emotions. *3 sem. hrs.*

PHL 361. AMERICAN PRAGMATISM: Introduction to some of the influential writings of the American pragmatists: Peirce, James, Dewey, and possibly more recent pragmatists; such issues as experience, consciousness, philosophic method, truth, and freedom. *3 sem. hrs.*

PHL 362. ORDINARY LANGUAGE PHILOSOPHY: Introduction to recent trends in analytic philosophy with focus on the problems of meaning and truth, for example, to clarify such action concepts as intention, freedom, and responsibility. *3 sem. hrs.*

SPECIAL PHILOSOPHY COURSES

PHL 340. SPECIAL PROBLEMS IN PHILOSOPHY: Examination of perennial and contemporary problems of philosophy. May be repeated when the topic varies. *3 sem. hrs.*

PHL 390. SUMMER NONRESIDENCE COURSE: A course designed for those students regularly enrolled at the University of Dayton who cannot attend classes in the third term and are in good academic standing. Topics are determined by the professor. Prerequisites: Three sem. hrs. of philosophy. *3 sem. hrs.*

ADVANCED PHILOSOPHY COURSES

PHL 431. PLATO AND ARISTOTLE: Study of some philosophical problems raised by Plato and Aristotle and discussed in contemporary philosophy, such as justice and responsibility; certainty and necessity; the cause-reason distinction in explanations; or predication and being. Required of philosophy majors. *3 sem. hrs.*

PHL 432. DESCARTES AND HUME: Study of some philosophical problems raised by Descartes and Hume and discussed in contemporary philosophy, such as origin of ideas; existence of primary and secondary qualities; relationship of mind and body; scientific method; certainty; personal identity; and causality. Required of philosophy majors. *3 sem. hrs.*

PHL 440. ADVANCED PROBLEMS IN PHILOSOPHY: Detailed examination of some of the more technical problems of philosophy as well as those problems that arise in interdisciplinary settings upon which philosophers have brought their technical skills to bear. May be repeated when topic varies. *3 sem. hrs.*

PHL 451. SEMINAR IN INDIVIDUAL PHILOSOPHERS: Detailed examination of the thought of an individual philosopher (e.g. Aquinas, Kant, Rawls, Quine) who is of sufficient importance to warrant special study. May be repeated when topic varies. *3 sem. hrs.*

PHL 461. PHILOSOPHICAL SEMINAR—CONTEMPORARY EPISTEMOLOGY: A study of recent philosophical work in the theory of knowledge inclusive of scepticism, knowledge and belief, evidence and justification, theories of perception and knowledge, human interests and valuation. Required of a philosophy major unless PHL 462 or 463 is taken. *3 sem. hrs.*

PHL 462. PHILOSOPHICAL SEMINAR—CONTEMPORARY ETHICS: A study of recent philosophical work in ethics inclusive of an analysis of ethical concepts, theories of normative ethics, theories of human action, and moral justification. Required of a philosophy major unless PHL 461 or 463 is taken. *3 sem. hrs.*

PHL 463. PHILOSOPHICAL SEMINAR—CONTEMPORARY METAPHYSICS: A study of recent work in metaphysics inclusive of the nature of metaphysics, causality, free will and determinism, personal identity and the theory of mind and body. Required of a philosophy major unless PHL 461 or 462 is taken. *3 sem. hrs.*

PHL 490. DIRECTED READINGS: Guided independent study primarily for philosophy majors but open to students who have completed 12 semester hours in philosophy. Normally, 3 sem. hrs. of credit may be earned. In certain cases the chairperson may approve 1, 2, or 4 sem. hrs. May be repeated when the topic varies. Permission of the instructor and the chairperson required. *3 sem. hrs.*

PHOTOGRAPHY (PHO)

Any student interested in photography as a major or minor field should consult with the head of the Photography Division or the chairperson of the Performing and Visual Arts Department.

Fees are noted in course descriptions if required. These are variable. Current fees are obtainable in Photography Office.

PROGRAM—A15: BACHELOR OF ARTS WITH A MAJOR IN PHOTOGRAPHY ¹

Major Program Requirements:

	<i>Semester Hours</i>
PHO 101, 201, 302, 315, 330, 410, 460, 461, ART 112, 251	30
Electives—select from PHO 390, 402, 420, 430, ART 355, 356, or other on approval	12..... 42
Natural Science and Mathematics	7
Social and Behavioral Science	12
Humanities	18
Philosophy and/or Religious Studies	12
Communication Skills	0-10
General academic electives to total at least	120

¹See also Distribution Table for Bachelor of Arts programs.

FACULTY

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

Sean Wilkinson, *Head of Photography Division*

Assistant Professors: Jimison, Wilkinson

Part-time Instructors: Debruge, Christian, Peterson, Heriza

COURSES OF INSTRUCTION

PHO 101. BASIC PHOTOGRAPHY: Fundamentals of black and white still photography; covers camera function: exposure, film, processing, and printing. Emphasis on gaining sound technical and creative control of the medium. No previous experience required. Studio fee. 3 sem. hrs.

PHO 201. INTERMEDIATE PHOTOGRAPHY: Specific projects 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 251. HISTORY OF FILM I—SILENT CINEMA: Analysis of the international development of film in the silent era; history and criticism of major contributors—e.g. Griffith, Lubitsch, Clair, Pabst, Eisenstein and Pudovkin—screening of selected films. Film rental fee. 3 sem. hrs.

PHO 252. HISTORY OF FILM II—SOUND CINEMA: Analysis of the effects of sound evolution on cinema, including history and analysis of major films from silent era through contemporary time; such contributors as Mamoulian, Marx Brothers, Ford, Hitchcock, Selznick, Renoir, Rossellini, DeSica, Wells, Antonieux, Bergman, Bunuel, Truffaut, Selected film screenings. Film rental fee. *3 sem. hrs.*

PHO 302. COLOR PHOTOGRAPHY I: Introduction to the theory and techniques of color transparency, color negative, and color printing. Individual practices in lighting, color emulsions, filtration, and corrections. Prerequisite: PHO 201. Studio fee. *3 sem. hrs.*

PHO 315. HISTORY OF PHOTOGRAPHY: The technical and aesthetic history of photography from the camera obscura to the present; changing perception of the medium and its development as an art form. Prerequisite: PHO 201. Studio fee. *3 sem. hrs.*

PHO 330. PHOTOGRAPHY TECHNIQUES: Experiments and discoveries in the control of photography materials. Relationships and variables in photographic chemistry, exposure interpretation, and print manipulation; uses of graphic arts, and nonsilver imagery. Prerequisite: PHO 101 or equivalent. Studio Fee. *3 sem. hrs.*

PHO 351. FILM PRODUCTION I: Beginning film production: introduction to scripting, photography, editing, and unsynchronized sound. Participation on individual film project from conception to class screening. *3 sem. hrs.*

PHO 371. THE MOVING IMAGE AS COMMUNICATION: Study of photographic images (still and motion picture) as medium of communication; purpose, content, design, and effects upon selected audiences. *3 sem. hrs.*

PHO 390. SPECIAL PROBLEMS IN PHOTOGRAPHY: Series of assignments designed to guide independent study in photography, formulated to meet individual needs of the student. Prerequisite: PHO 201 and permission. Studio fee. *1 to 5 sem. hrs.*

PHO 399. SPECIAL TOPICS IN CINEMA: Intensive study of a specific topic in film e.g. Violence, Women, the Western. Prerequisite: PHO 251 or 252 or permission. *3 sem. hrs.*

PHO 402. COLOR PHOTOGRAPHY II: Further study of the techniques and aesthetics peculiar to color photography. Straightforward and manipulated printing methods; masking, color analysis, chemical variations, and the dye transfer process. 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, 302. Studio fee. *3 sem. hrs.*

PHO 420. PHOTOJOURNALISM: A variety of ways of using photography as documentation, narrative, and propaganda. Editing of work, layout, image-text relationships. Assignments place the student in situations where specific goals must be met to serve predetermined needs. Personal photographic essay required. Prerequisite: PHO 201. Studio fee. *3 sem. hrs.*

PHO 430. COMMERCIAL AND ILLUSTRATIVE PHOTOGRAPHY: Commercial, industrial, architectural, and illustrative photographic work both in the studio and on location. Individual practice in solving problems associated with professional photography. Prerequisite: PHO 410. Studio fee. *3 sem. hrs.*

PHO 460-461. SENIOR SEMINAR: Senior photography majors direct their efforts to the completion of a thesis-like body of work. Requirements include exhibition in a recognized gallery and the completion of a professional quality portfolio. Studio fee. *3 sem. hrs.*

Photography studio fees—\$35-\$50

Film rental fees—\$10

PHYSICAL SCIENCE (PSC)

The Physical Science Program is administered by the Department of Physics. It provides a broad training in the physical sciences that is particularly useful to one who plans to pursue a goal that needs a composite science background. The physical science major combines adequate physics, chemistry, and mathematics to provide for the student a sound working knowledge of physical science. Because the program is less specialized than one in a single science, it 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 26 semester hours of physics, 19 semester hours of chemistry, and 19 semester hours of mathematics. It has provision for sufficient electives to permit a second major or a minor in a discipline chosen to meet the career objectives of the individual student.

Curriculum description for Bachelor of Science with a Major in Physical Science:

	<i>Semester Hours</i>
Physics 196, 207, 208, and associated laboratories	12
Chemistry 123-124 and associated laboratories	8
Physics 214 and at least 12 sem. hrs. at 300-400 level	14
Chemistry 201, and at least 7 sem. hrs. at the the 300-400 level	11
Physics or Chemistry electives (300/400 level)	6
Mathematics 101, 118-119, 218-219	19
Communication skills	2-13
College Composition (ENG 111, 112), Effective Speaking (SPE 101), and Computer Programming (CPS 144). Some of these requirements may be waived if the student has demonstrated ability.	
Philosophy and/or Religious Studies	12
Minor (300-400 level) is chosen	12
General academic electives to total at least	120

Consult General Requirements for All Bachelor of Science Programs.

PROGRAM—S10: BACHELOR OF SCIENCE WITH A MAJOR IN PHYSICAL SCIENCE¹

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term²</i>	<i>2nd Term</i>
Freshman Year				
PHY	100	Seminar	1-0-0 ²	1-0-0
CHM	123-124	General Chemistry	3-0-3	3-0-3
CHM	123L-124L	General Chemistry Laboratory	0-3-1	0-3-1
ENG	111-112	College Composition I and II	4-0-4	3-0-3
MTH	101	Pre-Calculus Mathematics	4-0-4	
MTH	118	Analytical Geometry and Calculus I		4-0-4
PHY	196	General Physics I		3-1-3
PHY	196L	General Physics Laboratory I		0-3-1
—	—	Philosophy or Religious Studies	3-0-3	—
			15	15



Sophomore Year				
PHY	100	Seminar	1-0-0	1-0-0
CPS	144	Scientific Programming	2-0-2	
CHM	201	Quantitative Analysis; Laboratory	2-4-4	
MTH	119-218	Analytical Geometry and Calculus II and III	4-0-4	4-0-4
PHY	207-208	General Physics II and III	3-1-3	3-1-3
PHY	207L-208L	General Physics Laboratory II and III	0-3-1	0-3-1
PHY	214	Electronics for Scientists		1-2-2
SPE	101	Fundamentals of Effective Speaking		3-0-3
—	—	Philosophy or Religious Studies		3-0-3
—	—	Elective ³	3-0-3	
			17	16
Junior Year				
PHY	100	Seminar	1-0-0	1-0-0
CHM	313-302	Organic and Physical Chemistry	3-3-4	3-0-3
MTH	219	Differential Equations	3-0-3	
PHY	451-452	Intermediate Physics	3-3-4	3-3-4
—	—	Minor ⁴	3-0-3	3-0-3
—	—	Philosophy or Religious Studies		3-0-3
—	—	Physics or Chemistry electives	3-0-3	3-0-3
			17	16
Senior Year				
PHY	100	Seminar	1-0-0	1-0-0
PHY	453	Intermediate Physics	3-3-4	
—	—	Minor ⁴	3-0-3	3-0-3
—	—	Electives	6-0-6	12-0-12
—	—	Philosophy or Religious Studies	3-0-3	
			16	15 ⁵

¹Consult General Requirements for all Bachelor of Science programs.

²For example, 3-0-3 means 3 class hrs., 0 lab hrs., 3 sem. hrs. of credit.

³This elective is to be used to meet any prerequisites necessary for the minor field; consult with department chairperson.

⁴Minor can be replaced by electives.

⁵In this example program 128 total sem. hrs. are shown; the minimum required is 120 sem. hrs.

PHYSICS (PHY)

The program leading to the Bachelor of Science with a major in Physics is designed to provide a strong, yet versatile, basis for a subsequent scientific career or advanced study. An attractive feature of the program is the opportunity for upper level students to gain experience through involvement with the faculty and staff in their research projects. Physics courses required of majors are all those listed in Group I below, plus a minimum of six additional semester hours from Group II courses. Students who are planning for graduate work in physics or an allied area are advised to select all the courses in Groups I and II; the courses listed in Group III are additional electives of value for such students. A physics major must complete all 300-400 level courses with a minimum grade-point average of 2.0 The grade-point average for all physics courses must also be at least 2.0.

Group I	Group II	Group III	
PHY 301	PHY 321	PHY 441	MTH 403
PHY 303	PHY 404	PHY 351	MTH 404
PHY 390	PHY 420	PHY 399	MTH 411
PHY 408	PHY 403	PHY 499	MTH 412
PHY 314	PHY 409	CPS 353	MTH 413
PHY 430	PHY 432	CPS 354	MTH 430
PHY 431	PHY 433		MTH 463

For the major 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 chairperson and the chairperson of the minor field. The physics program is flexible, even permitting a second major to be selected with the above provisions. Students planning graduate study in medicine, modern engineering, applied mathematics, computer science, law, business, etc., should use the minor or second major and open electives to gain competence in the discipline of interest.

Students in other disciplines who wish to minor in physics may take 12 semester hours of any upper-level physics courses. Group I courses are recommended.

Prospective majors are encouraged to write or visit the Physics Department for more detailed information. New students should contact the chairperson to plan individual programs.

CURRICULUM DESCRIPTION FOR BACHELOR OF SCIENCE WITH A MAJOR IN PHYSICS

	Semester Hours
Physics	38
PHY 196, 207, 208, 214, and associated laboratories	(14)
Physics courses at the 300/400 level	(24)
Mathematics 118, 119, 218, 219, 302	18
Chemistry 123-124 and associated laboratories	8
Minor (300/400 level) if chosen	12
Philosophy and/or Religious Studies	12
Humanities and/or Social Science electives	12
Communication skills	2-13
College Composition (ENG 111, 112), Effective Speaking (SPE 101), and Computer Programming (CPS 144). Some of these requirements may be waived if the student has demonstrated ability.	
General academic electives for program to total at least	120
Consult General Requirements for all Bachelor of Science programs.	

PROGRAM—S11: BACHELOR OF SCIENCE WITH A MAJOR IN PHYSICS¹

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term²</i>	<i>2nd Term</i>
Freshman Year				
PHY	100	Seminar	1-0-0	1-0-0
PHY	196-207	Physics I and II	3-1-3 ²	3-1-3
PHY	196L-207L	Physics Laboratory	0-3-1	0-3-1
MTH	118-119	Analytic Geometry and Calculus I and II	4-0-4	4-0-4
CHM	123-124	Chemistry	3-0-3	3-0-3
—	—	Philosophy or Religious Studies	3-0-3	
—	—	Humanities or Social Science		3-0-3
—	—	Communication skills ³	3-0-3	3-0-3
			<hr/>	<hr/>
			17	17
Sophomore Year				
PHY	100	Seminar	1-0-0	1-0-0
PHY	208	Physics III	3-0-3	
PHY	208L	Physics Laboratory	0-3-1	
PHY	214	Electronics I		1-2-2
PHY	321	Atomic and Nuclear Physics ⁴		3-0-3
MTH	218-219	Calculus, Differential Equations	4-0-4	3-0-3
CHM	123L-124L	Chemistry Laboratory	0-3-1	0-3-1
—	—	Communication skills ³	2-0-2	3-0-3
—	—	Humanities or Social Science	3-0-3	3-0-3
—	—	Philosophy or Religious Studies	3-0-3	
			<hr/>	<hr/>
			17	15 ⁷
Junior Year				
PHY	100	Seminar	1-0-0	1-0-0
PHY	301	Statistical Mechanics	3-0-3	
PHY	303	Intermediate Mechanics	3-0-3	
PHY	390	Quantum Mechanics		3-0-3
PHY	408	Intermediate Electricity and Magnetism		3-0-3
PHY	314	Electronics II	1-2-2	
PHY	430	Advanced Laboratory		0-4-2
MTH	302	Linear Algebra and Matrices	3-0-3	
—	—	Minor ⁵	3-0-3	3-0-3
—	—	Philosophy or Religious Studies		3-0-3
—	—	Humanities or Social Science	3-0-3	
—	—	Elective ⁶		3-0-3
			<hr/>	<hr/>
			17	17
Senior Year				
PHY	100	Seminar	1-0-0	1-0-0
PHY	404	Optics ⁴	3-0-3	
PHY	421	Solid State ⁴		3-0-3
PHY	403	Mechanics ⁴	3-0-3	
PHY	409	Electricity and Magnetism ⁴		3-0-3
PHY	431-432	Advanced Laboratory	0-4-2	0-4-2
—	—	Philosophy or Religious Studies	3-0-3	
—	—	Electives ⁶	3-0-3	6-0-6
—	—	Minor ^{5,3}	3-0-3	3-0-3
			<hr/>	<hr/>
			17	17

¹Consult General Requirements for all Bachelor of Science programs.²For example 3-1-3 signifies 3 hrs. lecture, 1 hour lab. or recitation, 3 sem. hrs. credit.³Students should show proficiency in composition by the end of the freshman year and facility in computer programming by the end of the sophomore year.

⁴In this example, 35 upper-level sem. hrs. in the major are shown (24 required).

⁵Consult Department Chairperson concerning minor.

⁶Electives can be used for developing a second major, a second minor, or for special problems courses (PHY 399, 499).

⁷In this example program, 134 total sem. hrs. are shown; the minimum required is 120 sem. hrs. With some summer work, advanced credit by examination, etc., a student may complete the program in 3½ or even 3 years.

FACULTY

James R. Schneider, *Chairperson*

Distinguished Professor at Large: Bueche

Professors: Kepes, O'Hare, Mann, Schneider, Yaney

Associate Professors: Cothorn, Crivello, Graham, Miner

Assistant Professors: Berney, Craver

COURSES OF INSTRUCTION

PHY 100. SEMINAR: Opportunity to become acquainted with the broad spectrum of modern science through periodic meetings with the entire department. Invited speakers, films, student presentations, book reviews, and informal discussions. All Physics and Physical Science majors. *no credit*

PHY 105. PHYSICAL SCIENCE: This course attempts to give a broad understanding of physical science. It emphasizes concepts and explores scientific thought processes in dealing with principles in physics, with some applications to chemistry, astronomy, and meteorology. Demonstrations and experiences. For nonscience students. Prerequisite: none. (PHY 105 and PHY 108 are mutually exclusive courses for graduation.) *4 sem. hrs.*

PHY 108. PHYSICAL SCIENCE OF LIGHT AND COLOR: A treatment of physical science with emphasis on light, color, and the interaction of light with materials. The photographic process is a unifying theme. Prerequisite: none. (PHY 105 and PHY 108 are mutually exclusive courses for graduation.) *3 or 4 sem. hrs.*

PHY 108L. LIGHT AND COLOR LABORATORY: Laboratory experiences to accompany PHY 108. *1 sem. hr.*

PHY 151, 152. CONCEPTS IN PHYSICS: Basic background and appreciation of physics principles and concepts using a minimum of mathematical formalism; the development of skills and knowledge to appreciate the place of science in contemporary society. For nonscience students. Prerequisite: None. *1 to 4 sem. hrs.*

PHY 196. GENERAL PHYSICS I—MECHANICS: Introductory course in mechanics. Calculus concepts developed as needed. Three lectures, one recitation per week. Corequisite: MTH 118 or 112. *3 sem. hrs.*

PHY 196H. GENERAL PHYSICS I—MECHANICS (HONORS): Introductory course in mechanics for students with a strong background in physics. Three lectures, one 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: Topics from mechanics, thermal and mechanical properties of matter, wave motion and sound, and electricity without the formalism of calculus. First term each year. *3 sem. hrs.*

PHY 201L. GENERAL PHYSICS LABORATORY: Laboratory to accompany PHY 201. Experimental scientific techniques and the use of standard laboratory equipment. One two-hour period per week. First term each year. *1 sem. hr.*

PHY 202. GENERAL PHYSICS: A continuation of PHY 201 with a treatment of electricity and magnetism, wave motion and properties of light, atomic and nuclear physics. Prerequisite: PHY 201. Second term each year. *3 sem. hrs.*

PHY 202L. GENERAL PHYSICS LABORATORY: Laboratory to accompany PHY 202. Experimental scientific techniques and the use of standard laboratory equipment. One two-hour period per week. Second term, each year. *1 sem. hr.*

PHY 203. MODERN TECHNICAL PHYSICS: Introduction to selected topics in modern physics without the formalism of calculus. For engineering technology students. Prerequisites: trigonometry, college algebra, and introductory statics and dynamics. *3 sem. hrs.*

PHY 203L. TECHNICAL PHYSICS LABORATORY: Laboratory experiences to accompany PHY 203. *1 sem. hr.*

PHY 204. INTRODUCTION TO MEDICAL ELECTRONIC INSTRUMENTATION: Lecture/laboratory course introducing basic physical principles and practices encountered in the operation of some electronic instrumentation used in medical technology. For medical technology students. Prerequisite: None. *2 sem. hrs.*

PHY 207. GENERAL PHYSICS II—ELECTRICITY AND MAGNETISM. The basic principles of electricity and magnetism. Three lectures, one recitation per week. Prerequisite: PHY 196, MTH 118. *3 sem. hrs.*

PHY 207H. GENERAL PHYSICS II—ELECTRICITY AND MAGNETISM (HONORS): Basic principles of electricity and magnetism. Three lectures, one recitation per week. By invitation only. *3 sem. hrs.*

PHY 207L. GENERAL PHYSICS LABORATORY II: Open-ended experiments in electricity and magnetism, appropriate to 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. Prerequisite: PHY 207, MTH 119; or PHY 201-202, MTH 113. *3 sem. hrs.*

PHY 208H. GENERAL PHYSICS III—MECHANICS OF WAVES (HONORS): Introduction to modern physics through a study of wave phenomena including sound, light and matter waves. By invitation only. *3 sem. hrs.*

PHY 208L. GENERAL PHYSICS LABORATORY III: A number of experiments emphasizing optics and modern physics. Two hours laboratory, one hour recitation per week. Prerequisite: PHY 207L; corequisite: PHY 208. *1 sem. hr.*

PHY 214. ELECTRONICS FOR SCIENTISTS I: Introduction to electronic circuits with a consideration of D.C. and A.C. circuit analysis, diodes, bipolar and field effect transistors, and other semiconductor circuit devices. Demonstrations and bench-top experience. Prerequisite: PHY 207L or 202L or equivalent. *2 sem. hrs.*

PHY 250. DESCRIPTIVE ASTRONOMY: A descriptive course for all students who have little or no previous exposure to astronomy. Material extends from ancient times through recent discoveries, including pulsars and quasi-stellar objects. Prerequisite: None. *3 or 4 sem. hrs.*

PHY 250L. ASTRONOMY LABORATORY: Laboratory experience to accompany PHY 250. *1 sem. hr.*

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; laws of thermodynamics, kinetic theory of dilute gases, and Fermi-Dirac and Bose-Einstein statistics. Corequisite: MTH 219. Prerequisite: PHY 208. *3 sem. hrs.*

PHY 303. INTERMEDIATE MECHANICS I: The fundamental concepts of mechanics; virtual work, kinematics, special theory of relativity, Lagrange's equation and central forces, particle dynamics. Corequisite: MTH 219. Prerequisite: PHY 208. *3 sem. hrs.*

PHY 314. ELECTRONICS FOR SCIENTISTS II: Continuation of PHY 214; thyristors such as SCR, linear IC, digital IC, and other discrete and integrated semiconductor circuit devices. Demonstrations and bench top experience. Prerequisite: PHY 214. *2 sem. hrs.*

PHY 321. ATOMIC AND NUCLEAR PHYSICS: Concepts and models of the structure of matter; atoms, ions, electrons and nuclei, radioactivity, interactions of radiation with matter, particle detection, accelerators, nuclear models, nuclear reactions and processes, and fundamental particles. Prerequisite: PHY 208 or consent of instructor. *3 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 218, PHY 208. *3 sem. hrs.*

PHY 390. INTRODUCTION TO QUANTUM MECHANICS: Basic postulates of quantum mechanics with applications made to atomic physics. Prerequisite: PHY 208, MTH 219 MTH 302. *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 403. INTERMEDIATE MECHANICS II: Emphasis on solving physical problems; noninertial coordinate systems, rigid body motion, rotating systems, coupled systems, introductory fluid statics and dynamics, normal coordinates, and the descriptions of mechanics appropriate for the transition to wave mechanics. Prerequisite: PHY 303. *3 sem. hrs.*

PHY 404. PHYSICAL OPTICS: The electromagnetic wave theory of light, propagation of waves, reflection, refraction, dispersion, polarization, dichroism, birefringence, superposition of waves, interference, diffraction, Fourier optics. Prerequisites: PHY 208, MTH 219. *3 sem. hrs.*

PHY 408. INTERMEDIATE ELECTRICITY AND MAGNETISM I: Electrostatics, Coulomb's law, Gauss's law, potential, dielectric materials, electrostatic energy, solutions to Laplace's and Poisson's equations, Biot-Savart law, Faraday induction law, magnetization, and Maxwell's equations. Prerequisites: PHY 208, MTH 219. *3 sem. hrs.*

PHY 409. INTERMEDIATE ELECTRICITY AND MAGNETISM II: Further study of electric and magnetic fields with emphasis on solving problems; Maxwell's equations, the propagation of electromagnetic waves, electromagnetic radiation. Prerequisite: PHY 408. *3 sem. hrs.*

PHY 420. INTRODUCTION TO SOLID STATE: Classification of solids, 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.*

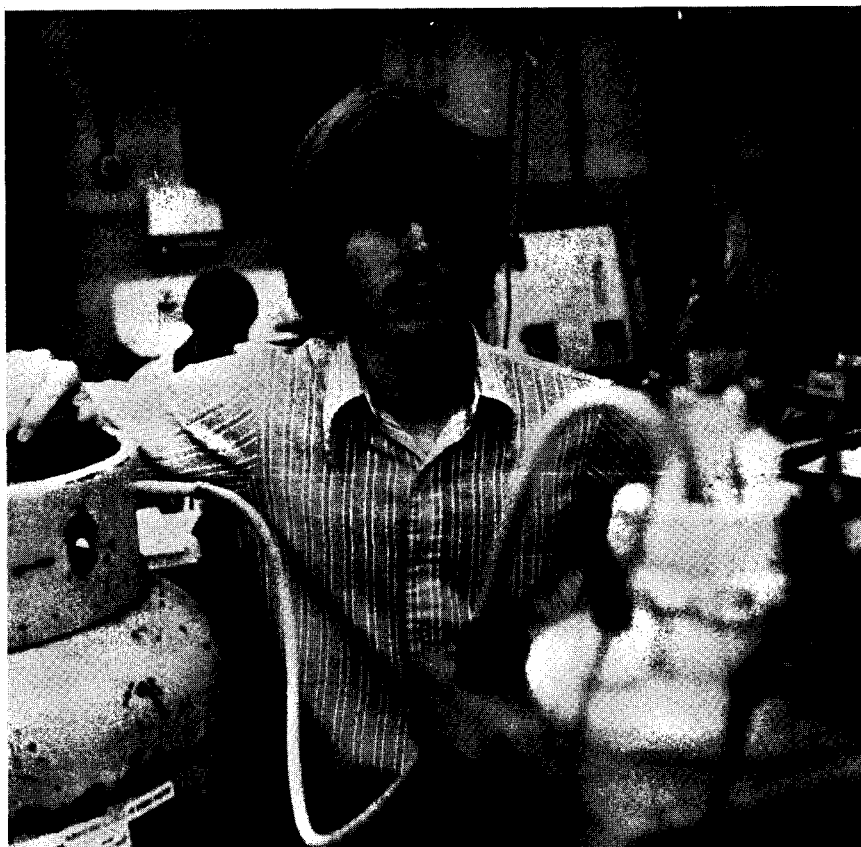
PHY 430-431-432-433. **ADVANCED LABORATORY:** Experimental investigations based on principles from atomic and nuclear physics, electricity and magnetism, modern and classical optics, mechanics, solid state, cryogenics, x-ray diffraction, surface physics, or electronics. Not all experiments available every semester; consult chairperson for details. Prerequisite: PHY 214; Corequisite: An advanced course in physics. *Each 2 sem. hrs.*

PHY 441. **TOPICS IN MODERN PHYSICS.** Elements of modern optics, solid state, and other selected subjects. Consult departmental chairperson for details. Prerequisite: PHY 390 or equivalent. *3 sem. hrs.*

PHY 451-452-453. **INTERMEDIATE PHYSICS:** A selection of modern and classical physics from the junior-senior curriculum to emphasize understanding of principles and an explanation of the physics as opposed to the detailed mathematical analysis. Basic laboratory practice, demonstration, and independent design of experiments. For students of physical science. Prerequisites: PHY 208, 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. *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, polymers, atomic and nuclear physics, modern optics, theoretical physics, surface physics, or general physics. Prerequisite: permission of department chairperson. *1-6 sem. hrs.*



POLITICAL SCIENCE (POL)

A major in political science includes POL 201, 202 or 214, 207, 317 and 421. An additional 21 hours of work in Political Science is required and must include 18 hours of work at the 300-400 level. The advanced courses must be chosen in consultation with the advisor and in accordance with academic or career objectives. Students electing an area concentration in pre-law, urban affairs, or public administration are encouraged to take POL 495, Internship. Students in the pre-law area of concentration may replace POL 207 with six hours in Accounting (ACC 207-208 or 301 and 302 or 407).

A minor in political science includes POL 201 and four 300/400 level courses selected by the student to strengthen academic or career objectives.

PROGRAM—A16: 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 54 semester hours of upper-level courses (300-400-numbered courses). For limitations on credit and restrictions on courses, consult the chairperson and the dean. Consult also Distribution Table for Bachelor of Arts programs.

	<i>Semester Hours</i>
<i>Political Science</i>	36
Courses must include POL 201, 202 or 214, 207, 317 and 421. An additional 21 hours of work in Political Science is required and must include 18 hours of work at the 300-400 level. Students in the pre-law area of concentration may replace POL 207 with six hours in accounting (ACC 207-208 or 301 and 302 or 407).	
<i>Natural Science and Mathematics</i>	7
Courses to fulfill this requirement must be chosen from biology, chemistry, geology, physics, mathematics, and computer science. At least 4 sem. hrs. must be in an approved natural science course (biology, chemistry, geology, physics) with an accompanying laboratory.	
<i>Social and Behavioral Sciences</i>	12
Courses to fulfill this requirement must be chosen from anthropology, economics, psychology, sociology; and, with the approval of department chairperson, appropriate applied social science courses in Afro-American studies, management, criminal justice, education, marketing, or social work. At least one unit of 6 sem. hrs. in a single discipline required with at least 3 sem. hrs. from the 300/400 level.	
<i>Humanities</i>	18
Courses to fulfill this requirement must be chosen from American studies, communication arts, English, history, humanities studies, languages, performing and visual arts, philosophy, religious studies, and, with approval of department chairperson, certain humanities-related courses in Afro-American studies or ASI. A unit of 9 sem. hrs. with at least 3 sem. hrs. from 300-400 level courses is required. The exceptions are courses in languages and performing and visual arts, in which a unit may be satisfied with 9 sem. hrs. at any level. The remaining 9 semester hours of electives are to be chosen from one or more other departments within the humanities. The basic philosophy, religious studies and communication skills courses do not fulfill this requirement.	
<i>Philosophy and/or Religious Studies</i>	12
<i>Communication Skills</i> (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, and/or advanced placement. Information should be sought in the office of the dean.	

Minors and Area Concentrations

A student may elect a minor in education under the E-11 Program or in any related discipline within the College of Arts and Sciences. The student must consult with the department administering the discipline for the particular requirements of a minor. In addition, the student may elect any *one* of the four multi-disciplinary 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, 351 Cities: Urban Communities, Problems and Planning; and any three of the following courses:

BIO 399	The Bio-Ecology of Man (or GEO 208, Environmental Geology)
HST 397	History of Blacks in U.S. (or AAS 242, Afro-American History after 1900)
PSY 342	Community Problems and Psychology
SOC 328	Racial and Ethnic Minorities
ANT 110	Perspectives on Urban People (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 a 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:

FIN 301	Business Finance
ECO 204	Principles of Macroeconomics
	Literature courses (ENG 203 or 204 or 205)
	Composition courses (ENG 272 or 316 or 374)
PHL 301	Practical Logic
PSY 341	Social Psychology
SOC 327	Criminology and Penology
SPE 312	Persuasion

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 202, Introduction to Comparative Politics, and POL 214, Introduction to International Politics, and any four of the following:

ENG 272	Expository Writing
ENG 316	Advanced Composition
ECO 450	Comparative Economic Systems
ECO 460	Economic Development and Growth
ECO 461	International Economics
PSY 341	Social Psychology
ANT 250	Survey of World Cultures

HISTORY COURSES at the advanced level embracing European, Asian, Latin-American, African and Middle Eastern history. Choices should be based upon student's interest and career objectives.

Students electing this concentration are also encouraged to acquire competence in a foreign language and to participate in study abroad programs.

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
MGT 314	Personnel Management
MGT 318	Human Relations for Management
COM 401	Publicity and Public Relations
ENG 370	Report Writing
or	
ENG 372	Applied Written Communications
PSY 334	Industrial Psychology
CRJ 447	Contemporary Issues in Justice Administration
ECO 445	Public Finance
MTH 207	Statistical Methods for Behavioral Sciences
SWK 337	Social Welfare Policy and Services

Dept.	No.	Course	1st Term ¹	2nd Term
Freshman Year				
POL	100	Freshman Seminar	1-0-0 ¹	
ENG	111, 112	College Composition I and II ²	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	4-0-4	3-0-3
—	—	Social science requirement	3-0-3	3-0-3
			17	15
Sophomore Year				
POL	201	The American Political System	3-0-3	
POL	202	Introduction to Comparative Politics or		
or 214		Principles of International Relations		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
POL	207	Political Analysis	3-0-3	
SPE	101	Fundamentals of Effective Speaking ²		3-0-3
			15	15

(For junior and senior years, see Program A16 above and consult with the department chairperson.)

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

²Students whose communication skills requirements are waived are encouraged to take humanities and political science courses.

FACULTY

Gerald E. Kerns, *Chairperson*

Professor: Lapitan

Associate Professors: Fogel, Kerns, Liebler

Assistant Professors: Ahern, Inscho, Howard, Karns, Nelson

Adjunct Assistant Professors: Hillman, Schneider, Kunde

COURSES OF INSTRUCTION

POL 201. THE AMERICAN POLITICAL SYSTEM: 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 202. INTRODUCTION TO COMPARATIVE POLITICS: Analysis of major concepts and approaches in the study of comparative government and politics. *3 sem. hrs.*

POL 207. POLITICAL ANALYSIS: A sophomore level course introducing students to the basic concepts and processes of research in political science. *3 sem. hrs.*

POL 214. PRINCIPLES OF INTERNATIONAL RELATIONS: An analysis of the dynamic forces influencing nations in their conduct of world affairs. *3 sem. hrs.*

POL 217. POLITICAL ISSUES: An introductory examination of contemporary political issues selected by the instructor; such topics as welfare, political morality, political campaigns, institutional reform and political economy. *3 sem. hrs.*

POL 301. THE AMERICAN JUDICIAL PROCESS: Study of the American judicial system with emphasis on the courts and the bar; criminal and civil legal processes in detail. *3 sem. hrs.*

POL 303. STATE GOVERNMENT AND POLITICS: Comparative study of the political institutions, processes, and systems of the fifty states and their effect on the content and administration of selected public policies, programs, and services. *3 sem. hrs.*

POL 305. INTRODUCTION TO PUBLIC ADMINISTRATION: Basic principles of organization and management in executive departments of government at all levels; questions of planning, leadership, and control. *3 sem. hrs.*

POL 306. PUBLIC POLICY ANALYSIS: Introduction to public policy-making systems and the methodology of policy analysis; theories of policy formulation, the policy-making process, means for measuring policy effectiveness, analysis of proposals for policy change. *3 sem. hrs.*

POL 310. PARTIES AND INTEREST GROUPS: 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: The formation, maintenance, change, and impact of public opinion in the American political system; the role of theory and analysis of data in understanding public and political behavior. *3 sem. hrs.*

POL 312. THE LEGISLATIVE PROCESS: Study of the U. S. Congress, its organization and procedures, and its powers and influence in the political system. *3 sem. hrs.*

POL 313. THE AMERICAN PRESIDENCY: Study of the American presidency, the development of presidential powers, and its leadership role in the political system. *3 sem. hrs.*

POL 317. DEVELOPMENT OF POLITICAL THEORY: An analysis of selected theorists and political doctrines forming the tradition of Western thought on politics and society. Theorists including Plato, Aristotle, the Stoics, St. Augustine, St. Thomas Aquinas, Machiavelli, Hobbes, Locke, Rousseau, Burke, Hegel. Marx and Lenin are presented in their historical and sociopolitical contexts. *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 321—Russia and Eastern Europe

POL 322—The Far East

POL 323—Latin America

POL 324—Southern Asia

POL 325—The Middle East

POL 326—Africa

3 sem. hrs. each

POL 360. URBAN POLITICS: Study of the nature of urban political systems in the U.S. 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; the international agencies responsible for their development, interpretation, and administration. *3 sem. hrs.*

POL 408. AMERICAN FOREIGN POLICY: Critical study of the American foreign policy process and 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 behaviors. *3 sem. hrs.*

POL 411. CONSTITUTIONAL LAW: Analysis of the general principles inherent in the basic law of the U. S. and some of its more significant provisions—the commerce clause, taxing and spending power, due process, and dimensions of presidential authority. *3 sem. hrs.*

POL 412. METROPOLITAN POLITICAL REFORM: 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: Examination of the nature and meaning of bureaucracy in contemporary American society and the devices for its evaluation and control. *3 sem. hrs.*

POL 419. TWENTIETH-CENTURY POLITICAL THOUGHT: Principal contributors to political thinking and orientation in the 1900's; Lenin, the theorists of fascism, Durkheim, Dewey, Fromm, Niebuhr, Skinner; 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 content changes. Prerequisite: Permission of professor. *3 sem. hrs.*

POL 422. AMERICAN AND BRITISH LEGAL THOUGHT: Main currents in American and British legal theory; contemporary jurists and their respective legal thoughts; criminal law and punishment; 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 437. PROBLEMS IN INTERNATIONAL POLITICS: Focus on selected problems in international politics including the causes of war and conflict, negotiation, the Middle East and the gap between rich and poor nations. POL 214 is suggested as a prerequisite. May be repeated as the topic changes. *3 sem. hrs.*

POL 450. CIVIL LIBERTIES: Analytical examination of civil liberties in the U.S. with 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.*

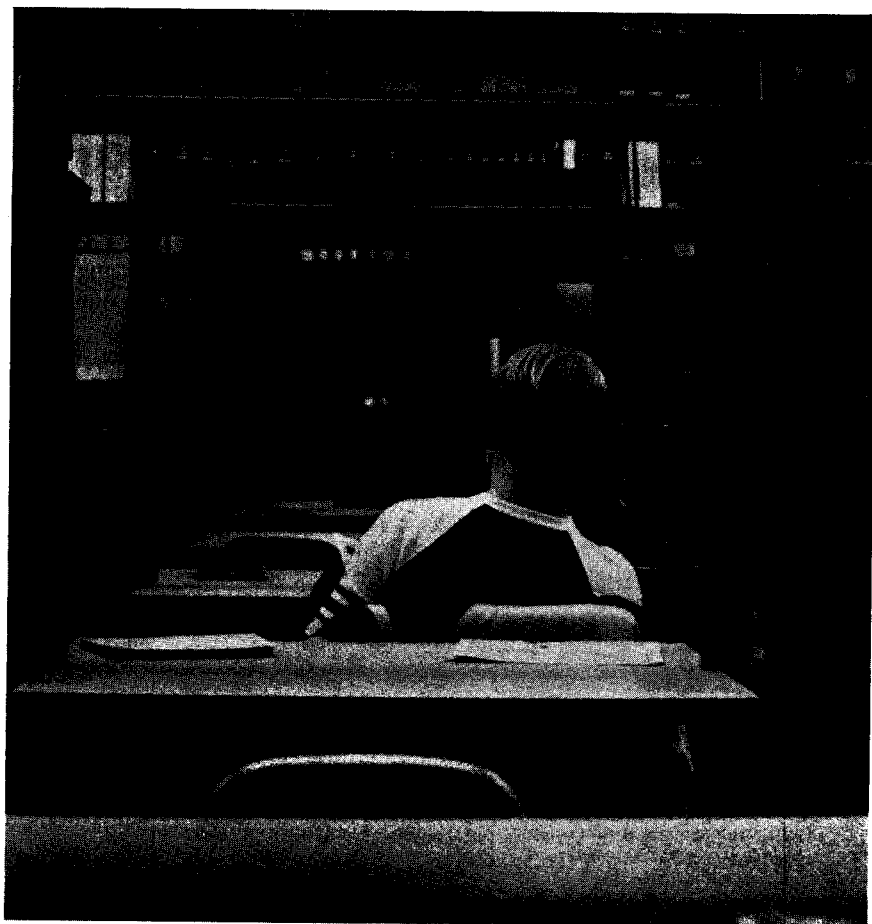
POL 452. POLITICAL VIOLENCE: Consideration of theoretical approaches to understanding violent change in political institutions; the continuum between violence and nonviolence of revolution, revolt, campus dissent, and political assassination. *3 sem. hrs.*

POL 457. POLITICAL CHANGE IN THE THIRD WORLD: Analysis of the concepts of development and change within the context of Third World nations; particular emphasis on the impact of modernization on political processes and change. *3 sem. hrs.*

POL 475. AMERICAN POLITICAL THOUGHT: Ideas that have shaped the American political system: 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: Intensive examination of policy process, outcomes, and impact in an area or areas of American public policy selected by the instructor; 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 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.*



PREMEDICINE (MED) AND PREDENTISTRY (DEN) STUDIES

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 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 Programs A2 (B.A. in Chemistry), or S2 (B.S. 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 premedicine/predentistry 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/predental 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 courses in the humanities and the social sciences. Students contemplating a career in medicine or dentistry should realize the 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. Premedical/predental students can change to biology or (B.A.) chemistry majors during the junior year without any loss of semester hours.

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: *Chairperson*—C. J. Chantell (Biology); L. B. Fox (Chemistry), T. P. Graham (Physics), 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. Both the Medical College Admissions Test and the Dental Aptitude Testing Program are usually administered on this campus each 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 may be obtained from the premedical/predental office.

The increasingly high admission standards for professional schools make it imperative that the premedical and predental student give full time to study. The undergraduate cumulative grade point average is an important criterion in gaining admission to a professional school. The minimum acceptable cumulative average for most medical and dental schools is over 3.0. For this reason, the Premedical/Predental Faculty Committee conducts a sophomore evaluation of all students enrolled in Program S12. Any student whose cumulative average after 2 years is below 2.8 will be directed to change his/her major.

Premedicine/Predentistry Curriculum Summary

*Science Courses**Specified*

BIO 151, 152, 152L, 201L

CHM 123, 123L, 124, 124L, 201, 201L, 313, 313L, 314, 314L

PHY 201, 201L, 202, 202L (May substitute PHY 196, 207, 208, 201L, 202L)

MTH 112, 113 (May substitute depending on background)

Electives

Minimum of six lecture courses in biology, chemistry, computer science, mathematics (Recommend choice from comparative anatomy, cell biology, embryology, genetics, microbiology, physiology, parasitology, intermediate organic chemistry, physical chemistry, biochemistry, biostatistics). These science electives must be directly related to the major field of interest. Laboratory sections must accompany two of these science electives.

*Nonscience Courses**College Requirements*

ENG 111 and 112. Students with initial placement in ENG 112 or 114 must take an additional English elective (ENG 272 or ENG 316 are recommended). The SPE 101 requirement should be taken in the freshman year. Twelve semester hours of Philosophy and/or Religious Studies. Consult General Requirements for all Bachelor of Science programs.

Humanities Electives

Twelve semester hours in art, American studies, communication arts, English, history, language, literature, music, performing and visual arts, philosophy, theater, religious studies, etc. A full year of modern foreign language is strongly recommended. (The College requirements of English, speech, philosophy and religious studies do not fulfill the Humanities elective requirement).

Social-Behavioral Science Electives

Twelve semester hours in anthropology, economics, criminal justice, political science, psychology, social work, sociology, etc.

General Electives

Minimum of 21 credit hours of free electives in any Arts and Science area. With the advisor's permission, some general electives can be taken in the professional schools of the University.

**PROGRAM—S12: BACHELOR OF SCIENCE WITH A MAJOR IN
PREMEDICINE OR PREDENTISTRY¹**

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term²</i>	<i>2nd Term</i>
Freshman Year				
BIO	100	Freshman Seminar	1-0-0	
BIO	151-152	Concepts of Biology	3-0-3 ²	3-3-4
CHM	123-124	General Chemistry	3-3-4	3-3-4
MTH	112-113	Introductory Calculus ³	3-0-3	3-0-3
ENG	111-112	College Composition I and II ⁴	4-0-4	3-0-3
—	—	College requirements ⁵	3-0-3	3-0-3
			17	17

Sophomore Year				
BIO	201L	Biology Lab Investigation	0-3-1	
CHM	313-314	Organic Chemistry	3-3-4	3-3-4
PHY	2-202	Physics ⁶	3-2-4	3-2-4
—	—	Science elective ⁷		3-0-3
—	—	College requirement ⁵	3-0-3	
—	—	Humanities/Social-Behavioral sciences ⁸	3-0-3	6-0-6
			15	17
Junior Year				
CHM	201	Quantitative Analysis		2-4-4
—	—	Science electives ⁷	3-3-4	3-0-3
—	—	College requirement ⁵	3-0-3	
—	—	Humanities/Social-Behavioral sciences ⁸	3-0-3	6-0-6
—	—	General electives ⁹	6-0-6	3-0-3
			16	16
Senior Year				
—	—	Science electives ⁷	3-3-4	6-0-6
—	—	College requirement ⁵	3-0-3	
—	—	Humanities/Social-Behavioral sciences ⁸	3-0-3	3-0-3
—	—	General electives ⁹	6-0-6	6-0-6
			16	15

¹Consult General Requirements for all Bachelor of Science programs.

²For example: 3-0-3 means 3 class hrs., 0 lab hrs., 3 sem. hrs. of credit.

³Placement test may necessitate initial course in precalculus (MTH 101). Depending on background and interests, two calculus sequences are available, MTH 112-113, MTH 118-119. Well qualified students are strongly advised to elect MTH 118, 119. (See Mathematics Courses of Instruction.)

⁴See information under Premedicine/Predentistry Curriculum Summary: *College Requirements*. English elective if 1st term placement was ENG 112 or 114 (recommend ENG 272 or 316).

⁵See information under Premedicine/Predentistry Curriculum Summary: *College Requirements*. SPE 101, 12 sem. hrs. of PHL and/or REL.

⁶Depending on mathematics background and interests, two physics sequences are available, PHY 201-202, PHY 196-207-208. Well qualified students are strongly advised to elect PHY 196, 207, 208, and to take the PHY 201-202 labs.

⁷See information under Premedicine/Predentistry Curriculum Summary: *Science Electives*. Sophomore year recommendations: MTH 215, BIO 309, 425, 440, CPS. Junior and Senior year recommendations: CHM 302, 412, 420, 551, 552, BIO 403, 407, 411, 412, MTH, CPS.

⁸See information under Premedicine/Predentistry Curriculum Summary: *Humanities and Social-Behavioral Science Electives*. Recommend a full year of a modern foreign language.

⁹Electives in any Arts and Science area. Advisor's permission for general electives in the Schools of Business Administration and Education.

PSYCHOLOGY (PSY)

Psychology is the scientific study of behavior, its causes, problems, etc., and as such is a diverse field that 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 increase their critical thinking skills, facilitate their acquisition of the body of knowledge inherent in the study of human behavior, equip them with its research methodology, and prepare them for employment or graduate school. The department is large enough to have all of the academic and social benefits that a university department can provide and small enough to provide individual attention to every student.

The Psychology Department offers both the Bachelor of Arts and the Bachelor of Science. Each student, in consultation with an advisor, selects a program leading to either a Bachelor of Arts or a Bachelor of Science with appropriate elective credits according to individual interests and goals. The availability of both degrees allows the student to plan a double major or a major in psychology with a strong concentration of study in a related or complementary discipline.

Each psychology major must complete PSY 101, 216, and 217 early in his/her academic career. The remaining requirements are stated in the two outlines below. Exceptions to these requirements must be approved by the chairperson of the psychology department.

For a minor in psychology a student must complete PSY 101 and 12 semester hours of upper-level (300-400) courses and their prerequisites.

All graduate psychology (500-level) courses are open for credit to undergraduate students with permission of the advisor and the instructor. See the Graduate Catalog issue of the University Bulletin for a listing of graduate courses. Courses which are usually offered as combined undergraduate and graduate courses are so designated in the course descriptions.

PROGRAM—A17: BACHELOR OF ARTS WITH A MAJOR IN PSYCHOLOGY¹

	<i>Semester Hours</i>
Psychology requirements and electives ²	34
PSY 101, 216 ³ , 217	10
Select two courses from PSY 321, 322, 323, 422	6
Select two courses from PSY 341, 351, 361, 363	6
PSY electives	12-23
Natural sciences and mathematics ⁴	10
Social and behavioral sciences ⁵	12
Humanities ⁶	18
Philosophy and/or Religious Studies	12
Communication skills (SPE 101, ENG 111 and/or 112 or 114) ⁷	10
General academic electives to total at least ⁸	120

¹See Distribution Table for all Bachelor of Arts programs.

²A maximum of 45 sem. hrs. in the major may be applied to the 120 sem. hrs. required for graduation. At least 24 of the required 34 sem. hrs. must be from 300-400 level.

³May substitute MTH 207 or 215 for PSY 216. It is recommended that students who have had fewer than 3 years of high school mathematics and/or are deficient in mathematics skills take MTH 107 before taking PSY 216. Students who have had 3 years or more of high school mathematics cannot receive credit for MTH 107.

⁴Natural sciences and mathematics include BIO, CHM, GEO, PHY, MTH and CPS. One natural science with an accompanying laboratory is required.

⁵Psychology majors exclude PSY. At least 3 sem. hrs. must be in ANT, ECO, POL, or SOC. Six sem. hrs. must be in a single discipline with at least 3 sem. hrs. at 300-400 level. With approval of psychology chairperson appropriate courses in AAS, MGT, CRJ, Education, MKT, MIL, SWK, or ASI may be included.

⁶Humanities include AMS, COM, ENG, HST, HMS, LNG, PVA, PHL, REL, and, with the approval of the psychology chairperson, courses in AAS and ASI. At least one unit of 9 sem. hrs. must be in a single discipline with at least 3 sem. hrs. at 300-400 level except languages and performing arts, in which a unit may be satisfied with 9 sem. hrs. at any level. The remaining 9 sem. hrs. of the humanities requirement must be taken in other humanities discipline(s). The basic philosophy, religious studies, and communication skills do not fulfill this requirement. Courses in PHL, REL, SPE, and ENG beyond the basic requirements may be counted as humanities.

⁷Each student in the College of Arts and Sciences must demonstrate competence in written and oral communication before completion of the freshman year. Proficiency may be demonstrated through completion of the above courses or by compliance with approved alternatives stated elsewhere in this publication.

⁸At least 54 of the 120 sem. hrs. required for the degree must be at the 300-400 level. No more than 2 cr. hrs. of physical education activities courses may apply to the 120 cr. hrs. required for the degree.

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

	<i>Semester Hours</i>
Psychology requirements and electives ¹	34
PSY 101, 216 ² , 217	10
Select two courses from PSY 321, 322, 323, 422	6
Select two courses from PSY 341, 351, 361, 363	6
PSY electives	12-23
Natural sciences (BIO, CHM CPS, GEO, PHY) ³	24
Mathematics 112 and 113 ⁴	6
Language ⁵	6
Philosophy and/or Religious Studies electives	12
Communication skills (SPE 101, ENG 111 and 112 or 114) ⁶	10
General academic electives to total at least ⁷	120

¹At least 24 of the required 34 sem. hrs. must be from the 300-400 level.

²May substitute MTH 207 or 215 for PSY 216. It is recommended that students who have had fewer than 3 years of high school mathematics and/or are deficient in mathematics skills take MTH 107 before taking PSY 216. Students who have had 3 years or more of high school mathematics cannot receive credit for MTH 107.

³MTH courses above the 113 level may be counted toward the science requirement.

⁴May substitute MTH 101 for MTH 112 and MTH 112 for MTH 113.

⁵French, German, or Russian preferred. Students may take general electives in lieu of a language. See advisor since graduate study often requires a language.

⁶Each student in the College of Arts and Sciences must demonstrate competence in written and oral communication before the completion of the freshman year. Proficiency may be demonstrated through completion of the above courses or by compliance with approved alternatives stated elsewhere in this publication.

⁷120 sem. hrs. are required for the degree. Consult General Requirements for all Bachelor of Science programs.

FACULTY

Kenneth J. Kuntz, *Chairperson*

Associate Professors: Bower, Butter, DaPolito, Jacobson, Kimble, Kuntz, Polzella

Assistant Professors: Allik, Berg, Biers, Katsuyama, Korte, Nau, Meyers-Abell

Part-time Instructors: Bromberg, Eggemeier, Ernst, MacLeod, Rueth, Szoke, Thornton

COURSES OF INSTRUCTION

PSY 101. INTRODUCTORY PSYCHOLOGY: Study of human behavior including development, motivation, emotion, personality, learning, perception; general application of psychological principles to personal, social, and industrial problems. Students must participate in departmental research. *3 sem. hrs.*

PSY 216. ELEMENTARY STATISTICS: Basic probability and applied statistics: combinatorial 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: Basic concepts of scientific methods as applied to psychological problems. Experiments to familiarize students with application of scientific methodology to study of human psychological processes. Required of all psychology majors. Prerequisites: PSY 101, 216. *4 sem. hrs.*

PSY 251. HUMAN GROWTH AND DEVELOPMENT: Focuses on stages of human development from infancy through the aging adult. Emphasis is on various theoretical approaches and the development associated with each stage. Psychology majors may not take for credit toward major. Prerequisite: PSY 101. *3 sem. hrs.*

PSY 318. EXPERIMENTAL DESIGN AND INFERENCE: 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: Information-processing approach to attention, perception, memory imagery, and thought. Theoretical structures including neuron modeling of higher cognitive and experimental process. Prerequisite: PSY 101. *3 sem. hrs.*

PSY 322. LEARNING: Foundations of the learning process. Classical instrumental paradigms and variants of each 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, including visual, auditory, proprioceptive, and other sensory systems. Prerequisite: PSY 101. (Also PSY 529.) *3 sem. hrs.*

PSY 325. CONSCIOUSNESS AND PARAPSYCHOLOGY: Systematic exploration of the nature of human consciousness using both traditional and esoteric psychological literature; perception, rational and intuitive thought, psychophysiology of consciousness, meditation, biofeedback, and the psychology of time. Prerequisite: PSY 101. *3 sem. hrs.*

PSY 333. PSYCHOLOGICAL TESTS AND MEASUREMENTS: Survey of major tests of intelligence, aptitude, interest, and personality presently used in clinics, schools, personnel offices, and research settings. Emphasis on evaluation and comparison, rationale of construction, and ethical considerations. Prerequisites: PSY 101, 216 or equivalent. *3 sem. hrs.*

PSY 334. INDUSTRIAL PSYCHOLOGY: Introduction to modern efforts to improve human performance in industrial organization and society; selection and placement of employees, morale, training, and incentives. Prerequisite: PSY 101. *3 sem. hrs.*

PSY 341. SOCIAL PSYCHOLOGY: Survey of major theoretical and experimental work in the field; attitudes, conformity, emotions, group dynamics. Prerequisite: PSY 101. *3 sem. hrs.*

PSY 342. COMMUNITY PROBLEMS AND PSYCHOLOGY: 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 term projects, such as volunteer work for a community organization that addresses itself to one of these problems. Prerequisite: PSY 341. *3 sem. hrs.*

PSY 344. INTERPERSONAL RELATIONS: Emphasizes social psychological research in the areas of nonverbal behavior, social exchange, self-disclosure, and interpersonal attraction and how these topics are related to developing and stable relationships. Prerequisite: PSY 101. *3 sem. hrs.*

PSY 351. CHILD PSYCHOLOGY: Introduction to the study of psychological processes from the developmental point of view; changes in perception, cognition, emotion, and social behavior during infancy and through preschool and elementary school years. Prerequisite: PSY 101. *3 sem. hrs.*

PSY 352. FIELD EXPERIENCE IN CHILD PSYCHOLOGY: Practical experience with one of several agencies in the community which provide instructional, recreational, or therapeutic services for children. Between 3 and 5 hours per week. Agency selected in consultation with instructor. Prerequisites: PSY 101, and previous or concurrent registration in PSY 351. Grade option 2 only. *1 sem. hr.*

PSY 355. PSYCHOLOGY OF ABNORMAL CHILD: Survey of major emotional and behavioral disturbances in children; description, possible causes, implications for treatment. Study of more effective approaches to parenting. Prerequisite: PSY 101. *3 sem. hrs.*

PSY 360. DYNAMICS OF ADJUSTMENT: Emphasis on personality dynamics and effective behavior through self-study of interpersonal behavior and adjustment in a group situation. Prerequisite: PSY 101. *3 sem. hrs.*

PSY 361. PERSONALITY: Introduction to the study of personality through theoretical views and clinical and experimental findings. Prerequisite: PSY 101. *3 sem. hrs.*

PSY 363. ABNORMAL PSYCHOLOGY: Patterns of disordered behavior; social, psychological, and physiological factors; theoretical explanations of abnormal behavior. Prerequisite: PSY 101. *3 sem. hrs.*

PSY 364. PSYCHOTHERAPY: Survey of current types of psychotherapy. Emphasis is on similarities and differences in underlying theories of behavioral change and associated techniques. Prerequisite: PSY 101. *3 sem. hrs.*

PSY 367. BEHAVIOR MODIFICATION: Description of approaches to the modification of behavior integrating material from learning theory, abnormal behavior, and psychotherapy. Prerequisite: PSY 322 or equivalent. *3 sem. hrs.*

PSY 421. PSYCHOLINGUISTICS: Several areas of investigation including relationship between language and perception and thought, 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 discussed as techniques in the study of the nervous system. Prerequisite: PSY 101. *3 sem. hrs.*

PSY 423. COGNITIVE NEUROPSYCHOLOGY: Relationship between diseases of the central nervous system and cognitive disorders. Includes aphasic disorders of language and speech; disorders of perception; and the major disorders of reading, writing and voluntary movement which are associated with brain damage. Prerequisites: PSY 101 and permission of instructor. *3 sem. hrs.*

PSY 431. INTERVIEWING AND COUNSELING: Techniques and theories of interviewing and counseling. Practice through role playing and case study. Prerequisite: PSY 101 or permission of the instructor. *3 sem. hrs.*

PSY 435. HUMAN FACTORS: Course to provide engineers and psychologists with essential psychological concepts and methods to improve use of human efforts and equipment. Principles governing design of equipment that account for the capacities and limitations of human processes. Prerequisite: PSY 216. *3 sem. hrs.*

PSY 443. PSYCHOLOGY OF WOMEN: Scholarly approach to current topics, which vary but may include sex role learning, images of women in the mass media, sex differences, and pros and cons of the feminist movement. Open to all interested students, male and female. Prerequisite: PSY 101. *3 sem. hrs.*

PSY 452. COGNITIVE DEVELOPMENT IN CHILDREN: Major approaches to the study of cognitive development; attentional and mediational development as demonstrated in children's learning, memory, and problem solving; language development and Piaget's theory. Prerequisite: PSY 351 or permission of instructor. (Available for graduate credit.) *3 sem. hrs.*

PSY 461. CURRENT IMPLICATIONS OF DRUG DEPENDENCY: Survey of effects, symptoms, treatment, casualties, and myths associated with drug use and abuse. Emphasis on existing treatment methods and psychological implications of drug dependency. Prerequisite: PSY 101. *3 sem. hrs.*

PSY 462. HUMAN SEXUAL BEHAVIOR: Exploration of the psychological factors in human sexuality; psychosexual development, causes and treatments of sexual dysfunction, variations and deviations in sexual behavior. Emphasis on current psychological research. Prerequisite: PSY 101. *3 sem. hrs.*

PSY 467. TELEVISION AND ITS EFFECTS ON CHILDREN: Readings in psychological research on the effects of television on children; television's role as a socialization medium, rather than as an entertainment medium. Major emphasis will be placed on analyzing and evaluating the research. Prerequisite: PSY 101. *3 sem. hrs.*

PSY 471. HISTORY OF PSYCHOLOGY: The evolution of psychology from its origins in philosophy, science, clinical, and applied settings. Emphasis on integrating these systems and schools of thought with modern psychology. Prerequisite: PSY 101 or permission of instructor. (Also PSY 526.) *3 sem. hrs.*

PSY 491. HONORS SEMINAR FOR SENIORS IN PSYCHOLOGY: Course to allow seniors of high academic achievement to synthesize knowledge from previous courses. Prerequisite: Permission of instructor. *3 sem. hrs.*

PSY 493. INDEPENDENT STUDY: Problems of special interest investigated under individual faculty direction. Area and criteria for evaluation to be specified prior to registration. May be repeated for up to 6 sem. hrs. Prerequisite: Permission of instructor. *1-6 sem. hrs.*

PSY 494. READINGS IN PSYCHOLOGY: Directed reading in a specific area of interest, conducted under faculty supervision. Topic and criteria for evaluation to be specified prior to registration. May be repeated for up to 6 sem. hrs. Prerequisite: Permission of instructor. *1-6 sem. hrs.*

Note: A total of no more than 6 sem. hrs. of PSY 493 and/or PSY 494 may be counted toward the required 34 sem. hrs. for a psychology major.

PSY 495. SPECIAL TOPICS IN PSYCHOLOGY: Topics of special interest to faculty and students; intensive critical evaluation of appropriate literature. Prerequisite: Permission of the instructor. *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 interdepartmental studies.

For their first 3 semester hours in Religious Studies, students may take any 100- or 200-level course. Majors (33 semester hours, of which 24 are 300/400 level) and minors (18 semester hours, of which 12 are 300/400 level) should consult the chairperson.

PROGRAM—A18: BACHELOR OF ARTS WITH A MAJOR IN RELIGIOUS STUDIES¹

	<i>Semester Hours</i>
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	46-61
Natural Science and Mathematics	7-12
Social and Behavioral sciences	12
Humanities	18
Philosophy	9
Communication skills	0-10
Program, free electives	26-41
Total	120

¹See also Distribution Table for Bachelor of Arts programs.

**PROGRAM—A18A: BACHELOR OF ARTS WITH A MAJOR IN
RELIGIOUS STUDIES, CONCENTRATION IN
RELIGIOUS EDUCATION¹**

	<i>Semester Hours</i>
Religious Studies	42
Religious Education	15
History of Religions, Biblical Studies, Historical Theology, Systematic Theology, Christian Ethics	27
Philosophy	9
Natural science, mathematics	7-12
Communication skills	0-10
Business, education, sociology, psychology	12-24
Humanities	28-45
Total	120

¹See also Distribution Table for Bachelor of Arts programs.

FACULTY

Rev. Matthew F. Kohmescher, S.M., *Chairperson*

Professors: Boulet, Burns, Cole, Frost, Kohmescher

Associate Professors: Anderson, Brady, Friedland, L'Heureux, Martin

Assistant Professors: Barnes, Buby, Heft, Murray, Ryan

COURSES OF INSTRUCTION

REL 392. SPECIAL QUESTIONS: Examination of issues pertinent to religion in either one or a series of courses. May be repeated when topics change. 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. 1-3 sem. hrs.

REL 490. SEMINAR: Research projects and discussions to help students integrate their university studies and relate them to their own future. Senior majors. Others by permission. 3 sem. hrs.

HISTORY OF RELIGIONS

REL 201. RELIGIONS OF THE WORLD I: Introduction to the study of the major non-Western religions, especially those of the Far East such as Hinduism, Jainism, Confucianism, Taoism, Shinto. 3 sem. hrs.

REL 202. RELIGIONS OF THE WORLD II: Study of Judaism and Christianity in diverse manifestations and of the other monotheistic religions originating in the Near East, such as Zoroastrianism and Islam. 3 sem. hrs.

REL 305. ANCIENT NEAR EASTERN RELIGIONS: 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: Basic introduction to Judaism: its history, its faith, its worship. 3 sem. hrs.

REL 406. JEWISH THOUGHT: 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: Examination of current issues in the study of the history of religions. May be repeated when topic changes. *3 sem. hrs.*

BIBLICAL STUDIES

REL 211. THE OLD TESTAMENT IN MODERN STUDY: Introduction to the historical and prophetic literature of the Old Testament, surveyed in the light of contemporary historical, literary, and form-critical methodologies. *3 sem. hrs.*

REL 212. THE NEW TESTAMENT IN MODERN STUDY: Introduction to selected books of the New Testament, surveyed in the light of contemporary historical, literary, form-critical, and redaction-critical methodologies. *3 sem. hrs.*

REL 311. RELIGION OF ISRAEL: 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; biblical traditions 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 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 human expectations in Jesus Christ. Analysis of the theological argumentations of the fourth gospel and the significance of the Johannine position in view of the 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. Discussion of topics, motifs, symbols, and structures in Pauline theology to 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. An attempt to understand the prophets and to question their contemporary validity. *3 sem. hrs.*

REL 418. BIBLICAL ISSUES: Examination of specific biblical themes, motifs, problems, and traditions. May be repeated when topics change. *3 sem. hrs.*

HISTORICAL THEOLOGY

REL 322. HISTORY OF EARLY CHRISTIANITY: Examination of the formative years of the early Christian Church (AD 30-130) in the context of political, social, and economic developments of the time. *3 sem. hrs.*

REL 326. PROTESTANT CHRISTIANITY: Survey of the development of Protestant thought from the Reformation. *3 sem. hrs.*

REL 327. AMERICAN RELIGIOUS EXPERIENCE: American Christianity, Protestant and Catholic, within American culture past and present: origins and expansion of American Christian churches and the roles these churches have played in shaping an American culture. *3 sem. hrs.*

REL 428. ISSUES IN HISTORICAL THEOLOGY: 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 topic changes. 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 humanity. 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 349. 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 356. THE CHRISTIAN TRADITION OF PRAYER: An attempt to familiarize the student with several types and forms of Christian prayer from different periods in Church history. The meaning of the act of faith expressed in prayer and its relationship to belief will be taken up in depth. 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 topics change. 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 humanity. 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 topic changes. 3 sem. hrs.

REL 448. ISSUES IN THEOLOGY: Examination of an issue or theme of 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 topic changes. 3 sem. hrs.

CHRISTIAN ETHICS—RELIGION AND CULTURE

REL 265. CHRISTIAN ETHICS: Introduction to the reflection upon Christian morality; discussion of various approaches in Christian Ethics, the elements of ethical judgments, and some specific ethical issues. 3 sem. hrs.

REL 364. CURRENT MORAL ISSUES: An examination of one or more issues (individual and/or social) in contemporary reflection on Christian moral life. May be repeated when topics change. 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 367. CHRISTIAN ETHICS AND THE HEALTH CARE PROFESSIONS: An application of, and reflection upon, the principles of Christian ethics as these relate to the health care professions. *3 sem. hrs.*

REL 368. CHRISTIAN ETHICS AND THE BUSINESS WORLD: An application of, and reflection upon, the principles of Christian ethics as these relate to the business world. *3 sem. hrs.*

REL 372. RELIGION AND FILM: Study of issues common to narrative films and religious thought; the power of various film techniques, dominant models in religious and film reflection, the similar roles imagination plays in film and religious thought. *3 sem. hrs.*

REL 373. RELIGION AND LITERATURE: 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 374. RELIGION AND ART: An investigation into the relationship between religion and art, treating Renaissance and post-Renaissance painting and sculpture as vehicles and manifestations of Christian apocalyptic and humanist world-views at given times. Basic literary sources of Christian art and gradual effects of secularization on Christian art. *3 sem. hrs.*

REL 464. CATHOLIC SOCIAL TEACHINGS: A comprehensive view of the social teachings of the Catholic Church, particularly since Pope John XXIII (1958-1963); analysis and critique of selected major documents on social questions issued since 1961. *3 sem. hrs.*

REL 478. RELIGION AND CULTURE: Examination of a specific issue in Western culture, especially American, in light of the Judaeo-Christian tradition, such as religion and art, religion and music. May be repeated when topics change. *3 sem. hrs.*

RELIGIOUS EDUCATION

REL 382. LANDMARKS IN CATECHESIS: Introduction to an historical perspective on the evolution of modern catechesis; 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; exploration of various contemporary theoretical models, dimensions of teaching religion in a pluralistic society, the polarization generated. *3 sem. hrs.*

REL 483. PRACTICUM I: Acquaintance with and survey of resources and activities in religious education in the Greater Dayton Area. *3 sem. hrs.*

REL 484. PRACTICUM II: Supervised in-service experience 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 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 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.

	<i>Semester Hours</i>
EDS 109 Personal and Professional Development of Secondary Teachers I	2
EDF 206 EDF I: Adolescent in the Educative Process	3
(Fine arts and music majors take EDF 207.)	
EDS 110 Personal and Professional Development of Secondary Teachers II	2
EDF 208 EDF II: Teaching-Learning in the Educative Process	3
EDS 318 Human Relations in Education	2
EDS 351 The Secondary School, Self, and Society	3
Methods Course	3
EDS 455 Secondary School Reading Improvement—Content Areas	2
EDS 414 Student Teaching (Secondary)	12
(A full semester in classroom under supervision)	
EDF 419 EDF 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 Chairperson 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 the Satisfactory/No Credit grading option. 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. They may take a problem-centered rather than a discipline-centered approach.

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, or, with the permission of the department chairperson in the student's major field, to departmental requirements. See also ASI.

STAFF

Bruce M. Taylor, *Director*

Janet Kalven, *Associate Director*

Brady (Religious Studies), 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 objectives of the social work program at the University of Dayton are (1) to provide students with an educational framework that will allow opportunity for the acquisition of knowledge, skills and values necessary for beginning generic practice in social work; (2) to offer an academic program of such quality that students will be well prepared for graduate study in social work; (3) to provide a quality liberal arts education; (4) to provide opportunity for students to explore diverse life styles, achieve new knowledge and insights related to cultures, racial and ethnic groups and value systems different from their own; (5) to prepare and motivate students to contribute to the identification and resolution of social problems.

The social work program at the University of Dayton is fully accredited by the Council on Social Work Education.

The program is designed to develop generalist practitioners who have the basic competencies for intervention in a variety of problem situations involving individuals, families, groups, organizations and communities. The primary focus of the program is to educate and train generalist practitioners for urban settings.

The framework of the program is organized around a competency-based educational model. Specific learning objectives are stated for each course in the program and for the curriculum as a whole.

Requirements for Majors and Minors

Students wishing to major or minor in social work are to consult with a social work faculty advisor. The core requirements, learning objectives and competency expectations follow in sequential manner and allow for competency building. Students majoring in social work must complete a total of thirty-nine semester hours of social work courses. Courses required include SWK 101, 201, 210, 320, 330, 337, 340, 350, 431 and 432. Extra-departmental requirements include PSY 101 and 251, ANT 150, POL 201, ECO 203 and SOC 101, 208 and 304. Those wishing to minor in social work must complete SWK 101, 201, 210, 320, 330, 337, 340.

PROGRAM—S14: BACHELOR OF SCIENCE WITH A MAJOR IN SOCIAL WORK¹

	<i>Semester Hours</i>
Social Work 101, 201, 210, 320, 330, 337, 340, 350, 431, 432	39
Sociology 101, 208, 304	9
Psychology 101, 251	6
Philosophy or Religious Studies	12
English 111, 112	7
Speech 101	3
Biology 101, 102 with labs	8
Economics 203	3
Political Science 201	3
Anthropology 150	3
Electives (Social Work, General or Minor electives) to total at least	120

¹Consult the General Requirements for all Bachelor of Science Programs.

FACULTY

Jack P. McDonald, *Director, Social Work Program*

Associate Professor: McDonald

Assistant Professors: DeWire, Moore, Sens

Part-Time Instructors: May, Reid, Smith, Young

COURSES OF INSTRUCTION

SWK 101. SOCIAL WELFARE AND SOCIETY: A study of the emergence of social welfare in contemporary society. Concept, structure, and functions of social welfare with particular emphasis on interrelationships among social systems. An overview of current social welfare programs and a model for analysis of social services will be presented.

3 sem. hrs.

SWK 201. INTRODUCTION TO SOCIAL WORK PRACTICE: Emphasis is on the knowledge, values and skills utilized by the social worker. The student is introduced to a generalist framework of practice and the problem-solving process in preparation for intervention with client systems, especially with ethnic and racial minorities in urban settings. An agency observational experience is required during the term. Prerequisite: SWK 101.

4 sem. hrs.

SWK 210. BASIC HELPING SKILLS IN SOCIAL WORK PRACTICE: Knowledge and skills essential to the social work helping process. Basic social work competencies in report writing, recording, introductory interviewing techniques and the establishment of the professional relationship. Major emphasis is placed upon creating self-awareness and the professional use of self. Prerequisites: SWK 101, 201.

3 sem. hrs.

SWK 320. ADVANCED SOCIAL WORK PRACTICE I: A course developed to teach the student a variety of social work processes with opportunity to develop skill in choosing appropriate intervention strategies. Practice in implementing various models for working with client systems involving individuals, families and groups. Prerequisites: SWK 101, 201, 210.

3 sem. hrs.

SWK 324. CHILD WELFARE SERVICES: Scope, problems and trends in social welfare services to children. Deals with the role of the social worker in protective service, foster care, adoption, group and institutional settings. Concerned with children's rights, permanent planning for children, and child advocacy. Prerequisites: Majors — SWK 101, 201; Non-majors — permission of director. First term. Elective credit.

3 sem. hrs.

SWK 330. SOCIAL WELFARE AND SOCIAL WORK IN A PLURALISTIC SOCIETY: A course designed to develop an understanding of and appreciation for ethnic, racial and cultural diversity in a pluralistic society. Considers the commonalities and differences in families and communities and the impact of racism on social work practice. Emphasis on the urban community.

3 sem. hrs.

SWK 333. LEGAL ASPECTS OF SOCIAL WORK: Orientation to the legal system as it affects the provision of human services and the profession; social legislation and court decisions as they affect child welfare, public assistance, mental health, housing, and probation and parole services.

3 sem. hrs.

SWK 337. SOCIAL WELFARE POLICY AND SERVICES: A study of how social welfare policies are developed and translated into social services. A framework for analysis will be presented and applied to specific social policies. The role of the social work practitioner in analyzing and planning for social welfare is emphasized. Prerequisites: SWK 101, 201, 210.

3 sem. hrs.

SWK 339. CHILD ABUSE: A comprehensive study of child abuse, examining its history, scope, causal factors, indicators for detection, treatment resources and modalities and community responsibility. No prerequisite for non-majors. *3 sem. hrs.*

SWK 340. ADVANCED SOCIAL WORK PRACTICE II: Social work intervention strategies with organizations and communities are studied with emphasis on the development of skills needed for practice in an urban community. Prerequisites: SWK 320, 337.. *3 sem. hrs.*

SWK 350. HUMAN BEHAVIOR AND THE SOCIAL ENVIRONMENT: A synthesis and integration of theory and concepts from the biological, behavioral and social sciences. Specific content from the cultural, social and biopsychological systems are integrated with the social work systems model and the implications for social work practice. Prerequisite: SWK 340. *3 sem. hrs.*

SWK 376. RESEARCH IN SOCIAL PROBLEMS: Research, study, and applied community experience in developing workable plans for the alleviation of selected social welfare problems. Field placement in appropriate agencies. Elective credit. *3 sem. hrs.*

SWK 431. FIELD EXPERIENCE AND SEMINAR I: A planned practicum in which senior students can demonstrate competencies learned in the classroom. Students work a minimum of 15 hours per week in selected social agencies under the supervision of qualified professionals. Concurrent with 15 hours seminar. Open only to majors. Prerequisites: SWK 320, 340. *7 sem. hrs.*

SWK 432. FIELD EXPERIENCE AND SEMINAR II: The second semester of the practicum providing further opportunity for students to apply social work knowledge, values and skills. The final stage in preparation for beginning social work practice. Concurrent with 15 hours seminar. Open only to majors. Prerequisite: SWK 431. *7 sem. hrs.*

SWK 443. THANATOLOGY: A STUDY OF DEATH, DYING AND SUICIDE: An in-depth study of the phenomena of death and dying. Explores the role and responsibility of the professional in working with the dying and their survivors. A study of suicide in this society. Open only to third and fourth year students. No prerequisite. Second term each year. Elective credit. *3 sem. hrs.*

SWK 455. SOCIAL SERVICES IN THE HEALTH FIELD: The course explores the role of social services in health care facilities and governmental health programs. U.S. health care policies and programs will be examined and methods of social work intervention in medical settings discussed. Elective credit. *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)

Sociology is the study of social processes, relationships and structures in small groups, large organizations and major institutions. The curricula in the Department of Sociology and Anthropology examine five themes of social life: (1) Interpersonal Relations—the social psychological study of topics such as face-to-face interaction and communication processes, small group dynamics, collective behavior, and deviant behavior; (2) Major Social Issues—topics of study include crime, juvenile delinquency, poverty, wealth, sexism, racism, and the aged; (3) Major Social Groups—including such topics as the institutions of religion, family, education and politics; complex organizations, racial and ethnic relations, social class, and bureaucracy; (4) Urban Affairs and Population—the study of development and change of urban centers, the organization of, problems in, and planning for cities; and national, regional and world population trends; (5) Anthropology—the study of culture, cross cultural comparisons, people-environment relationships, development of the human species plus analysis of specific cultures of the world.

Students majoring, minoring or taking selected courses in the Department of Sociology and Anthropology do so for a variety of reasons. Some desire knowledge of social and cultural relationships as a part of their general education for living. Others are planning careers in public service professions such as social work, public administration, criminal justice, urban planning, nursing, medicine, and law. Still others expect to work in public relations or personnel careers that require a grasp of the nature of group relations, public opinion, and social change. Many look forward to careers in social research, planning, and government service, while others expect to teach social studies, sociology or anthropology or intend to continue their studies on the graduate level in sociology, anthropology, or related fields.

Students intending to major or minor in sociology should consult with the departmental chairperson to plan their program of courses. Majors in sociology must complete 36 semester hours of course work in the department, 24 of which must be at the 300 or 400 level. We recommend that students begin their program of study with one of the following courses: SOC 101, SOC 204, or ANT 150 and then complete the required courses for the major: SOC 208, 303, 308, 308L, 409, ANT 300. The remaining 20 elective hours should include sufficient courses in one of the five themes of social life mentioned above to insure the depth of knowledge appropriate for the student's career plans. These choices must be made in close consultation with the student's departmental advisor as he or she develops an overall plan of study at the University of Dayton.

The objectives of the Department of Sociology and Anthropology are to provide a variety of learning experiences necessary for developing the analytical and critical inquiry skills, theoretical and factual information, and research methodology required for future employment or graduate study.

PROGRAM—A19: BACHELOR OF ARTS WITH A MAJOR IN SOCIOLOGY¹

	<i>Semester Hours</i>
Sociology: Entry level ² ; SOC 208, 303, 308, 308L, 409; ANT 300	16
Sociology electives ³	20
Philosophy and/or Religious Studies	12
English 111, 112	7
Speech 101	3
Natural Science and Mathematics ¹ (at least 4 sem. hrs. in natural sciences with an accompanying laboratory)	7-12

Social and Behavioral Science (at least 1 unit of 6 sem. hrs.—with 3 sem. hrs. on 300-400 level)	12
Humanities ¹ (One unit of 9 sem. hrs. with at least 3 sem. hrs. from 300-400 level courses is required.)	18
General electives to total at least	120

¹See also Distribution Table for Bachelor of Arts programs.

²All freshmen students should take either SOC 101, SOC 204, or ANT 150. All sophomore level students or above should consult with the Sociology Chairman for the appropriate first course.

³For the major, at least 24 semester hours must be upper level (300-400) with no more than 9 of the 24 semester hours in upper level anthropology courses.

At least 54 semester hours of upper-level (300-400 numbered) course work must be presented for the B.A. degree.

FACULTY

Stanley L. Saxton, *Chairperson of the Department of Sociology and Anthropology*

Professors: Dickson, Huth

Associate Professors: Bregenzer, Saxton

Assistant Professors: Baldwin, Elmore, Miller, Skerl

Instructor: Donnelly, McNamee

COURSES OF INSTRUCTION

SOC 101. PRINCIPLES OF SOCIOLOGY: Study of social groups, social processes and society. Topics include the individual's relationship to society, social structure, social inequality, ethnic minorities, cities and human populations, and social institutions such as the family, education, religion and government. 3 sem. hrs.

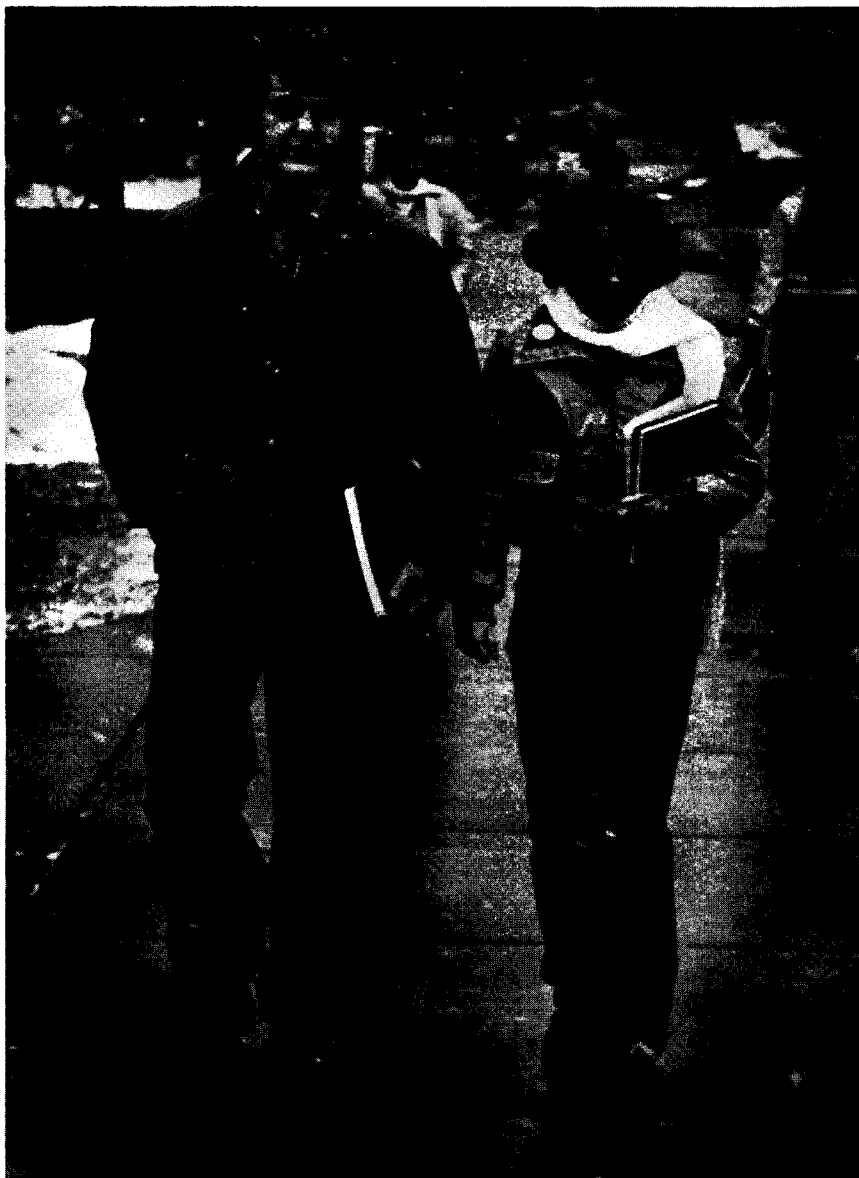
SOC 204. MODERN SOCIAL PROBLEMS: Course designed to familiarize nonsociology majors with contemporary problems in society; historical development, current status, and analysis of problems, using modern social theories. Content may vary from section to section. 3 sem. hrs.

SOC 208. SOCIAL INQUIRY: THE EMPIRICAL APPROACH: Description and analysis of the nature, use, and relationship between theory, theoretical problems, research questions, methods of empirical observation and elementary data analysis techniques. 3 sem. hrs.

SOC 223. JUVENILE DELINQUENCY: Analysis of the environmental and internal factors that influence or determine delinquent behavior; roles of individual juvenile offenders, parents/guardians, school, church, police, business community, community agencies, and the juvenile justice and correctional system in preventing/treating delinquent behavior. 3 sem. hrs.

SOC 229. OCCUPATIONS AND CAREERS: Survey of the major features of contemporary occupations and careers. Specific topics include occupational choice, career patterns and occupational mobility and the distribution of job benefits within the American occupational structure. Unemployment, underemployment, sex-typing, automation and ienation. 3 sem. hrs.

SOC 303. MODERN SOCIAL THEORY: Consideration of the works of modern theorists and major trends in the history of social thought. 3 sem. hrs.



SOC 304. EVALUATION RESEARCH METHODS: A course aimed at training students of social intervention practice in the formation of evaluative questions and techniques for answering these questions with demographic, survey, experimental, and observational methods. Prerequisite: SOC 208. *3 sem. hrs.*

SOC 308. SOCIOLOGICAL RESEARCH METHODS: Advanced training in research problem formation, logic for research designs, measurement and sampling techniques, data gathering strategies, and data analysis and interpretation techniques. Student enrolling in this course must also enroll in SOC 308L. Prerequisite: SOC 208. *3 sem. hrs.*

SOC 308L. DATA ANALYSIS LABORATORY: Application of research design, measurement and sampling techniques, and data analysis and interpretation. Appropriate computer techniques will be taught as part of the course. Student enrolling in SOC 308L must enroll in SOC 308. Prerequisite: SOC 208. *1 sem. hr.*

SOC 322. SEX ROLES AND SOCIETY: Research findings and major analytical approaches will be used to study the social and cultural influences on the development of personal sexual identity and relationships between men and women. Major social issues concerning human sexuality will be considered. *3 sem. hrs.*

SOC 326. LAW AND SOCIETY: The study of the legal system and practices from a sociological point of view; the historical origin and role of the law in society, issues relating to the law as an instrument of social control and/or social change; and analysis of the legal profession. *3 sem. hrs.*

SOC 327. CRIMINOLOGY AND PENOLOGY: Cultural nature, origin, and development of crime; trends in criminal law; psychological and sociological factors in criminal behavior; examination of system's use of prisons and punishment. *3 sem. hrs.*

SOC 328. RACIAL AND ETHNIC MINORITIES: Study of the major immigrant and racial groups in the United States and other countries. Issues and problems related to their minority status in the dominant culture. *3 sem. hrs.*

SOC 331. MARRIAGE AND THE FAMILY: Historical, cross cultural and current study of social relationships during dating and courtship, interpersonal communication in marriage and family life, sexuality in marriage, adjustments in parenthood; divorce and remarriage, alternatives to traditional marriage and the future of marriage and family life. *3 sem. hrs.*

SOC 333. INDUSTRY AND SOCIETY: Social processes of industrialization; structure and characteristics of industrial society in the U.S.; past, present, and futuristic dimensions of industrial society; impact of industrialism on labor, management, government, family, community, and nation. *3 sem. hrs.*

SOC 334. RELIGION AND SOCIETY: Definitions of religion and its role in society. Traditional and nontraditional expressions of religious life are studied from the viewpoint of society. Varieties of religious experience and the interrelations between religious phenomena and other social institutions and societal behavior are analyzed. *3 sem. hrs.*

SOC 335. SOCIAL IMPLICATIONS OF AGING: Introduction to the study of the aged and the process of aging; mutual impact of society on the aged and the aged on society. *3 sem. hrs.*

SOC 336. SOCIAL ORGANIZATIONS: Critical analysis of various modes of group formation; traditional and bureaucratic forms of organization; organizational structure and the process of organizational change; focus on organizations as instruments of collective power and social control. *3 sem. hrs.*

SOC 338. EDUCATION AND SOCIETY: Study of educational patterns in society; education as a socialization process, the role of schools in social change and the relationship between the individual and the educational system. *3 sem. hrs.*

SOC 341. SELF AND SOCIETY: The theoretical and methodological study of microsociological processes; socialization, self conceptualization, deviant behavior, mental illness, power and social influence. *3 sem. hrs.*

SOC 342. COLLECTIVE BEHAVIOR: The study of social protest, crowds, social movements, revolution, fads, fashion, public opinion processes, propaganda, and political and social responses to these phenomena. *3 sem. hrs.*

SOC 343. MASS COMMUNICATION IN MODERN SOCIETY: A social-psychological analysis of the structure and processes of mass communication related to advertising, patterns of social behavior, social change, propaganda, censorship, media control and social institutions. *3 sem. hrs.*

SOC 350. NATIONAL AND WORLD POPULATION TRENDS: Causes and consequences of national and world population trends; impact of population change on society; impact of social change on birth rates, death rates, migration, population composition and distribution. *3 sem. hrs.*

SOC 351. CITIES: URBAN COMMUNITIES, PROBLEMS, AND PLANNING: Concepts of community; the history of cities; the development and nature of urban-metropolitan society; metropolitan area structure, population characteristics, and life-styles; approaches to major urban problems; models of urban planning in the United States and Europe. *3 sem. hrs.*

SOC 409. ADVANCED STUDY IN SOCIOLOGY: Advanced study for majors involving intensive analysis of primary literature and recent developments in one of the following areas: Interpersonal Relations, Issues in Contemporary Society, Major Social Groupings, Urban Affairs and Population, Anthropology. Consult composite for term topic. May be repeated once as topic changes. Required for majors. Prerequisite: Permission of instructor. *3 sem. hrs.*

SOC 425. DEVIANT BEHAVIOR: The description of different types of deviant behavior. Possible examples include mental illness, alcoholism, drug addiction, the professional criminal. The study of explanations for the consequences and the role of deviant behavior in modern society. *3 sem. hrs.*

SOC 439. SOCIAL CLASSES IN MODERN SOCIETY: Study of social classes, social inequality, social mobility, prestige, power, and class conflict in modern industrial societies. *3 sem. hrs.*

SOC 444. INTERACTION PROCESSES: The advanced theoretical and methodological study of basic interaction processes which make up social life. Interaction processes to be studied include hypnosis, social influence (selling), negotiation, solidarity, competition and conflict. *3 sem. hrs.*

SOC 492. SPECIAL TOPICS IN SOCIOLOGY: Intensive examination of current theoretical or methodological issues, faculty advised research project or library work. Students should consult the composite for topics. May be repeated once as topic changes. Prerequisite: Permission of instructor. *1 to 6 sem. hrs.*

SOC 498. INDEPENDENT STUDY: Research or special readings on problems of interest to the student under the guidance of a sociology staff member. Permission of the chairperson. *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 and JRN.

FACULTY

Donald B. Morlan, *Chairperson of the Department of Communication Arts*

Professors: Biersack, Morlan

Associate Professors: Blatt, Kiernan, Rang, Trent, Wolff

Assistant Professors: Harwood, Hawkins, Jones, Lain, Lawson, Weatherly

Instructors: Nolan, Williams

Part-Time Instructors: Dougherty, Vargo

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 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 303. RHETORIC OF SOCIAL MOVEMENTS: Examination of the rhetoric of contemporary advocates through application of the basic elements of argumentation and persuasion. *3 sem. hrs.*

SPE 306. FUNDAMENTALS OF BROADCASTING: Lectures dealing with broadcasting as a business and as a cultural influence; broadcast regulation, programming, and organization of the typical radio and TV station. *3 sem. hrs.*

SPE 307. CONFERENCE AND DISCUSSION: The guiding principles used by participants and leaders in the preparation and conducting of conferences and discussions. Exploratory, problem-solving, and policy-making conferences are staged. *3 sem. hrs.*

SPE 310. INTERPRETATIVE READING I: Oral interpretation of poetry and prose, combining study of vocal modulations, pitch, inflection, and tone color with intellectual and emotional analysis of selections. *3 sem. hrs.*

SPE 311. ADVANCED SPEAKING TECHNIQUES: Oral communication in professional situations. Adapts principles of effective speaking to specific audiences and occasions. Student delivers informational, problem-solving, and special occasion speeches. *3 sem. hrs.*

SPE 312. PERSUASION: Analysis of the motivations that 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 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 320. INTERPRETATIVE READING II: A continuation of SPE 310, with deeper penetration into oral interpretation. Individual problems are given more particular attention. Impromptu reading. Prerequisite: SPE 310. *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 participation in TV shows. Prerequisite: SPE 306 or permission. *3 sem. hrs.*

SPE 419. BROADCASTING PERFORMANCE: Participation in exercises to improve a variety of "on-air" skills; completion of an intensive supervised commercial laboratory experience in a single area with consent of the instructor. Prerequisite: Two of SPE 310, 316, 409. *3 sem. hrs.*

SPE 430. SEMINAR IN THE SPEECH ARTS: Individual research and report on a problem of interest in the field of speech or broadcasting. Communication Arts majors or minors only, with permission. *3 sem. hrs.*



THEATRE (THR)

The Theatre Division of the Performing & Visual Arts Department offers a solid academic foundation and an extensive program of theatre productions including major productions in Boll Theatre and student experimental work in the new Studio Theatre. The curriculum includes acting, directing, stagecrafts, lighting, design and history/theory. Its purpose is to provide opportunities and facilities for education and training in and appreciation of theatre.

Theatre majors are required to audition for and participate in each major production for which they receive credit in THR 100/300. All roles and stage positions are open to the entire University student body.

PROGRAM—A20: BACHELOR OF ARTS WITH A MAJOR IN THEATRE¹

	Semester hours
Major Program requirements: THR 105, 205, 210, 211, 325 or 326, 330, 340, 415 or 425, 485 or 490	26
Theatre electives	12
Natural Science and Mathematics	7
Social and Behavioral Science	12
Humanities	18
Philosophy and/or Religious Studies	12
Communication Skills	0-10
General academic electives to total at least	120

¹See also Distribution Table for Bachelor of Arts programs.

FACULTY

Patrick S. Gilvary, *Chairperson of the Department of Performing and Visual Arts
and Acting Head of Theatre Division*

Professor: Gilvary

Assistant Professor: Selka

Part-time Instructors: Anderson, Bouffier, 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 3 sem. hrs. in the freshman-sophomore years. All registration retroactive. No advance registration. Three sem. hrs. required of all majors from THR 100 or 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 201. BASIC DANCE FOR THE PERFORMING ARTIST: A beginning course in movement introducing the basic principles of dance and performance technique. Open to all University students.

2 sem. hrs.

THR 202. STAGE MAKEUP: The basic principles of the art and technique of makeup so that the student may use them 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 majors. Open to all University students. Studio fee. First term. *3 sem. hrs.*

THR 207. THEATRE LIGHTING: Study and application of lighting for the stage: 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. Corequisite: THR 211. Open to all University students. Required of all theatre majors. *3 sem. hrs.*

THR 211. THEATRICAL MOVEMENT I: Laboratory corequisite with THR 210 concentrating on the development of physical strength, balance, flexibility, and coordination to awaken sensitivity to body language and widen vocabulary of movement. Required of all theatre majors. *2 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: Basic principles of color paint theory and materials. Investigation of various scene-painting techniques. Four hours a week—2 hours lecture, 2 hours studio. Students provide brushes; all other materials provided. *3 sem. hrs.*

THR 323. ACTING II: Further development and practice of fundamental principles set down in the elementary course. Emphasis on more specialized character portrayal. Prerequisites: THR 105, 210-211, or permission. *2 sem. hrs.*

THR 324. THEATRICAL MOVEMENT II: Laboratory corequisite with THR 323, concentrating on the development of physical strength, balance, flexibility, and coordination. *2 sem. hrs.*

THR 325. THEORY AND CRITICISM OF THE STAGE I: Survey of representative plays from classical to neo-classical periods as a basis for theatrical production and dramatic criticism. 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 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; the physical theatre as reflection of and influence on civilization. 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: 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 student's selection under the direct supervision of faculty. 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 majors. Second semester every other year. Repeatable up to 6 sem. hrs. 3-6 sem. hrs.

THR 490. SPECIAL PROBLEMS IN THEATRE: Individual research and report on topic of student's choice in the field of theatre under direct supervision of faculty/staff. Alternative requirement to THR 485 for all majors. Repeatable up to 15 sem. hrs. 3-5 sem. hrs.



