

VI College of Arts and Sciences

Paul J. Morman, Dean

R. Gerald Keil, Associate Dean for Graduate and Administrative Affairs

Mary Jo Vesper, Associate Dean for Undergraduate and Student Affairs

Rae Ellen Huff, Assistant Dean

Sam F. Johnson, Assistant Dean

The College of Arts and Sciences affirms as its primary mission the implementation of the fundamental commitment of the University of Dayton to the discovery, integration, dissemination, and application of truth. The College contributes to the fulfillment of this commitment through curricular programs in the liberal arts and sciences, which are central to the intellectual life of the University. The College provides students instruction in communication skills, critical thinking, social and cultural criticism, computation, scientific reasoning, historical analysis, and religious and moral awareness. These qualities are fundamental and essential to each student's full and integral development as a broadly educated person. The College serves not only its own students but also the students of the professional schools and ensures that basic, as well as applied, fields of study are available to all students.

The faculty of the College of Arts and Sciences seek to live, as well as profess, the liberal arts and to pursue teaching and research, community service, and constructive social criticism within the framework of freedom of thought and expression. Within the tradition of liberal education, the faculty are committed to the full and integral development of students, cognizant of the priceless and timeless value of this tradition, and aware of the need to relate the liberal arts to the realities of time, place, and students' legitimate career aspirations.

The faculty of the College of Arts and Sciences, therefore, encourages students to use the resources within their reach: faculty guidance, especially in selecting courses and planning programs; the campus ministry; the social and professional clubs and societies; the campus publications; the many musical, dramatic, and art programs; and especially the opportunity for membership on departmental and campus-wide committees, where students gain experience in working with others on projects of significance to the department or to the College.

The College of Arts and Sciences chooses from its own traditions and convictions, as well as from its role as the principal service unit of the University, a values-oriented approach to education. In all of its programs and throughout its curriculum, the College and its faculty seek to complement excellent substantive instruction with a sense of respect for the role of each person in society and an appreciation of the aesthetic and the spiritual life. These values emerge not only from the College's mission as the chief proponent of the liberal tradition at the University of Dayton, but also from its commitment to Christian educational principles and to the Marianist spirit in education, which is its heritage.

MAJORS AND MINORS

The major is defined as a block of courses totalling at least 24 semester hours of upper-level work in a single discipline; it is sometimes supported by a minor, which is a block of courses totalling at least 12 semester hours of upper-level work. Some minors are defined specifically in the departmental listings.

The Bachelor of Arts is offered in the following areas:

American Studies	Geology	Political Science
Art History	History	Psychology
Chemistry	International Studies	Religious Studies
Communication	Languages	Sociology
Criminal Justice Studies	Mathematics	Theatre
Economics	Music	Visual Communication
English	Philosophy	Design
Fine Arts	Photography	

The Bachelor of Science is offered in the following areas:

Biochemistry	Environmental Biology	Physical Science
Biology	Environmental Geology	Physics
Chemistry	Geology	Physics-Comp. Sci.
Computer Information Systems	Human Ecology	Pre dentistry
Computer Science	Mathematics	Premedicine
	Nuclear Medicine Technology	Psychology

Other programs leading to the bachelor's degree:

Fine Arts (B.F.A.)	Music Performance (B.Mus.)
General Studies (B.G.S.)	Music Therapy (B.Mus.)
Music Composition (B. Mus.)	Photography (B.F.A.)
Music Education (B. Mus.)	Visual Communication Design (B.F.A.)

Established Interdisciplinary Majors

American Studies, International Studies, and Premedicine-Pre dentistry are present examples of established interdisciplinary concentrations. Such programs are established by interdisciplinary committees and administered by the chairpersons of the committees.

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.

FOREIGN LANGUAGE REQUIREMENT

Any student admitted to the College of Arts and Sciences must have had two years of high school study of a single foreign language or make up the deficit at the University. The semester hours of credit received for making up this deficit will not count towards the total number of semester hours required for graduation.

GENERAL REQUIREMENTS FOR ALL
BACHELOR OF ARTS PROGRAMS

A minimum of 120 semester hours of approved coursework must be presented for the B.A. 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 departmental or program requirements, consult program schedules A1-A23 or the department chairperson or program director.

	<i>Semester Hours</i>
<i>Major Concentration</i> (with at least 24 semester hours at 300-400 level)	30-45
<i>Breadth Requirement</i> (See Distribution Table below.)	52-61
<i>General Education Requirements:</i> These courses may also be counted for other requirements where applicable. (See Chapter V.)	30
<i>Program and General Electives:</i> These courses must be external to the major discipline. Electives should be approved by the chairperson or dean since some restrictions exist.	14-38

Distribution Table for Breadth Requirement

Courses taken to fulfill the breadth requirement should be external to the major field. Students electing courses in any department should be aware that some introductory or background knowledge may be expected of them even when no specific prerequisite course is listed.

Natural Science: Four semester hours must be in an approved natural science course (Biology, Chemistry, Geology, Physics) with an accompanying laboratory. 7

Mathematics: Three semester hours selected from courses in the Department of Mathematics (MTH 102, 204, 205 excluded) 3

Social and Behavioral Sciences: Anthropology, Economics, Political Science, Psychology, and Sociology. Up to 6 of the 12 semester hours of social and behavioral sciences may, with the approval of the chairperson of the major department or the director of the program, be taken in applied social and professional studies: Criminal Justice Studies, Education, Human Ecology, Management, Marketing, Military Science, Social Work, and appropriate courses in ASI, AMS, and CMS. 12

Humanities: American Studies, Communication, English, History, Humanities Studies, Languages, Music, Philosophy, Religious Studies, Visual Arts, and, with approval of the chairperson of the major department or the director of the program, appropriate courses in ASI. At least one unit of 9 semester hours in a humanities area with at least 3 semester hours at 300-400 level (except Languages and Visual Arts, in which a unit may be 9 semester hours at any level). The remaining 9 semester hours of electives are to be chosen from one or more *other* departments. (The basic Philosophy, Religious Studies, and communication skills courses do not fulfill this requirement.) 18

Philosophy and Religious Studies 12

Communication Skills (ENG 101-102 or 114 or 198; CMM 101): Each student should demonstrate competence in written and oral communication before the completion of the first year. This competence may be demonstrated through coursework, proficiency examinations, or advanced standing. Information on this matter should be sought in the office of the dean. 0-9

GENERAL REQUIREMENTS FOR ALL BACHELOR OF SCIENCE PROGRAMS

A minimum of 120 semester hours of approved coursework must be presented for the B.S. For limitations on credit and restrictions on courses, consult the chairperson and the dean. For departmental or program requirements consult program schedules S1-S10 or the department chairperson or program director.

	<i>Semester Hours</i>
<i>Major Concentration</i> (with at least 24 semester hours at 300-400 level)	30-60
<i>Breadth Requirement</i> (See Distribution Table below.)	41-50
<i>General Education Requirements:</i> These courses may also be counted for other requirements where applicable. (See Chapter V.)	30
<i>Program Requirements and General Electives:</i> Electives should be approved by the chairperson or dean since some restrictions exist.	10-49

Distribution Table for Breadth Requirement

Courses taken to fulfill the breadth requirement should be external to the major concentration. Students electing courses in any department should be aware that some introductory or background knowledge may be expected of them even when no specific prerequisite course is listed.

<i>Natural Science:</i> Selected from Biology, Chemistry, Geology, and Physics courses with accompanying laboratories.	8
<i>Mathematics, Computer Science:</i> At least 3 semester hours must be in Mathematics, the course(s) to be determined by placement and major program.	6
<i>Social and Behavioral Sciences:</i> Anthropology, Economics, Political Science, Psychology, Sociology. Up to 3 of the 6 semester hours of social and behavioral sciences may, with the approval of the chairperson of the major department or the director of the program, be taken in applied social and professional studies: Criminal Justice Studies, Education, Human Ecology, Management, Marketing, Military Science, Social Work, and appropriate courses in ASI, AMS, and CMS.	6
<i>Humanities:</i> American Studies, Communication, English, History, Humanities Studies, Languages, Music, Philosophy, Religious Studies, Visual Arts, and, with the approval of the chairperson of the major department or director of the program, appropriate courses in ASI. (The basic Philosophy, Religious Studies, and communication skills courses do not fulfill this requirement.)	9
<i>Philosophy and Religious Studies</i>	12
<i>Communication Skills</i> (ENG 101-102 or 114 or 198; CMM 101): Each student should demonstrate competence in written and oral communication before the completion of the first year. This competence may be demonstrated through coursework, proficiency examinations, or advanced standing. Information on this matter should be sought in the office of the dean	0-9

DEGREE REQUIREMENTS

For the bachelor's degree, it is necessary to complete all the requirements listed in one of the programs in this chapter. A maximum of four semester hours of general activities courses, a maximum of two semester hours of physical education activities courses, a maximum of ten semester hours of MIL courses, and a maximum of six hours of technology courses may be counted in the semester hours required for the degree. The final 30 semester hours must be earned in residence at the University of Dayton. Furthermore, a minimum of 12 semester hours of course work at the 300 and 400 level in the major must be completed at the University.

GRADUATION REQUIREMENTS

1. It is the responsibility of the student to file his or 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.

INTERNSHIP PROGRAM

The Internship Program is an educational work experience with an outside agency, in which a full-time student registers for on-the-job work performed without direct supervision by academic personnel. Such work can be performed in a variety of areas; however, the general purpose of all internships is to serve as transition between the world of study and the world of work.

Normally a departmental internship director or another designated faculty member will make all contacts with prospective agencies for placing students as interns. While students themselves may initiate contacts at possible sites, all sites must be ruled acceptable by the director before an internship may begin.

In order to accomplish the general purpose of an internship, the student must adhere to the following requirements:

- To be eligible for an internship, a student must be in good standing at the University of Dayton and have successfully completed course work in areas appropriate to the internship sought.
- An intern may receive no more than six semester hours of credit in any semester for internship.
- No more than twelve semester hours of work experience credit in any kind of internship or work experience program can be accepted toward a baccalaureate degree.
- The student intern will submit a daily log and a written report to the internship director at the conclusion of the internship.

Other procedures and requirements in addition to those mandated by the College may be imposed by departments for individual programs to meet the specific nature of a given internship.

Interested students should see the internship directors in their respective departments for further details.

AMS

AMERICAN STUDIES (AMS)

In this interdisciplinary program, students take courses in their choice of a dozen fields, thereby learning the skills of integrating, coordinating and making connections. The program, one of over three hundred nationwide, is most appropriate for those whose interests encompass several traditional majors.

PROGRAM A1: BACHELOR OF ARTS WITH A MAJOR IN AMERICAN STUDIES (AMS)¹

	<i>Semester Hours</i>
AMS 200, 300, 301, 400	12
First area courses	24
Courses from Group A or B or C	15
Supporting courses in the elected disciplines	9
Second area courses from one of the two remaining groups	9
Third area courses from the remaining group	6

Group A

ENG 305, 317², 319², 320², 325, 327, 329², 331², 332², 335, 337, 339,
380², 451, 453, 455, 468, 490²
MUS 304, 305, 306, 307, 404²
VAH 370, 480, 482, 490²

Group B

HST 342, 345, 348, 351, 352, 355, 365, 370, 371, 375, 376, 380, 391, 398,
399, 417, 450, 454, 456, 460, 461, 466, 468, 469, 470, 473, 476, 477,
479, 490, 491², 492², 495, 499²
PHL 307, 310, 311, 314, 317, 318, 320, 323, 331, 332, 340², 361
REL 326, 327, 328, 364, 367, 371, 372, 373, 376, 385, 477

Group C

ECO 310, 346, 347, 430, 441, 442, 445, 450, 460, 461, 471, 485
POL 301, 303, 310, 311, 313, 335, 350, 360, 408, 411, 413, 450, 471, 475
PSY 334, 341, 351, 361, 363, 443, 461, 462, 471
SOC 321, 328, 337, 339, 341, 343, 351, 352, 435
ANT 315, 335, 353, 406, 449

Natural science	7
Mathematics (MTH 102, 204, 205 excluded)	3
Social and behavioral sciences	12
Humanities	18
Philosophy and religious studies	12
Communication skills	0-9
General Education courses and academic electives to total at least	120

¹See also Distribution Table for Bachelor of Arts programs and Chapter V for General Education requirements.

²This course can be counted only when the material is appropriate to American Studies. Consult program director.

AMERICAN STUDIES COMMITTEE

Francis J. Henninger (English), *Director, American Studies Program*
Arons (English), Bregenzler (Sociology, Anthropology and Social Work),
Cadegan (History), Kimble (Psychology), Kunkel (Philosophy)

COURSES OF INSTRUCTION

AMS 200. INTERDISCIPLINARY AMERICA: An introduction to the study of American culture, using methods and theory from a variety of disciplines to explore three periods pivotal to the definition of "American."
3 sem. hrs.

*AMS 300. AMERICAN CULTURES: Study of American artifacts to discern how they indicate the periods in the life of the civilization and how like artifacts can be used to determine the stages of development of various peoples. (Will not satisfy humanities breadth requirement.)
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.

*General Education course. See Chapter V.



ANT

ANTHROPOLOGY (ANT)

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

COURSES OF INSTRUCTION

- * 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 300. EVOLUTION OF PEOPLE AND CULTURE: Survey of human biological and cultural evolution from prehuman ancestors to settled city-states. Consideration of 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: Survey of anthropology research on urban issues. Considers how cities arose and how urban people make a living, organize, and think. Considers urban futures.

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 mother-centered families on personality, importance of verbal behavior in these cultures, problems of I.Q. testing in cultures other than where the tests originate, economic adaptations, political movements, religious practices.

3 sem. hrs.

ANT 352. CULTURES OF LATIN AMERICA: Origin and development of ancient civilizations including the 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. Prerequisite: ANT 150 or permission of instructor.

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. *1-6 sem. hrs.*

ANT 498. INDEPENDENT STUDY: Research problems or readings of special interest investigated under the guidance of an anthropology staff member. Permission of the chairperson. *1-6 sem. hrs.*

*General Education course. See Chapter V.



BIO/EVB

BIOLOGY (BIO)

The Bachelor of Science program in biology is designed to prepare a student for a career in the life sciences. Graduates of the program are competitive for entry into graduate programs in biology as well as professional schools, such as medical, dental, osteopathic, and veterinary science.

The department has two primary areas of faculty interest: environmental/ecological science and basic biomedical science. The former includes ecology, population biology, ecological physiology, animal behavior, environmental microbiology, community and restoration ecology, evolutionary biology, and plant physiology, as well as environmental biology in the narrow sense. The biomedical science course offerings include molecular biology, cell biology, general and medical microbiology, immunology, genetics, mammalian physiology, and developmental biology. In addition, advanced undergraduates may enroll in graduate courses for undergraduate credit with the consent of the chairperson.

In line with the two areas of research interests, the department encourages students (in consultation with their advisors) to declare one of the two as an area of concentration of study no later than the end of the sophomore year. For the student more interested in a broad approach to biology, the department recommends a third option, the general biology option (any combination of upper-level biology courses that fulfills the program requirements).

The department offers a research mentorship program for upper-level students majoring in biology. The program allows a student to work closely with both faculty and graduate students in laboratory and/or field research. Participation in the program is based on the recommendation of a member of the faculty. The mentorship program is designed to provide a significant advantage for those students who intend to enter a graduate program.

The department also offers a combined Bachelor and Master of Science degree in Biology. This accelerated program is designed for students who display strong potential for research in biology. It provides a liberal arts education, a broad background in biology, the development of expertise in a biological subfield, and a thorough introduction to research instrumentation and techniques. Graduates from the program are prepared for either direct entry into the job market or continuation toward the Ph.D. A detailed description of the B.S.-M.S. program may be obtained from the departmental office.

PROGRAM S1: BACHELOR OF SCIENCE WITH A MAJOR IN BIOLOGY (BIO)¹

	<i>Semester Hours</i>
Biology (including at least 24 sem. hrs. at 300-400 level)	41
Core courses: BIO 151, 152, 152L, 201L, 299, 412, 420	13
Environmental/Ecological—Select two ² : BIO 301, 314-314L, 320-320L, 330-330L, 370, 402-402L, 430-430L, 435-435L, 441, 444-444L, 450-450L, 452-452L, 459, 461-461L	7
Basic Biomedical—Select two ³ : BIO 309-309L, 403-403L, 404, 411-411L, 412L ⁴ , 425-425L, 440-440L, 442-442L, 462, 466-466L	7
Electives: Four courses, two with accompanying laboratories, from above groups. ⁵	14

Supporting sciences	30-31
CHM 123-123L, 124-124L, 313-313L, 314-314L	16
MTH 148-149 or 116, 148 (by placement)	6-7
PHY 201- 201L, 202- 202L	8
Communication skills	3-12
CMM 101	0-3
ENG 101,102 or 114 or 198	0-6
Select one: ENG 272, 316, 370, 378	3
Philosophy and religious studies	12
Humanities	12
Arts study	3
HST 101 or 102; HST elective ⁶	6
Elective	3
Social and behavioral sciences	12
First-year experience:	
ASI 150	0-1
General electives to total	120-121

¹Consult General Requirements for All Bachelor of Science Programs and Chapter V for General Education Requirements.

²One with accompanying laboratory. BIO 430 strongly recommended as one of two courses.

³One with accompanying laboratory. BIO 462 strongly recommended as one of two courses.

⁴Qualifies only as a laboratory elective (see below).

⁵Non-BIO science courses may be included with approval.

⁶HST 340, 341 or 342 are highly recommended.

ENVIRONMENTAL BIOLOGY (EVB)

Environmental Biology is a science specialization based upon the fundamentals of biology and ecology, applying broadly based interdisciplinary skills to the many environmental problems facing society today. The environmental biology program not only includes most of the requirements of the standard biology degree, but it builds upon that framework with additional science courses necessary for a strong environmental degree. This comprehensive major is designed to meet the needs of students who desire a broadly based education in preparation for field/laboratory careers such as applied environmental ecology, government service, teaching, and private industry/consulting. Students entering this fast-growing and dynamic field can expect to become involved directly in addressing some of the significant problems related to human impact on the environment. Depending on a student's interests, work in a chosen career can range in diversity from environmental risk assessment, to ecological restoration of disturbed habitats, to genetically engineering microorganisms that can biodegrade toxic waste, and careers in environmental law or policy are also possible.

Internship Program: Majors who achieve certain minimum academic standards can apply for the opportunity to participate in the program's internship opportunities (BIO 499, see course prerequisites), where they will have the unique opportunity to obtain valuable training and experience under the mentorship of established scientist and other professionals located in the Dayton area.

PROGRAM S1A: BACHELOR OF SCIENCE WITH A MAJOR IN ENVIRONMENTAL BIOLOGY (EVB)¹

	<i>Semester Hours</i>
Requirements for the major	41
Core Courses: BIO 151, 152-152L, 201L, 299, 412, 420, 430-430L, 459	20
Field Oriented Courses — Select three ² : BIO 350-350L or 435-435L, 320-320L, 330-330L, 370, 421, 444-444L, 452-452L, 499 ³	10
Laboratory Oriented Courses — Select three ⁴ : BIO 314-314L, 402-402L, 403-403L, 404, 411-411L, 412L, 421, 441, 450-450L, 461-461L, 462, 499 ³	11
Supporting sciences	48-50
CHM 123-123L, 124-124L, 201-201L ⁵ , 313 -313L, 314-314L	20
GEO 115-115L and 308-308L or 309-309L	8
PHY 201-201L, 202-202L or 206-207 ⁶ and 210L and 211L	8
MTH 148 ⁷ -149 and 367-368	12
or	
MTH 168 ⁷ -169 ⁶ and 367-368 ⁸	14
Communication skills	3-12
CMM 101	0-3
ENG 101-102 or 114 or 198	0-6
ENG 378	3
Philosophy and religious studies	12
PHL 103 and REL 103	6
Select one: PHL 321, 331; REL 472, 477	3
PHL or REL Elective	3
Humanities	9
Arts study	3
HST 101 or 102	3
HST Electives ⁹	3
Social and behavioral sciences	6
ANT 150 or PSY 101	3
Elective	3
ASI 150	0-1
General Education courses and academic electives to total:	120-131

¹Consult General Requirements for all Bachelor of Science programs and Chapter V for General Education Requirements.

²One with accompanying laboratory. BIO 350-350L or 435-435L strongly recommended as one of three courses. One non-BIO science course approved for science majors may be included with approval.

³Optional course of instruction for major (may be taken during any term(s)):

BIO 499. INTERNSHIP IN ENVIRONMENTAL BIOLOGY (3-credits).

See Catalog for prerequisites.

⁴Two with accompanying laboratory. BIO 411-411L and 462 strongly recommended as two of the three courses. BIO 412L qualifies only as a laboratory elective. One non-BIO science course approved for science majors may be included with approval.

⁵Students interested in a stronger emphasis in a Geology/field orientation may substitute GEO 116-116L for CHM 201-201L.

⁶PHY 206-207 and MTH 168-169 strongly recommended for students considering pursuing a graduate degree.

⁷MTH 116 should be taken before MTH 148 or MTH 168 if student background is weak and/or not suitable.

⁸Students selecting the MTH 168-169 option may substitute CPS 132 for MTH 368 with permission.

⁹HST 340, 341, 466 or 467 strongly recommended.

FACULTY

John J. Rowe, *Chairperson*

Distinguished Service Professor: Noland

Professors Emeriti: Laufersweiler, Shay

Professors: Bajpai, Burky, Geiger, McDougall, Rowe, Williams

Associate Professors: Breitwisch, Chantell, Kearns, Tsonis, Vesper

Clinical Adjunct Associate Professors: Stull, Taylor

Assistant Professors: Frieze, Hofmann, Robinson, Wright

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 2-hour laboratory each 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 2-hour laboratory each week. 1 sem. hr.

BIO 104. INTRODUCTORY BIOLOGY FIELD COURSE: An introduction to the ecology, behavior, morphology, taxonomy, and life history of plants and animals. One week on campus; three weeks in the Rocky Mountains near Denver, Colorado; one week of travel to and from the field site. For non-biological science majors only. Corequisites: GEO 104; BIO 104L or GEO 104L. Third term only. 3 sem. hrs.

BIO 104L. INTRODUCTORY BIOLOGY FIELD LABORATORY: Field trip laboratory in the biological sciences to accompany BIO 104. GEO 104L can be substituted for this course. Third term only. *1 sem. hr.*

* **BIO 151. CONCEPTS OF BIOLOGY I:** Study of the molecular and cellular organization of organisms. Topics also include bioenergetics, genetics, and evolution. Core biology course for majors in sciences such as biology, premedicine, and others. *3 sem. hrs.*

* **BIO 152. CONCEPTS OF BIOLOGY II:** Continuation of BIO 151. Study of taxonomic diversity, plant and animal organismal physiology, and ecology and animal behavior. Core biology course. Prerequisite: BIO 151. *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: Specialized laboratory investigations at the organizational levels of cells, systems, and organisms. Emphasis on both plant and animal studies. Sophomore-level biology core course. *1 sem. hr.*

BIO 299. BIOLOGY SEMINAR: Introduction to biological journals and abstracting materials. Practice in reviewing, abstracting, and presenting biological information. Primarily for sophomores. *1 sem. hr.*

BIO 301. EVOLUTION: Theory and evidence of organic evolution, with emphasis on microevolutionary change and population genetics. Prerequisites: BIO 101-102 or 151-152; BIO 412 recommended. *3 sem. hrs.*

BIO 309. COMPARATIVE ANATOMY OF THE VERTEBRATES: Study of 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 each week. *2 sem. hrs.*

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 laboratory each week. *1 sem. hr.*

BIO 320. MARINE BIOLOGY: 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. Laboratory work conducted on UD campus and at off-campus field sites in the South. Third term only. *2 sem. hrs.*

BIO 330. ANIMAL BEHAVIOR: An evolutionary approach to the study of animal behavior, emphasizing both proximate mechanisms and functional explanations of the survival value of behavior. Prerequisite: One year of biology. *3 sem. hrs.*

BIO 330L. ANIMAL BEHAVIOR LABORATORY: Field and laboratory exercises to accompany BIO 330. Should be taken concurrently with BIO 330. One 3-hour laboratory each week and occasional Saturday field trips. *1 sem. hr.*

BIO 350. APPLIED MICROBIOLOGY: Fundamentals of applied and environmental microbiology for environmental scientists and engineers. Introduction to microorganisms and their role in bioenvironmental engineering and industrial processes. For non-biological science majors only. Prerequisites: Introductory biology; general and organic chemistry. *3 sem. hrs.*

BIO 350L. APPLIED MICROBIOLOGY LABORATORY: An introductory laboratory to acquaint students with basic microbiology laboratory techniques as applied to environmental pollution and industrial fermentations. *1 sem. hr.*

BIO 370. CONSERVATION BIOLOGY: An ecosystem approach to the study of and threat to local, regional, and global biodiversity. Application of ecological principles of conservation of species and habitats. Prerequisites: BIO 101-102 or BIO 151-152. *3 sem. hrs.*

* **BIO 390. PHYSIOLOGY OF SEX AND FERTILITY REGULATION:** Introduction to the role of hormones, glands, organs, and devices in the regulation of sexual functions and fertility. No science credit for biological science majors. Prerequisite: Introductory biology. *3 sem. hrs.*

* **BIO 395. GLOBAL ENVIRONMENTAL BIOLOGY:** Presentation of the biological and ecological principles needed for critical discussion and evaluation of current global environmental issues including food production, human population growth, role of humans and pollution in environmental degradation, and conservation of agricultural, forest and other natural resources. No science credit for biology majors. Prerequisites: An introductory course in the natural sciences. *3 sem. hrs.*

* **BIO 398. HEREDITY AND SOCIETY:** Survey of the fundamental principles of inheritance and the application of genetics to contemporary problems of society. No science credit for biological science majors. Prerequisite: Introductory biology. *3 sem. hrs.*

BIO 402. VERTEBRATE ZOOLOGY: The morphology, physiology, ecology, and distribution of representative vertebrate groups. Prerequisite: Junior or senior standing. *3 sem. hrs.*

BIO 402L. VERTEBRATE ZOOLOGY LABORATORY: Course to accompany BIO 402. *1 sem. hr.*

BIO 403. PHYSIOLOGY I: A physico-chemical examination of the physiological events occurring in a living system with emphasis on physiology of the cell, excretion, nerves, muscles, bone, blood, heart, circulation, and respiration. Prerequisites: BIO 101-102 or 151-152; CHM 313-314. *3 sem. hrs.*

BIO 403L. PHYSIOLOGY I 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 404. PHYSIOLOGY II: Study of hormonal regulation of metabolism and growth and reproduction of higher vertebrates, including primates. Prerequisites: BIO 101-102 or 151-152; CHM 313-314. *3 sem. hrs.*

BIO 411. GENERAL MICROBIOLOGY: Introductory course stressing the physiology, cultivation, and classification of microbial organisms; their role in medicine, agriculture, and industry. Prerequisites: BIO 101-102 or 151-152; CHM 313-314. *3 sem. hrs.*

BIO 411L. GENERAL MICROBIOLOGY LABORATORY: Course to accompany BIO 411. Two 2-hour periods each week. *1 sem. hr.*

* 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 concurrently 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. Prerequisite: Chairperson's permission. *1-2 sem. hrs.*

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

BIO 425. PARASITOLOGY: Introduction to the morphology, life history, and clinical significance of parasites and other symbionts. Prerequisites: BIO 101-102 or 151-152. *3 sem. hrs.*

BIO 425L. PARASITOLOGY LABORATORY: Course to accompany BIO 425. Recognition of common human parasites. Study of both living and preserved forms. One 3-hour period each 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 435. MICROBIAL ECOLOGY: Study of the diversity and activity of microorganisms and the interrelationships between microorganisms and their environments with emphasis on aquatic ecosystems. Prerequisites: BIO 411; CHM 313-314. *3 sem. hrs.*

BIO 435L. MICROBIAL ECOLOGY LABORATORY: Examination of the methods of isolation and enumeration of microorganisms and techniques for determining their activities in the field and laboratory. *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 313-314. *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. ENVIRONMENTAL PLANT BIOLOGY: Study of the physiological basis for environmental effects on plant metabolism, structure, growth and development, including plant responses to elevated carbon dioxide, acid deposition, and to water stress. Prerequisite: BIO 101-102 or BIO 151-152. *3 sem. hrs.*

BIO 442. DEVELOPMENTAL BIOLOGY: Study of animal development, including morphological patterns of development, mechanisms of cellular differentiation, cell-cell interactions during development, and mechanisms of differential gene expression. Emphasis on understanding development at the cellular and molecular levels. Prerequisites: BIO 101-102 or 151-152; CHM 313-314. *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 and evolutionary, physiological, and ecological adaptations. One 3-hour laboratory each week. *1 sem. hr.*

BIO 450. COMPARATIVE ANIMAL PHYSIOLOGY: Organized on a function-system basis, course dealing 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 laboratory or field trip each week. *1 sem. hr.*

BIO 459. ENVIRONMENTAL ECOLOGY: The application of current ecological knowledge and principles toward the study of human impact on the environment. Emphasis on ecosystem dynamics, applied ecology, disturbance ecology, and approaches to solving global environmental problems. Prerequisite: BIO 430 or permission of instructor. *3 sem. hrs.*

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 ZOOLOGICAL LABORATORY: Course to accompany BIO 461. One 3-hour laboratory each week. *1 sem. hr.*

BIO 462. MOLECULAR BIOLOGY: Analysis of the nature of the gene and gene action. Particular attention to genetic regulation and to recent advances in molecular genetics. Prerequisites: BIO 412, CHM 314. *3 sem. hrs.*

BIO 466. BIOLOGY OF INFECTIOUS DISEASE: The nature of infectious diseases, host-parasite relationships in resistance and infection, defense mechanism (antigen-antibody response); survey of the bacteria causing disease in humans. Prerequisite: BIO 411. *3 sem. hrs.*

BIO 466L. BIOLOGY OF INFECTIOUS DISEASE LABORATORY: Laboratory experiments to demonstrate immunological, serological, determinative, and medical bacteriology. Two 2-hour laboratory periods each week. *1 sem. hr.*

BIO 499. ENVIRONMENTAL BIOLOGY INTERNSHIP: Majors will have the opportunity to obtain valuable training and experience under the mentorship of established scientists and professionals. Emphasis on approaches to solving environmental problems including such research areas as bioremediation, risk assessment, and ecological restoration. May be repeated up to 6 sem. hrs. Prerequisite: 12 sem. hrs. of upper-level BIO courses with a GPA of 3.0; 75 total sem. hrs. and a 2.75 cum. average; permission of program director. *3 sem. hrs.*

*General Education course. See Chapter V.



CHEMISTRY (CHM)

The B.A. program in chemistry provides a framework of scientific courses which serves as a preparation for a number of interdisciplinary professions. The traditional B.S. curriculum has been modified in the B.A. program, most notably in 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.

The B.S. program in chemistry is approved by the American Chemical Society for the training of professional chemists. Qualified students may participate in cooperative education following the completion of the sophomore year. Each student in the B.S. program in chemistry is required to conduct an original research project. Satisfaction of this requirement normally begins with enrollment in CHM 495 and selection of a research professor and project during the second term of the junior year. The research project, conducted during the entire senior year, normally requires two work periods of 3 to 4 hours each a week. The project culminates in the final term of the senior year with enrollment in CHM 498, the submission of an acceptable thesis, and the presentation of a seminar in CHM 497. Additional research work to a maximum total of 6 semester hours may be elected provided that the work extends beyond two semesters. Cooperative education students substitute work experience for research.

The B.S. program in biochemistry follows a curriculum which satisfies the needs of students who anticipate careers in the life sciences. A mark of distinction and rigor is that each student is required to conduct research, which normally includes a ten-week summer period following the junior year and culminates with the submission of a research thesis and the presentation of a seminar.

PROGRAM A2: BACHELOR OF ARTS WITH A MAJOR IN CHEMISTRY (CHA)¹

<i>Summary of Requirements²</i>	<i>Semester Hours</i>
Chemistry	37
Required courses	
Year 1: CHM 123, 123L, 124, 124L	8
Year 2: CHM 201, 201L, 313, 313L, 314, 314L	12
Year 3: CHM 302 or 303-304	3-6
Year 4: CHM 496	1
Chemistry electives	
Choose from the following: CHM 317, 404, 412, 415, 417, 418L, 420, 427, 451, 452, 490L, 498, 499	10-13
(May substitute two upper-level courses from other science departments with permission of chairperson.)	
Supporting science requirements (Complete during first two years.)	
MTH 148, 149, 367; or 168, 169	8-9
PHY 201, 201L, 202, 202L	8
Communication skills	3-9
CMM 101	0-3
ENG 101-102 or 114 or 198 ³	3-6

Philosophy and religious studies	12
Social and behavioral sciences	12
Humanities	18
First-year experience: ASI 150	0-1
General Education courses and academic electives to total at least	120

¹See also Distribution Table for Bachelor of Arts programs and Chapter V for General Education Requirements.

²Advanced placement is permitted.

³If composition requirement is waived, student should select an ENG elective.

PROGRAM S2: BACHELOR OF SCIENCE WITH A MAJOR IN BIOCHEMISTRY (BCM)¹

<i>Summary of Requirements²</i>	<i>Semester Hours</i>
Chemistry requirements	39
Year 1: CHM 123, 123L, 124, 124L	8
Year 2: CHM 201, 201L, 313, 313L, 314, 314L	12
Year 3: CHM 303, 303L, 304, 451, 452, 462L ³ , 495, 498	17
Year 4: CHM 496, 497	2
Biology requirements	11
Year 1: BIO 151, 152, 152L	7
Year 2: BIO elective and laboratory	4
Science breadth requirements	10
Choose from the following: CHM 404, 415, 415L, 417, 418L, 499; BIO 314, 403, 404, 411, 412,, 440, 462, 466	
Supporting science requirements	
MTH 168, 169, 218; CPS 132	15
PHY 206, 207, 210L	7
Communication skills	3-9
CMM 101	0-3
ENG 101-102 or 114 or 198 ⁴	3-6
Foreign language	6-8
Philosophy and religious studies	12
Social and behavioral sciences	6
Humanities	9
First-year experience: ASI 150	0-1
General Education courses and academic electives to total	120-127

¹Consult General Requirements for all Bachelor of Science programs and Chapter V for General Education requirements.

²Advanced placement is permitted.

³Students who take CHM 499 are not required to enroll in CHM 462L.

⁴If composition requirement is waived, student should select an ENG elective.

PROGRAM S3: BACHELOR OF SCIENCE WITH A MAJOR IN CHEMISTRY (CHM)¹

<i>Summary of Requirements²</i>	<i>Semester Hours</i>
Chemistry	48
Year 1: CHM 123, 123L, 124, 124L	8
Year 2: CHM 201, 201L, 313, 313L, 314, 314L	12

Year 3: CHM 303, 303L, 304, 304L, 317, 417, 418L, 495	13
Year 4: CHM 415, 415L, 496, 497, 498	9
Chemistry electives	
Choose from the following: CHM 404, 412, 420, 427, 451, 452, 490L, 499	6
(May substitute one approved science course from another department.)	
Supporting science requirements (Complete during first two years.)	
MTH 168, 169, 218; CPS 132	15
PHY 206, 207, 208, 210L, 211L	11
Communication skills	3-9
CMM 101	0-3
ENG 101-102 or 114 or 198 ³	3-6
Foreign language	6-8
Philosophy and religious studies	12
Social and behavioral sciences	6
Humanities	9
First-year experience: ASI 150	0-1
General Education courses and academic electives to total at least	120

¹Consult General Requirements for all Bachelor of Science programs and Chapter V for General Education Requirements.

²Advanced placement is permitted.

³If composition requirement is waived, student should select an ENG elective.

FACULTY

Albert V. Fratini, *Chairperson*

Distinguished Service Professor: Lucier

Professor Emeritus: Michaelis

Professors: Fox, Fratini, R. Keil, Knachel, Singer

Associate Professors: Johnson, Morrow

Assistant Professors: Church, Glass, Hunnicutt

Laboratory Instructors: Hils, Jeffery, P. Keil, Nelson, Schwendeman, Tabesh, Webb

COURSES OF INSTRUCTION

- *CHM 115. COLLEGE PREPARATORY CHEMISTRY: A one-term course for student-desiring to enter a science or engineering program but whose background is insufficient for CHM 123-124. Unacceptable for credit toward chemistry requirements in any chemistry program. 3 sem. hrs.

CHM 115L. COLLEGE PREPARATORY CHEMISTRY LABORATORY: Course to accompany CHM 115 or to be elected by students in CHM 200 who lack previous chemistry laboratory experience. One 3-hour laboratory each week. 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 examination is available for students whose background is doubtful. CHM 123 is a prerequisite for CHM 124. 3 sem. hrs. each

CHM 123L-124L. GENERAL CHEMISTRY LABORATORY: Laboratory course to complement CHM 123-124. One 3-hour laboratory session each week. CHM 123 is a corequisite for CHM 123L. CHM 124 is a corequisite for CHM 124L. 1 sem. hr. each

* CHM 200. CHEMISTRY AND SOCIETY: A course for nonscience majors. The application of chemical principles to the examination of issues such as environmental quality, disease, hunger, synthetic materials, and law enforcement. Requires one year of high school chemistry or equivalent. Depending upon background and experience, a student needing a laboratory course may enroll in either CHM 115L or CHM 123L. 3 sem. hrs.

CHM 201. QUANTITATIVE ANALYSIS: Application of the principles of chemical equilibrium to the theory and techniques of gravimetric, volumetric, spectrophotometric, and electroanalytical methods of chemical analysis. Prerequisites: CHM 124, 124L. 3 sem. hrs.

CHM 201L. QUANTITATIVE ANALYSIS LABORATORY: Course to accompany CHM 201 lecture. One 3-hour laboratory period each week. 1 sem. hr.

CHM 302. PHYSICAL CHEMISTRY: Essential elements of thermodynamics, chemical kinetics, equilibria, and electrochemistry for those with a primary interest in the life sciences. For B.A. chemistry majors and premedical, pre dental, and biology majors. Prerequisite: CHM 124. 3 sem. hrs.

CHM 303-304. PHYSICAL CHEMISTRY: Fundamentals of thermodynamics, chemical kinetics, electrochemistry, and spectroscopy with a mathematics format. For B.S. chemistry and biochemistry majors and chemical engineers. Prerequisites: CHM 201 or equivalent, CHM 303. Corequisite: MTH 218. 3 sem. hrs. each

CHM 303L-304L. PHYSICAL CHEMISTRY LABORATORY: Course to accompany CHM 303-304. One 3-hour laboratory each week. Corequisite: MTH 218. 1 sem. hr. each

CHM 313-314. ORGANIC CHEMISTRY: Major topics in organic chemistry including synthesis, mechanisms, stereochemistry, and spectroscopy. Required of all chemistry majors and students in the life sciences. Prerequisite: CHM 124. CHM 313 is a prerequisite for CHM 314. 3 sem. hrs. each

CHM 313L-314L. ORGANIC CHEMISTRY LABORATORY: Common separation, purification, and analytical techniques including chromatography and spectroscopy are stressed in CHM 313L. Synthesis and characterization of organic materials utilizing skills from the first term are stressed in CHM 314L. One 3-hour laboratory each week. Corequisites: CHM 313 and 314, respectively. CHM 313L is a prerequisite for CHM 314L. 1 sem. hr. each

CHM 317. SPECTROSCOPIC IDENTIFICATION OF ORGANIC COMPOUNDS: The use of nuclear magnetic resonance, infrared, and mass spectrometry in elucidating structures. Emphasis on interpretation and integration of spectral data in problem solving. Prerequisites: CHM 314, 314L or equivalent. 1 sem. hr.

CHM 404. SPECIAL TOPICS IN PHYSICAL CHEMISTRY: Thorough treatment of topics such as electrochemistry, macromolecules, photochemistry, or spectroscopy. Prerequisite: CHM 302 or 303. May be repeated as topics change. 3 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. Prerequisites: CHM 302 or equivalent, CHM 313-314, and senior standing. 3 sem. hrs.

CHM 415. ANALYTICAL CHEMISTRY: Chemical analysis based on modern instrumentation. Chromatographic, electrochemical, and spectroscopic methods. Prerequisites: CHM 201, 201L, 302 or 304. 2 sem. hrs.

CHM 415L. ANALYTICAL CHEMISTRY LABORATORY: Course to accompany CHM 415. Two 3-hour laboratory sessions each week. Prerequisites: CHM 201L, 302 or equivalent. 2 sem. hrs.

CHM 417. INORGANIC CHEMISTRY: An advanced course in modern inorganic chemistry. Atomic structure, principles of bonding and structure, acid-base chemistry, periodicity, coordination compounds, nonaqueous solvents, electrochemistry, molecular symmetry, organometallic compounds, and the chemistry of selected representative elements. Prerequisites: CHM 124, 314. Corequisite: CHM 302 or 304. 3 sem. hrs.

CHM 418L. INORGANIC CHEMISTRY LABORATORY: Laboratory course dealing with the synthesis and characterization of inorganic and organometallic compounds. Topics include vacuum and inert atmosphere techniques, separation and purification, spectroscopic characterization, X-ray diffraction, magnetic moment, and conductance measurements. Prerequisites: CHM 201L, 314L. Corequisite: CHM 417. 1 sem. hr.

CHM 420. BIOCHEMISTRY: The fundamental aspects of the chemistry and biochemistry of carbohydrates, lipids, proteins, and nucleic acids. Enzymology, protein purification, bioenergetics, metabolism of carbohydrates, lipids, amino acids, nucleotides and nucleic acids, elementary molecular biology, and control processes are described. Acceptable preparation for medical school; for nonchemistry majors. Prerequisite: CHM 314. 3 sem. hrs.

CHM 427. MEDICINAL CHEMISTRY: The chemical mechanisms of action of the major drug classes will be surveyed with particular emphasis on the facets of organic chemistry that control drug-receptor interactions, metabolism and mechanisms of toxicity and resistance. Prerequisites: CHM 314 and CHM 420 or CHM 451. First term. 3 sem. hrs.

CHM 451. GENERAL BIOCHEMISTRY I: Discussion of the chemistry and biochemistry of carbohydrates, amino acids, proteins, and nucleic acids, including health-science and methodologic aspects. Descriptions of enzymology, protein purification, and carbohydrate metabolism related to such topics as bioenergetics, membranes, and disease processes. Recommended for students desiring entry into graduate and professional schools. Prerequisites: CHM 201, 314. 3 sem. hrs.

CHM 452. GENERAL BIOCHEMISTRY II: Discussion of selected topics in bioenergetics, and metabolism of lipids, amino acids, porphyrins, nucleic acids, and proteins. Current aspects of nutrition, biochemical genetics, endocrinology, regulation, and genetic engineering addressed and related to health-science topics as time permits. Suitable preparation for medical school. Prerequisite: CHM 451. 3 sem. hrs.

CHM 462L. BIOCHEMISTRY LABORATORY: Laboratory course to accompany biochemistry lecture courses. Spectrophotometry, pH and dissociation, enzymologic methodology and analytical techniques, chromatographic techniques. Corequisite: CHM 420 or 451. 1 sem. hr.

CHM 490L. SCIENTIFIC GLASSBLOWING: Theory and practice of glass working. Under the supervision of a professional glassblower, students learn to make several standard seals and fabricate pieces of glass apparatus. Enrollment limited. One 3-hour laboratory each week. Prerequisite: Permission of the chairperson. Grading Option 2. 1 sem. hr.

CHM 495. INTRODUCTION TO RESEARCH SEMINAR: Research topics presented by visiting scientists and faculty, and the results of thesis research by senior students. Required of all junior chemistry and biochemistry majors in the B.S. programs. Grading Option 2. No credit

* CHM 496. PROFESSIONAL PRACTICES SEMINAR: After discussions of the chemical literature and information retrieval, resumes, graduate education, and career opportunities, students present technical talks on topics with social, ethical, or historical implications. Required of all chemistry and biochemistry majors, both B.S. and B.A.
1 sem. hr.

CHM 497. RESEARCH SEMINAR: A series of seminars as described under CHM 495. Required of all senior chemistry and biochemistry majors in the B.S. programs.
1 sem. hr.

CHM 498-499. RESEARCH AND THESIS: All students in the B.S. programs (except Cop) are required to enroll for a minimum of 3 semester hours in a research course (CHM 498). Students may take additional research credits (CHM 499) if the work extends for more than 2 semesters. Successful completion of research courses requires the submission of a typewritten thesis and the presentation of a seminar. Prerequisite: Permission of the chairperson.
3-6 sem. hrs.

*General Education course. See Chapter V.



CLASSICS (CLA)

Courses in classics, taught in English, are offered by the Department of Languages. See LNG. See also HMS.

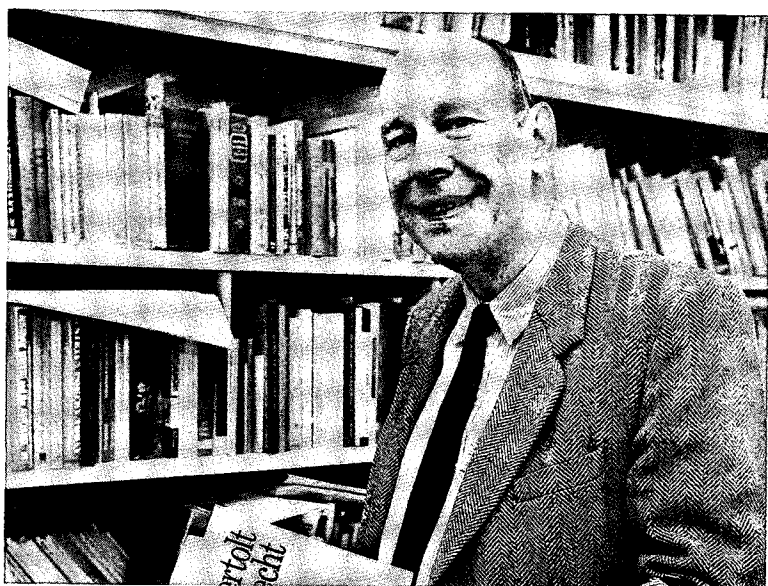
COURSES OF INSTRUCTION

CLA 105. CLASSICAL ELEMENTS IN THE ENGLISH LANGUAGE: A study of Greek and Latin elements in bioscientific terminology to improve comprehension of derivatives from the classical languages in both specialized writings and traditional literature. *3 sem. hrs.*

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. *3 sem. hrs.*

CLA 205. INTRODUCTION TO GREEK ARCHAEOLOGY: Survey of Greek archaeology from the Neolithic to the Classical Age, including consideration of the theory and technique of archaeological investigation. Emphasis on the cultures of the Minoan Bronze Age, the Mycenaean Bronze Age, and the Classical Age. *3 sem. hrs.*

CLA 350. CLASSICAL LITERATURE IN TRANSLATION: Course to acquaint students not majoring or minoring in classical languages with Latin and Greek authors and literary movements. Conducted in English. Repeatable when subtitle and content change. *3 sem. hrs.*



CMM

COMMUNICATION (CMM)

The course requirements for communication majors are 39 semester hours. Teacher certification through the E11A program is an option for communication majors. Consult department chairperson for details.

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

A minor in political journalism is available for political science majors. The political journalism minor consists of CMM 201, CMM 330, and four of the following five courses: CMM 331; CMM 353; CMM 354; CMM 431; CMM 432.

The department also offers a Bachelor of Arts with a major in theatre. See THR.

PROGRAM A3: BACHELOR OF ARTS WITH A MAJOR IN COMMUNICATION (CMM)¹

	<i>Semester Hours</i>
English 101-102 or ENG 114 or ENG 198	3-6
Natural science	7
Mathematics (MTH 102, 204, 205 excluded)	3
Philosophy and Religious Studies	12
Major program ²	39
Foundation (required of all CMM majors)	12
CMM 101; CMM 201; CMM 202; CMM 330	
Concentration Requirements and Electives	27

CONCENTRATIONS

Communication Studies (CSS)	
Foundation	12
Approved program of study by advisor and department chair must be submitted prior to completion of 18 sem. hrs. of CMM or THR ³	27
Communication Management (CMT)	
Foundation	12
CMM 320; CMM 321; CMM 412; CMM 421	12
Two courses from the following:	
CMM 351; CMM 352; CMM 420; CMM 322; CMM 498	6
Any courses in CMM or THR ³	9
Journalism (JRN)	
Foundation	12
CMM 331; CMM 430; CMM 431; CMM 432	12
Two courses from the following:	
CMM 332; CMM 333; CMM 412; CMM 414; CMM 416; CMM 498	6
Any courses in CMM or THR ³	9
Public Relations (PUB)	
Foundation	12
CMM 360; CMM 412; CMM 460; CMM 461	12
Two courses from the following:	
CMM 332; CMM 421; CMM 469; CMM 498	6
Any courses in CMM or THR ³	9
Electronic Media (RTV)	
Foundation	12
CMM 340; CMM 341 or CMM 342; CMM 343; CMM 446	12

Two courses from the following:	
CMM 412; CMM 449; CMM 442; CMM 498	6
Any courses in CMM or THR ³	9
Theatre (CTR)	
Foundation	12
THR 203; THR 310; THR 340; THR 415	12
Two courses from the following:	
THR 305; THR 307; THR 323; THR 325; THR 326; THR 330; THR 424	6
Any courses in CMM or THR ³	9
Two units of 12 sem. hrs. each selected from anthropology, economics, political science, psychology, sociology, management, criminal justice, social work, education, marketing, military science, human ecology, social work, ASI. (At least 6 sem. hrs. in each unit must be 300-400 level.)	24
Anthropology, economics, political science, psychology, sociology if none of these is chosen as one of the 12 sem. hr. units above	6
Two units of 9 sem. hrs. each selected from English, languages, history, music, philosophy, religious studies, visual arts. (In English, philosophy, and religious studies, at least 6 sem. hrs. must be 300-400 level.)	18
First-year experience: ASI 150	0-1
General Education courses and academic electives to total at least	120

¹See also Distribution Table for Bachelor of Arts programs and Chapter V for General Education Requirements.

²At least 24 of the required 39 sem. hrs. in all communication concentrations must be 300-400 level. No more than 6 total sem. hrs. of CMM 390, CMM 397 and CMM 498 may be applied toward the 39 sem. hrs.

³Dance courses in the theatre program (THR 201, 261, 271, 301, 361, 371) do not count toward the 39 sem. hrs. requirement.

FACULTY

Thomas D. Skill, *Chairperson*

Professors Emeriti: Gilvary, Rang, Wolff

Professors: Cusella, Lain, Morlan, Skill, Thompson

Associate Professors: Blatt, Harwood, Robinson, Wallace, Watters, Yoder

Assistant Professors: Anderson, Dunlevy-Shackleford, Griffin, Taylor, Watts, Weatherly, Zerbinos

Lecturers: Angel, Beran, Hueth

COURSES OF INSTRUCTION

CMM 101. FUNDAMENTALS OF ORAL COMMUNICATION: Introductory course in the fundamental skills of oral communication. Development of communicative self-confidence through interpersonal and small group process, persuasive reasoning, listening theory and practice, and public speaking. 3 sem. hrs.

CMM 201. FOUNDATIONS OF MASS COMMUNICATION: Historical development of mass media in America; survey of mass media theories, impact of mass media on people and society, the role and influence of the news media, new technologies, programming, and pressure groups. 3 sem. hrs.

CMM 202. FOUNDATIONS OF COMMUNICATION THEORIES AND RESEARCH: Study of the nature and scope of communication theories and research. Examination of how the communication discipline developed from classical traditions to its modern perspective. *3 sem. hrs.*

CMM 310. VOICE AND DICTION: The four phases of speech production: proper breathing, phonation, resonance, and articulation. Emphasis on projection, quality and clarity of speech. Analysis of students' voices through tape recordings. *3 sem. hrs.*

CMM 311. STUDIES IN ORAL PERFORMANCE: Oral performance of poetry, prose, and drama; combining study of vocal modulations, pitch, inflection, and tone color with intellectual and emotional analysis of selections as a means of making the literature alive and immediately present. *3 sem. hrs.*

CMM 312. LISTENING THEORY AND APPLICATION: Study of theories and related application during comprehensive, discriminate, empathic, and appreciative listening; emphasis on listening competently and responsibly. *3 sem. hrs.*

CMM 313. NONVERBAL COMMUNICATION: Survey of theory and research, and experiential learning in nonverbal communication. Examination of the influence of environmental factors, physical behavior, and vocal cues on human communication. *3 sem. hrs.*

CMM 320. INTERPERSONAL COMMUNICATION: Study of the student's own communication behavior through face-to-face spontaneous interaction with others. *3 sem. hrs.*

CMM 321. SMALL GROUP COMMUNICATION: Guiding principles used by participants and leaders in preparing and conducting small group conferences and discussions; policy-making conferences staged. *3 sem. hrs.*

CMM 322. 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.*

CMM 330. NEWSWRITING: Writing for the news media, concentrating on determining news values, developing newsgathering and newswriting techniques, and improving writing skills. Prerequisite: typing skills. Studio fee. *3 sem. hrs.*

CMM 331. INTERPRETATIVE AND FEATURE WRITING: Writing non-news materials: features, personality stories, columns, reviews, consumer information. New journalism. Contents and organization of feature sections. Studio fee. *3 sem. hrs.*

CMM 332. PUBLICATION DESIGN: Layout and design of newspapers, newsletters, brochures, and magazines. Type selection, copy preparation, cost appraisal, printing methods. Studio fee. *3 sem. hrs.*

CMM 333. FREE-LANCE WRITING: Steps of free-lance publication, from market analysis to query letters to writing and rewriting. Mostly nonfiction, magazine markets, some newspaper and nonfiction book markets. *3 sem. hrs.*

CMM 340. FUNDAMENTALS OF BROADCASTING: Lectures dealing with broadcasting as a business and as a cultural influence; broadcast regulation, programming, and organization of typical radio and television stations. 3 sem. hrs.

CMM 341. AUDIO PRODUCTION: Study of the theory and process of current audio production practices, including the operation of basic studio equipment. Exercises in methods of sound reproduction in the audio studio, including recording of voice music, and sound effects. Some writing for the aural medium. Studio fee. 3 sem. hrs.

CMM 342. FUNDAMENTALS OF TELEVISION PRODUCTION: Intensive practice in preparation and production of studio-based television programs. Process and fundamentals of studio production and post-production editing. Studio fee. 3 sem. hrs.

CMM 343. WRITING FOR ELECTRONIC MEDIA: Study of concrete approaches to and practice with the kinds of writing being done professionally in all program types on television and radio including corporate media writing. Prerequisite: CMM 330 or permission of instructor. 3 sem. hrs.

* CMM 350. PROPAGANDA ANALYSIS: Use and abuse of propaganda. Editorial persuasion. Propaganda devices and techniques. An application of the principles of Aristotelean logic to the field of communication. 3 sem. hrs.

CMM 351. PUBLIC SPEAKING: Oral communication in professional situations. Adaptation of principles of effective speaking to specific audiences and occasions. Delivery of informational, problem-solving, and special-occasion speeches. 3 sem. hrs.

CMM 352. PERSUASION: Analysis of the motivations that lead to belief and action of individuals and audiences. Study in the techniques of persuasion. Practical application of theory. 3 sem. hrs.

CMM 353. SPEECH WRITING: Study of speech structure and composition. Critical analysis of model speeches, in conjunction with the preparation and presentation of original speeches on current public questions. 3 sem. hrs.

CMM 354. POLITICAL CAMPAIGN COMMUNICATION: Analysis of the nature and functions of selected communication variables within political election campaigns. 3 sem. hrs.

CMM 360. PRINCIPLES OF PUBLIC RELATIONS: Survey of the field of public relations emphasizing writing and public relations, theoretical implications of the field, the practitioner's role in organization and the community. 3 sem. hrs.

CMM 390. INDEPENDENT STUDY: Supervised study involving directed readings, individual research (library, field, or experimental), or projects in the specialized areas of communication. May be repeated once. Prerequisite: Permission of the department chairperson. 3 sem. hrs.

CMM 397. COMMUNICATION PRACTICUM: Contracted participation in an approved on-campus communication organization. One sem. hr. per term to a maximum of 3. Grade option 2 only. 1-3 sem. hrs.

CMM 410. FAMILY COMMUNICATION: Study of the family from a communication perspective, considering the communication processes within the family and the extent to which communication affects and is affected by the family.

3 sem. hrs.

CMM 411. HEALTH COMMUNICATION: Examination of communication theory and research as they relate to health care. Issues include reassurance, the role of the patient, interviews, health organizations, the media and health, compliance, providing explanations, and health care professions frequently neglected.

3 sem. hrs.

CMM 412. RESEARCH METHODS IN COMMUNICATION: Introduction to data gathering and analytical quantitative methods used in the communication discipline. Focus on and practice in survey methods, questionnaire development, and sampling.

3 sem. hrs.

CMM 413. COMMUNICATION IN THE INFORMATION AGE: Examination of issues related to development, economics, programming, and the future of new mass communication technologies. Prerequisite: CMM 201 or permission of instructor.

3 sem. hrs.

* **CMS 414. GLOBAL COMMUNICATION:** Introduction to the main topics in the field of global communication. Emphasis on comparative mass media and current issues in global communication. (Will not satisfy humanities breadth requirement.)

3 sem. hrs.

* **CMS 415. WOMEN AND COMMUNICATION:** Seminar focusing on gender differences in communication, unique aspects to women's communication, and women's rhetoric. Current theory and research examined. (Will not satisfy humanities breadth requirement.)

3 sem. hrs.

* **CMM 416. 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.

CMM 420. COMMUNICATION AND CONFLICT MANAGEMENT: Examination of the functions of communication in several types of conflict such as marital conflict, racial conflict, and role conflict, and the methods and strategies of communication to reduce these conflicts.

3 sem. hrs.

CMM 421. COMMUNICATION IN ORGANIZATIONS: Analysis of message initiation, diffusion, and reception in organizations; study of various methodological approaches for the purpose of conducting a communication audit within an organization.

3 sem. hrs.

CMM 430. EDITING AND COPYREADING: Newspaper copy editing, with emphasis on language usage, editing symbols, newspaper style, headline and caption writing. Extensive work on computerized editing system. Prerequisites: CMM 330. Typing skills. Studio fee.

3 sem. hrs.

CMM 431. PUBLIC AFFAIRS REPORTING: Advanced reporting and news writing. Analysis and structure of stories on all government areas. Information-gathering techniques and specialized reporting. Prerequisite: CMM 330. Typing skills. Studio fee. *3 sem. hrs.*

CMM 432. THE LAW AND NEWS MEDIA: Limitations of freedom of the press. The right of the people to know and 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.*

CMM 439. SPECIAL TOPICS IN JOURNALISM: Concentrated study in special areas of journalism. May be repeated with change of topic. *3 or 6 sem. hrs.*

CMM 440. BROADCAST NEWS: Study of the process and practice of news gathering, analysis, rewriting, and editing for the broadcast media. Theoretical background and practical application, including historical, legal, and ethical concerns for broadcast news personnel. Prerequisite: CMM 330. Studio fee. *3 sem. hrs.*

CMM 442. ADVANCED TELEVISION PRODUCTION: Advanced techniques of both studio and electronic field production and post-production editing for television. Prerequisite: CMM 342. Studio fee. *3 sem. hrs.*

CMM 446. ELECTRONIC MEDIA MANAGEMENT: Survey of the leadership/management roles and responsibilities of broadcasting, cable television and corporate media enterprises. Prerequisite: CMM 340. *3 sem. hrs.*

CMM 449. TOPICS IN ELECTRONIC MEDIA: Concentrated study in special areas of electronic media production, criticism, and management. May be repeated once with change of topic. Depending on topic, prerequisites may be imposed. *3 sem. hrs.*

* **CMM 451. RHETORIC OF SOCIAL MOVEMENTS:** Study of rhetorical communication in American social movements through examination of the strategies, themes and tactics used by agitators and the institutional responses to discourse aimed at social change. *3 sem. hrs.*

CMM 452. PUBLIC DISCOURSE AND CRITICISM: Examination of the foundations of the field of communication. Major focus on the development of rhetorical theory with attention to rhetorical analysis and criticism. *3 sem. hrs.*

CMM 460. ADVANCED PUBLIC RELATIONS: Focus on advanced topics in public relations. Emphasis on expanding writing and critical thinking skills learned in CMM 360. Analysis of case studies and development of response plans. Prerequisite: CMM 330, CMM 360. *3 sem. hrs.*

CMM 461. PUBLIC RELATIONS CAMPAIGNS AND CASES: 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. Prerequisite: CMM 330, CMM 360, CMM 460 and senior standing. *3 sem. hrs.*

CMM 469. TOPICS IN PUBLIC RELATIONS: A concentrated study in specific areas of public relations. Development of specialized projects. May be repeated once with change of topics. Prerequisites: CMM 360 or permission of instructor. *3 sem. hrs.*

CMM 498. COMMUNICATION INTERNSHIP: Communication work experience in an approved organization. Prerequisites: Student must be in good academic standing and must have completed CMM 101, 201, 202, 330. Students are normally limited to a maximum of 3 sem. hrs. Under exceptional circumstances, students may petition the department chair for an additional 3 sem. hrs. if the second internship is at a different organization and the student can demonstrate that the position offers a unique and significant educational opportunity not available through the first internship. Students must register for the internship credits during the term of the internship. Permission of department chair. Option 2 Grading only. *2 or 6 sem. hrs.*

CMM 499. SPECIAL TOPICS IN COMMUNICATION: Concentrated study in specific areas of speech communication. May be repeated once with change of topic. *3-6 sem. hrs.*

*General Education course. See Chapter V.



COMPUTER SCIENCE (CPS)

The Department of Computer Science offers two programs leading to the Bachelor of Science: Program S4, in computer science, and Program S4A, in computer information systems. Both programs have the same introductory core sequence of computer science courses. The main differences in the programs are in the mathematics and science requirements and in the application emphases.

The Computer Science program is accredited by the Computer Science Accreditation Commission (CSAC) of the Computing Sciences Accreditation Board (CSAB), a specialized accrediting body.

S4-Computer Science: Computer science is the study of algorithms and their implementation in the environment of computer hardware. It includes the study of data structures, software design, programming languages, and computer elements and architecture. A student entering this program is expected to be able to take calculus and nonremedial English. A transfer student must ordinarily be in good standing and have a cumulative average of at least 2.5 based on a scale of 4. Each student must take appropriate upper-level electives to ensure depth in at least three of the core subject areas of data structures, software design, programming language concepts and architecture as arranged with the advisor and department chair.

S4A-Computer Information Systems: This program emphasizes computer science concepts with particular attention to systems analysis and design, computer communications, and applications in one of the concentration areas listed in the description of the S4A program requirements.

A minor in computer science includes CPS 150, 151, 250, 350, and three other courses numbered 320 or above, excluding 435 and 437. A minor in computer information systems includes CPS 150, 151, 242, 310, 312, and two courses numbered 320 or above, excluding 435 and 437.

PROGRAM S4: BACHELOR OF SCIENCE WITH A MAJOR IN COMPUTER SCIENCE (CPS)¹

	<i>Semester Hours</i>
Computer science	45
Introductory core sequence: CPS 150, 151, 242, 250, 341	
Further core requirements: CPS 346, 350, 387	
Six additional upper-level courses, numbered 310 or above	
Mathematics: MTH 168, 169, 218, 302 ² , 367	18
Natural science: PHY 206, 207, 210L, 211L, or CHM 123, 124, 123L, 124L or BIO 151, 152, 152L, 201L or GEO 115, 116, 115L, 116L-and 2 additional courses acceptable for Science or Engineering majors	14
Communication skills	0-9
Humanities	9
Social and behavioral sciences	6

Philosophy and religious studies, including PHL 319	12
First-year experience: ASI 150	0-1
General Education courses and academic electives ³ to total at least	120

¹See General Requirements for All Bachelor of Science Programs and Chapter V for General Education Requirements.

PROGRAM S4A: BACHELOR OF SCIENCE WITH A MAJOR IN COMPUTER INFORMATION SYSTEMS (CIS)¹

	<i>Semester Hours</i>
Computer science	42
Introductory core sequence: CPS 150, 151, 242, 250, 341	
Further core requirements: CPS 310, 312, 346, 350	
Four additional upper-level courses, numbered 320 or above	
Concentration: A minor in one of the following areas: anthropology, biology, chemistry, communication, criminal justice, economics, English, family development, geology, history, human ecology, languages, mathematics, music, philosophy, physics, political science, psychology, social work, sociology, religious studies, accounting, finance, international business, management, marketing; or the following block of courses: ACC 207, 208; ECO 203, 204; MGT 311; MKT 305	15-27
Communication skills	0-9
Humanities ²	9
Mathematics: Calculus and statistics, (e.g., MTH 148, 149, 367) ²	9
Natural science ²	8
Social and behavioral sciences ²	6
Philosophy and religious studies, including PHL 319 ²	12
First-year experience: ASI 150	0-1
General Education courses and academic electives to total at least	120

¹See General Requirements for all Bachelor of Science Programs and Chapter V for General Education Requirements.

²This requirement will be satisfied in some cases by the minor that is chosen.

FACULTY

Barbara A. Smith, *Chairperson*

Professors Emeriti: Jehn, Kester

Professor: Winslow

Associate Professors: Gowda, Lang, Schoen, Smith

Assistant Professors: Buckley, Clark, Pan

Lecturer: Maruyama

Adjunct Associate Professors: Jarrett, Lokai

Adjunct Assistant Professors: Beitel, Keim

Adjunct Instructor: Skudlarek

COURSES OF INSTRUCTION

CPS 107. COMPUTERS AND SOCIETY: Nontechnical introductory survey of the history and organization of digital computers; the diverse application of computers in government, business, education, and the arts; and the psychological and sociological impact of the computer age. Not open to CPS, CIS, or PCS majors.

3 sem. hrs.

CPS 111. INTRODUCTION TO PERSONAL COMPUTERS: Introduction to the use of personal computers. Emphasis on the use of the operating system, text processors, spreadsheets, database packages, and elementary communications.

3 sem. hrs.

CPS 132. COMPUTER PROGRAMMING FOR ENGINEERING AND SCIENCE: Fundamentals of computer programming including algorithms, program structure, library routines, debugging, and program verification. Calculus-based computer solutions of problems from science and engineering using FORTRAN. Corequisite: MTH 168.

3 sem. hrs.

CPS 144. INTRODUCTION TO COMPUTER PROGRAMMING: Fundamentals of computer programming including algorithms, program structure, library routines, debugging, and program verification. Computer solutions of problems from social sciences using a suitable compiler language such as FORTRAN, PL/I, or Pascal.

1-3 sem. hrs.

CPS 145. COBOL PROGRAMMING: Basic programming theory and practice using the COBOL language for business-oriented problems. Not open to CPS, CIS, or PCS majors.

1-3 sem. hrs.

CPS 146. (LIST PROCESSING) PROGRAMMING: Basic programming theory and practice using a language suitable to list-processing applications such as LISP or SNOBOL.

3 sem. hrs.

CPS 150. ALGORITHMS AND PROGRAMMING I: Algorithms, programs, and computers. Algorithm development, basic programming and programming structure. Debugging and program verification. Data representation. Computer solutions to numeric and non-numeric problems using a compiler language.

4 sem. hrs.

CPS 151. ALGORITHMS AND PROGRAMMING II: Continuation of CPS 150. Emphasis on program design, development and style, string processing, data structures, program modularity, and abstract data type, using a compiler language. Prerequisite: CPS 150.

4 sem. hrs.

CPS 242. INTRODUCTION TO FILE PROCESSING: The file processing environment, blocking and buffering, secondary storage devices, sequential file organization, relative file organization, and various indexed file organizations using a suitable compiler language such as COBOL. Prerequisite: CPS 150. Corequisite: CPS 151.

3 sem. hrs.

CPS 250. ALGORITHMS AND PROGRAMMING III: Study of computer organization and architecture by developing basic programming skills in an assembler language (currently 68000 or VAX) and in "C." Prerequisite: CPS 151.

4 sem. hrs.

CPS 308. SURVEY OF EXPERT SYSTEMS: An introduction to expert systems. Topics include knowledge structuring, production rules, and design tools. Specific systems are presented. Not open to CPS, CIS, or PCS majors.

3 sem. hrs.

CPS 309. TOPICS IN COMPUTER SCIENCE: Lectures or laboratory work in areas of current interest. May be taken more than once. Does not count as upper level credit for major/minors.

1-4 sem. hrs.

CPS 310. SYSTEMS ANALYSIS: Methodologies for producing software, software development life cycles, top-down approach, data flow diagram, data dictionary, mini-specifications, object analysis, event analysis, real-time systems specifications, automated analysis tools. Prerequisite: CPS 151. 3 sem. hrs.

CPS 312. SYSTEMS DESIGN: Ideas behind structured design, tools of structured design, coupling and cohesion of modules, transform and transaction analyses, packaging, optimization, data structure and object-oriented design methodologies, automated design tools. Prerequisite: CPS 310. 3 sem. hrs.

CPS 315. THE COMPUTING WORLD: Analysis of the tools and techniques of computers and of their impact on society. A framework for making professional decisions in the context of their social impact. Prerequisites: CPS 151, junior standing. 3 sem. hrs.

CPS 341. DISCRETE STRUCTURES: Logic and proofs, sets and counting, Boolean algebra, graph theory, directed graphs, mathematical machines, formal languages and grammars. Prerequisite: CPS 150. 3 sem. hrs.

CPS 343. COMPARATIVE LANGUAGES: Programming language constructs, organization, specification, and analysis. Prerequisite: CPS 350. 3 sem. hrs.

CPS 346. OPERATING SYSTEMS I: Semaphores, conditions, monitors, and kernels. Concurrent programming, interrupts, memory, and process management. Design and implementation of a simple operating system using concurrent languages. Prerequisites: CPS 250, 350. 3 sem. hrs.

CPS 350. DATA STRUCTURES AND ALGORITHMS: Basic concepts of data, lists, strings, arrays, trees and graphs, abstract data types, multilinked structures; symbol tables; searching and sorting. Use of relations, functions, and graphs in data management. Random access and representation of data structures on storage devices. Prerequisite: CPS 250. 3 sem. hrs.

CPS 353. NUMERICAL METHODS I: Study of the algorithms of numerical mathematics with emphasis on interpolation, the solution of nonlinear equations, and linear systems of equations including matrix methods; analysis of errors associated with the algorithms. Prerequisites: MTH 169; CPS 132 or 150. 3 sem. hrs.

CPS 354. NUMERICAL METHODS II: Study of the algorithms of numerical mathematics with emphasis on functional approximation, numerical differentiation and integration, numerical solution of ordinary differential equations and boundary value problems; analysis of errors associated with the algorithms. Prerequisite: CPS 353. 3 sem. hrs.

CPS 387. COMPUTER SYSTEM DESIGN I: Study of the elements of computer design. Design of combinatorial and sequential logic circuits using current integrated circuit devices. Discussion of encoders, decoders, registers, counters, etc. as applied to design and use of arithmetic, logic, and storage units. Laboratory experiments with these devices. Prerequisites: CPS 250, CPS 341. 3 sem. hrs.

CPS 388. COMPUTER SYSTEM DESIGN II: Detailed analysis of a specific microcomputer programmed in machine, assembler, and a higher-level language. Discussion of interfacing with devices such as displays, terminals, and other computers. Experiments with such interfacing in the laboratory. Prerequisite: CPS 387. 3 sem. hrs.

CPS 411. MANAGEMENT INFORMATION SYSTEMS: The management information systems environment. The theory, technology, development of information systems. Emphasis on integration of information systems for decision support and other management information requirements. Prerequisite: CPS 310. 3 sem. hrs.

CPS 418. SOFTWARE ENGINEERING: A thorough examination of modern software methodologies, of the managerial and technological skills essential to the design and construction of high-quality software, and of the productivity and human factors in software development. Prerequisite: CPS 350. 3 sem. hrs.

CPS 424. DISCRETE EVENT SIMULATION TECHNIQUES: Design and use of simulation models; study and use of special-purpose simulation languages such as GPSS and GASP IV, SIMSCRIPT II.5. Applications. Prerequisite: CPS 151. 3 sem. hrs.

CPS 430. DATABASE MANAGEMENT SYSTEMS: Physical and logical organization of data files; hierarchical, network, and relational database models; the data definition language and the data manipulation language of a commercial database management system; query languages. Prerequisite: CPS 350. 3 sem. hrs.

CPS 435. MANAGEMENT OF DATABASES: The technology of network, hierarchical and relational database management systems, and the management of data in a business environment. Logical and physical database design with emphasis on the relational model in local and corporate systems. The role of the database administrator. Not open to CPS, CIS, or PCS majors or minors. Prerequisite: CPS 310. 3 sem. hrs.

CPS 437. SURVEY OF DATA COMMUNICATIONS: Concepts of data communications hardware and software; in local area (LAN) and wide area (WAN) networks. Fundamentals of business network design in the layered network architectures: X.25, OSI, SNA, and TCP/IP. Not open to CPS, CIS, or PCS majors or minors. Prerequisite: CPS 310. 3 sem. hrs.

CPS 444. SYSTEMS PROGRAMMING I: Analysis of compilers and their construction; programming techniques discussed in the current literature; advanced computer applications in mathematical and nonnumeric areas. Prerequisites: CPS 346, 350. 3 sem. hrs.

CPS 445. SYSTEMS PROGRAMMING II: A continuation of CPS 444, with emphasis on the application of the topics discussed. Prerequisite: CPS 444. 3 sem. hrs.

CPS 446. OPERATING SYSTEMS II: Design and implementation of a multi-user operating system, including concurrent processes, usage of monitors and kernels, process and device scheduling, virtual memory with paging, process synchronization and communication, input and output spooler, file systems, reliability and protection, interrupts, distributed system concepts. Prerequisite: CPS 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 132 or 150, MTH 302, 319. Recommended: CPS 353. 3 sem. hrs.

CPS 456. NUMERICAL ANALYSIS II: Mathematical development of the method of least squares, minimax approximation, solution of partial differential equations, applications. Prerequisite: CPS 455. 3 sem. hrs.

CPS 460. COMPUTER GRAPHICS: Introduction to graphics devices and software graphic primitives (points, lines, characters), two-dimensional transformations, clipping, survey of display devices and methods. Graphic input devices, representation of curves and surface in space. Prerequisites: CPS 350. 3 sem. hrs.

CPS 470. DATA COMMUNICATION: Principles of telecommunications hardware and software. Analysis of communication protocol layers with respect to performance, error handling, and control functions. Review of troubleshooting techniques currently in use. Prerequisite: CPS 350. 3 sem. hrs.

CPS 472. COMPUTER NETWORKING: Concepts and goals of computer networks (local area and long-haul). Network protocols, analysis, design management. OSI layers, gateways. Network topologies and case studies. Prerequisite: CPS 470. 3 sem. hrs.

CPS 480. ARTIFICIAL INTELLIGENCE: Basic concepts and techniques of intelligent systems. Emphasis on representations, problem solving, search strategies, expert systems, logic systems, and AI programming. Design and implementation of AI applications. Prerequisite: CPS 350. 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. 3 sem. hrs.

CPS 496. COOPERATIVE EDUCATION: Computer science work experience in an approved organization. Prerequisite: 12 sem. hrs. of upper-level CPS courses with GPA of 3.0; total 90 sem. hrs. and 2.75 GPA. Permission of department advisor. Not open to students with CPS 497 credit. 3 sem. hrs.

CPS 497. INTERNSHIP: Computer science work experience in an approved organization. Prerequisite: 12 sem. hrs. of upper-level CPS courses with GPA of 3.0; total 90 sem. hrs. and 2.75 GPA. Permission of department advisor. Not open to students with CPS 496 credit. 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. 1-4 sem. hrs.

CPS 499. (SPECIAL TOPICS): Lectures or laboratory work in such areas as artificial intelligence, computer architecture, information retrieval, microprogramming, multiprogramming techniques, numerical analysis, time-sharing topics, graphics, data communications, parallel processing. By arrangement. May be taken more than once. Prerequisite: Permission of the department. 1-4 sem. hrs.

CRIMINAL JUSTICE STUDIES (CJS)

The Bachelor of Arts with a major in criminal justice studies, is a broadly structured interdisciplinary curriculum designed to introduce students to 1) a critical theory of criminal justice/criminology and 2) requisite knowledge for advanced study or public service, e.g. law enforcement and/or investigative services at the local, state and national levels; line entry careers in the correctional field—probation and parole counseling, community programs, and other rehabilitative services, as well as staff positions in the judiciary.

Those who enter the University of Dayton as first-year students, or as transfers without associate degrees, will be classified under Option A, a total program sequence. Students who transfer here with acceptable associate degrees in specific fields similar or closely related to criminal justice will be classified under Option B, a transfer program sequence.

All students transferring into the curriculum must be in good academic standing and meet entry requirements.

The minor in criminal justice studies requires 18 semester hours to include CJS 101, Introduction to Criminal Justice Studies, SOC 305, Criminological Theory, and 12 upper-divisional semester hours of course work, i.e., one course in each of the four areas involving behavior, institutions, law, and social structure.

Proficiency examinations for limited CJS credit are available only to majors who are in-service personnel, i.e., law enforcement officers, probation and parole officials, or judicial personnel. Under Option A, students are limited to only 6 semester hours of proficiency examination credit, and under Option B, only 3 semester hours. In-service students should make their formal appeals to the director's office at the beginning of each term, so that it can be determined by the Criminal Justice Studies Advisory Committee whether scheduling a proficiency examination during that term is warranted.

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 studies program.

PROGRAM A4: BACHELOR OF ARTS WITH A MAJOR IN CRIMINAL JUSTICE STUDIES (CJS)¹

OPTION A

Semester Hours

Criminal justice studies	36
CJS 101, 207, 447 and SOC 305. The remaining 24 semester hours will be taken from the criminal justice studies, political science, psychology, sociology, and social work elective course list for the behavior, institutions, law and social structure areas. A student MUST take at least 2 courses in each area.	
Communication skills	0-9
Humanities ¹	18
Natural sciences	7
Philosophy and/or religious studies	12
Mathematics (MTH 102, 204, 205 excluded) ²	3

Social and behavioral sciences	12
First-year experience:	
ASI 150	0-1
General Education courses and academic electives to total at least	120

¹See also Distribution Table for Bachelor of Arts programs and Chapter V for General Education Requirements.

²CJS 207, Research Methods in Criminal Justice Studies, requires as a prerequisite MTH 207 or PSY 216 or SOC 308. Both PSY 216 and SOC 308 do not fill the three semester hours mathematics requirement.

Core Courses for a CJS Major, Option A

CJS 101	Introduction to Criminal Justice Studies
CJS 207	Research Methods in Criminal Justice Studies
SOC 305	Criminological Theory
CJS 447	Senior Seminar in Criminal Justice Studies

In addition to these four core courses, students are required to take eight additional courses—two from each of the following four areas.¹

Behavior (Must take two courses)

PSY 363	Abnormal Psychology
PSY 461	Current Implications of Drug Dependency
SOC 325	Deviant Behavior
SOC 327	Criminology
SOC 410	Victimology
SWK 325	Child Abuse

Institutions (Must take two courses)

CJS 303	Corrections
POL 303	State and Local Government
POL 305	Introduction to Public Administration
POL 360	Urban Politics and Policy
SOC 323	Juvenile Justice

Law (Must take two courses)

CJS 305	Criminal Law
CJS 315	Criminal Procedure
POL 301	American Judicial Process
POL 411	Constitutional Law
POL 450	Civil Liberties
SOC 326	Law and Society

Social Structure (Must take two courses)

CJS 322	Policing and Society
CJS 336	Comparative Criminal Justice Systems
SOC 328	Racial and Ethnic Minorities
SOC 339	Social Inequality
SOC 351	Urban Sociology

¹Internships and independent studies may be taken in CJS, POL, PSY, and SOC that have a Criminal justice studies emphasis. No more than 6 semester hours may be taken. Also to be offered is CJS 399, Special Topics in Criminal Justice Studies. This course work is in addition to the 36 hours required for a CJS interdisciplinary major in the Option A, total program sequence. They are not to be used as substitute courses for those listed in the areas of behavior, institutions, law and/or social structure, unless approved in advanced by the director of the Criminal Justice Studies program and the College of Arts and Sciences.

OPTION B

To be admitted as a major in the program under Option B, a transfer student must have received an accredited associate degree in corrections, law enforcement, police administration, police science, or a similar field of criminal justice and must have a 2.5 cumulative grade-point average on a 4.0 grading system. For criminal justice studies majors who have completed the basic requirements for an accredited two-year criminal justice degree, 60 semester hours beyond the associate degree is suggested, which includes a minimum of 21 semester hours in the program.

Prerequisites: The following are required for all criminal justice studies transfer majors in addition to the baccalaureate degree requirements if they were not included in the candidate's associate degree program..

	<i>Semester Hours</i>
Communication skills	0-9
Introduction to Philosophy (PHL 103)	3
Introduction to Religion (REL 103)	3
Natural science electives with laboratory (BIO,CHM,GEO,PHY)	7
Introduction to Criminal Justice Studies (CJS 101)	3

Course requirements:

Criminal justice studies	21
CJS 207, 447 and SOC 305. The remaining 12 semester hours will be taken from the criminal justice studies, political science, psychology, sociology, and social work elective course list for the behavior, institutions, law, and social structure areas. A student must take at least one course in each area. Any course that is specifically required of the criminal justice studies 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 with the final approval of the College of Arts and Sciences and replaced with another course within the same division.	
Humanities ¹	18
Philosophy and/or religious studies electives	6
Mathematics (MTH 102, 204, 205 excluded) ²	3
Social and behavioral sciences	12
General Education courses and academic electives to total at least ³	60

¹Consult General Requirements for all Bachelor of Arts programs and Chapter V for General Education Requirements.

²CJS 207, Research Methods in Criminal Justice Studies, requires as a prerequisite MTH 207 or PSY 216 or SOC 308. Both PSY 216 and SOC 308 do not fill the three semester hours mathematics requirement.

³To be considered a viable candidate for graduation, a student must have completed a minimum of 120 semester hours with accepted transfer credits.

Core Courses for a CJS Major, Option B

CJS 207	Research Methods in Criminal Justice Studies
SOC 305	Criminological Theory
CJS 447	Senior Seminar in Criminal Justice Studies

In addition to these three core courses, students are required to take four additional courses—one from each of the following four areas.¹

Behavior (Must take one course)

PSY 363	Abnormal Psychology
PSY 461	Current Implications of Drug Dependency
SOC 325	Deviant Behavior
SOC 327	Criminology
SOC 410	Victimology
SWK 325	Child Abuse

Institutions (Must take one course)

CJS 303	Corrections
POL 303	State and Local Government
POL 305	Introduction to Public Administration
POL 360	Urban Politics and Policy
SOC 323	Juvenile Justice

Law (Must take one course)

CJS 305	Criminal Law
CJS 315	Criminal Procedure
POL 301	American Judicial Process
POL 411	Constitutional Law
POL 450	Civil Liberties
SOC 326	Law and Society

Social Structure (Must take one course)

CJS 322	Policing and Society
CJS 336	Comparative Criminal Justice Systems
SOC 328	Racial and Ethnic Minorities
SOC 339	Social Inequality
SOC 351	Urban Sociology

¹Internships and Independent Studies may be taken in CJS, POL, PSY, and SOC that have a Criminal Justice Studies emphasis. No more than 6 semester hours may be taken. Also to be offered is CJS 399, Special Topics in Criminal Justice Studies. This course work is in addition to the 21 hours required for a CJS interdisciplinary major in the Option B, transfer program sequence. They are not to be used as substitute courses for those listed in the areas of behavior, institutions, law and/or social structure, unless approved in advanced by the director of the criminal justice studies program and the College of Arts and Sciences.

CRIMINAL JUSTICE STUDIES ADVISORY COMMITTEE

The Criminal Justice Studies Advisory Committee consists of James A. Adamitis, *Director, Criminal Justice Studies Program*, Ahern (Political Science), Ghere (Political Science), Ingram (Criminal Justice Studies), Kuntz (Psychology), F. Pestello (Sociology, Anthropology and Social Work), H. Pestello (Sociology, Anthropology and Social Work).

FACULTY

James A. Adamitis, *Director*
Associate Professors: Adamitis, Ingram
Lecturer: Heffernan
Adjunct Instructors: Abraham, Apolito

COURSES OF INSTRUCTION

CJS 101. INTRODUCTION TO CRIMINAL JUSTICE STUDIES: Introduction to the field of criminal justice studies, stressing the theoretical foundations, origin, nature, methods, and limitations of criminal justice studies as a college curriculum. 3 sem. hrs.

CJS 207. RESEARCH METHODS IN CRIMINAL JUSTICE STUDIES: Review of the nature, language, and processes of inquiry involving experiments, studies, surveys, and investigations. The instrumentation, types, and structures of content analysis, questionnaires, interviews, and structured observation, including, analytic techniques, data processing resources, and preparation of research reports are also examined. Prerequisite: MTH 207 or PSY 216 or SOC 308. 3 sem. hrs.

CJS 303. CORRECTIONS: The administration of correctional institutions and other detention facilities with emphasis on probation and parole systems to include the rehabilitation and treatment of the incarcerated with reference to correctional law cases. 3 sem. hrs.

CJS 305. CRIMINAL LAW: Principles of criminal liability, preparation of case materials, court procedures, and case disposition. 3 sem. hrs.

CJS 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.

CJS 322. POLICING AND SOCIETY: Analyzes the history of policing in society and assesses the social and political forces that are correlated with both the rise of formal policing and the variety of structures law enforcement agencies have assumed. Reviews the primary functions of policing in American society and examines those issues affecting federal, state, county, municipal and private policing 3 sem. hrs.

CJS 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.

CJS 399. SPECIAL TOPICS IN CRIMINAL JUSTICE : An extensive examination of a current topic effecting the criminal justice system and its law enforcement, corrections or judicial components. May be repeated to a maximum of 3 semester credits when the topic changes. 1 to 3 sem. hrs.

CJS 440. INDEPENDENT STUDY: Directed study and research on selected topics of significant academic publications in law enforcement and criminal justice. Prerequisites: Permission of instructor, an introductory CJS course. 3 sem. hrs.

CJS 447. SENIOR SEMINAR IN CRIMINAL JUSTICE STUDIES: Seminar to identify and discuss the contemporary issues in justice administration. Topics to be assigned by instructor and presented for class discussion by students. 3 sem. hrs.

CJS 495. INTERNSHIP IN CRIMINAL JUSTICE I: Supervised experience solely in a civilian capacity in a criminal justice or law-enforcement agency. Open to pre-service criminal justice studies majors only; in-service students do not qualify. Students who enroll for internship credit are not given a stipend. Credit granted only under grade option 2. Prerequisite: Sophomore status, 2.5 cumulative grade-point average, and permission of the director of criminal justice studies. 3 sem. hrs.

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

For a minor in economics, 18 semester hours are required: ECO 203-204, 346-347, and any two elective courses from economics.

For course descriptions, see ECO, Chapter VII.

PROGRAM A5: BACHELOR OF ARTS WITH A MAJOR IN ECONOMICS (ECA)¹

	<i>Semester Hours</i>
Economics	30
ECO 203, 204, 346, 347, and 18 sem. hrs. of upper-division electives.	
Mathematics	6-9
MTH 148, 207 required; MTH 149 strongly recommended.	
Natural science	7
Social and behavioral sciences	12
Humanities	18
Philosophy and religious studies	12
Communication skills	0-9
First-year experience: ASI 150	0-1
General Education courses and academic electives to total at least	120

¹See also Distribution Table for Bachelor of Arts programs and Chapter V for General Education requirements.



ENG

ENGLISH (ENG)

The University requirement in English composition is satisfied by the completion of ENG 101-102, ENG 114, or ENG 198. Either ENG 114 or ENG 198 is the equivalent of ENG 102 as a prerequisite for 200- and 300-level English courses. For placement information, see Reading and Writing Skills under Basic Skills Requirements in Chapter V. For additional details, consult the department chairperson or the coordinator of composition.

Students majoring in English must complete at least 36 semester hours of English courses including first-year composition, at least one 200-level literature course or ENG 151, and at least 24 semester hours at the 300-400 level.

Students minoring in English must complete at least 12 semester hours of upper-divisional (300-400) courses in addition to the composition requirement. Students in B.A. programs can acquire teacher certification in English through the E11A program. (See EDT.) For details, consult the department chairperson.

The English department awards a writing certificate to students who achieve a 3.0 grade-point average in 18 semester hours of approved writing and writing-related courses, including at least 12 semester hours of upper-divisional (300-400) courses, and who pass a final examination including an impromptu essay. For details, consult the department chairperson.

PROGRAM A6: BACHELOR OF ARTS WITH A MAJOR IN ENGLISH (ENG)¹

	<i>Semester Hours</i>
English.....	36
First-year composition: ENG 101-102 or 114 or 198	0-6
One 200-level literature course or ENG 151	3
Shakespeare: ENG 362 or an equivalent seminar	3
One other major author course: ENG 405, 431, or a seminar on a single author	3
One genre course: ENG 317, 319, 320, 324, 329, 330, or an approved substitute	3
One literary period course: ENG 407, 410, 414, 433, 438, 444, 448, 451, 453, 455, 482, or the equivalent	3
One advanced writing course: ENG 308, 310, 312, 316, 370, 372, 376, 378, or 474	3
ENG electives, including at least 9 sem. hrs. at 300-400 level	12-18
CMM 101	3
Natural science	7
Mathematics (MTH 102, 204, 205 excluded)	3
Social and behavioral sciences	12
Humanities	18
Philosophy and religious studies	12
First-year experience: ASI 150	0-1
General Education courses and academic electives to total at least	120

¹See also Distribution Table for Bachelor of Arts programs and Chapter V for General Education Requirements.

FACULTY

James P. Farrelly, *Chairperson*

Sara G. Wieland, *Coordinator of Composition*

Professors Emeriti: Cochran, Labadie, Murphy, Palumbo, Stockum

Professors: August, Bedard, J. Farrelly, Henninger, Kimbrough,

K. Marre, Martin, Patrouch, Pici

Associate Professors: Arons, Cameron, Conniff, Durham, Macklin, L. Marre, Means, Ruff, Wilhoit

Assistant Professors: Boehnlein, Shereen, Strain, Tuss, Youngkin

Lecturer: B. Farrelly

COURSES OF INSTRUCTION

ENG 101. COLLEGE COMPOSITION I: Analysis of the processes of reading and writing aimed at the development and refinement of critical thinking skills, critical reading skills, and critical writing skills. Required departmental examination. 3 sem. hrs.

ENG 102. COLLEGE COMPOSITION II: Study of appropriate rhetorical structures and styles for analytic, synthetic, and argumentative essays. Practice in developing critical reading and writing skills with an emphasis on writing from sources. Prerequisite: ENG 101. 3 sem. hrs.

ENG 114. FRESHMAN WRITING SEMINAR: A one-semester composition course for first-year students who show high proficiency. First term only. Open by permission only. 3 sem. hrs.

*ENG 151. INTRODUCTION TO LITERATURE: A critical study of literary forms—fiction, drama, and poetry—representative of various eras and cultures. May be taken concurrently with ENG 102. Prerequisite: ENG 101 or equivalent. 3 sem. hrs.

*ENG 198. FRESHMAN HONORS SEMINAR: Study and seminar discussion of selected literary masterworks and appropriate criticism thereof, with equal emphasis on composition. Open by permission only to first-year students in the University Honors Program. 3 sem. hrs.

*ENG 203. MAJOR BRITISH WRITERS: Study of four or five writers representative of the principal periods in English literature. Prerequisite: ENG 102 or equivalent. 3 sem. hrs.

*ENG 204. MAJOR AMERICAN WRITERS: Study of four or five writers representative of the principal periods in American literature. Prerequisite: ENG 102 or equivalent. 3 sem. hrs.

*ENG 205. MAJOR WORLD WRITERS: Study (in translation) of four or five writers representative of the principal periods in world (chiefly Western) literature, exclusive of English and American literature. Prerequisite: ENG 102 or equivalent. 3 sem. hrs.

ENG 210. POETRY: Study of representative examples of a major literary genre. Prerequisite: ENG 102 or equivalent. 3 sem. hrs.

- ENG 230. TOPICS IN LITERATURE: Exploration of varying approaches to the study of literature. Can be repeated under special circumstances. Prerequisite: ENG 102 or equivalent. 1-6 sem. hrs.
- ENG 242. SOPHOMORE HONORS: Seminar in which selected works from the literature of Western civilization are studied. By invitation only. 3 sem. hrs.
- ENG 272. EXPOSITORY WRITING: Further practice in writing expository themes and documented papers. A continuation of ENG 102 for students desiring more experience in writing. Prerequisite: ENG 102 or equivalent. 3 sem. hrs.
- ENG 282. INTRODUCTION TO WRITING POETRY: A beginning course in analyzing and writing poetry. Prerequisite: ENG 102 or equivalent. 3 sem. hrs.
- ENG 284. INTRODUCTION TO WRITING FICTION: A beginning course in analyzing and writing short fiction. Prerequisite: ENG 102 or equivalent. 3 sem. hrs.
- ENG 286. INTRODUCTION TO WRITING DRAMA: A beginning course in analyzing and writing short plays. Prerequisite: ENG 102 or equivalent. 3 sem. hrs.
- * ENG 301. SURVEY OF EARLY ENGLISH LITERATURE: Survey of English literature from the Medieval period to the end of the 18th century. Prerequisite: ENG 102 or equivalent. 3 sem. hrs.
- * ENG 302. SURVEY OF LATER ENGLISH LITERATURE: Survey of English literature from the beginning of the Romantic period to the present. Prerequisite: ENG 102 or equivalent. 3 sem. hrs.
- * ENG 305. SURVEY OF AMERICAN LITERATURE: Survey of American literature from the Colonial period to the present. Prerequisite: ENG 102 or equivalent. 3 sem. hrs.
- * ENG 306. SURVEY OF CONTINENTAL LITERATURE: Survey of continental European literature from Homer to the present. Prerequisite: ENG 102 or equivalent. Not open to students who have taken ENG 322. 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 writing of essays and the study of rhetoric. Prerequisite: ENG 102 or equivalent. 3 sem. hrs.
- ENG 317. CONTEMPORARY POETRY: Study of selected poems by recent writers. Prerequisite: ENG 102 or equivalent. 3 sem. hrs.
- ENG 319. CONTEMPORARY FICTION: Study of selected novels and short fiction by recent writers. Prerequisite: ENG 102 or equivalent. 3 sem. hrs.
- ENG 320. CONTEMPORARY DRAMA: Study of selected plays to illustrate major tendencies of modern drama. Prerequisite: ENG 102 or equivalent. 3 sem. hrs.

- * ENG 322. MASTERPIECES OF WORLD LITERATURE: Intensive study of major literary works representative of various cultures. Works are studied in translation, although an English language work or two may be included for appropriate comparison. Prerequisite: ENG 102 or equivalent. 3 sem. hrs.
- ENG 324. THE NOVEL: A consideration of selected novels to illustrate various fictional modes. Prerequisite: ENG 102 or equivalent. 3 sem. hrs.
- ENG 325. SCIENCE FICTION: Survey of science fiction with detailed analysis of selected novels and short fiction. Prerequisite: ENG 102 or equivalent. 3 sem. hrs.
- ENG 327. STUDIES IN POPULAR FICTION: Analysis of selected artifacts of popular culture with reference to serious literature. May be repeated as topics change. Prerequisite: ENG 102 or equivalent. 3 sem. hrs.
- ENG 329. SHORT STORY: Study of the techniques employed in the writing of the short story. Analysis of various models of the short story. Prerequisite: ENG 102 or equivalent. 3 sem. hrs.
- ENG 330. DEVELOPMENT OF DRAMA: Study of the historical development of the drama from its beginnings to the 19th century. Analysis of plays from each significant period. Prerequisite: ENG 102 or equivalent. 3 sem. hrs.
- ENG 331. STUDIES IN FILM: Analysis of selected films to show developments in film technique or criticism. Prerequisite: ENG 102 or equivalent. 3 sem. hrs.
- ENG 332. STUDIES IN LITERATURE AND FILM: Studies in literary texts and the film treatments of those texts. May be repeated as topics change. Prerequisite: ENG 102 or equivalent. 3 sem. hrs.
- * ENG 333. IMAGES OF WOMEN IN LITERATURE: Examination of significant literary works that portray traditional images of women. Prerequisite: ENG 102 or equivalent. 3 sem. hrs.
- * ENG 334. MODERN MEN — IMAGES: Critical examination of significant literary works that portray males in traditional and non-traditional roles. 3 sem. hrs.
- * ENG 335. MODERN BLACK LITERATURE: Study of selected 20th-century black writers. Prerequisite: ENG 102 or 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 102 or equivalent. 3 sem. hrs.
- ENG 339. AMERICAN INDIAN LITERATURE: Survey of American Indian oral narrative and literature. Prerequisite: ENG 102 or equivalent. 3 sem. hrs.
- * ENG 340. THE PRISON IN LITERATURE: A survey of prison literature from the rise of the modern prison in the late eighteenth-century through the contemporary period. 3 sem. hrs.
- ENG 348. MODERN IRISH LITERATURE: A consideration principally of the Irish literary revival of the late 19th and early 20th centuries with appropriate background material. Prerequisite: ENG 102 or equivalent. 3 sem. hrs.

ENG 350. EUROPEAN LITERATURE OF ANTIQUITY: Study of significant works from the Old Testament and Greek, Roman, English, Irish, and/or Scandinavian writers. Prerequisite: ENG 102 or equivalent. 3 sem. hrs.

* ENG 351. EUROPEAN LITERATURE OF THE MIDDLE AGES: Study of selected literary masterpieces of Western civilization in the Middle Ages. Prerequisite: ENG 102 or equivalent. 3 sem. hrs.

* ENG 353. LITERATURE OF THE RENAISSANCE: Study of selected literary masterpieces from England and the Continent that illustrate the culture and ideas of the Renaissance. Prerequisite: ENG 102 or equivalent. 3 sem. hrs.

* ENG 354. LITERATURE OF THE ENLIGHTENMENT: Study of selected English and European literature from the Age of Reason. Prerequisite: ENG 102 or equivalent. 3 sem. hrs.

* ENG 355. LITERATURE OF THE ROMANTIC AGE: Study of the Romantic Revolution as illustrated in representative writings of English and European authors. Prerequisite: ENG 102 or equivalent. 3 sem. hrs.

* ENG 356. EUROPEAN LITERATURE OF THE NINETEENTH CENTURY: Study of representative masterpieces from the literature of England and the Continent during the 19th century. Prerequisite: ENG 102 or equivalent. 3 sem. hrs.

* ENG 357. EUROPEAN LITERATURE OF THE EARLY TWENTIETH CENTURY: Study of significant English and European literature that illustrates the ideas and culture of the early modern period. Prerequisite: ENG 102 or equivalent. 3 sem. hrs.

* ENG 358. CONTEMPORARY LITERATURE OF EUROPE: Study of selected Western European literature that illustrates the ideas and culture of the present age. Prerequisite: ENG 102 or equivalent. 3 sem. hrs.

* ENG 362. SHAKESPEARE: Study of selected plays and poems of Shakespeare. Prerequisite: ENG 102 or equivalent. 3 sem. hrs.

ENG 362L. SHAKESPEARE PERFORMANCE LABORATORY: Study of Shakespearean performances through films, video tapes, and recordings. Three hours a week. Students in 362L must have already taken or be registered for ENG 362 or an equivalent Shakespeare course. 1 sem. hr.

ENG 370. REPORT WRITING: Analysis of and practice in both basic and complex written reports, including the long formal report. Prerequisite: ENG 102 or equivalent. 3 sem. hrs.

ENG 372. APPLIED WRITTEN COMMUNICATIONS: Analysis of and practice in written communications appropriate to business and industrial organizations, including forms of correspondence and a job-application project but excluding formal reports. Prerequisite: ENG 102 or equivalent. 3 sem. hrs.

ENG 376. TOPICS IN WRITING: Analysis of and practice in specific forms of writing. May be repeated as forms change. Prerequisite: ENG 102 or equivalent. 1-3 sem. hrs.

ENG 378. PROFESSIONAL AND TECHNICAL WRITING: Practice in developing writing skills needed in business, government, and industry. Prerequisite: ENG 102 or equivalent. 3 sem. hrs.

*ENG 380. STUDIES IN LITERATURE: Study of special topics or themes in literature. May be repeated as topics change. Prerequisite: ENG 102 or equivalent. 1-6 sem. hrs.

*ENG 382. MOZART'S OPERAS: An interdisciplinary survey of Mozart's operas—German and Italian, serious and comic. Class discussions will be supplemented by extensive listening and/or viewing of recorded performances and, when possible, attendance at live performances. 3 sem. hrs.

ENG 395. JUNIOR HONORS TUTORIAL: Independent directed study on special topics for selected students. May be repeated as topic or instructor changes. Permission required. 3 sem. hrs.

ENG 405. CHAUCER: Study of Chaucer's life, world, language, and literary achievement, concentrating on *The Canterbury Tales* (in Middle English). Prerequisite: A 200- or 300-level English course. 3 sem. hrs.

ENG 407. MEDIEVAL ENGLISH LITERATURE: 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: Survey of the literature of the 16th century from Thomas More to Sidney and Spenser. Prerequisite: A 200- or 300-level English course. 3 sem. hrs.

ENG 414. LATER RENAISSANCE LITERATURE: Survey of the literature of the early 17th 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: 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: Study of English 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: 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: Study of English literature in the 19th century. May be repeated as topics change. Prerequisite: A 200- or 300-level English course. 3 sem. hrs.

ENG 448. TWENTIETH-CENTURY BRITISH LITERATURE: Study of significant developments in modern British literature. Prerequisite: A 200- or 300-level English course. 3 sem. hrs.

ENG 451. AMERICAN ROMANTICISM: Study of significant developments in American literature of the mid-19th century. Prerequisite: A 200- or 300-level ENG English course. 3 sem. hrs.

ENG 453. AMERICAN REALISM AND NATURALISM: 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: Study of significant developments in American literature of the 20th century. Prerequisite: A 200- or 300-level English course. 3 sem. hrs.

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

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

ENG 472. THE STRUCTURE OF ENGLISH: Study of the grammatical structure of modern English from traditional and modern linguistic points of view. Prerequisite: A 200- or 300-level English course. 3 sem. hrs.

ENG 474. ARGUMENTATION: Studies and practice in the patterns of argumentative writing. Recommended for the pre-professional student. Prerequisite: ENG 272, 316, 370 or permission of instructor. 3 sem. hrs.

ENG 476. COMPOSITION THEORY: Study of the principal current theories of composition, with application to the teaching and evaluating of writing. Prerequisite: ENG 316 or permission of instructor. 3 sem. hrs.

ENG 480. INDEPENDENT STUDY: Individual investigations of special topics under faculty direction. May be repeated under special circumstances. Prerequisites: Permission and at least fifteen semester hours of English. 1-6 sem. hrs.

ENG 482. MODERN POETRY: Concentrated, advanced study in the development of modern poetry, both English and American. Prerequisite: A 200- or 300-level English course. 3 sem. hrs.

ENG. 485. INTERNSHIP IN WRITING: Application of writing skills to specific projects of an approved organization. Practical and professional experience offered to juniors and seniors (particularly English majors and minors) as a supplement to the writing curriculum. Prerequisite: Permission of supervising instructor. May be repeated up to six semester hours. 1-6 sem. hrs.

ENG 490. SEMINAR: Concentration on one literary figure, genre, or period for research and analysis. May be repeated as topics change. Consult departmental booklet for specific prerequisites for each section. Permission required. 3 sem. hrs.

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

*General Education course. See Chapter V.

FAMILY DEVELOPMENT (FDV)

The interdisciplinary minor in family development increases understanding of the meaning and dynamics of marriage and parenthood in contemporary society. It examines the family as a major institution affecting society and surveys the individual, social, and economic problems found within families. This background contributes to preparation for careers in areas such as social work, psychology, education, communication, human ecology, and religious work.

The minor in family development is earned by taking 16 semester hours of coursework, all of which must be outside one's major discipline. These must be distributed as follows:

	Semester Hours
Basic theory course in family development (Choose one.)	3
HEC 318 Family Living	
SOC 331 Marriage and the Family	
Families and society (Choose one.)	3
HST 352 History of the American Family	
SOC 355 Families and the Economy	
Dynamics of family life (Choose one.)	3
CMM 410 Family Communication	
PHL 318 Family Ethics	
REL 344 Christian Marriage	
ASI 448 Seminar in Family Development (required)	1
Electives (Choose two.)	6
BIO 390 Sex and Fertility Regulation	REL 362 Christian Family Values
HEC 306 Family Management	and Television
HEC 325 Child Development	REL 466 Theology of Sexuality
HEC 329 Child Development Practicum	SOC 322 Sex Roles and Society
PSY 251 Human Growth	SOC 323 Juvenile Delinquency
and Development	SOC 330 Perspectives on Aging
PSY 351 Child Psychology	SWK 327 Parenting: Social Welfare Role
PSY 355 Psychology of the	SWK 330 Perspectives on Aging
Exceptional Child	SWK 325 Child Abuse
PSY 462 Human Sexuality	SWK 331 Death, Dying, and Suicide

No more than 6 semester hours from any one department may be applied to the minor in family development. Courses taken for this minor may be applied to other minors and to breadth and general education requirements. Appropriate courses may be substituted with permission from the office of the dean of the College of Arts and Sciences and the director of the Center for the Study of Family Development. Students wishing to be recorded as minoring in family development should notify their chairpersons, their deans, and the coordinator of the minor in Family Development.

FAMILY DEVELOPMENT COMMITTEE

Patricia Voydanoff, *Director, Center for the Study of Family Development*
 Brenda Donnelly, *Research Associate and Minor Coordinator*
 Allik (Psychology), De Luca (Human Ecology), Herbenick (Philosophy),
 L. Majka (Sociology, Anthropology and Social Work), Huff (College of Arts
 and Sciences), Taylor (Sociology, Anthropology and Social Work)

GEN

GENERAL STUDIES (GEN)

The Bachelor of General Studies program is designed for those students who desire to pursue a non-traditional degree program at the University outside of any departmental major. This degree program permits great latitude in utilizing the academic resources of the University for planning and acquiring an education to meet individual needs. Students may plan their programs to the best advantage of their particular educational objectives. Students build their programs on the foundation of University Basic Skills and General Education requirements.

BACHELOR OF GENERAL STUDIES PROGRAM (GEN)

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

Candidacy for the Bachelor of General Studies may be declared in the first year but not later than the end of the junior year. An application for acceptance into the degree program must be completed and approved by the administrator of the program. Any students in good academic standing may request transfer into this program.

The General Studies student is required to plan an academic program to satisfy the requirements for graduation in consultation with the administrator of the program in the College of Arts and Sciences. The usual policy of prerequisites remains in effect in this program. A student cannot earn a double degree with a Bachelor of General Studies.

The candidate for the degree of Bachelor of General Studies must complete 120 semester hours with an overall grade point average of 2.0 or better, including:

1. University Basic Skills and General Education requirements (see Chapter V),
2. Three semester hours of mathematics selected from courses offered by the Mathematics department (excluding MTH 102, 204, 205),
3. Study of the natural sciences by completing 7 semester hours in approved natural science courses (biology, chemistry, geology, physics), including one course with accompanying laboratory,
4. A minimum of 54 semester hours of courses at the 300-400 level with a grade point average of 2.0 or better, and
5. Not more than 30 semester hours of work from any one academic discipline.

GEOLOGY (GEO)

Geology is the study of the earth. It incorporates many aspects of our complex planet including its composition, structure, environment, dynamic and hazardous processes, and the development of life, continents and oceans through time. Geology plays a critical role in interpreting the earth's long history of global change, and in predicting future environmental change.

The Geology department offers two programs leading to a Bachelor of Science in geology (Program S5) and environmental geology (Program S5A). The geology (GEO) major provides basic courses in the geological sciences and a range of advanced level courses that allow students to develop courses of study that complement particular interests within the field. The environmental geology (EVG) program is broad in scope, providing a firm grounding in the fundamentals of earth science as well as an interdisciplinary curriculum including Geology, Biology, Chemistry, and other allied science courses, reflecting the interdisciplinary nature of environmental concerns.

The Geology department aims to prepare students for a career in the geological sciences. Graduates of the department are competitive for entry to graduate programs. Geology majors pursue careers in a wide range of settings including: state and federal geological agencies; geological consulting companies; natural resource exploration, development and management; museums; research laboratories; and education. Environmental geologists address critical needs of our society ranging from groundwater protection and water-supply development to the identification and assessment of natural hazards.

**PROGRAM S5: BACHELOR OF SCIENCE WITH A MAJOR IN
GEOLOGY (GEO)¹**

	<i>Semester Hours</i>
Geology	46
Required Courses	
Year 1: GEO 115-115L, 116-116L	8
Year 2: GEO 201-201L	4
Year 3: GEO 301-301L, 307-307L	8
Year 4: GEO 303, 310-310L, 401-401L, 403-403L	18
Geology Electives - choose from the following:	
GEO 302-302L, 308-308L, 309-309L, 404, 411-411L, 412-412L, 498	8
Supporting Sciences	22
CHM 123-123L/124-124L	8
MTH 168/169 ²	8
PHY 206/207 ³	6
Science electives — choose from the following, with accompanying laboratories where applicable BIO, CHM, CPS, GEO, MTH, PHY, Engineering ⁴	8
Philosophy and religious studies	12
Communication skills	0-9
Social and behavioral sciences	6

Humanities	9
ASI 150	1
General Education requirements and academic electives to total at least	120

¹See General Requirements for all Bachelor of Science programs and Chapter V for General Education requirements.

²May substitute MTH 148-149 with permission.

³May substitute PHY 201-202 with permission.

⁴With permission.

ENVIRONMENTAL GEOLOGY (EVG)

The following program, leading to the Bachelor of Science with a major in environmental geology, is designed to present students with the basic courses in the geological sciences as well as provide specific environmental geology courses and requires additional related science courses.

PROGRAM S5A: BACHELOR OF SCIENCE WITH A MAJOR IN ENVIRONMENTAL GEOLOGY (EVG)¹

	<i>Semester Hours</i>
Geology	43
Required courses	
Year 1: GEO 115-115L, 116-116L	8
Year 2: GEO 201-201L, 208	7
Year 3: GEO 301-301L, 307-307L, 310-310L	12
Year 4: GEO 308-308L, 309-309L	8
Geology electives — choose from the following:	
GEO 302-302L, 303, 401-401L	
403-403L, 404, 411-411L, 412-412L, 498	8
Supporting Sciences	28
BIO 101/102, or 151/152	6
CHM 123-123L/124-124L	8
MTH 168/169 ²	8
PHY 206/207 ³	6
Science electives - choose from the following	17
BIO 350-350L, 430-430L, 452-452L	
CHM 201-201L, 302, 313-313L	
CPS 132, 144	
Engineering CIE 312-312L, 390	
Environmental Technology CPT 453, 454-454L	
MTH 218, 219, 367, 368	
Philosophy and religious studies	12
Communication skills	0-9
Social and behavioral sciences	6
Humanities	9
ASI 150	1
General Education requirements and academic electives to total	120-125

¹See General Requirements for all Bachelor of Science programs and Chapter V for General Education requirements.

²May substitute MTH 148-149 with permission.

³May substitute PHY 201-202 with permission.

FACULTY

Michael R. Sandy, *Chair*

Distinguished Service Professor: Springer

Professor Emeritus: Ritter

Associate Professor: Sandy

Assistant Professor: McGrew, Pair, Koziol

COURSES OF INSTRUCTION

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

GEO 104. INTRODUCTORY GEOLOGY FIELD COURSE: Fundamental earth science topics with emphasis on direct field experience. One week on campus, 3 weeks in the Rocky Mountains near Denver, Colorado, and one week of travel. For all non-geology and non-biology majors. Corequisites: BIO 104; GEO 104L or BIO 104L. 3 sem. hrs.

GEO 104L. INTRODUCTORY GEOLOGY FIELD LABORATORY: Course to accompany GEO 104. 1 sem. hr.

- * 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 each 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 each week. 1 sem. hr.

- * GEO 116. GEOLOGICAL HISTORY OF THE EARTH: A comprehensive study of earth history from its origins to the present. Prerequisites: GEO 109 or 115, permission of instructor. 3 sem. hrs.

GEO 116L GEOLOGICAL HISTORY OF THE EARTH LABORATORY: Course to accompany GEO 116. Two hours each week. 1 sem. hr.

GEO 198. GEOLOGY, LANDSCAPE, AND ENVIRONMENT OF THE MIAMI VALLEY: Field-based course examining the geologic history of the Miami Valley and Dayton area; processes leading to the modern landscape; the impact of human activity will be assessed. Prerequisite: GEO 109 or 115 or permission of instructor.

3 sem. hrs.

GEO 201. MINERALOGY: Introduction to crystallography, crystal chemistry and crystal structure. Study of the major groups of rock-forming minerals, their association and occurrence with emphasis on identification by physical properties and optical techniques. Prerequisite: GEO 109 or 115 or permission of instructor.

3 sem. hrs.

GEO 201L. MINERALOGY LABORATORY: Course to accompany GEO 201. Three hours per week.

1 sem. hr.

* 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. Prerequisites: GEO 109 or 115, permission of instructor.

3 sem. hrs.

GEO 208L. ENVIRONMENTAL GEOLOGY LABORATORY: Course to accompany GEO 208. Two hours each week.

1 sem. hr.

* GEO 218. ENGINEERING GEOLOGY: A comprehensive study of geologic principles applicable to civil engineering practices.

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.

3 sem. hrs.

GEO 301L. STRUCTURAL GEOLOGY LABORATORY: Course to accompany GEO 301. Two hours each week.

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.

3 sem. hrs.

GEO 302L. GLACIAL GEOLOGY LABORATORY: Course to accompany GEO 302. Two hours each week.

1 sem. hr.

GEO 303. FIELD GEOLOGY: Study of field relationships in an area of Britain containing abundant igneous, metamorphic, and sedimentary rocks. Prerequisites: GEO 115, 116.

6 sem. hrs.

GEO 307. GEOMORPHOLOGY: Detailed study of landforms and the erosional processes that develop them. Prerequisites: GEO 115, 116.

3 sem. hrs.

GEO 307L. GEOMORPHOLOGY LABORATORY: Course to accompany GEO 307. Two hours each week.

1 sem. hr.

GEO 308. PROBLEMS AND DECISIONS IN ENVIRONMENTAL GEOLOGY: An in-depth examination of selected environmental problems and the way in which scientific information guides practice and policy. Topics will range from investigations of natural hazards to considerations of land use and water resources. Prerequisite: GEO 109 or GEO 115 or permission of instructor. *3 sem. hrs.*

GEO 308L. PROBLEMS AND DECISIONS IN ENVIRONMENTAL GEOLOGY LABORATORY: Course to accompany GEO 308. Two hours each week and periodic field work. *1 sem. hr.*

GEO 309. SURFACE AND GROUNDWATER HYDROLOGY: This course is designed to provide a science or engineering student with the fundamental concepts and principles central to the study of water as a resource. This will include an examination of all components of the hydrologic cycle including surface-water hydrology and management, groundwater hydrogeology, and water resource management. Prerequisite: GEO 109 or GEO 218 or permission of instructor. *3 sem. hrs.*

GEO 309L. SURFACE AND GROUNDWATER HYDROLOGY LABORATORY: Laboratory exercises to accompany GEO 309. Three hours per week. *1 sem. hr.*

GEO 310. STRATIGRAPHY: The interpretation of specific lithotypes and the synthesis of the stratigraphic record. Prerequisites: GEO 116. *3 sem. hrs.*

GEO 310L. STRATIGRAPHY LABORATORY: Course to accompany GEO 310. Two hours each week. *1 sem. hr.*

GEO 401. PALEONTOLOGY: The study of ancient life. The morphology, ecology, evolution, and stratigraphic distributions of selected invertebrates, vertebrates, and plants. *3 sem. hrs.*

GEO 401L. PALEONTOLOGY LABORATORY: Course to accompany GEO 401. Two hours each week. *1 sem. hr.*

GEO 403. SEDIMENTOLOGY: Detailed study of sediments: their sources, environments of deposition, and methods of consolidation. Emphasis on the interpretation of ancient sediments. Prerequisites: GEO 201. *3 sem. hrs.*

GEO 403L. SEDIMENTOLOGY LABORATORY: Course to accompany GEO 403. Two hours each week. *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. *1-4 sem. hrs.*

GEO 411. IGNEOUS PETROLOGY: Study of the formation of igneous rocks. Prerequisites: GEO 201. *3 sem. hrs.*

GEO 411L. IGNEOUS PETROLOGY LABORATORY: Course to accompany GEO 411. Two hours each week. *1 sem. hr.*

GEO 412. INTRODUCTORY GEOCHEMISTRY: Study of elementary thermodynamics, aqueous geochemistry, and principles governing the distribution of trace elements, radioisotopes and stable isotopes in igneous, metamorphic and sedimentary rocks. Emphasis on applications and solution of geological problems. Prerequisite: Geo 201, or permission of instructor. *3 sem. hrs*

GEO 412L. INTRODUCTORY GEOCHEMISTRY LABORATORY: Course to accompany GEO 412. Three hours each week. *1 sem. hr.*

GEO 498. GEOLOGICAL RESEARCH AND THESIS: Research project within an area of the geological sciences, including, but not limited to, environmental geology, geochemistry, geomorphology, or paleontology. The results are to be presented in a written thesis. Prerequisite: Permission of instructor. *4 sem. hrs.*

* General Education course. See Chapter V.



HISTORY (HST)

History critically studies the past and those key values which have shaped society. History also provides students with a sense of perspective and with the ability to make critical judgments. Those with a sharply honed historical consciousness know that often what appears to be a simple solution to a simple problem will not work because unexpressed historical forces and traditions lie just beneath the surface. Therefore, historical consciousness helps to make the world comprehensible. To be ignorant of history is to be, in a very fundamental way, intellectually defenseless, unable to understand the workings of this or other societies. Thus all totalitarian societies have stringently controlled the study and writing of history. They recognize that a free mind needs to know its past, to debate and discuss how the world came to be as it is, in order to know what to defend and what to change and how to resist imposed ideologies.

Students majoring in history are offered a flexible curriculum that allows them to have a double major or one or more minors. Students are also strongly encouraged to develop interdisciplinary areas of concentration to meet their interests and vocational goals. Examples of areas of concentration are pre-law, business, international affairs, and historical administration, preservation, and archival management. Majors should consult the department chairperson for a departmental advising brochure and further details. History majors pursue professions in numerous fields including education, law and government, international affairs, archives and museums, communications, and business.

Students in B.A. programs can acquire teacher certification in history through the E11A program (See EDT). For details, consult the department chairperson.

History minors must complete 18 semester hours as follows: HST 101 or 102, HST 251 or 252, two upper-level courses in American history, and two upper-level courses in non-American history.

PROGRAM A7: BACHELOR OF ARTS WITH A MAJOR IN HISTORY (HST)¹

	<i>Semester Hours</i>
History	36
HST 101, 102, 251, 252	12
HST 301	3
HST seminar: HST 490, 491, or 492	3
HST electives	18
These electives should be distributed fairly evenly between American and non-American history.	
Natural science	7
Mathematics (MTH 102, 204, 205 excluded)	3
Social and behavioral sciences	12
Humanities	18
Philosophy and religious studies	12
Communication skills	0-9
Quantification skills or foreign language ²	6-8
First-year experience: ASI 150	0-1
General Education courses and academic electives to total at least	120

¹See also Distribution Table for Bachelor of Arts programs and Chapter V for General Education requirements.

²Either 6-8 sem. hrs. in a foreign language or 6 sem. hrs. in quantitative skills courses (e.g., computer science, statistics, or mathematics) beyond the basic skills mathematics requirement. Where appropriate, this credit may apply to other requirements as well.

FACULTY

John A. Heitmann, *Chairperson*

Professors Emeriti: Beaugard, King, Maras, Mathias, Steiner, Vines

Professors: Alexander, Eid, Heitmann, Morman, Palermo, Rhee, Schweikart

Associate Professors: Amin, Flockerzie, Hitchner, Taylor

Assistant Professors: Bannan, Bednarek, Cadegan, Carlson, Cooley, Hirshfield, Yungblut, Smith, Vieson

COURSES OF INSTRUCTION

NOTE: HST 101 or HST 102 or the equivalent is a prerequisite for all other HST courses.

- * HST 101. HISTORY OF WESTERN CIVILIZATION FROM ITS CLASSICAL ROOTS TO 1715: Survey of Western civilization beginning in Antiquity and concluding with the Enlightenment. The course will investigate the social, economic, cultural, political, environmental forces, and events. 3 sem. hrs.
- * HST 102. HISTORY OF WESTERN CIVILIZATION SINCE 1715: Survey of Western Civilization from the 18th century to the present. The course will investigate the social, economic, cultural, political, and environmental forces that shaped European Society and the world in the Modern Period. 3 sem. hrs.
- * HST 198. HISTORY HONORS SEMINAR: Study and seminar discussion of selected historical documents dealing with major events and trends in Western Civilization since 1715. Open by permission only to first-year students in the University Honors Program. 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 301. RESEARCH SEMINAR: Historical methods, philosophy, and introductory historiography, the last based on the professor's field of specialization. Required for junior history majors. 3 sem. hrs.
- * HST 302. HISTORY OF ANCIENT GREECE: Survey of Greek history and culture from the Bronze Age to Alexander the Great. 3 sem. hrs.

- * HST 303. HISTORY OF THE ROMAN REPUBLIC AND EMPIRE: Survey of Roman history with emphasis on the political, social, and institutional evolution of the Roman state and the organization and structure of the Roman Empire.

3 sem. hrs.

- * HST 305. MEDIEVAL EUROPE: European history from the 4th to the 15th 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 306. HISTORY OF THE BYZANTINE EMPIRE: Historical study of Byzantine history from 324 to 1453, emphasizing the development of the Byzantine state and Eastern Orthodoxy, and Byzantium's role in transmitting the classical heritage to medieval and Eastern Europe.

3 sem. hrs.

HST 307. 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 311. 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 312. 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 313. RESTORATION, REVOLUTION, AND REACTION—EUROPE 1815-1890: 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 314. MODERN EUROPE IN DECLINE—1890-1945: Historical study of the decline and fall of European civilization from the eve of World War I to the end of World War II, including an examination of political, economic, social, and cultural conditions.

3 sem. hrs.

- * HST 315. EUROPE IN THE POSTWAR ERA—1945 TO THE PRESENT: Historical survey of domestic and foreign politics, economics, society, and culture in postwar Europe (East and West) from 1945 to the present.

3 sem. hrs.

HST 317. CHRISTIANITY IN HISTORY, 100-1300: Historical analysis of the interaction of Western society and culture with Christianity from the Apostolic Era to the end of the Middle Ages.

3 sem. hrs.

HST 318. CHRISTIANITY IN HISTORY, 1300 TO THE PRESENT: Historical analysis of the interaction of Western society and culture with Christianity from the Renaissance to the present.

3 sem. hrs.

- * HST 322. HISTORY OF ENGLAND: Major forces and trends in the history of England from early medieval times to the present, including their influence on social history and literature.

3 sem. hrs.

- HST 325. HISTORY OF RUSSIA TO 1860: History of Kievan Russia and Orthodox Christianity, the Mongol Conquest, the rise of autocracy, reforms and rebellions, revolutionary movements, and the rise of the Empire to the Crimean War. 3 sem. hrs.
- HST 326. HISTORY OF THE SOVIET UNION AND ITS SUCCESSOR STATES, 1860 TO THE PRESENT: Social, political, and cultural history of Russia from the great reforms of the late empire, through the wars, revolutions, and reconstructions of the Soviet Period, to the present. 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 330. HISTORY OF EAST ASIA: Brief review of the early historical development of East Asia; study of China and Japan in the 19th and 20th centuries, emphasizing political, religious, cultural, and economic development. 3 sem. hrs.
- HST 336. HISTORY OF AFRICA TO 19TH CENTURY: Study of African history from the emergence of Africa's ancient kingdoms to the end of the trans-Atlantic slave trade in the nineteenth century. 3 sem. hrs.
- * HST 337. HISTORY OF AFRICA—19TH CENTURY TO THE PRESENT: Emphasis: colonialism and its impact, the growth of nationalism and the problems of contemporary Africa. 3 sem. hrs.
- HST 339. HISTORY OF SOUTH AFRICA: Study of South African society with emphasis on historical interpretations of the origins of segregation, economic growth, nationalism, Apartheid, Bantusans, and other issues of contemporary significance. 3 sem. hrs.
- * HST 340. HISTORY OF SCIENCE: Survey of the development of science from its origins in the ancient world to the present. 3 sem. hrs.
- * HST 341. HISTORICAL PERSPECTIVES ON SCIENCE, TECHNOLOGY, AND SOCIETY: Historical examination of the interaction of science, technology, and society from the Middle Ages to the present. 3 sem. hrs.
- * HST 342. ENVIRONMENTAL HISTORY OF THE AMERICAS: A comparison and contrast of the histories of conservationism and environmentalism in the United States, Canada and Latin America. 3 sem. hrs.
- * HST 345. IRELAND AND AMERICA: Study of the cultural-historical background of both Scotch-Irish and Celtic Irish immigrants to America and how they influenced the varying reactions of the dominant Anglo-Saxon Protestantism of America. 3 sem. hrs.
- HST 348. UNITED STATES AND THIRD-WORLD CRISES—HISTORICAL PERSPECTIVES: Analysis of the history of U.S. policies and responses toward major crises in Africa, Asia, Latin America, and the Middle East. 3 sem. hrs.
- * HST 349. TECHNOLOGY AND THE CULTURE OF WAR: Investigation of the role of invention and engineering as it has been related to defense and war throughout the ages, focusing on the interrelationship of policy, strategy, organization, and technology from a global perspective. 3 sem. hrs.

- * HST 351. HISTORY OF AMERICAN WOMEN: Historical study of the changing roles of women in American society and the struggle for social, political, economic, legal, and educational rights from the 17th century to the present. 3 sem. hrs.
- * HST 352. HISTORY OF THE AMERICAN FAMILY: Survey of the historical development of American family life from the colonial period to the present. 3 sem. hrs.
- * HST 353. HISTORY OF WOMEN IN EUROPEAN SOCIETIES: Study of the changing roles of women in European societies from the roots of industrialization to the present. 3 sem. hrs.
- * HST 355. AMERICAN URBAN HISTORY: Historical analysis of community life in American society: the nature and development of small towns, cities, and suburbs; communal experience, social organizations, and political culture. 3 sem. hrs.
- * HST 357. LATIN AMERICA IN THE TWENTIETH 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 358. SOCIAL AND CULTURAL HISTORY OF LATIN AMERICA: Survey of social and cultural history of Latin America and the Caribbean from pre-Columbian times to the present. Emphasis on the interaction between the European colonizer and the Amerindian and African peoples of the hemisphere. 3 sem. hrs.
- HST 365. AMERICAN FILMS AS HISTORY: Study of the development of American values, myths, institutions, and perspectives through the use of films as a primary source. 3 sem. hrs.
- HST 366. AMERICAN LITERATURE AS HISTORY: An examination of American literature as a source of evidence for American history, emphasizing the historical and cultural circumstances that shape literary activity. 3 sem. hrs.
- * HST 370. 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 371. HISTORY OF AMERICAN BUSINESS: Historical study of the evolution of modern capitalism from the colonial period to the present. 3 sem. hrs.
- HST 375. 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 376. 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 380. NATIVE AMERICAN HISTORY: Historical and descriptive survey of the native peoples of North America. 3 sem. hrs.
- * HST 391. 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 398. HISTORY OF BLACKS IN THE UNITED STATES, 1526-1900: Study of the saga of black people in the U.S. from 1526 until 1900. *3 sem. hrs.*

* HST 399. HISTORY OF BLACKS IN THE UNITED STATES SINCE 1900: Study of the saga of black people in the U.S. from 1900 to the present. *3 sem. hrs.*

HST 402. MAIN CURRENTS IN ANCIENT HISTORY: Aspects of the civilizations 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 406. 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 408. PEACEMAKING IN THE MODERN WORLD—EUROPEAN DIPLOMACY, 1815 TO 1945: Study of European international relations from 1815 to 1945, with emphasis on the great peace conferences of this period: the Congress of Vienna, the Paris Peace Settlement, and the Yalta and Potsdam conferences. *3 sem. hrs.*

HST 413. ITALIAN FASCISM: The rise of Italian fascism: a critical historical examination of the origins of European totalitarianism. *3 sem. hrs.*

HST 416. EUROPEAN MILITARY HISTORY: Survey of warfare on the European continent from classical Greece through World War II emphasizing military institutions, organization, weapons, and campaigns and the role of the military in society. *3 sem. hrs.*

HST 417. AMERICAN MILITARY HISTORY: Survey of American military affairs, including military, naval, and air campaigns, from early settlement to the present. *3 sem. hrs.*

HST 419. MODERN FRANCE: French history from the Bourbon Restoration to the present. Emphasis on political, socio-economic, and cultural factors. *3 sem. hrs.*

HST 421. MODERN GERMANY: Analysis of the development of the German state from 1848 through the period of unification, Second Empire, Weimar Republic, Third Reich, the post-World War II Germanies, to the present. *3 sem. hrs.*

HST 423. HISTORY OF LONDON: Study of the evolution of London from a small Roman town to the world's first industrial metropolis. Particular attention to social and environmental conditions and the life of the people. *3 sem. hrs.*

* HST 424. ENGLISH CONSTITUTIONAL AND LEGAL HISTORY: Study of the origins and development of common law and parliamentary government in England from the Saxons to the present. *3 sem. hrs.*

HST 426. TUDOR-STUART ENGLAND—STUDY OF ENGLAND FROM 1485 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 431. NATIONAL CULTURES OF THE SOVIET UNION AND ITS SUCCESSOR STATES: The history of the formation of the Soviet Union and of national and cultural relations between the Russians and their Slavic, Baltic, Caucasus, Central Asian, and Siberian neighbors. 3 sem. hrs.

HST 432. RUSSIAN CULTURE AND CINEMA: The history of popular tastes and revolutionary experimentation in film, literature, the arts and daily life in Russia and the Soviet Union from 1900 to the present. 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 area's role in international politics. 3 sem. hrs.

HST 440. MODERN CHINA AND JAPAN: Study of the economic, political, social, and cultural developments of modern China and Japan from the 18th century to the present. 3 sem. hrs.

HST 445. KOREAN AND VIETNAM WARS: Study of the two most important wars fought by the U.S. after World War II, in the context of America's changing global role. 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 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 460. U.S. LEGAL AND CONSTITUTIONAL HISTORY I: From colonial beginnings through Reconstruction. The first semester of a year's sequence that analyzes the major developments in American legal and constitutional thought and institutions. Emphasis on the relationship between law and lawyers and America's economic, social, and political development. 3 sem. hrs.

HST 461. U.S. LEGAL AND CONSTITUTIONAL HISTORY II: From the Gilded Age to the present. Continuation of HST 460. Prerequisite: HST 460. 3 sem. hrs.

* HST 466. HISTORY OF SCIENCE, TECHNOLOGY, AND THE MODERN CORPORATION: Historical study of the emergence of 20th-century science-based industry. 3 sem. hrs.

* HST 467. HISTORY OF CIVIL ENGINEERING: Historical study of the development of civil engineering from the origins in the ancient world to the present. 3 sem. hrs.

- * HST 468. HISTORY OF AMERICAN AVIATION: This course will examine the influence of aviation on the American culture, economy, and military. It will also highlight the development of aviation/aerospace technology. 3 sem. hrs.
- * HST 469. TECHNOLOGY, LABOR AND GENDER: Analysis of the relationship between technological change and women's roles in the work force, combining the history of technology with labor history and women's history. 3 sem. hrs.
- HST 470. HISTORY OF THE COLD WAR: A study of the origins and evolution of the Cold War from 1917 to the present. 3 sem. hrs.
- HST 473. THE AGE OF EXCESS AND REFORM—UNITED STATES, 1877-1920: Development of the U.S. as an urban-industrial nation and world power; efforts to maintain traditional political, social, and economic forms and values amidst rapid change. 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 of 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 U.S., Cold War, New Frontier, Johnson Administration, and beyond. 3 sem. hrs.
- HST 479. HISTORY OF HIGHER EDUCATION IN AMERICAN SOCIETY: Critical historical examination of the evolution of American higher education from the antebellum college to the modern university. 3 sem. hrs.
- HST 482. HISTORY OF MEXICO: Mexican History since 1820. Origins of the revolution of 1910 and its developments 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 490. STRATEGIES OF HISTORIANS: A seminar which investigates the various intellectual processes by which historians have approached particular questions. A wide sampling of the works of representative historians is supplemented by analysis of their methodologies and philosophies of history. Prerequisite: HST major or completion of 12 sem. hrs. of history; permission of chairperson required. 3 sem. hrs.
- HST 491. SENIOR SEMINAR: A reading seminar concentrating on one historical topic for detailed analysis. May be repeated as topics change. Check department for prerequisites. Permission of chairperson required. 3 sem. hrs.
- HST 492. SENIOR HONORS SEMINAR: A reading seminar concentrating on one historical topic for detailed analysis. May be repeated as topics change. Check department for prerequisites. Permission of chairperson required. 3 sem. hrs.

HST 495. INTERNSHIP: Practical and professional experience through work with approved organizations such as historical societies, architectural preservation boards, and business firms. Prerequisite: Permission of supervising instructor. *3 sem. hrs.*

HST 496. INDEPENDENT STUDY: The study of a special topic to be mutually selected by the student and a history professor. Prerequisite: Permission of chairperson. May be repeated once. *1-6 sem. hrs.*

HST 497. HONORS TUTORIAL: The study of a special topic to be selected by the instructor. Applicants will be admitted on the basis of academic record. May be repeated once. *1-6 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.*

*General Education course. See Chapter V.



HEC

HUMAN ECOLOGY (HEC)

The Human Ecology General program with options in Fashion Merchandising, Consumer Science, Family and Child Development, and Interior Design no longer admits students as majors. The courses found in this section of the *Bulletin* are being taught to allow students who have declared Human Ecology General to complete the major. Students interested in these courses should consult the department chair to determine the availability of class offerings.

The Didactic Program in Dietetics (DPD) and the program Nutrition have officially moved to the School of Education. Please consult pages 308 to 313 for the explanation of the programs. Students interested in specific courses for elective or minor purposes should also consult the previous listed pages. These two programs are admitting, and will continue to admit students.

FACULTY

Julia A. Palmert, *Chairperson*

Professor Emerita: Schroeder

Associate Professor: De Luca

Assistant Professor: Palmert

Part-time Instructors: Burnell, Cosenza, Harden, Howland, Leakas, Rethman, Stoesz, West

COURSES OF INSTRUCTION

HEC 105. AESTHETICS OF HUMAN ECOLOGY: Study of the principles and elements of art in order to develop sensory awareness and sensitivity in response to the environment, and a greater appreciation of art, design and aesthetics.

3 sem. hrs.

HEC 306. FAMILY MANAGEMENT: A systems approach to the study of family 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. Open to the University.

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. Prerequisites: HEC 200, 200L or equivalent.

3 sem. hrs.

HEC 314. TEXTILES: Study of the natural, thermoplastic, and nonthermoplastic fibers, including yarns, structures, and finishing of fabrics for their use and care.

3 sem. hrs.

* HEC 318. FAMILY LIVING: Study of the family as a basic unit of society, the purpose and function of marriage and the family, elements contributing to the success or failure of a marriage, and contemporary issues facing the family.

3 sem. hrs.

HEC 320. FAMILY HOUSING: Topics include housing constraints, needs, alternatives, environment, finance, and government involvement in housing. Open to the University.

2-3 sem. hrs.

*HEC 321. CONSUMER ECONOMICS: The economic interrelationship of the political, business, and household systems from the consumer point of view. The use of economic tools in identifying ways to improve the economic welfare of the consumer. Open to the University. *3 sem. hrs.*

HEC 323. DEMONSTRATION TECHNIQUES: Study of the principles and techniques of lecture-demonstrations. Emphasis on student lecture-demonstrations. *2 sem. hrs.*

HEC 325. CHILD DEVELOPMENT: Developmental study of stages and principles from infancy through age eight. Observation and work in laboratory school arranged. Open to the University. *3 sem. hrs.*

HEC 329. CHILD DEVELOPMENT PRACTICUM: Supervised experience in working with preschool children and their parents. Laboratory school participation arranged. Two hours of lecture and 3 hours of work experience each week. Prerequisite: HEC 325. *3 sem. hrs.*

HEC 330. INTERIOR DESIGN I: Introduction to the process of interior design with emphasis on design principles and elements, space planning, lighting, and furniture arrangement and selection. *3 sem. hrs.*

HEC 331. MONEY MANAGEMENT: Study of the management of personal and household financial resources and allocation of income to various consumption activities. Open to the University. *3 sem. hrs.*

HEC 340. INTERIOR DESIGN II: An overview of architectural details, background treatments, accessories, and building systems. Design projects developed through programming, space planning, and graphic communications. Prerequisites: HEC 314, 330, 395. *3 sem. hrs.*

*HEC 341. CONSUMERS AND SOCIAL ISSUES: Various issues related to the social aspects of consumerism analyzed within the context of business, government, and consumers, emphasizing the interrelationships among the three sectors. Open to the University. *3 sem. hrs.*

HEC 350. INTERIOR DESIGN III: Introduction to the business aspect of interior design, barrier-free design, and developing design solutions by space analysis and planning to meet user needs. Prerequisites: HEC 340, 396, VAI 308. *3 sem. hrs.*

HEC 351. CONSUMER POLICY: This course will address the consumer policy process and some major factors affecting this process. Sources of policy-relevant information and methods for impacting the process will be studied. The student will apply the information learned to issues specific to his/her major. Open to the University. *2 sem. hrs.*

HEC 357. FOOD MICROBIOLOGY: Study of microorganisms that are related to food-borne illnesses, food preservation, and food sanitation. Prerequisites: BIO 101-102. Corequisite: BIO 411L. *3 sem. hrs.*

HEC 360. CLOTHING SELECTION AND CONSUMPTION: Study of clothing with emphasis on social, psychological, and economic relationships. Open to the University. *3 sem. hrs.*

HEC 362. TEXTILE AND APPAREL INDUSTRIES: Study of domestic and international textile and apparel industries from a historical perspective; cultural and economic influences; current issues. *3 sem. hrs.*

HEC 395. BASIC DRAFTING: Study and application of basic principles and techniques for communicating space and construction in a graphic form appropriate for interior designers. *2 sem. hrs.*

HEC 396. INTERIOR ENVIRONMENTS: Study and application of basic principles and techniques of the integration of interior systems such as plumbing, heating, electricity, lighting, and acoustics for interior designers. Prerequisite or corequisite: HEC 395. *2 sem. hrs.*

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

HEC 417. INFANT AND TODDLER PROGRAM MANAGEMENT: Study of program curriculum design, implementation, and management that is developmentally age-appropriate for children from birth to thirty months. Observation and work in laboratory school arranged. *3 sem. hrs.*

HEC 429. MANAGEMENT OF PRE-SCHOOL PROGRAMS: Thorough examination of philosophies and program models with implication for planning, administering, and evaluating pre-school programs. *2 sem. hrs.*

HEC 430. ISSUES IN INTERIOR DESIGN: Investigation of the elements of housing and interiors from economic, functional, and aesthetic points of view. Topics may vary from term to term. *1-3 sem. hrs.*

HEC 436. INDEPENDENT STUDY: A course to allow students to concentrate on major areas of study. Original investigation, independent conferences, and reports are required. Prerequisite: Approval of department chairperson and instructor. *1-6 sem. hrs.*

HEC 470. HUMAN ECOLOGY LABORATORY INTERNSHIP: Practical field experience in the student's major area of study. Prerequisite: Permission of department chairperson. Grade option 2. *1-6 sem. hrs.*

HEC 490. TOPICS IN HUMAN ECOLOGY: Presentation and discussion of topics in a specialized area of human ecology. Can be repeated under special circumstances. *1-6 sem. hrs.*

* General Education course. See Chapter V.

HUMANITIES STUDIES (HMS)

No major or minor concentration is available. See also Classics (CLA).

Eugene R. August (Alumni Chair in the Humanities), *Committee Chairperson*

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: 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. Team-taught. *3 sem. hrs.*

HMS 315. CHINESE CULTURE: Survey of the major elements of Chinese culture from ancient times to the present with emphasis on philosophy, literature, and art. Lectures, discussions, and readings are in English. *3 sem. hrs.*

*HMS 360. LATIN AMERICA THROUGH LITERATURE: Selected readings in contemporary Latin American literature (in translation) reflecting current issues. Conducted in English. *3 sem. hrs.*

*HMS 395. CONTEMPORARY INTELLECTUAL TRENDS, EUROPE: Multi-disciplinary course in art, film, literature, music, and philosophy, concentrating on the post-World War II period. *6 sem. hrs.*

HMS 410. INTERDISCIPLINARY TOPICS IN THE HUMANITIES: An examination of varying topics in the Humanities from an interdisciplinary perspective. Course may be repeated when contents vary. *1-3 sem. hrs.*

*General Education course. See Chapter V.

ASI

INTERDISCIPLINARY STUDIES (ASI)

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

All ASI credit applies toward the student's general elective requirements, 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

- * ASI 101-102. DEVELOPMENT OF PHILOSOPHY AND RELIGION IN THE WEST I, II: Survey of major issues in Western philosophy and religious thought from ancient Hebrew and Greek times to the present. Parallel to the first-year history and English courses in CORE. (Completion of both courses fulfills the PHL 103 and REL 103 requirements.) Required of and restricted to students in CORE.

3 sem. hrs. each

ASI 150. INTRODUCTION TO THE UNIVERSITY: Examination of the values that inform academic progress in the College; discussion of strategies for taking full advantage of academic opportunities and integrating formal and experiential learning.

1 sem. hr.

ASI 201. PERSONAL VALUE DEVELOPMENT: Exploration of the conceptual framework of value development. Application of concepts in such personal decision making as educational and career planning, developing satisfying personal relationships, and using time productively.

2 sem. hrs.

ASI 214. DRAMATIC KINESICS IN A FOREIGN LANGUAGE: Corrective work in foreign language sound and gesticulatory patterns accomplished by enacting scenes from a play in the language. May be repeated in one language in successive stages of difficulty up to 3 sem. hrs. Registration may be retroactive. Prerequisites: Basic instruction in the language; permission of instructor.

1 sem. hr.

ASI 228. FOCUS ON WOMEN: Interdisciplinary seminar on the changing roles and status of women. Requirement for women's studies minors. May be repeated since topics change yearly.

1 sem. hr.

- * ASI 298. HONORS SOCIAL SCIENCE SEMINAR: Interdisciplinary study of a contemporary topic that has been the focus of considerable investigation by at least two social science disciplines. Required of and restricted to second-year students enrolled in the University Honors Program. Prerequisite: Permission of program director.

3 sem. hrs.

* ASI 299. HONORS SCIENCE SEMINAR: Examination of the nature of scientific thought, research, and experimentation in one or more of the physical and biological sciences; the relationship between society and scientific inquiry. Required of and restricted to sophomores in the University Honors Program. Prerequisite: Permission of program director. *3 sem. hrs.*

ASI 305. APPALACHIAN STUDIES: Appalachian history and its influence on the present; problems of recent events; influence of local government and federal programs on the people; economic problems of underprivileged people and the future of industrial development; ecology of the region; literature, art, and music; psychology of social change and community development in the underdeveloped regions; health and mental health; problems of the Appalachian migrant. *3 sem. hrs.*

ASI 395. INTERNSHIP IN SCIENCE: Application of scientific knowledge to specific projects in an approved organization. Applied-knowledge experience open to juniors and seniors as a supplement to their science curriculum. Permission of the internship director in the student's major department is required. *1-3 sem. hrs.*

ASI 398. SPECIAL TOPICS IN INTERNATIONAL DEVELOPMENT: Study of political, philosophical, historical, and economic questions associated with developing countries. Topics determined by an interdisciplinary team. Required for the minor in international development. Second term. *3 sem. hrs.*

ASI 399. INTERDISCIPLINARY TOPICS: Study of special topics or themes of an interdisciplinary nature. Specific subtitles announced in composite. May be repeated as topics change. *3 sem. hrs.*

ASI 410. INTERDISCIPLINARY TOPICS IN THE HUMANITIES: This course examines varying topics in the Humanities from an interdisciplinary perspective. *3 sem. hrs.*

ASI 448. SEMINAR IN FAMILY DEVELOPMENT: Interdisciplinary examination of issues relating to family relationships, changes in family life, and the social context of family life. Required of family development minors. Prerequisite: 12 sem. hrs. completed in the minor. *1 sem. hr.*

ASI 498-499. HONORS THESIS: Selection, design, investigation, and completion of an independent, original research thesis under the guidance of a faculty research director. Restricted to students in the University Honors Program with permission of the program director. *6 sem. hrs.*

* General Education course. See Chapter V.

SCI

INTEGRATED SCIENCE (SCI)

Integrated Science is a sequence of general education science courses aimed at achieving scientific literacy for those students not majoring in science or engineering. It is an integrated sequence with each course building on the previous course(s). The courses are arranged in two tracks and the student may choose between the two tracks. Each track contains fundamental knowledge from the natural sciences, but each has a different emphasis. The first course (SCI 190: The Physical Universe, taught by the physics department) is a foundation course for both tracks and it covers the basic principles of physical science. After taking SCI 190, the student has a choice of whether to proceed along Track I, which consists of chemistry (SCI 220: The Chemical World) and biology (SCI 240: Organisms, Evolution & Health), or along Track II, which consists of geology (SCI 210: The Dynamic Earth) and biology (SCI 230: Organisms, Evolution & Environment).

After SCI 190, Track I features the molecular foundations of chemistry and biology, starting with the molecular view of matter and the chemistry of life processes, SCI 220. The third course in this track SCI 240, emphasizes molecular biology and health related biological issues. After SCI 190, Track II goes into SCI 210, which considers the evolution of the earth, chemical evolution on the early earth, the origin of life, and environmental earth issues. Each course in this integrated science sequence has an associated laboratory course.

COURSES OF INSTRUCTION

- * SCI 190. THE PHYSICAL UNIVERSE: An introduction to physical science which uses cosmological evolution as a unifying theme. Emphasis will be on concepts and scientific thought processes in dealing with the fundamental principles in physics involved in the Big Bang to planetary evolution. Prerequisite or corequisite: the University math requirement. *3 sem. hrs.*

SCI 190L. THE PHYSICAL UNIVERSE LABORATORY: A laboratory to accompany SCI 190. Exercises chosen to correlate with the material in SCI 190. One 2-hour laboratory per week. *1 sem. hr.*

- * SCI 210. THE DYNAMIC EARTH: A course providing an introduction to the Earth, with an emphasis on fundamental concepts in geology and the interdisciplinary nature of geology. For the non-science major. Prerequisites: SCI 190. *3 sem. hrs.*

SCI 210L. THE DYNAMIC EARTH LABORATORY: Laboratory to accompany SCI 210. For the non-science major. Prerequisite or corequisite: SCI 210. *1 sem. hr.*

- * SCI 220. THE CHEMICAL WORLD: Introduction to the experimental nature of chemistry. Attention is focused on the microscopic view of matter, addressing topics that lead into the study of biological chemistry. Prerequisite: SCI 190. *3 sem. hrs.*

SCI 220L. THE CHEMICAL WORLD LABORATORY: A laboratory course to accompany SCI 220. One 2-hour laboratory per week. Prerequisite or corequisite: SCI 220. *1 sem. hr.*

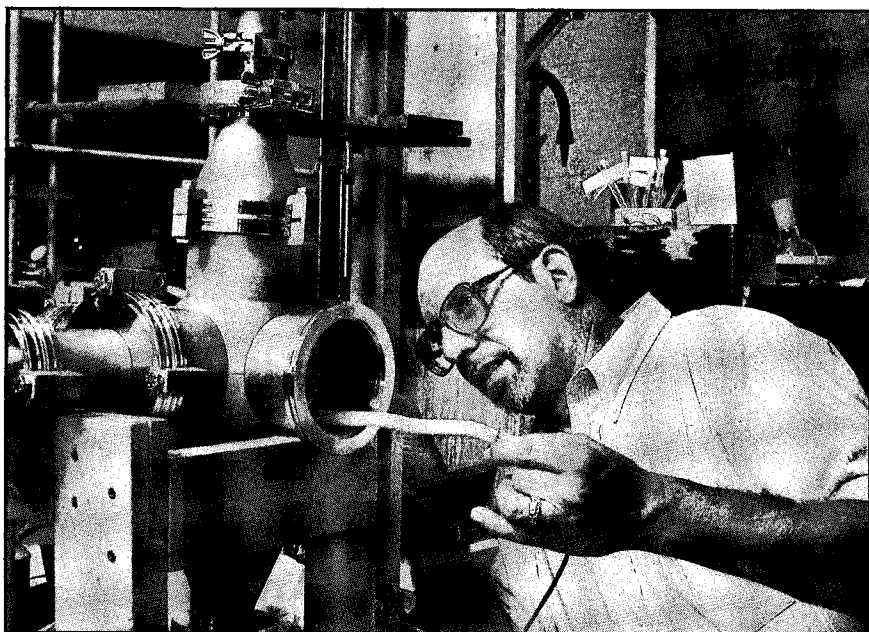
- * SCI 230. ORGANISMS, EVOLUTION & ENVIRONMENT: An evolutionary approach to the relationship between living organisms and their environments. This survey of basic concepts in biology continues the evolutionary theme of the two prerequisite courses. Prerequisites: SCI 190, 210 or permission of instructor. *3 sem. hrs.*

SCI 230L. ORGANISMS, EVOLUTION & ENVIRONMENT LABORATORY: Laboratory exercises to accompany SCI 230. One 2-hour laboratory per week. Prerequisite or corequisite: SCI 230. *1 sem. hr.*

- * SCI 240. BIOLOGY AND HUMAN HEALTH: A chemical and molecular approach to biology with emphasis on biomedical science and a focus on human health and disease. Prerequisites: SCI 190, 220 or permission of instructor. *3 sem. hrs.*

SCI 240L. BIOLOGY AND HUMAN HEALTH LABORATORY: Laboratory exercises to accompany SCI 240. One 2-hour laboratory per week. Prerequisite or corequisite: SCI 240. *1 sem. hr.*

*General Education course. See Chapter V.



IND

INTERNATIONAL DEVELOPMENT STUDIES (IND)

The interdisciplinary minor in international development studies provides students of all majors with an understanding of Third World development as a perspective from which to view their majors. It gives students the cultural, historical, and political sensitivity required for working effectively in the interest of developing countries. Students who pursue the minor are encouraged to participate in the immersion experience, an opportunity to do independent study in their major disciplines in a developing country. Competence in speaking an appropriate foreign language is expected.

The minor in international development studies consists of 15 semester hours of courses, of which 12 semester hours are upper divisional (300-level or above).

These are distributed as follows:

	<i>Semester Hours</i>
Required courses	6
ASI 398 Special Topics in International Development	
ANT 150 Cultural Anthropology	
Anthropology elective (Choose one.)	3
ANT 310 Culture and Personality	
ANT 315 Language and Culture	
ANT 352 Cultures of Latin America	
ANT 406 Cultural Change	
History elective (Choose one.)	3
HST 348 United States and Third-World Crises	
HST 357 Latin America in the Twentieth Century	
HST 482 History of Mexico	
HST 484 The Caribbean Since 1801	
Political science elective (Choose one.)	3
POL 323 Comparative Politics: Latin America	
POL 324 Comparative Politics: Southern Asia	
POL 325 Comparative Politics: The Middle East	
POL 457 Political Change in the Third World	

Other appropriate courses may be substituted with the approval of the director. Students wishing to qualify for the international development studies minor must declare this intention to the director and their respective deans by the mid-point of the junior year.

INTERNATIONAL DEVELOPMENT STUDIES ADVISORY COMMITTEE

Philip Aaron, S.M., *Director, International Development Studies*
Bregenzner (Sociology, Anthropology, and Social Work), Geiger (Biology),
Karns (Political Science), Lapitan (Political Science), Payne (Philosophy),
Taylor (History)

INTERNATIONAL STUDIES (INS)

International studies is a multidisciplinary major designed to meet the needs of students interested in acquiring a broadly based international perspective for eventual careers in fields such as government service, international business, international law, teaching, and social service. The curriculum includes a core of required courses, a concentration (East Asia, Latin America, Russia and Eastern Europe, Western Europe, global development), a foreign language requirement, and additional hours of course work drawn from the multidisciplinary elective pool.

Majors are also required to include an international and/or cross-cultural experiential component in their program. This may be satisfied through study abroad, internship, immersion, service, or work. The Center for International Programs assists students in identifying the most appropriate opportunities.

No minor in international studies is available.

PROGRAM A8: BACHELOR OF ARTS WITH A MAJOR IN INTERNATIONAL STUDIES (INS)¹

	<i>Semester Hours</i>
Requirements for the major	70
Natural science	7
Mathematics (MTH 102, 204, 205 excluded)	3
Philosophy and religious studies	12
Communication skills	0-9
First-year experience: ASI 150	0-1
General Education and academic electives to total at least	120

¹See also Distribution Table for Bachelor of Arts programs and Chapter V for General Education requirements. Humanities and Social Sciences breadth requirements are fulfilled through requirements for the major.

The major in international studies consists of a minimum of 70 semester hours of coursework distributed as follows:

Required courses (30 semester hours)

ECO 203, 204, 450	HST 102 or 198
ENG 272	POL 202, 214, 410, 455
GEO 103	

Concentration (21 semester hours)

Each major must select one of the following five concentrations, which must correspond with the foreign language chosen.

East Asia: HST 330; POL 328 or 329; and any five of the following courses:

ECO 460; HMS 315; HST 440, 445; PHL 355; POL 407; REL 201

Latin America: ANT 352, HST 358, REL 464 (choose one); ASI 398, ECO 460, POL 457 (choose one); HST 357; HST 482, HST 484 (choose one); POL 323; POL 404; SPN 342

Russia and Eastern Europe: HST 314, HST 315 (choose one); HST 325; HST 326; HST 328; POL 321; POL 409; HST 431, HST 432 (choose one)

Western Europe: HST 314; HST 315; HST 419, HST 421, HST 428 (choose two); HMS 395 or choice of two—ENG 357, ENG 358, PHL 359, PHL 360; POL 320

Global Development: ANT 406, SOC 328 (choose one); ASI 398; BIO 395; ECO 460; HST 336, HST 337, HST 339, HST 357, HST 358 (choose one); POL 457; REL 201, REL 202, REL 376, REL 464, REL 472 (choose one)

Language (6-20 semester hours)

A student majoring in international studies must complete at least 6 semester hours of upper-level foreign language instruction in one of the following languages: French, German, Italian, Russian, Spanish. Foreign language literature in translation courses do not fulfill this requirement. Also, these 6 semester hours may not duplicate upper-level foreign language courses taken to fulfill the requirement of 12 semester hours drawn from the elective pool.

Experiential Requirement (1-3 semester hours)

INS majors must include an international and/or cross-cultural experiential component in their program prior to graduation. This requirement can be satisfied through participation in a study abroad program, an internship, immersion, service, or work experience. The experience must be for a minimum of four weeks. The requirement is satisfied by taking either INS 395 or INS 495.

Electives (12 semester hours)

The remaining 12 semester hours are to be chosen from the concentrations or from the following elective pool:

ANT	315, 351
BAI	301
CMS	414
CJS	336
ECO	461
ENG	205, 306, 322, 356
FIN	450
HMS	360
HST	311, 312, 313, 322, 348, 349, 353, 375, 406, 408, 413, 416, 423, 424, 438, 470
INS	390, 395, 399, 495
MGT	430
MKT	440, 445
PHL	307, 310, 311, 317, 320, 321, 323, 327, 332, 350, 351, 352, 353, 358
POL	325, 327, 331, 335, 406, 408, 437, 471
PSY	445
REL	363, 374, 406, 471, 474
SOC	332, 350
VAH	201, 202, 203, 350, 360, 382, 450, 460, 470, 471, 480

Any upper-level foreign language course (French, German, Italian, Russian, Spanish)

With permission, other courses including special topics courses and independent study

INTERNATIONAL STUDIES POLICY COMMITTEE

Maureen F. O'Meara, *Director, International Studies*

Aaron (International Studies), Bilocerkowycz (Political Science),

Bregenzer (Sociology, Anthropology, and Social Work), Flockerzie (History),

Karns (Political Science), Krugh (Languages)

COURSES OF INSTRUCTION

INS390. MODEL UNITED NATIONS: Examination of the work and procedures of the United Nations and its constituent bodies, study of various international issues and policies of member states, as well as of parliamentary diplomatic practices such as caucusing, resolution writing, and speech making in preparation for participation in Model United Nations simulations. Prerequisite: Permission of instructor.

1 sem. hr.

INS 395. INTERNATIONAL EXPERIENCE: Orientation for and evaluation of study abroad, internship, immersion, work or service experience in a foreign country, organization involved in international activities, or a cross-cultural setting in the United States. Grading option two only.

1 sem. hr.

INS399. INDEPENDENT STUDY: Independent reading and research on an interdisciplinary topic in international studies chosen by the student in consultation with one or more faculty members. May be repeated. Prerequisite: Permission of program director.

3 sem. hrs.

INS 495. INTERNATIONAL STUDIES INTERNSHIP: Practical, supervised experience with an approved organization dealing with international affairs. Repeatable up to six hours. Prerequisite: Permission of program director.

1-6 sem. hrs.



LANGUAGES (LNG)

The Department of Languages offers courses in modern languages—French, German, Italian, Russian, and Spanish—as well as in the classical language, Latin. The language programs include instruction in the communicative skills, literature, and culture. The department also offers some literature and culture courses taught in English (see CLA and HMS) and Dramatic Kinesics in a Foreign Language. (See ASI.)

The Department of Languages conducts one-month study programs especially for language students in Spain, Mexico, Germany, Canada, and France. Language courses may also be offered through the Interdepartmental Summer Study Abroad Program. (ISSAP) (See Chapter X.)

Students in B.A. programs can acquire teacher certification in languages through the E11A program. (See EDT.) For details, consult the department chairperson.

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. For assistance with placement, consult the department.

A language major may choose a major in a single language (French, German, Spanish) or a composite major in two languages.

A student may minor in French, German, Italian, Russian, or Spanish by completing 12 semester hours of upper-level (300-400) courses.

**PROGRAM A9: BACHELOR OF ARTS WITH A MAJOR IN
LANGUAGES (LNG)¹**

	<i>Semester Hours</i>
Languages	24
<i>Major in a Single Language</i> (at least 24 sem. hrs. at the 300-400 level): A major in a modern language must take 311 or 312, 321 or 322 ² , and at least two courses, including at least one in literature, from the following: 341, 342, 360, 361, 362, 363, 364, 381, 450, 451, 471, 472.	
<i>Composite Major in Languages</i> (at least 24 sem. hrs. at the 300-400 level distributed between two languages): Courses must include at least 3 sem. hrs. of literature.	
Communication skills	0-9
Humanities	18
Philosophy and religious studies	12
Natural science	7
Mathematics (MTH 102, 204, 205 excluded)	3
Social and behavioral sciences	12
First-year experience: ASI 150	0-1
General Education courses and academic electives to total at least	120

¹See also Distribution Table for Bachelor of Arts programs and Chapter V for General Education requirements.

²In Italian take ITA 313 and 314.

FACULTY

Arthur D. Mosher, *Chair*

Professor Emeritus: McKenzie

Professor: Conard

Associate Professors: O'Meara, Romaguera

Assistant Professors: Castro, Chiodo, Krugh, Peñas-Bermejo

Lecturers: Bredestege, Fogel, E. Hatch, E. L. Hatch

COURSES OF INSTRUCTION

Placement in a course is determined on the basis of a student's background and proficiency in the language. Therefore the prerequisite for each course indicates the proficiency level required for enrollment.

FRENCH

FRN 102. INTENSIVE ELEMENTARY FRENCH: Basic elements of the French language with emphasis on the development of essential linguistic survival skills in a French-speaking country. Offered only in connection with ISSAP or another UD study abroad program. *3 sem. hrs.*

FRN 103-104. ELEMENTARY FRENCH I, II: Basic elements of the French language with emphasis on audio-oral skills. Language laboratory required. Prerequisite: None for FRN 103; FRN 103 for 104. *4 sem. hrs. each*

FRN 201-202. INTERMEDIATE FRENCH I, II: Development of listening, speaking, reading, and writing skills. Language laboratory required. Prerequisites: FRN 104 for 201; FRN 201 for 202. *3 sem. hrs. each*

FRN 226. BASICS OF COMPUTER FRENCH: Introduction to French computer vocabulary and expressions and to the literature and status of the information sciences in France. Translation of articles and advertisements in the field from French to English. Prerequisite: FRN 202. *1 sem. hr.*

FRN 270. INTERMEDIATE STUDY ABROAD: Intermediate intensive study in a foreign country/region whose everyday language is French. Instruction in language, culture and civilization. Conducted in French. Available only during the summer session. Repeatable when subtitle and content change. Prerequisite: FRN 104 or equivalent. *1-7 sem. hrs.*

FRN 290. FRENCH GRAMMAR AND SYNTAX: Systematic review of basic grammatical concepts necessary for communicating effectively in French. Extensive practice in analyzing, producing, and explaining correct grammatical structures. Strongly recommended for prospective teachers. Prerequisite: FRN 202. *3 sem. hrs.*

FRN 311-312. FRENCH CONVERSATION I, II: Intensive practice in speaking French to develop oral communication skill. Emphasis on vocabulary development, listening comprehension, simulation of life-like situations, and discussions on French life and culture. May be taken in either sequence. Prerequisite: FRN 202. *3 sem. hrs. each*

FRN 321-322. FRENCH COMPOSITION I, II: Practice in composition on topics dealing with French life and culture. Systematic vocabulary enrichment, refinement of grammar, and assimilation of stylistic patterns. Emphasis on correct writing and creativity. Initiation into the concept of style in French prose. May be taken in either sequence. Prerequisite: FRN 311 or 312. *3 sem. hrs. each*

FRN 325. INTRODUCTION TO COMMERCIAL FRENCH: Introduction to French business and the French position in international trade. Basic vocabulary of the office and the world of trade, introduction to formal correspondence and transactions. Prerequisite: FRN 311 or 312. *3 sem. hrs.*

FRN 326. ADVANCED COMPUTER FRENCH: Intensive practice of translation from English to French and French to English of professional and technical computer-related literature from such fields as business, computer science, and education. Prerequisites: FRN 226; 311 or 312. *1 sem. hr.*

FRN 331. 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. Prerequisite: FRN 311 or 312. *3 sem. hrs.*

FRN 341. FRENCH CULTURE AND CIVILIZATION: Introduction to the history of French civilization with emphasis on the arts and life in each major cultural period. Recommended for all French majors and minors. Prerequisite: FRN 311 or 312. *3 sem. hrs.*

* FRN 352. OLD WORLD AND NEW (ENG): Readings of (1) non-fictional narratives regarding French encounters with American Indians in the 16th and 17th centuries and (2) literary and philosophical works on this topic. Conducted in English. No prerequisite. *3 sem. hrs.*

FRN 360. 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. Prerequisite: FRN 311 or 312. *3 sem. hrs.*

* FRN 361-362. SURVEY OF FRENCH LITERATURE I, II: Major texts, trends, 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. May be taken in either sequence. Prerequisite: FRN 311 or 312. *3 sem. hrs. each*

FRN 370. ADVANCED STUDY ABROAD: Advanced intensive study in a foreign country / region whose everyday language is French, treating its language, culture, and civilization. Conducted in French. Available only during the summer session. Repeatable when subtitle and content change. Prerequisite: FRN 202 or equivalent. *1-7 sem. hrs.*

FRN 381. HISTORY OF FRENCH CINEMA: A survey of the trends, styles, and principal directors in the history of French cinema. Discussion of personal, social, and cultural values portrayed in films. Prerequisite: FRN 311 or 312. *3 sem. hrs.*

FRN 425. ADVANCED COMMERCIAL FRENCH: Intensive study of business in France. Emphasis on specialized vocabulary, style, and syntax in commercial correspondence and accurate translation of current documents related to business and publicity. Prerequisites: FRN 321 or 322; 325. *3 sem. hrs.*

*FRN 452. OLD WORLD MEETS NEW: Readings of (1) non-fictional narratives regarding French encounters with American Indians in the 16th and 17th centuries and (2) literary and philosophical works on this topic. Conducted in French. Prerequisites: FRN 311 or 312 *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. Prerequisites: FRN 202 and permission. *1-3 sem. hrs.*

GERMAN

GER 102. INTENSIVE ELEMENTARY GERMAN: Basic elements of the German language with emphasis on development of essential linguistic survival skills in a German-speaking country. Offered only in connection with ISSAP or another UD study abroad program. *3 sem. hrs.*

GER 103-104. ELEMENTARY GERMAN I, II: Basic elements of German language with emphasis on pronunciation, speaking, reading, and grammar. Language laboratory required. Prerequisite: None for GER 103; GER 102 or 103 for 104. *4 sem. hrs. each*

GER 201-202. INTERMEDIATE GERMAN I, II: Systematic grammar review. Increased use of the language in written exercises and classroom discussions based on readings. Exposure to the development of German civilization and culture. Prerequisites: GER 104 for 201; GER 201 for 202. *3 sem. hrs. each*

GER 311-312. GERMAN CONVERSATION: Intensive drill to develop communication skills: vocabulary development, pattern drills, and use of idioms in discussions and oral reports centered on German daily life and culture. May be taken in either sequence. Prerequisite: GER 202. *3 sem. hrs. each*

GER 321-322. GERMAN COMPOSITION I, II: Practice in writing German on a variety of topics. Systematic grammar review and vocabulary enrichment. Short stories and periodicals are read and discussed to provide models, topics, and information. May be taken in either sequence. Prerequisite: GER 311 or 312. *3 sem. hrs. each*

GER 325. COMMERCIAL GERMAN: Introduction to the business language and customs and the economic profile of the German-speaking countries. Basic vocabulary of the office and the world of trade, introduction to formal business correspondence and transactions. Prerequisite: GER 311 or 312 or the equivalent. *3 sem. hrs.*

* GER 341. GERMAN CULTURE AND CIVILIZATION: Introduction to German culture and civilization with emphasis on the arts, intellectual developments, and life in various periods of German history. Conducted in German. Prerequisite: GER 311 or 312. *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. No prerequisite. *3 sem. hrs.*

GER 361-362. SURVEY OF GERMAN LITERATURE I, II: German literature and its development from 1750 A.D. to the present. Study of exemplary works and literary movements. May be taken in either sequence. Prerequisite: GER 311 or 312. *3 sem. hrs. each*

GER 370. STUDY ABROAD: Intensive study in a foreign country whose everyday language is German, treating the culture and civilization of the country. Conducted in German. Available only during the summer session. Repeatable when subtitle and content change. Prerequisite: GER 202. *1-6 sem. hrs.*

GER 450. GERMAN LITERATURE: Lectures and discussions in German in such specialized areas as Medieval lyric, Romanticism, 20th-century novel, modern drama, and individual authors. Repeatable when subtitle and content change. Prerequisite: GER 311 or 312. *3 sem. hrs.*

GER 491. INDEPENDENT STUDY: Independent research project under the guidance of an instructor. Admission to project and number of sem. hrs. require approval of chairperson. Prerequisites: GER 202 and permission. *1-3 sem. hrs.*

ITALIAN

ITA 103-104. ELEMENTARY ITALIAN I, II: Introduction to listening, speaking, reading, and writing in Italian. Dictations, pronunciation drills, grammar exercises, structured and unstructured conversations, and reading and writing exercises. The class is conducted primarily in Italian. Prerequisite: None for ITA 103; ITA 103 for 104. *4 sem. hrs. each*

ITA 201-202. INTERMEDIATE ITALIAN I, II: Development of listening, speaking, reading, and writing skills. Conversation practice, oral reports, reading assignments, composition assignments, and grammar exercises. The class is conducted in Italian. Prerequisites: ITA 104 for 201; ITA 201 for 202. *3 sem. hrs. each*

ITA 313-314. COMMUNICATING IN ITALIAN I, II: Intensive practice in speaking and writing Italian at an advanced level. Emphasis on building vocabulary, learning correct idiomatic usage, increasing fluency, and improving syntax and style. The class is conducted in Italian. May be taken in either sequence. Prerequisite: ITA 202. *3 sem. hrs. each*

ITA 341-342. ITALIAN CULTURE AND CIVILIZATION I, II: Survey of the major historical and cultural events in Italy from the Middle Ages to the present. All readings, lectures, discussions, reports, and tests are in Italian. May be taken in either sequence. Prerequisite: ITA 202. *3 sem. hrs. each*

ITA 361-362. SURVEY OF ITALIAN LITERATURE I, II: Italian literature from its beginnings in the 13th century to the present. Principal writers and literary trends; the techniques of literary analysis. Lectures, discussions, readings, and papers are in Italian. May be taken in either sequence. Prerequisite: ITA 202. *3 sem. hrs. each*

ITA 491. INDEPENDENT STUDY: Independent research project under the guidance of an instructor. Admission to project and number of sem. hrs. require approval of chairperson. Prerequisite: ITA 202 and permission. 1-3 sem. hrs.

LATIN

LAT 103-104. ELEMENTARY LATIN I, II: Development of a foundation for reading classical Latin. Prerequisite: None for LAT 103; LAT 103 for LAT 104.
4 sem. hrs. each

LAT 201-202. INTERMEDIATE LATIN I, II: Systematic review of grammar, exercises in vocabulary development, readings from Caesar, Cicero, Virgil, or Ovid. Prerequisite: LAT 104 for 201; LAT 201 for 202. 3 sem. hrs. each

LAT 321. LATIN COMPOSITION AND SYNTAX: Practice in writing Latin, for enrichment of vocabulary, refinement of grammar, and control of major Latin prose styles. Prerequisite: LAT 202. 3 sem. hrs.

LAT 350. LATIN LITERATURE: Advanced readings in a particular author or genre (epic, drama, history, philosophy). Repeatable when subtitle and content change. Prerequisite: LAT 202. 3 sem. hrs.

LAT 491. INDEPENDENT STUDY: Independent research project under the guidance of an instructor. Admission to project and number of semester hours require approval of chairperson. Prerequisite: LAT 202 or permission. 1-3 sem. hrs.

RUSSIAN

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. Prerequisite: None for RUS 103; RUS 103 for 104. 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 for 201; RUS 201 for 202. 3 sem. hrs. each

RUS 311-312. RUSSIAN CONVERSATION: Vocabulary development, pattern drills, and the use of idioms in discussion and oral reports centered on Russian life and culture. May be taken in either sequence. Prerequisite: RUS 202. 3 sem. hrs. each

RUS 321. RUSSIAN COMPOSITION: Practice in composition on topics dealing with Russian life and culture; personal and business letters. Short weekly assignments to build vocabulary and control of idioms. Prerequisite: RUS 202. 3 sem. hrs.

- * RUS 361. SURVEY OF RUSSIAN LITERATURE: Russian literature and its development during the 19th and 20th centuries. Study of exemplary works and literary movements. Prerequisite: RUS 202. *3 sem. hrs.*

RUS 491. INDEPENDENT STUDY: Independent study under the guidance of an instructor. Admission to course and number of sem. hrs. require approval of chairperson. Repeatable when content changes. *1-6 sem. hrs.*

SPANISH

SPN 103-104. ELEMENTARY SPANISH I, II: Development of a foundation for understanding, speaking, reading, and writing Spanish. Language laboratory required. Prerequisite: None for SPN 103; SPN 103 for 104. *4 sem. hrs. each*

SPN 201-202. INTERMEDIATE SPANISH I, II: Intensive development of the basic principles of Spanish through writing and conversation, stressing fluency. Language laboratory required. Prerequisites: SPN 104 for 201; SPN 201 for 202. *3 sem. hrs. each*

SPN 270. STUDY ABROAD: Intensive study in a foreign country whose everyday language is Spanish, treating the culture and civilization of the country. Conducted in Spanish. Available only during the summer session. Repeatable when subtitle and content change. Prerequisite: SPN 104 or equivalent. *1-6 sem. hrs.*

SPN 290. SPANISH GRAMMAR & SYNTAX: Systematic review of basic grammatical concepts necessary for communicating effectively in Spanish. Extensive practice in analyzing, generating, and explaining correct grammatical structures. Recommended for prospective teachers. Prerequisite: SPN 202 or the equivalent. *3 sem. hrs.*

SPN 311-312. SPANISH CONVERSATION I, II: Development of fluency in the vocabulary and idioms of the spoken language through discussion of topics related to contemporary life in the Hispanic world. May be taken in either sequence. Prerequisite: SPN 202. *3 sem. hrs. each*

SPN 321-322. SPANISH COMPOSITION I, II: Practice in composition on a variety of topics. Systematic refinement and mastery of grammar and assimilation of stylistic patterns. Emphasis on developing facility in writing clearly and correctly in Spanish. Prerequisites: SPN 311 or 312 for 321; SPN 321 for 322. *3 sem. hrs. each*

SPN 325. COMMERCIAL SPANISH: Introduction to commercial correspondence as a basis for developing skills in writing Spanish business letters and other correspondence. Prerequisite: SPN 311 or 312. *3 sem. hrs.*

SPN 341. SPANISH CULTURE AND CIVILIZATION: Readings and discussions on the historical, social, political, and cultural phenomena of Spain. Conducted in Spanish. Prerequisite: SPN 311 or 312. *3 sem. hrs.*

SPN 342. IBERO-AMERICAN CULTURE AND CIVILIZATION: Readings and discussions on the historical, social, political, and cultural phenomena of Ibero-America. Conducted in Spanish. Prerequisite: SPN 311 or 312. *3 sem. hrs.*

SPN 350. HISPANIC LITERATURE IN TRANSLATION: Course to acquaint nonmajors and nonminors with major Spanish and Spanish-American writers and literary movements. Conducted in English. Repeatable when subtitle and content change. No prerequisite. *3 sem. hrs.*

SPN 361-362. SURVEY OF SPANISH LITERATURE I, II: Readings and analysis of the works of major Spanish authors and discussion of the principal literary trends in Spain from the Middle Ages to the 20th century. Lectures, discussions, and assignments in Spanish. May be taken in either sequence. Prerequisite: SPN 311 or 312. *3 sem. hrs. each*

SPN 363-364. SURVEY OF SPANISH-AMERICAN LITERATURE I, II: Readings and analysis of the works of major Spanish-American authors and discussion of the principal literary trends in Spanish America from Discovery and Conquest through Realism and Naturalism (I) and Modernism through the present day (II). Conducted in Spanish. May be taken in either sequence. Prerequisite: SPN 311 or 312. *3 sem. hrs. each*

SPN 370. STUDY ABROAD: Intensive study in a foreign country whose everyday language is Spanish, treating the culture and civilization of the country. Conducted in Spanish. Available only during the summer session. Repeatable when subtitle and content change. Prerequisite: SPN 202. *1-6 sem. hrs.*

SPN 450. TOPICS IN SPANISH LITERATURE: Lectures and discussions concentrating on specialized genres, periods, or authors of Peninsular literature prior to the 20th century. Conducted in Spanish. Repeatable when subtitle and content change. Prerequisite: SPN 311 or 312. *3 sem. hrs.*

SPN 451. TOPICS IN SPANISH-AMERICAN LITERATURE: Lectures and discussions concentrating on specialized genres, periods, or authors of Spanish-American literature prior to the 20th century. Conducted in Spanish. Repeatable when subtitle and content change. Prerequisite: SPN 311 or 312. *3 sem. hrs.*

SPN 471. TOPICS IN SPANISH LITERATURE OF THE 20TH CENTURY: Lectures and discussions concentrating on specialized periods, genres, or authors of 20th-century Peninsular literature. Conducted in Spanish. Repeatable when subtitle and content change. Prerequisite: SPN 311 or 312. *3 sem. hrs.*

SPN 472. TOPICS IN SPANISH-AMERICAN LITERATURE OF THE 20TH CENTURY: Lectures and discussions concentrating on specialized periods, genres or authors of 20th-century Spanish-American literature. Conducted in Spanish. Repeatable when subtitle and content change. Prerequisite: SPN 311 or 312. *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. Prerequisites: SPN 202 and permission. *1-3 sem. hrs.*

* General Education course. See Chapter V.

MTH

MATHEMATICS (MTH)

The B. A. program in mathematics provides for a breadth of mathematical study within the context of a liberal arts degree. It may be chosen as a preparation for a professional career in business, education, law or social science. It affords the student a significant distribution of courses in the humanities and social sciences so that he or she can develop a concentration in a field other than mathematics. The student's career goals will generally suggest desirable upper level mathematics electives. For example, prospective secondary mathematics teachers should participate in the E11A program and elect courses such as MTH 370, 395, and 466. Students with an interest in business, law or social science should complete the probability and statistics sequence MTH 411-413; also, MTH 463 is a good choice for students planning to enter the business world.

The B. S. program in mathematics provides a foundation for students who wish to pursue graduate studies in any area of the mathematical sciences, to enter the actuarial profession, or to enter careers where mathematics is used in an engineering or science setting. A preparation for graduate programs in a mathematical science should include electives such as MTH 342, 404 and 471. A preparation for the actuarial examinations would include the probability and statistics sequence MTH 411-413 and MTH 463; in addition, actuarial preparation should include a year of accounting, a year of economics and a course in numerical methods CPS 353. To prepare for using mathematics in an applied context, some useful elective courses are MTH 403, 404, and the MTH 411-413 sequence.

The basic courses MTH 168, 169, 218, 219, and 302 are offered every term, and the required core courses are offered at least once a year. However, most of the other upper-level electives for the major are offered only once every two years; thus careful planning for a student's upper-level electives should be done in consultation with the advisor. In addition, the symbolic logic course PHL 302 is a recommended General Education course for all mathematics majors.

A minor in mathematics consists of four courses of mathematics at the 300-400 level, plus appropriate prerequisite material which may be one of MTH 218, 219, or 302.

PROGRAM A10: BACHELOR OF ARTS WITH A MAJOR IN MATHEMATICS (MTA)¹

	<i>Semester Hours</i>
Mathematics	36
Basic calculus: MTH 168, 169, 218	12
Upper-level requirements: MTH 302, 330, 361, 411	12
Upper-level electives	12
Natural science	7
Social and behavioral sciences	12
Humanities	18
Philosophy and religious studies	12
Communication skills	0-9
First-year experience: ASI 150	0-1
General Education courses and academic electives to total at least	120

¹See also Distribution Table for Bachelor of Arts programs and Chapter V for General Education requirements.

PROGRAM S6: BACHELOR OF SCIENCE WITH A MAJOR IN MATHEMATICS (MTH)¹

	<i>Semester Hours</i>
Mathematics	42
Basic calculus: MTH 168, 169, 218, 219	15
Upper-level requirements: MTH 302, 330, 361, 430	12
Upper-level electives (Departmental approval required.)	15
Minor: 300-400-level courses in chosen area	12
Natural Science: PHY 206, 207, 210L, 211L or CHM 123, 124, 123L, 124L or BIO 151, 152, 152L, 201L or GEO 115, 116, 115L, 116L—and two additional courses acceptable for Science majors	14
Computer science (e.g. CPS 132 or 150)	3-4
Social and behavioral sciences	6
Humanities	9
Philosophy and religious studies	12
Communication skills	0-9
First-year experience: ASI 150	0-1
General Education courses and academic electives to total at least	120

¹General Requirements for all Bachelor of Science programs and Chapter V for General Education requirements.

FACULTY

Thomas E. Gantner, *Chairperson*

Professors: Eloë, Gantner, McCloskey, Peterson, Rice, Stander, Steinlage

Associate Professors: Back, Friel, Gorton, Higgins, Islam, Mashburn,

Mushenheim, Shaughnessy

Assistant Professor: Kauflin

Lecturers: Neff, Saintignon

COURSES OF INSTRUCTION

MTH 102. FUNDAMENTALS OF MATHEMATICS: Sets, functions and graphs, exponents, polynomials and algebraic equations, systems of equations. Prerequisite: One year of high school algebra. 3 sem. hrs.

MTH 108. INTEGRATED ALGEBRA AND TRIGONOMETRY: Review of the algebraic skills necessary for MTH 168, including properties of order, arithmetic of polynomials, factoring, complex fractions, finding roots of polynomial equations, exponents, functions, domains and ranges, composition, inverses, graphing, and basic properties of trigonometric functions. First term each year. 2 sem. hrs.

MTH 114. CONTEMPORARY MATHEMATICS: A study of contemporary mathematical topics and their applications. Topics may include management science, statistics, social choice, size and shape, and computer mathematics. Prerequisite: Two years of high school algebra. 3 sem. hrs.

MTH 116. PRECALCULUS MATHEMATICS: A review of topics from algebra and trigonometry including polynomials, functions and graphs, exponential and logarithmic functions, trigonometric functions and identities. 4 sem. hrs.

MTH 128. FINITE MATHEMATICS: Topics from mathematics used in business, including systems of equations, inequalities, matrix algebra, linear programming, logarithms. Prerequisite: MTH 102 or sufficient college preparatory mathematics.

3 sem. hrs.

MTH 129. CALCULUS FOR BUSINESS: Continuation of MTH 128. Compound interest and annuities, fundamental concepts and applications of differential and integral calculus. Prerequisite: MTH 128 or sufficient college preparatory mathematics.

3 sem. hrs.

MTH 148. 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 116 or equivalent. Intended for students in the life and social sciences.

3 sem. hrs.

MTH 149. 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 algebra, vector calculus, partial derivatives, and multiple integrals. Prerequisite: MTH 148.

3 sem. hrs.

MTH 168. 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 116 or equivalent.

4 sem. hrs.

MTH 169. ANALYTIC GEOMETRY AND CALCULUS II: Continuation of MTH 168. Conic sections, techniques of integration with applications to science and engineering, infinite series, indeterminate forms, Taylor's theorem. Prerequisite: MTH 168.

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. Prerequisite: MTH 204.

3 sem. hrs.

MTH 207. INTRODUCTION TO STATISTICS: Introduction to the concepts of statistical thinking for students whose majors do not require calculus. Methods of presenting data, including graphical methods. Using data to make decisions and draw conclusions. Basic ideas of drawing a sample and interpreting the information that it contains. 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 149 or consent of instructor.

3 sem. hrs.

MTH 218. ANALYTIC GEOMETRY AND CALCULUS III: Continuation of MTH 169. Solid analytic geometry, vectors and vector functions, multivariable calculus, partial derivatives, multiple integrals. Prerequisite: MTH 169.

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.

3 sem. hrs.

MTH 290. TOPICS IN (NAMED AREA): Exploration of varying topics appropriate for the needs of the pre-service training of teachers of mathematics. May be repeated as topics change. Prerequisite: One mathematics course beyond MTH 102 and permission of instructor and/or chair. *1-3 sem. hrs.*

MTH 295. HISTORICAL ROOTS OF ELEMENTARY MATHEMATICS: Fundamental historical development of modern arithmetic, geometry, and number systems from early Egyptian, Babylonian, and Greek sources. Students may not receive credit for both this course and MTH 395. Prerequisite: MTH 204 or permission of instructor. *3 sem. hrs.*

MTH 301. ESSENTIALS OF MATHEMATICAL REASONING: Techniques of proof, mathematical induction, recursion, counting methods, symbolic logic. Introduction to algebra of sets, infinities, and axiom systems. Open to students who will enroll in upper-level mathematics courses. Corequisite: MTH 218 or 302. *1 sem. hr.*

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

MTH 330. INTERMEDIATE ANALYSIS: Topics include basic set theory, construction of the real line, its basic algebraic and topological properties, sequences and real-valued functions, convergence, infinite series, continuity, uniform continuity. Prerequisite MTH 302. *3 sem. hrs.*

MTH 342. SET THEORY: Elementary set theory including relations, functions, indexed families, denumerable and nondenumerable sets, cardinal and ordinal arithmetic, Zorn's Lemma, the well-ordering principle and transfinite induction. Prerequisite: MTH 218 or permission of instructor. *3 sem. hrs.*

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

MTH 367. STATISTICAL METHODS I: Probability distributions including binomial, hypergeometric, Poisson, and normal. Estimation of population mean and standard deviation: Confidence intervals and tests of hypotheses using t-, Chi-square, and F-statistics. Prerequisite: MTH 149 or 218. Mathematics majors enroll in MTH 411 instead of 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 and computer applications. Prerequisite: MTH 367. Mathematics majors enroll in MTH 412 instead of 368. *3 sem. hrs.*

MTH 370. INTRODUCTION TO HIGHER GEOMETRY: Projective, affine, and hyperbolic geometries using synthetic and/or analytic techniques. Prerequisite: MTH 218 or permission of instructor. *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, Gaussian integers, and integral quaternions. Prerequisite: MTH 218. *3 sem. hrs.*

MTH 395. DEVELOPMENT OF MATHEMATICAL IDEAS: The evolution of mathematical ideas and techniques from ancient times to the present with emphasis on the Greek era. Famous men and famous problems. Chronological outline of mathematics in each of its branches along with applications. Prerequisite: MTH 148 or 168 or permission of instructor. *3 sem. hrs.*

MTH 403. BOUNDARY VALUE PROBLEMS: Introduction to the Sturm-Liouville problem. Fourier trigonometric series, Fourier integrals, Bessel functions, and Legendre polynomials. The heat equation, wave equation, and Laplace's equation with applications. Solutions by the product method. Prerequisite: MTH 219. *3 sem. hrs.*

MTH 404. COMPLEX VARIABLES: Functions of a complex variable, conformal mapping, integration in the complex plane. Laurent series and residue theory. Prerequisite: MTH 219. *3 sem. hrs.*

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

MTH 413. PROBABILITY AND STATISTICS III: Statistical decision theory, partitioning of sums of squares, analysis of variance, regression on several independent variables, multiple regression approach to analysis of variance, design of experiments. Prerequisite: MTH 412. *3 sem. hrs.*

MTH 430. REAL ANALYSIS: Fundamental concepts of analysis: metric completeness, uniform continuity and uniform convergence; power series and interchange of limits. Prerequisite: MTH 330. *3 sem. hrs.*

MTH 435. ADVANCED MULTIVARIATE CALCULUS: Topics include directional derivatives, chain rule, Lagrange multipliers, Taylor's formula, the mean value theorem, inverse mapping theorem, implicit function theorem, integration, Fubini's theorem, change of variables, line integrals, Green's theorem and Stoke's theorem. Prerequisite: MTH 302. *3 sem hrs.*

MTH 440. INTRODUCTION TO MATHEMATICAL MODELING: Introduction to the use of mathematical techniques and results in constructing and modifying models designed to solve problems encountered in everyday life. Computer simulation and limitations thereof dimensional analysis, scaling, and approximations at various levels. Prerequisites: MTH 219, 302, and permission of instructor. *3 sem. hrs.*

MTH 441. MATHEMATICS CLINIC: Student teams will be responsible for the development and/or modification and testing of a mathematical model designed for a particular purpose. Faculty guidance. Prerequisites: MTH 440 and permission of chairperson. *3 sem. hrs.*

MTH 445. 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. Prerequisite: Permission of chairperson. *1-3 sem. hrs.*

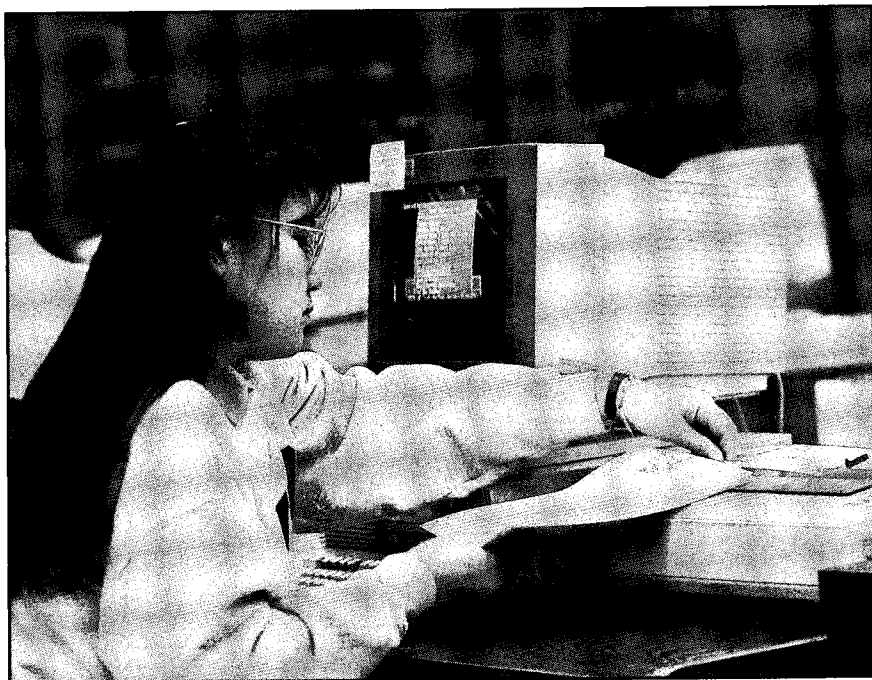
MTH 463. INTRODUCTION TO OPERATIONS RESEARCH: Topics include linear programming and its applications, game theory, Markov chains or linear codes and their error-correcting capabilities. Prerequisite: MTH 302 *3 sem. hrs.*

MTH 465. LINEAR ALGEBRA: Vector spaces, linear transformations and matrices, determinants, inner product spaces, invariant direct-sum decomposition and the Jordan canonical form. Prerequisite: MTH 302. *3 sem. hrs.*

MTH 466. GRAPH THEORY AND COMBINATORICS: Graphs as algebraic structures; eulerian, hamiltonian, complete, connected and planar graphs. Applications include scheduling and routing problems. Discussion of algorithms for optimal or near-optimal solutions. Combinatorial topics could include generating functions, recurrence relations, Polya's theorem and Ramsey Theory. Prerequisite: MTH 302. *3 sem. hrs.*

MTH 471. TOPOLOGY: Introduction to topological spaces and continuous functions including a study of separation and countability axioms and elementary properties of metric spaces, connected spaces, and compact spaces. Prerequisite: MTH 302 or permission of instructor. *3 sem. hrs.*

MTH 490. READINGS IN (NAMED AREA): Individual study in specialized areas carried out under the supervision of a staff member. May be taken more than once. Prerequisite: Permission of chairperson. *1-3 sem. hrs.*



MIL

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, the Army Reserve, and the Army National Guard.

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 first and second years) and an advanced course (normally third and fourth 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 Army lieutenants by including practical work in tactics, training, management, leadership techniques, and the exercise of command. Advanced course students are paid \$150 a month during the school year. During the summer between the junior and senior years, cadets attend a six-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 monthly salary or about \$1000.

In addition to ROTC instruction, a student must attain an equal level of professional military education. Army officers, like other professionals, cannot be satisfied with a collection of knowledge found only in their academic field. In order to be prepared to become officers, students are required to complete courses in military history, written communication skills, human behavior, computer literacy, and mathematical reasoning. These courses may be taken in conjunction with academic majors.

The ROTC program is also available to students with three or two years remaining on campus, including graduate students. Special programs, such as Basic Camp, have been established to allow second-semester 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. Veterans and students with high school JROTC training, with the approval of the chairperson of the Department of Military Science, may receive placement credit for part or all of the basic course. Each case will be judged individually so that the best interests of both the student and the military may be served.

Army ROTC scholarships are available to students. These scholarships cover three- and two-year periods and provide for tuition, books, fees, special equipment, and \$150 a month for up to ten months of each school year. Scholarships, which are highly competitive, are awarded to those who demonstrate outstanding academic and leadership ability.

FACULTY

Lt. Col. James A. Roy, U.S. Army, *Chairperson*

Professor: Roy

Assistant Professors: Byrd, Tolson

Instructors: Basil, Edwards

COURSES OF INSTRUCTION¹

MIL 100 (UD). LEADERSHIP LABORATORY: Practical training in military courtesy, drill and ceremony, military skills, map reading, marksmanship, and tactics. *1 sem. hr.*

MIL 101 (UD). LEADERSHIP I: ROTC programs and opportunities; rappelling, leadership, communications and management skills, and pistol marksmanship. Optional field trips, field exercises, physical training, leadership laboratory and social events. *1 sem. hr.*

MIL 102 (UD). LEADERSHIP II: Rifle marksmanship, fundamentals and principles of leadership, management techniques for individual and group behavior. Optional physical training, leadership laboratory, and social events. *1 sem. hr.*

MIL 121 (SCC).² Same as MIL 101 (UD). *0.7 sem. hr.*

MIL 122-123 (SCC).² Combination of these two courses completes all requirements of MIL 102 (UD). *0.7 sem. hr. each*

MIL 122-123 (SCC).² Combination of these two courses completes all requirements of MIL 102 (UD). *0.7 sem. hr. each*

MIL 201 (UD). MAP READING AND TACTICS: Study of basic map reading skills, basic military tactics, movement techniques, and some small unit weapons. Participation in leadership laboratory and two field training exercises. Optional physical training and social events. *2 sem. hrs.*

MIL 202 (UD). FIRST AID AND LEADERSHIP: Leadership training in physical fitness, preventive medicine programs, and basic first aid procedures. Study of the role and branches of the Army and the role of the Noncommissioned Officer. Participation in leadership laboratory. Optional Red Cross CPR Certification, physical training and social events. *2 sem. hrs.*

MIL 221 (SCC).² Same as MIL 201 (UD). *1.4 sem. hrs.*

MIL 222-223 (SCC).² Combination of these two courses completes all requirements of MIL 202 (UD). *1.4 sem. hrs. each*

MIL 301 (UD). LEADERSHIP IN TACTICS AND EVALUATION TECHNIQUES: Study of military weapons systems, land navigation-terrain association, operations orders, and small unit tactics. Physical training, leadership laboratory, two field training exercises, historical field trip, and social events are mandatory. *2 sem. hrs.*

MIL 302 (UD). COMMUNICATIONS AND PROFESSIONAL KNOWLEDGE: Study of emplacement of communications equipment, communication techniques used by the Army, employment of and defense against weapons systems, and the roles of various branches of the Army. Field training exercises, social events, physical training, and leadership laboratory are mandatory. *2 sem. hrs.*

MIL 401 (UD). LEADERSHIP MANAGEMENT AND STAFF: Study of military staff functions; how to conduct meetings, briefing, and training; how to conduct various types of counseling; and effective and ineffective leadership techniques. Physical training, leadership laboratory, historical field trip, social events, and field training exercises are mandatory. *2 sem. hrs.*

MIL 402 (UD). APPLIED LEADERSHIP AND MANAGEMENT: Leadership and management studies in professionalism, ethics, and military justice. Various types of military correspondence and the responsibilities of an officer. Physical training, leadership laboratory, field training exercises, and social events are mandatory. *2 sem. hrs.*

MIL 411 (UD). AIR LAND BATTLE/LOW INTENSITY CONFLICT: This course will identify and discuss the roles and mission of the branches found within the U.S. Army as they relate to Air Land Battle and Low Intensity Conflicts. Incorporates the background and experience of resident instructors and presentations by visiting service representatives. *2 sem. hrs.*

MIL 412 (UD). U.S. MILITARY TODAY: This course will identify and discuss the roles, missions, organizational structure and equipment, tactical and strategic employment, and future trends of the Armed Services. Incorporates the background and experience of resident instructors and presentations by visiting service representatives. *2 sem. hrs.*

¹Students should check with their deans for any restrictions on applying MIL courses to their degree programs.

²Course offered through the Consortium with Sinclair Community College.

MUSIC (MUS)

Music is a unique form of expression and communication. A course of study provides for an aesthetic appreciation and an opportunity to translate musical concepts into a valuable and practical skill. The Department of Music of the University of Dayton provides academic coursework to foster artistic understanding and creative thinking, practical instruction to develop musical skills, and substantial laboratory and performance experience.

The Department of Music is a member of the National Association of Schools of Music, which accredits its degree programs and curricula. In addition, the music education degree program is approved by the State of Ohio and the music therapy degree program by the National Association for Music Therapy.

The Department of Music has numerous performing ensembles open to all students: The University Chorale, Chamber Singers, Opera Workshop, Ebony Heritage Singers, Celebration Vocal Transit, Miami Valley Symphony, University Wind Ensemble, Marching Band and Pep Band, Jazz Ensembles, and vocal and instrumental chamber ensembles.

The department of Music offers five degree programs:

A11: Bachelor of Arts with a major in Music (MUS)

A12: Bachelor of Music with a major in Music
Composition (MUC)

A12A: Bachelor of Music with a major in Performance (MUP)

A12B: Bachelor of Music with a major in Music Therapy (MUT)

A12C: Bachelor of Music with a major in Music Education (MUE)

All prospective music students must be admitted to the University of Dayton by the Office of Admission. In addition, all prospective students must (1) furnish the Department of Music 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 department office.

The Department of Music offers a minor in music, consisting of 22 semester hours, including 12 semester hours of upper-division coursework. It also offers a certificate in church music, consisting of 35 semester hours of coursework. Further information is available from the department office.

PROGRAM A11: BACHELOR OF ARTS WITH A MAJOR IN MUSIC (MUS)¹

	<i>Semester Hours</i>
Music requirements	42
Music theory: MUS 111-114, 211-214	16
Music history and literature: MUS 301-302	6
Conducting: MUS 240	2
Performance studies, including functional keyboard skills (if needed)	12
Ensemble: MUS 491, 492 or 493	4

Recital attendance: MUS 200 (7 semesters)	0
Music electives	2
Communication skills	0-9
Natural science	7
Mathematics (MTH 102, 204, 205 excluded)	3
Social and behavioral sciences	12
Humanities	18
Philosophy and religious studies	12
First-year experience: ASI 150	0-1
General Education and academic electives to total at least	120

¹See also Distribution Table for Bachelor of Arts programs and Chapter V for General Education requirements.

PROGRAM A12: BACHELOR OF MUSIC WITH A MAJOR IN MUSIC COMPOSITION (MUC)¹

	<i>Semester Hours</i>
Music requirements	87
Music theory: MUS 111-114, 211-214	16
Composition ² : MUS 121-122, 221-222, 321-322, 421-422	12
Music history and literature: MUS 301-302, elective	9
Score reading: MUS 314	2
Orchestration or arranging: MUS 316 or 318; 416	4
Conducting: MUS 240; 345 or 346	4
Performance studies: MUS 399 and/or 499; 296-299 ³	12
Ensemble: MUS 491, 492, or 493	8
Recital attendance: MUS 200 (7 semesters)	0
Theory and/or composition electives	10
Music electives	10
Communication skills	0-9
Philosophy and religious studies	12
Natural science	6
Mathematics (MTH 102, 204, 205 excluded)	3
Social and behavioral sciences	6
Humanities (includes HST 101, 102, or 198)	6
Academic electives	6
First-year experience: ASI 150	0-1
Total semester hours	126-136

¹See Chapter V for General Education requirements.

²Each composition major must present one and a half recitals of original work by the senior year.

³Functional Keyboard Skills or equivalent is required.

PROGRAM A12A: BACHELOR OF MUSIC WITH A MAJOR IN PERFORMANCE (MUP)¹

	<i>Semester Hours</i>
Music requirements	87
Music theory: MUS 111-114, 211-214	16
Music history and literature: MUS 301-302, elective	9
Conducting and arranging: MUS 240, 318	4
Performance studies ²	36
Major area of specialization	24-32
Minor area of specialization ³	4-12
Ensemble: MUS 491, 492, or 493	8
Recital attendance: MUS 200 (7 semesters)	0
Music electives ⁴	14
Communication skills	0-9
Philosophy and religious studies	12
Natural science	6
Mathematics (MTH 102, 204, 205 excluded)	3
Social and behavioral sciences	6
Humanities ⁵ (includes HST 101, 102, or 198)	6
Academic electives ⁵	6
First-year experience: ASI 150	0-1
Total semester hours	126-136

¹See Chapter V for General Education requirements.

²Performance study in major area must lead to a half junior solo recital and a full senior solo recital.

³Must include MUS 296-299 or MUS 399.

⁴Voice majors must take MUS 235 and MUS 360 (Diction and Literature). Piano majors must include MUS 405, 406, 435, 436. Performance majors are strongly urged to make one of these electives a MUS (Special Topics) course in their major area.

⁵Voice majors must include 2 semesters of foreign language.

PROGRAM A12B: BACHELOR OF MUSIC WITH A MAJOR IN MUSIC THERAPY (MUT)¹

	<i>Semester Hours</i>
Music requirements	81
Music theory: MUS 111-114, 211-214	16
Music history and literature: MUS 301-302	6
Conducting and arranging: MUS 240, 318	4
Performance studies on the student's principal instrument leading to a minimum of a half-recital during the junior or senior year: MUS 399	10
Vocal and instrumental methods, including accompanying instruments of piano and guitar: MUS 195, 235, 295, 296-299, 338, and three of the following: 237, 238, 239, 293	11
Music therapy, including core courses and practicum: MUS 280, 285, 286, 287, 288, 385, 386, 387, 388, 485, 486	19
Recreational music: MUS 282	2
Music and dance electives	5
Ensemble	6

Recital attendance: MUS 200 (7 semesters)	0
Music therapy internship: MUS 489 ²	2
Psychology: 101, 355, 363, and elective	12
Sociology	3
Science, including HPS 305	6
Communication skills	0-9
Philosophy and religious studies	12
Mathematics (MTH 102, 204, 205 excluded)	3
Humanities (includes HST 101, 102, or 198)	6
Academic elective	3
First-year experience: ASI 150	0-1
Total semester hours	126-136

¹See Chapter V for General Education requirements.

²This internship of six months is taken after student completes all other course requirements. In order to be recommended for an internship, the student must have an overall grade point average of at least 2.00 and a grade point average of at least 2.50 in music, music therapy, and psychology coursework. Upon successful completion of the internship, the graduate is eligible to take a national certification examination to become a Music Therapist—Board Certified.

PROGRAM A12C: BACHELOR OF MUSIC WITH A MAJOR IN MUSIC EDUCATION (MUE)¹

Music requirements ²	<i>Semester Hours</i> 66-68
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Requirements for all specializations²

Music theory: MUS 111-114, 211-214	16
Functional keyboard skills ³ : MUS 296-299	4
Music history and literature: MUS 301-302	6
Arranging: MUS 318	2
Performance studies on the student's principal instrument leading to a minimum of a half-recital during the junior or senior year:	
MUS 399 (7 semesters)	14
Recital attendance: MUS 200 (7 semesters)	0
Ensemble: MUS 491 or 492 or 493 (7 semesters)	0

Additional requirements for band specialization⁴

Music education: MUS 235, 331, 332, 335, 336, 337, 338, 339, 430, 431	22
Conducting: MUS 240, 346	4

Additional requirements for orchestra specialization⁴

Music education: MUS 235, 331, 332, 335, 336, 337, 338, 339	18
Conducting: MUS 240, 346	4
String minor: MUS 399 (2 semesters)	4

Additional requirements for choral specialization⁴

Music education: MUS 235, 237, 238, 239, 331, 332, 335, 338	13
Conducting: MUS 240, 345	4
Guitar: MUS 195, 295	1-2
Piano or voice minor: MUS 399 (3 semesters)	6

Additional requirements for classroom specialization⁴

Music education: MUS 235, 237, 238, 239, 331, 332, 335, 338	13
Conducting: MUS 240	2
Guitar: MUS 195, 295	1-2
Piano minor: MUS 399 (4 semesters)	8
Teacher education ² : EDT 110, 207, 208, 318, 351, 419, 422, 469	30
Communication skills	0-9
Philosophy and religious studies	9
Natural science	7
Mathematics (MTH 102, 204, 205 excluded)	3
Social and behavioral sciences	3
Humanities (HST 101, 102, or 198)	3
Academic electives	3
First-year experience: ASI 150	0-1
Total semester hours	124-136

¹See Chapter V for General Education requirements.

²Students in the music education program are required to maintain a 2.0 cumulative grade point average, a 2.5 cumulative average in teacher education and music coursework, and a 2.75 cumulative average in music education and conducting coursework.

³Students will pass a keyboard proficiency examination upon completion of MUS 296-299.

⁴Students will select one of four specialty areas (band, orchestra, choral, classroom). Upon completion of the degree, candidates will receive certification from the State of Ohio to teach vocal, instrumental, and classroom music from kindergarten through senior high school.

CERTIFICATE IN CHURCH MUSIC (MCH)¹

<i>Dept. No.</i>	<i>Course</i>	<i>Semester Hours</i>
MUS 111-112	Theory of Music I	4
MUS 113-114	Aural Skills I	4
MUS 240	Fundamentals of Conducting	2
MUS 318	Fundamentals of Arranging ²	2
MUS 345	Choral Conducting	2
MUS 350	Sacred Music: Its History and Performance Tradition	3
MUS 399	Organ, Voice, or Guitar Performance Studies	8
MUS 452	Contemporary Liturgical Music Repertoire	3
MUS 459	Church Music Internship	2
MUS 493	University Chorale	2
REL 446	Christian Liturgy	3
Total semester hours		35

¹Students may also register for classes in this certificate program through the Office of Continuing Education. Such students may be required to complete a performance audition.

²Or MUS elective to be determined by advisor.

FACULTY

Linda J. Snyder, *Chairperson*

Professor: Benedum, Magnuson

Associate Professors: Chenoweth, Sandness, Snyder, Street

Assistant Professors: Casey, Cox, Hartley, Jones, Morris

Lecturer: Hotopp, Hoffman

Part-time Instructors: Barnes, Bauserman, Baxter, Bowen, Brown, Compton, Gilley, Katsuyama, Lindsay, McCutcheon, McMillan, Moss, Pepitone, Polonsky, Ridder, Rodgers, Ruckman, Simon, Twehues, Vandevander, Varella, Wade

COURSES OF INSTRUCTION

MUS 103. MUSIC APPRECIATION: Study of the masterpieces of music with special reference to the listener. Open to all University students. *2 sem. hrs.*

MUS 104. MUSIC LITERATURE FOR THE ELEMENTARY CLASSROOM: Study of music literature and its direct application to elementary classroom use. *2 sem. hrs.*

MUS 110. FUNDAMENTALS OF MUSIC: For the student with no previous experience with theory of music. Notation of music, key and time signatures, fundamental harmonic progression, and introduction to the piano keyboard. Elementary ear training and dictation. Open to all University students. *2 sem. hrs.*

MUS 111-112. THEORY OF MUSIC I: Basic vocabulary and grammar of music: fundamentals (intervals, scales, modes, keys, triads), counterpoint studies, basic diatonic harmonic motions. Prerequisite: Placement examination. *2 sem. hrs. each*

MUS 113-114. AURAL SKILLS I: Basic techniques of listening as applied to voice and keyboard: identification, dictation, and sight reading. Prerequisite: Placement examination. *2 sem. hrs. each*

MUS 121-122. COMPOSITION I: Supplemental explorations for majors in music composition, to accompany work in MUS 111-112. Basic notational practices and application of traditional techniques to the creative process. Corequisite: MUS 111-112. *1 sem. hr. each*

MUS 191. VOICE CLASS: Principles of good singing; development of the voice; vocal literature. Minimum of 4 students required. Open to all students. *2 sem. hrs.*

MUS 195. BEGINNING GUITAR CLASS I: Introduction to playing the guitar; emphasis on chord playing and accompaniment; application of the guitar to music teaching. *1 sem. hr.*

MUS 196. GROUP PIANO I: For the student with no previous piano study. Rudiments of music reading, performance of simple folk and popular music, basic knowledge of scales, key signatures, and chords. Open to all University students with permission of instructor. Fee. *1 sem. hr.*

MUS 197. GROUP PIANO II: Further development of techniques introduced in MUS 196. Prerequisites: MUS 196, permission of instructor. Fee. *1 sem. hr.*

MUS 198. GROUP PIANO III: Selected material appropriate to the level of advancement attained in MUS 197. Prerequisites: MUS 197, permission of instructor. Fee. 1 sem. hr.

MUS 199. GROUP PIANO IV: Selected material appropriate to the level of advancement attained in MUS 198. Prerequisites: MUS 198, permission of instructor. Fee. 1 sem. hr.

MUS 200. RECITAL ATTENDANCE: 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 201. MUSIC IN CONCERT: A survey of music literature, styles, and important composers, through preparation for and attendance at selected concerts on the campus and in the community. Concert ticket fees will be required. Open to all University students. 3 sem. hrs.

*MUS 203. SIGHTS AND SOUNDS OF MUSIC: An introduction to music and its literature, with emphasis on the way music has been shaped by its cultural, geographic, and historical contexts. Open to all University students. 3 sem. hrs.

MUS 211-212. THEORY OF MUSIC II: SATB partwriting, Schenkerian analysis, chromatic procedures, decline of Common Practice Period, basic twentieth-century compositional styles. Prerequisite: MUS 112. 2 sem. hrs. each

MUS 213-214. AURAL SKILLS II: Advanced techniques of listening as applied to voice and keyboard: identification, dictation and sight reading. Prerequisite: MUS 114. 2 sem. hrs. each

MUS 221-222. COMPOSITION II: Supplemental explorations for majors in music composition, to accompany work in MUS 211-212. Style analysis and synthesis, extension of traditional techniques, and basic instrumental applications. Corequisites: MUS 211-212. 1 sem. hr. each

MUS 235. VOICE PEDAGOGY: Techniques for teaching singing. 1 sem. hr.

MUS 237. BRASS INSTRUMENT LABORATORY: Introduction to the performance and pedagogical techniques for the brass instrument family. Fee. 1 sem. hr.

MUS 238. WOODWIND INSTRUMENT LABORATORY: Introduction to the performance and pedagogical techniques for the woodwind instrument family. Fee. 1 sem. hr.

MUS 239. STRING INSTRUMENT LABORATORY: Introduction to the performance and pedagogical techniques for the string instrument family. Fee. 1 sem. hr.

MUS 240. FUNDAMENTALS OF CONDUCTING: Introductory-level course discussing basic conducting techniques, musical styles, interpretation, score study and analysis, transposition, and literature. Dual emphasis of choral and instrumental techniques. 2 sem. hrs.

MUS 280. MUSIC AND MOVEMENT FOR THE HANDICAPPED: Training in the use of music and movement for handicapped children under the supervision of AIM (Adventures in Movement) for the Handicapped, Inc. Includes observations in the field. Prerequisite: Sophomore standing in music or related fields. 1 sem. hr.

MUS 282. RECREATIONAL MUSIC: Functional use of nonsymphonic instruments, rhythm band instruments, musical games, and community singing for both children and adults. 2 sem. hrs.

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. Orientation in the clinical field. Prerequisites: PSY 101, 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; emphasis on specific disability areas using music therapy. Prerequisite: MUS 285. *2 sem. hrs.*

MUS 287. PRACTICUM IN MUSIC THERAPY I: Pre-internship field experiences, including work with adult mentally ill clients. *1 sem. hr.*

MUS 288. PRACTICUM IN MUSIC THERAPY II: Pre-internship field experiences with handicapped children and/or adults. *1 sem. hr.*

MUS 293. ORGAN CLASS: Introduction to the organ, including basic performance techniques, registration, beginning literature, and hymn playing. Prerequisite: Permission of instructor, demonstrable keyboard technique. Fee. *1 sem. hr.*

MUS 294. HARPSICHORD CLASS: Beginning class lessons in harpsichord performance, including basic technique, stylistic considerations, and simple maintenance and tuning of the instrument. Prerequisite: Permission of instructor. Fee. *1 sem. hr.*

MUS 295. BEGINNING GUITAR CLASS II: Note reading in first position; advanced chord work and introduction to chord solo playing. Prerequisite: MUS 195 or equivalent. *1 sem. hr.*

MUS 296. FUNCTIONAL KEYBOARD SKILLS I: Class instruction in development of basic performance technique, sight reading, accompanying, transposing, playing by ear, improvising, and score reading. Prerequisite: Permission of instructor. Music majors only. Fee. *1 sem. hr.*

MUS 297. FUNCTIONAL KEYBOARD SKILLS II: Further development of techniques introduced in MUS 296. Prerequisites: MUS 296, permission of instructor. Music majors only. Fee. *1 sem. hr.*

MUS 298. FUNCTIONAL KEYBOARD SKILLS III: Continuation of MUS 297 with emphasis on improvisation and harmonization techniques. Prerequisites: MUS 297, permission of instructor. Music majors only. Fee. *1 sem. hr.*

MUS 299. FUNCTIONAL KEYBOARD SKILLS IV: Continuation of MUS 298 with emphasis on advanced chord work and modulation techniques. Prerequisites: MUS 298, permission of instructor. Music majors only. Fee. *1 sem. hr.*

* MUS 301-302. MUSIC HISTORY AND LITERATURE I, II: A survey of Western music history and literature from the Middle Ages to the present. Important composers, masterworks of music literature, compositional styles. *3 sem. hrs. each*

* MUS 304. HISTORY OF AMERICAN MUSIC: Survey of the American musical heritage emphasizing Anglo- and Afro-American folk traditions, early religious music, country music, pioneers in piano, band and concert music, and contemporary popular music. Open to all University students. *3 sem. hrs.*

- * MUS 305. AFRICAN-AMERICAN SACRED MUSIC: A historical survey of African-American sacred music from its African roots to the present with an emphasis on developments in recent decades. Examines spirituals, the ring-shout, civil rights songs, the various forms of Gospel music, traditional hymnody of the African-American church and the musical aspects of black preaching. 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 307. DEVELOPMENT OF AMERICAN POPULAR SONG: Survey of American popular music from the days of the colonies, the war years, the ballad opera, minstrel, vaudeville, operetta, early film music, through Tin Pan Alley to Broadway, including European influences. Open to all University students.
3 sem. hrs.

MUS 308. 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.
2 sem. hrs.

MUS 309. THE OPERA: Survey of the development of the opera from its 17th-century beginnings to the present.
2 sem. hrs.

- * MUS 310. MOZART'S OPERAS: An interdisciplinary survey of Mozart's operas—German and Italian, serious and comic. Class discussions will be supplemented by extensive listening and/or viewing of recorded performances and, when possible, attendance at live performances.
3 sem. hrs.

MUS 311. EIGHTEENTH-CENTURY COUNTERPOINT: 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. Prerequisites: MUS 211-212.
2 sem. hrs.

MUS 312. SIXTEENTH-CENTURY COUNTERPOINT: Study of the medieval modes and the vocal polyphony of the motet and the Mass, up to and including five-part writing; original student compositions. Prerequisite: Permission of the instructor.
2 sem. hrs.

MUS 313. ADVANCED AURAL SKILLS: Advanced training in dictation, solfege and aural analysis. Prerequisite: MUS 215 or permission of instructor.
2 sem. hrs.

MUS 314. SCORE READING: Training in reading music at the piano from open score. Drill in transposition and reading of various clefs, leading to the realization of full vocal and orchestral scores. Prerequisite: Permission.
2 sem. hrs.

MUS 316. FUNDAMENTALS OF ORCHESTRATION: Instrumentation studies of the four main orchestral families: woodwinds, brass, percussion, strings. Some work in combining families. Prerequisite: MUS 212 or permission of instructor.
2 sem. hrs.

MUS 318. FUNDAMENTALS OF ARRANGING: Arranging studies for woodwinds, brass, percussion, strings, and choir. Individual examination of instruments; projects. Prerequisite: MUS 212 or permission of instructor.
2 sem. hrs.

MUS 321-322. COMPOSITION III: Beginning explorations of original composition which utilize equally the concepts of pitch, temporal elements, timbres, and dynamics. Prerequisite: MUS 214 or permission of instructor.
2 sem. hrs. each

MUS 331. CHORAL MUSIC PEDAGOGY: Pedagogical techniques for choral ensembles. Topics include the singing voice, the changing voice, organization, artistic development, and rehearsal techniques. *3 sem. hrs.*

MUS 332. INSTRUMENTAL MUSIC PEDAGOGY: Pedagogical techniques for band and orchestra. Topics include teaching and rehearsal techniques, organization, learning theories, philosophy, literature, and programming. Field experience will be required. *3 sem. hrs.*

MUS 335. ELEMENTARY MUSIC PEDAGOGY: Pedagogical techniques for classroom music. Topics include the pedagogical methods of Orff, Kodaly, Suzuki, and Dalcroze; lesson-plan design and implementation. *2 sem. hrs.*

MUS 336. WOODWIND PEDAGOGY: Pedagogical techniques for the woodwind instruments. Separate section for each instrument. Clarinet and flute are full-term courses. Oboe, bassoon, and saxophone courses are 7 weeks long. Fee. *1/2-1 sem. hr.*

MUS 337. BRASS PEDAGOGY: Pedagogical techniques for the brass instruments. Separate section for each instrument. Trumpet is a full-term course. Horn, trombone, and baritone/tuba courses are 7 weeks long. Fee. *1/2-1 sem. hr.*

MUS 338. PERCUSSION PEDAGOGY: Pedagogical techniques for the percussion instruments. Fee. *1 sem. hr.*

MUS 339. STRING PEDAGOGY: Pedagogical techniques for the string instruments. Separate sections for upper strings and lower strings. Each section is a full-term course. Upper strings should be taken before lower strings. Fee. *1 sem. hr.*

MUS 345. CHORAL CONDUCTING: Continuation of techniques introduced in MUS 240, dealing specifically with techniques for choral ensembles. Prerequisite: MUS 240. *2 sem. hrs.*

MUS 346. INSTRUMENTAL CONDUCTING: Continuation of techniques introduced in MUS 240, dealing specifically with techniques for band and orchestra. Prerequisite: MUS 240. *2 sem. hrs.*

MUS 350. SACRED MUSIC HISTORY: A survey of the development of Christian Music and its function in worship. The focus will be on historical styles, including both their impact on and their application within liturgical settings, as well as on the religious reflections engendered by specific works. Prerequisite: Permission of instructor. *3 sem. hrs.*

MUS 360. SPECIAL TOPICS IN MUSIC: Studies in specialized areas of music. May be repeated as topics change, up to six semester hours. Prerequisite: Permission of instructor. *1-3 sem. hrs.*

MUS 385. MUSIC THERAPY PRINCIPLES: Principles and processes underlying the applications of music in therapy, including writing goals and objectives and treatment plans. Applications of the teaching-learning process, group dynamics, and evaluation and assessment in music therapy. *3 sem. hrs.*

MUS 386. MUSIC THERAPY METHODS AND MATERIALS: Applications of various methods and approaches in psychotherapy, child development, and related fields to the practice of music therapy. Review of the clinical and research literature pertaining to techniques and materials of music therapy. *3 sem. hrs.*

MUS 387. PRACTICUM IN MUSIC THERAPY III: Pre-internship field experiences with handicapped children and/or adults. Corequisite: MUS 385. 1 sem. hr.

MUS 388. PRACTICUM IN MUSIC THERAPY IV: Pre-internship field experiences with handicapped children and/or adults. Corequisite: MUS 386. 1 sem. hr.

MUS 390. MUSIC ENSEMBLES: Open to all University students by audition. Required participation by music majors as specified in various degree programs. 0-1 sem. hr.

MUS 390. MARCHING BAND: Plays at all home and some away football games. Membership includes winds, percussion, twirlers, and Flyerettes. Concentrates on quality sound, offering a wide variety of musical styles. Combines show and corps style elements in presentations. No auditions for winds or percussion. Open to all University students. 0-1 sem. hr.

MUS 390. PEP BAND: Membership is by audition, and includes winds and percussion only. Performs at all home men's basketball games and some away games. Open to all University students, with priority given to marching band members. 0-1 sem. hr.

MUS 390. UNIVERSITY STRINGS: Ensemble of 20 string players specializing in string orchestra music. 0-1 sem. hr.

MUS 390. CHAMBER SINGERS: Select ensemble of 16-24 mixed voices which performs chamber music from all style periods in on-campus and off-campus concerts. Audition required. 0-1 sem. hr.

MUS 390. JAZZ ENSEMBLE: Ensemble specializes in the interpretation and performance of traditional and contemporary big band jazz, including the art of improvisation. 0-1 sem. hr.

MUS 390. JAZZ COMBO: Small ensemble study of works by major American jazz composers. Emphasis on group and individual improvisation. 0-1/2 sem. hr.

MUS 390. OPERA WORKSHOP: Performance techniques for the singer-actor through the study and performance of music from operatic literature. 0-1/2 sem. hr.

MUS 390. EBONY HERITAGE SINGERS: Ensemble specializing in the sacred music of African Americans with particular emphasis on contemporary gospel music. Open to the entire University community regardless of ethnic background or religious affiliation. No audition required. 0-1 sem. hr.

MUS 390. CELEBRATION VOCAL TRANSIT: Small ensemble of 13-16 mixed voices which specializes in vocal jazz, pop music and show tunes. Presents several on-campus and off-campus concerts annually. Audition required. 0-1 sem. hr.

MUS 390. STRING ENSEMBLE: 0-1/2 sem. hr.

MUS 390. PIANO ENSEMBLE: 0-1/2 sem. hr.

MUS 390. BRASS ENSEMBLE: Study of repertoire for small brass ensembles including brass quintet, horn ensemble, and others. 0-1/2 sem. hr.

MUS 390. PERCUSSION ENSEMBLE: 0-1/2 sem. hr.

MUS 390. WOODWIND ENSEMBLE: A combination of woodwind instruments to include flute choir, clarinet choir, saxophone choir, woodwind quintet, and others. 0-1/2 sem. hr.

- MUS 390. CLASSICAL GUITAR ENSEMBLE: 0-1/2 sem. hr.
- MUS 390. JAZZ GUITAR ENSEMBLE: 0-1/2 sem. hr.
- MUS 390. BAROQUE ENSEMBLE: 0-1/2 sem. hr.
- MUS 390. HANDS IN HARMONY: A sign-singing ensemble. 0-1/2 sem. hr.
- MUS 395. SPECIAL TOPICS IN GUITAR: A repeatable guitar class with different topics each term, such as accompaniment, blues, jazz, classical, bluegrass, etc. Prerequisite: MUS 295 or permission of instructor. 1 sem. hr.
- MUS 398. INSTRUMENTAL JAZZ IMPROVISATION: Individualized instruction in instrumental jazz improvisation. Study of jazz theory, aural development, stylistic considerations, and repertoire. Corequisite: participation in Jazz Ensemble and/or Jazz Combo. 1 sem. hr.
- MUS 399. PERFORMANCE STUDIES: Private instruction (one 30-45 minute lesson each week) in piano, voice, organ, violin, viola, cello, bass, flute, oboe, clarinet, bassoon, saxophone, trumpet-cornet, French horn, trombone, baritone, tuba, percussion, harp, harpsichord, classical and pick-style guitar, and jazz lessons in piano, guitar, bass, drums, brass, and woodwinds. Prerequisite: Permission of instructor. Fee. 1-2 sem. hrs.
- MUS 401. 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 402. 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 403. 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 404. 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 405. PIANO LITERATURE I: Comprehensive survey of literature for the piano from the early keyboard music to the romantic period. Required of piano performance majors. Prerequisite: Permission of instructor. 2 sem. hrs.
- MUS 406. PIANO LITERATURE II: Continuation of comprehensive survey of literature of keyboard music from the romantic period to the present day. Required of piano performance majors. Prerequisite: Permission of instructor. 2 sem. hrs.
- MUS 413. STYLE AND DESIGN—ANALYSIS: Exploration of appropriate analytical techniques as applied to Western music from the Renaissance to the present. Prerequisite: MUS 212 or permission of instructor. 2 sem. hrs.
- MUS 414. STYLE AND DESIGN—SYNTHESIS: Exploration and application of various musical styles as demonstrated by original compositions patterned after selected historic models. Prerequisite: MUS 413 or permission of instructor. 2 sem. hrs.

MUS 416. ADVANCED ORCHESTRATION: Continuation of MUS 316. Intensive instrumentation studies and detailed analysis of orchestral work. Prerequisite: MUS 316.
2 sem. hrs.

MUS 418-419. RESEARCH IN MUSIC THEORY: Practical experience in analysis for music theory or composition majors. Prerequisites: Senior standing in music, permission of instructor.
2 sem. hrs. each

MUS 421-422. COMPOSITION IV: Advanced work in musical composition: writing multi-movement forms of both vocal and instrumental music. Prerequisites: MUS 321-322, permission of instructor.
2 sem. hrs. each

MUS 423. COMPOSITION FOR LARGE ENSEMBLES: Preparation and execution of an extended work for large instrumental or vocal ensemble. All aspects of score and part preparation, notation, orchestration, correction, rehearsal, and performance will be considered. Prerequisite: Permission of instructor.
2 sem. hrs.

MUS 424. ADVANCED NOTATIONAL TECHNIQUES: Study of special problems in contemporary notation and calligraphy. Work will be done through analysis of 20th-century techniques and creative solutions to individual problems. Prerequisite: Permission of instructor.
2 sem. hrs.

MUS 425. ELECTRONIC MUSIC COMPOSITION: Study of musical electronic techniques, ranging from tape recorders and musique concrete through synthesizer and computer-generated and organized sound. Prerequisite: Permission of instructor. *2 sem. hrs.*

MUS 426. IMPROVISATIONAL MUSIC COMPOSITION: Discussion, study, and performance of improvisational musical techniques, including historical overview of classical extemporization, stream of consciousness, jazz, and aleatory and indeterminism. Prerequisite: Permission of instructor.
2 sem. hrs.

MUS 430. JAZZ PEDAGOGY: Methods and materials for the organization and teaching of jazz performance classes. Topics include teaching improvisation, the rhythm section, and repertoire for the school jazz band. Corequisite: Participation in the jazz program.
2 sem. hrs.

MUS 431. MARCHING BAND PEDAGOGY: Methods and materials for the organization and teaching of the high school marching band. Topics include teaching and rehearsal techniques, drill design, and philosophy. Field experience will be required. Corequisite: Participation in marching band.
2 sem. hrs.

MUS 435. 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 436. PIANO PEDAGOGY II: Continuation of MUS 435 through the material of grades III and IV. Prerequisite: MUS 435 or five terms of piano study or equivalent.
2 sem. hrs.

MUS 439. SEMINAR IN MUSIC EDUCATION: Problem solving for the music teacher. Group discussion of topics arising from the student teaching experience. Corequisite: EDT 422.
3 sem. hrs.

MUS 440. ADVANCED INSTRUMENTAL CONDUCTING: Individualized instruction dealing with advanced analysis, interpretation, aural skills, repertoire study, and conducting. Prerequisite: MUS 346.
2 sem. hrs.

MUS 452. CONTEMPORARY LITURGICAL MUSIC REPERTOIRE: Examination of ways in which contemporary musical resources are utilized in the worship of Christian churches. Choral, congregational, cantoral and instrumental material will be considered in the context of both the liturgical seasons and specific services. REL 446 recommended. Prerequisite: Permission of instructor. *3 sem. hrs.*

MUS 459. CHURCH MUSIC INTERNSHIP: Minimum of one semester's supervised service as organist and/or choral director in an approved parish setting. Prerequisites: Completion of half of certificate requirements; permission. *2 sem. hrs.*

MUS 460. SPECIAL STUDIES IN MUSIC: Studies in specialized areas of music, including music therapy and music education. May be repeated as topics change, up to nine semester hours. Prerequisite: Senior standing in music or permission of instructor. *1-9 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. *2 sem. hrs.*

MUS 486. PSYCHOLOGICAL FOUNDATIONS OF MUSIC II: Introduction to research methods; review of literature on experimental studies. Research project. Prerequisite: MUS 485. *2 sem. hrs.*

MUS 489. MUSIC THERAPY INTERNSHIP: Minimum of 6 months supervised clinical training through resident internship in an NAMT-approved program. This precedes the granting of the degree. Prerequisites: Senior standing in music therapy; permission. *2 sem. hrs.*

MUS 491. MIAMI VALLEY SYMPHONY: Performing ensemble of string, wind, brass, and percussion players; preparing literature for orchestra and chamber orchestra. Open to all University community members by audition. *0-1 sem. hr.*

MUS 492. UNIVERSITY WIND ENSEMBLE: Select band that performs the finest in wind literature. Presents regular concerts during fall and winter terms. *0-1 sem. hr.*

MUS 493. UNIVERSITY CHORALE: Mixed vocal ensemble performing music from all style periods in regular concert appearances. Open to all University students. *0-1 sem. hr.*

MUS 499. PERFORMANCE STUDIES: Private instruction (1-hr. lessons weekly) in the same subjects as MUS 399. Prerequisite: Permission of instructor. Fee. *4 sem. hrs.*

MUS 560. SPECIAL STUDIES IN MUSIC: Studies in specialized areas of music. Prerequisite: Permission of instructor. *1-4 sem. hrs.*

*General Education course. See Chapter V.

MUSIC FEES: The following fees include practice privileges. This fee schedule is subject to change by the University.

	<i>Fee per term</i>
Small group instruction in various instruments (MUS 196-199, 237, 238, 239, 293, 294, 296-299, 336, 337, 338, 339)	\$ 40
MUS 399 Performance Studies: One 30-minute or 45-minute lesson weekly	\$110-165
MUS 499 Performance Studies: One 60-minute lesson weekly	\$210

NUCLEAR MEDICINE TECHNOLOGY (NMT)

The program leading to a Bachelor of Science with a major in Nuclear Medicine Technology consists of three years of preclinical instruction at the University of Dayton and a twelve-month didactic and clinical curriculum off campus. The University is affiliated with the Nuclear Medicine Institute (NMI) at the University of Findlay, Findlay, Ohio, for the senior-year curriculum. A student must complete 92-100 preclinical semester hours before beginning the NMI program. Completion of the NMI program qualifies students to take a national examination so as to become certified nuclear medicine technologists. The curriculum is planned to meet the requirements of the University of Dayton, the NMI, and the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). The student must complete all preclinical semester hours before entering a fourth-year program at the NMI.

CLINICAL YEAR

Acceptance into the fourth-year program at the University of Findlay is competitive. Students make formal applications to the NMI in the fall term of the junior year. Acceptance is based on preclinical grades (minimum C+ average over all and in the sciences), recommendation letters, motivation, and knowledge of the profession. Personal interviews are not required. The fourth-year program lasts twelve months and has two separate phases. The didactic component consists of formal lectures, student laboratories, and seminars conducted at the NMI from late August to December. The eight-month clinical component that follows consists of preceptorship experiences conducted in a department of nuclear medicine at one of the hospital affiliates of the NMI (in Ohio and surrounding states). Upon completion of the fourth year, students are granted the Bachelor of Science with a major in Nuclear Medicine Technology at the University's winter commencement exercises.

Tuition and fees for the entire fourth year are established by the NMI. Students will pay their NMI tuition and fees through the University of Dayton. The University will charge the students the Basic University Fee for Terms I and II. Specific information on such matters as fourth-year tuition and fees, room and board, book costs, dress codes, and grading policies is in the NMI information brochures available in the Premedical Programs Office.

PROGRAM S7: BACHELOR OF SCIENCE WITH A MAJOR IN NUCLEAR MEDICINE TECHNOLOGY (NMT)¹

<i>Preclinical Years</i>	<i>Semester Hours</i>
Required science and mathematics courses	53-54
BIO 151, 152, 152L, 309, 309L, 403, 403L	16
CHM 123, 123L, 124, 124L, 201, 201L, 313, 313L, 314, 314L	20
PHY 201, 201L, 202, 202L	8
MTH 148 ² , 207	6-7
CPS 144 or equivalent	3
Communication skills	6-12

CMM 101	0-3
ENG 101-102 or 114 or 198; ENG elective	6-9
Philosophy and religious studies	12
Humanities	9
Social and behavioral sciences	9
General elective	3
First-year experience: ASI 150	0-1
Preclinical semester-hour total	92-100

Clinical Year

NMT semester hours at the NMI and affiliated hospital.....	38
First Term: NMT 430, 431, 432, 433, 434, 435, 436	20
Second Term: NMT 431L, 435L, 436L	12
Third Term: NMT 437	6

¹Consult General Requirements for All Bachelor of Science Programs and Chapter V for General Education Requirements.

²If background is not suitable for calculus, then substitute MTH 116, Precalculus, for MTH 148.

FACULTY

B. Lawrence Fox (Chemistry) *University Program Director*

Clinical Assistant Professor: Markon

COURSES OF INSTRUCTION

The courses taken during the first three years at the University of Dayton, listed under Program S7, are described under the individual departments. The senior year is conducted at affiliated hospitals.

NMT 430. INTRODUCTION TO NUCLEAR MEDICINE TECHNOLOGY SCIENCE: Topics include medical terminology, cardiopulmonary resuscitation (CPR), emergency medical procedures, medical ethics, and terminology specific to the field of nuclear medicine. *1 sem. hr.*

NMT 431. NUCLEAR SCINTIGRAPHY: Theoretical aspects of nuclear medicine imaging procedures including applicable pathophysiology, technical aspects for data acquisition, and computer analysis of data as well as systemic radionuclide therapy procedures. *3 sem. hrs.*

NMT 431L. CLINICAL NUCLEAR SCINTIGRAPHY LABORATORY: Practical applications related to NMT 431. *6 sem. hrs.*

NMT 432. RADIATION PHYSICS: Applicable aspects of nuclear and atomic physics covered in theory and mathematical formulae. Theoretical topics include atomic and nuclear structure, radioactive decay, interactions with matter, and radionuclide production methods. Mathematical concepts are the decay equation, dose calculations, inverse square law, shielding formula, radioactive equilibrium, and radiation dosimetry. *5 sem. hrs.*

NMT 433. NUCLEAR MEDICINE INSTRUMENTATION: Basic principles of both in vitro and in vivo instrumentation. The design, operation, and quality control of gas detectors and scintillation detectors; survey equipment, spectrometers, and stationary imaging devices with their application to nuclear medicine. Laboratory experience with single channel analyzers and Anger cameras. *5 sem. hrs.*

NMT 434. RADIATION BIOLOGY AND RADIATION PROTECTION: Topics in radiobiology include ionization and energy transfer; the molecular, cellular, tissues and organ responses to radiation; and acute and chronic effects of radiation. Topics in radiation protection include licensing requirements, guidelines for radiation protection, governing agencies, radiation signs, record keeping, personnel and area monitoring, radionuclide receipt, storage, and disposal, and management of clinical radiation spills. *2 sem. hrs.*

NMT 435. RADIOISOTOPES IN RADIOASSAY: Topics include the basic principles of immunology, various types of radioassays, sensitivity and specificity of procedures, proper test protocol and procedures, pathology of various tests, and normal values. Nonimaging laboratory studies such as venipuncture, blood volumes, red cell studies, and gastrointestinal absorption studies. *2 sem. hrs.*

NMT 435L. RADIOASSAY LABORATORY: Practical applications related to NMT 435. *3 sem. hrs.*

NMT 436. RADIOPHARMACEUTICALS: Topics include tracer theory, pharmacological actions, localization methods, radiopharmaceutical properties, radionuclide generators, radiopharmaceutical preparations and quality control, and transient vs. secular equilibrium. All routinely used radiopharmaceuticals are discussed. *2 sem. hrs.*

NMT 436L. RADIOPHARMACEUTICAL LABORATORY: Practical applications related to NMT 436. *3 sem. hrs.*

NMT 437. CLINICAL NUCLEAR MEDICINE: Completion of 1,400 hours of supervised clinical training at an affiliate hospital. Instruction and participation in the performance of various clinical nuclear medicine procedures, patient care, administrative duties, radiopharmaceutical preparation and quality control, equipment quality control quality assurance, and radiation safety. *6 sem. hrs.*



PHL

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 majoring in philosophy must successfully complete a minimum of 33 semester hours as described below in program A13.

The philosophy minor consists of 18 semester hours of coursework, at least 12 of which must be at the 300-400 level. Required courses are 103, 201 or 302, 350 or 351 or 352, one 400-level seminar, and 6 additional semester hours at the 300-400 level. Courses in logic and the history of philosophy are prerequisites for 400-level seminars.

PROGRAM A13: BACHELOR OF ARTS WITH A MAJOR IN PHILOSOPHY (PHL)¹

	<i>Semester Hours</i>
Philosophy	33
<i>Major Requirements:</i> PHL 103, 302, 350, 352, and any four 400-level seminars; 9 additional sem. hrs. at the 300-400 level. Courses in logic and the history of philosophy are prerequisites for 400-level seminars.	
Natural science	7
Mathematics (MTH 102, 204, 205 excluded)	3
Social and behavioral sciences	12
Humanities	18
Religious studies	9
Foreign language or quantitative skill courses ²	6-8
Communication skills	0-9
First-year experience: ASI 150	0-1
General Education courses and electives to total at least	120

¹See also Distribution Table for Bachelor of Arts programs and Chapter V for General Education requirements.

²Either 6-8 sem. hrs. in a foreign language or 6 sem. hrs. in quantitative skills courses (e.g., computer science, statistics, or mathematics) beyond the basic skills mathematics requirement. Where appropriate, this credit may apply to other requirements.

FACULTY

Patricia A. Johnson, *Chairperson*

Professors Emeriti: Nersoyan, Rhodes

Professors: Herbenick, Johnson, Kunkel, Monasterio, Tibbetts, Ulrich, Zembaty

Associate Professors: Benson, Fouke, Payne, Quinn, Richards

Assistant Professors: Fischer, Inglis, Luke, Mosser

Lecturer: Mullins

COURSES OF INSTRUCTION

NOTE: PHL 103 or ASI 101-102 is a prerequisite for all other PHL courses except PHL 201.

- * PHL 103. INTRODUCTION TO PHILOSOPHY: Introduction to philosophical reflection and study of some central philosophical questions in the Western intellectual tradition, including questions of ethics, human knowledge, and metaphysics. Readings from major figures in the history of philosophy such as Plato, Aristotle, Augustine, Aquinas, Descartes, Hume, and Kant. 3 sem. hrs.
- * PHL 201. PRACTICAL LOGIC: Introduction to the principles of correct reasoning; techniques for the evaluation of arguments; common fallacies in argumentation; applications to current issues in ethics and other areas. 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 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 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 307. PHILOSOPHY AND WOMEN: Issues and problems related to feminist analysis of society and its ideals, such as equal opportunity, sex roles and gender, reverse discrimination, violence, and language. 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 determination. 3 sem. hrs.
- * PHL 309. PHILOSOPHY OF MIND: An analysis of the concept of mind and allied issues such as the nature of human agency, autonomy, weakness of will, self-deception, and the rationality of emotions. 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 317. ETHICS AND MODERN WAR: Study in applied ethics focusing on three aspects of the arms race: declassified data on the reality of the nuclear arms buildup; normative analysis of such themes as war, pacifism, just cause, deterrence, and nuclear proliferation; and moral assessment of alternatives for the future. *3 sem. hrs.*
- * PHL 318. FAMILY ETHICS: Introduction to the development of the concept of a family in the tradition of Western philosophy and the philosophic analysis of contemporary ethical problems in marriage and in parenthood. *3 sem. hrs.*
- * PHL 319. INFORMATION ETHICS: Examination of ethical principles, codes, cases, incidents, and issues in the design, implementation, and use of computerized information systems. *3 sem. hrs.*
- * PHL 320. PHILOSOPHY OF ART: Theories of art and criteria of evaluation developed by philosophers, artists, and critics; the relationship between art and society and between artistic and other human values. *3 sem. hrs.*
- * PHL 321. ENVIRONMENTAL ETHICS: Study of the principal ethical perspectives on the treatment of animals and nature including such issues as agriculture, energy, pollution, and economics; assessment of political responses to current environmental problems. *3 sem. hrs.*
- * PHL 323. PHILOSOPHY AND LITERATURE: Critical examination of philosophical concepts in selected literary masterpieces, ancient and modern. *3 sem. hrs.*
- * PHL 324. PHILOSOPHY AND FILM: Introduction to philosophical issues and aesthetic theory through a critical reading of texts and examination of selected narrative, documentary, animated, or abstract films. *3 sem. hrs.*
- * PHL 325. PHILOSOPHY OF MUSIC: Examination of theories on the meaning of music; experiencing music as composer, performer, and listener; aesthetic criteria; moral effect of music. *3 sem. hrs.*
- * PHL 327. PHILOSOPHY OF PEACE: Examination of human violence and ethical justifications for war and exploration of resolutions for human conflict in processes such as pacifism, peacemaking, democratic world governance, nonviolent caring, and a sustainable economy. *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 331. SCIENCE, OBJECTIVITY, AND VALUES: Study of three interrelated issues: the limits of scientific methodology; science as a social institution; and science and human values. *3 sem. hrs.*

- *PHL 332. TECHNOLOGY AND VALUES: Study of the social impact of technology-scientists' responsibility; technological change and social change; the "technological fix"; democracy and the new technological elite; counter-culture critiques of technology.
3 sem. hrs.
- PHL 340. SPECIAL PROBLEMS IN PHILOSOPHY: Examination of perennial and contemporary problems of philosophy. May be repeated when topic varies. 3 sem. hrs.
- *PHL 344. CORE SEMINAR IN PHILOSOPHY: Culminating course for students in CORE: discussion of selected readings on the issue of human values in a pluralistic society in such areas as wealth and poverty, education, and war and peace. Open only to students in CORE.
3 sem. hrs.
- *PHL 345. HONORS SEMINAR IN PHILOSOPHY: Study and seminar discussion of selected major philosophical works and of the analysis, interpretation, and criticism of these works. Open by permission only to students in the University Honors Program.
3 sem. hrs.
- *PHL 350. CLASSICAL GREEK PHILOSOPHY: The Greek origins of Western scientific, philosophical, and political thought; relationships to current thoughts; ideas of the pre-Socratics, Plato, and Aristotle in their cultural contexts.
3 sem. hrs.
- *PHL 351. MEDIEVAL 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: A study of some of the major philosophical movements in the 20th century including phenomenology, existentialism, critical theory (Frankfurt School), hermeneutics, and analytic philosophy.
3 sem. hrs.
- *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. Comparisons with Western traditions. 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. RADICAL PHILOSOPHY: Study of major attempts to develop a critical understanding of society; analysis of theories such as socialism, anarchism, feminism, critical theory, and critical race theory.
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 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 PHILOSOPHY: Introduction to selected writings of such classical American thinkers as Thoreau, James, Mead, Dewey, Santayana, and Whitehead. Topics include knowledge, freedom, and human values. *3 sem. hrs.*
- PHL 362. PHILOSOPHY OF LANGUAGE: Theories of meaning and reference and their philosophical significance. *3 sem. hrs.*
- * PHL 370. POLITICAL PHILOSOPHY: Philosophical theories regarding the nature of the state and the legitimation of political authority will be analyzed and evaluated in the context of philosophical conceptions of human nature, liberty, equality, justice, welfare, and power. *3 sem. hrs.*
- PHL 440. SEMINAR — 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. SEMINAR—CONTEMPORARY EPISTEMOLOGY: 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. *3 sem. hrs.*
- PHL 462. SEMINAR—CONTEMPORARY ETHICS: 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. *3 sem. hrs.*
- PHL 463. SEMINAR—CONTEMPORARY METAPHYSICS: 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. *3 sem. hrs.*
- PHL 490. DIRECTED READINGS: Guided independent study primarily for philosophy majors but open to students who have completed 12 sem. hrs. in philosophy. Normally, 3 sem. hrs. but in certain cases the chairperson may approve 1, 2, or 4 sem. hrs. May be repeated when topic varies. Prerequisite: Permission of the instructor and the chairperson. *3 sem. hrs.*
- PHL 492. DIRECTED RESEARCH: Faculty-directed research for philosophy majors who have completed all 300-level requirements and at least one 400-level seminar. Students will write a substantial paper in relation to this research. Permission of the instructor and the chairperson *3 sem. hrs.*

* General Education course. See Chapter V.

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 desirable for one who plans to pursue a goal built on a composite science background. The physical science major combines adequate physics, chemistry, geology, and mathematics to provide a sound working knowledge of physical science. Since the program is less specialized than one in a single science, it has provision for adequate course selections and sufficient electives to provide the opportunity for concentrated study in a discipline chosen to meet the career objectives of the individual student.

PROGRAM S8: BACHELOR OF SCIENCE WITH A MAJOR IN PHYSICAL SCIENCE (PSC)¹

	<i>Semester Hours</i>
Physics: PHY 206, 207, 208, 210L, 211L	11
Chemistry: CHM 123, 123L, 124, 124L	8
Geology: GEO 115, 115L, 116, 116L	8
Mathematics: MTH 116, 168, 169, 218, 219	19
Upper-level physical sciences (at least 12 sem. hrs. in physics)	26
Philosophy and Religious studies	12
Humanities	9
Social and behavior sciences	6
Communication skills	3-9
Computer Science: CPS 132 or 144	9
Social and behavioral sciences	6
First-year experience: ASI 150	0-1
General Education courses and academic electives to total at least	120

¹Consult General Requirements for All Bachelor of Science Programs and Chapter V for General Education requirements.



PHY

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. Minimum requirements for all majors are listed below, but students planning for graduate work in physics or an allied area are advised to select additional mathematics and physics courses. A physics major must complete all 300-400-level courses with a 2.0 minimum grade-point average.

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

PROGRAM S8A: BACHELOR OF SCIENCE WITH A MAJOR IN PHYSICS (PHY)¹

	<i>Semester Hours</i>
Physics	37
Basic courses: PHY 206, 207, 208, 210L, 211L	11
PHY 301, 303, 333, 390, 408, 430, 431, and 300-400-level electives	26
Mathematics: MTH 168, 169, 218, 219, 302	18
Chemistry: CHM 123, 123L, 124, 124L	8
Philosophy and religious studies	12
Humanities	9
Social and behavioral sciences	6
Communication skills	3-9
Computer Science: CPS 132 or 144	3
Minor (300-400-level courses) if chosen	12
First-year experience: ASI 150	0-1
General Education courses and academic electives to total at least	120

¹Consult General Requirements for all Bachelor of Science Programs and Chapter V for General Education requirements.

The combined program in physics and computer science leading to the Bachelor of Science with a major in Physics-Computer Science emphasizes the use of computer software in scientific applications and at the same time gives a foundation in the scientific disciplines of physics and computer science. Minimum requirements for the degree are listed below. Students are advised to select additional computer science, mathematics, and physics courses as electives.

PROGRAM S8B: BACHELOR OF SCIENCE WITH A MAJOR IN PHYSICS-COMPUTER SCIENCE (PCS)¹

	<i>Semester Hours</i>
Computer Science	27
CPS 150, 151, 250, 346, 350, 353, and two additional courses numbered above 340. Additional numerical analysis courses are recommended.	
Mathematics: MTH 168, 169, 218, 219, 302	18

Physics	27-30
PHY 206, 207, 208, 210L, 211L, 323, 333 and four additional courses numbered above 300. In addition, a senior project involving some application of computers in physics is recommended.	
Communication skills	3-9
Humanities	9
Social and behavioral sciences	6
Philosophy and religious studies	12
First-year experience: ASI 150	0-1
General Education courses and academic electives to total at least	120

¹Consult General Requirements for all Bachelor of Science Programs and Chapter V for General Education requirements.

FACULTY

J. Michael O'Hare, *Chairperson*

Distinguished Professor: Bueche

Professor Emeritus: Mann

Professors: Ewwaraye, Graham, Kepes, Miner, O'Hare, Yaney

Associate Professors: Berney, Craver, Erdei, Pedrotti

Assistant Professors: Brecha

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. For all physics and physical science majors. *No credit*

*PHY 105. PHYSICAL SCIENCE: Broad introduction to physical science. Emphasis on concepts and scientific thought processes in dealing with principles in physics; some applications to chemistry, astronomy, and meteorology. This course includes an integrated laboratory component. For nonscience students. Prerequisite: None. *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. For nonscience students. Prerequisite: None. *3 sem. hrs.*

PHY 108L. LIGHT AND COLOR LABORATORY: Laboratory experiences to accompany PHY 108. *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: Introductory laboratory appropriate for students of the health sciences. Experimental scientific techniques and the use of standard laboratory equipment. One two-hour period each week. First term, each year. Corequisite: PHY 201 or 206. *1 sem. hr.*

* PHY 202. GENERAL PHYSICS: 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: Experimental scientific techniques and the use of standard laboratory equipment. One two-hour period per week. Second term, each year. Prerequisite: PHY 201L. 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: 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. 1 sem. hr.

* PHY 206. GENERAL PHYSICS I—MECHANICS: Introductory course in mechanics. Calculus concepts developed as needed. Three lectures, one recitation each week. Corequisite: MTH 148 or 168. 3 sem. hrs.

* PHY 206H. GENERAL PHYSICS I—MECHANICS (HONORS): Introductory course in mechanics for students with a strong background in physics. Three lectures, one recitation each week. By invitation only. 3 sem. hrs.

* PHY 207. GENERAL PHYSICS II—ELECTRICITY AND MAGNETISM: The basic principles of electricity and magnetism. Three lectures, one recitation each week. Prerequisites: PHY 201 or 206, MTH 149 or 168. 3 sem. hrs.

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

* 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. Prerequisites: PHY 202, MTH 149; or PHY 207, MTH 169. 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 210L. GENERAL PHYSICS LABORATORY I: Introduction to laboratory methods, handling of data, and analysis of results. Experiments appropriate to the background of students with an interest in mathematical and physical sciences. Two hours laboratory, one hour recitation each week. Corequisite: PHY 206. 1 sem. hr.

PHY 211L. GENERAL PHYSICS LABORATORY II: Laboratory methods, data handling, and analysis of results. Experiments appropriate to the background of students with an interest in mathematical and physical sciences. Two hours laboratory, one hour recitation each week. Prerequisite: PHY 210L. 1 sem. hr.

* PHY 250. DESCRIPTIVE ASTRONOMY: Descriptive survey for students who have had little or no previous exposure to astronomy; material from ancient times to present, including pulsars and quasi-stellar objects. Prerequisite: None. 3-4 sem. hrs.

PHY 299. SPECIAL PROBLEMS: Special topical courses, laboratory, tutorial, or library work in areas of current interest. Students should consult the composite. 1-4 sem. hrs.

PHY 301. THERMAL PHYSICS: 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. Prerequisite: PHY 208. Corequisite: MTH 219. 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. Prerequisite: PHY 208. Corequisite: MTH 219. 3 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 323. COMPUTATIONAL PHYSICS: The course will explore how computers are used in physics. Topics will include simulations of physical systems, numerical analysis, and the use of mathematical analysis packages (MATHCAD, for example.) Programming will be done in True BASIC and MATHCAD. Prerequisites: PHY 208 and MTH 218. 3 sem. hrs.

PHY 333. DIGITAL AND ANALOG ELECTRONICS FOR SCIENTISTS: Basic concepts of digital and analog integrated circuit electronics are developed as a way to understand modern microcomputer based instrumentation. A microcomputer based data collection and analysis system is used to study binary data input and output, analog to digital conversion (ADC) devices, digital to analog conversion (DAC) devices, and other digital integrated circuits and concepts. The analog electronics part of the course begins with a study of discrete analog devices and ends with operational amplifiers and their application. Two hours lecture and two-hour laboratories each week. Prerequisite: PHY 211L or PHY 202L or equivalent. 3 sem. hrs.

PHY 390. INTRODUCTION TO QUANTUM MECHANICS: Basic postulates of quantum mechanics with applications made to atomic physics. Prerequisites: PHY 208, MTH 219, 302. 3 sem. hrs.

PHY 395. RESEARCH PARTICIPATION I: Individual projects conducted as part of the physics Undergraduate Research Participation program to encourage involvement of students with faculty researchers. Projects must be arranged in advance with faculty research directors. 1-6 sem. hrs.

PHY 399. SPECIAL PROBLEMS IN (NAMED AREA): 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, propagation of electromagnetic waves, electromagnetic radiation. Prerequisite: PHY 408. *3 sem. hrs.*

PHY 411. TOPICS IN MODERN PHYSICS: Elements of modern optics, solid state and other selected subjects. Consult chairperson for details. Prerequisite: PHY 390 or equivalent. *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: PHY333. Corequisite: An advanced course in physics. *2 sem. hrs. each*

PHY 440. QUANTUM MECHANICS II: Study of selected principles in quantum mechanics. Prerequisite: PHY 390. *3 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 495. RESEARCH PARTICIPATION II: Individual projects conducted as part of the physics Undergraduate Research Participation program to encourage involvement of students with faculty researchers. Projects must be arranged in advance with faculty research directors. *1-6 sem. hrs.*

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.*

*General Education course. See Chapter V.

POL

POLITICAL SCIENCE (POL)

A major in political science requires 36 semester hours of political science courses.

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 A14: BACHELOR OF ARTS WITH A MAJOR IN POLITICAL SCIENCE (POL)¹

	<i>Semester Hours</i>
Political science	36
POL 201, 202 or 214, 207, 317, and 24 additional sem. hrs. including 18 sem. hrs. at the 300-400 level (Students in the pre-law concentration may replace POL 207 with ACC 207-208.)	
Natural science	7
Mathematics (MTH 102, 204, 205 excluded)	3
Social and behavioral sciences	12
Humanities	18
Philosophy and religious studies	12
Communication skills	0-9
First-year experience: ASI 150	0-1
General Education courses and academic electives to total at least	120

¹See also Distribution Table for Bachelor of Arts programs and Chapter V for General Education requirements.

MINORS AND AREA CONCENTRATIONS FOR MAJORS

A student majoring in political science may elect a minor in education under the E11A program (see EDT) 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. Alternatively, the student may elect one of the four multidisciplinary concentrations in pre-law, international affairs, public administration and urban affairs, and political journalism developed by the Department of Political Science. A student completing an area concentration will, upon request, receive a certificate to that effect from the department.

	<i>Semester Hours</i>
1. Prelaw	
Required: POL 301 or 411; ENG 272, 316, or 474	6
Choose three: ECO 204; ENG 203, 204, or 205; PHL 201; SOC 326, 327	9
Recommended: POL 495	3
2. International Affairs	
Required: POL 202, 214	6
Choose four: ANT 150; ECO 450, 460, 461; any upper-level non-American HST	12
Recommended: Foreign language through 311 and study abroad	
3. Public Administration and Urban Affairs	
Required: POL 305, 306, 360	9
Choose three: MGT 314; HST 355; SOC 328; ENG 370 or 372; ECO 445 or 485; POL 495	9

4. Political Journalism

Required: POL 303, 311; CMM 330	9
Choose three: CMM 201; CMM 353; CMM 431, 331; POL 360, 450	9

FACULTY

David W. Ahern, *Chairperson*

Professors: Karns, Kerns, Lapitan

Associate Professors: Ahern, Bilocerkowycz, Fogel

Assistant Professors: Ensalaco, Ghery, Inscho, Nelson

Lecturer: Putka

COURSES OF INSTRUCTION

- * POL 101. GOVERNMENT AND SOCIETY: Examination of the major types of contemporary political systems and the relationship between their ideological assumptions and the operational realities. Types examined are democratic capitalist, democratic socialist, communist, and fascist/statist. 3 sem. hrs.
- POL 201. THE AMERICAN POLITICAL SYSTEM: Study of the American political system, its attitudinal and constitutional base, its structure and processes. 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: Introduction to the basic concepts and processes of research in political science. 3 sem. hrs.
- POL 214. INTRODUCTION TO INTERNATIONAL POLITICS: Analysis of the dynamic forces of conflict and cooperation in world politics. 3 sem. hrs.
- POL 300. POLITICAL ISSUES: 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 judicial process as part of the political system. Focus on the participants (police, lawyers, judges, interest groups, litigants, jurors) and the process (criminal, civil, and appellate proceedings). 3 sem. hrs.
- POL 303. STATE AND LOCAL GOVERNMENT: 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 political system. 3 sem. hrs.

POL 311. PUBLIC OPINION AND POLITICAL BEHAVIOR: The formation, maintenance, change, and impact of public opinion on the American political system; the role of theory and analysis of data in understanding public and political behavior.

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: Analysis of selected theorists and political doctrines forming the tradition of Western thought on politics. Theorists including Plato, Aristotle, the Stoics, Augustine, Aquinas, Machiavelli, Hobbes, Locke, Rousseau, Mill, Marx, Spencer, Lenin, Gasset, and Camus presented in their historical and socio-political contexts.

3 sem. hrs.

POL 320-329. COMPARATIVE POLITICS: Analysis of governmental institutions and political processes of selected countries or areas:

POL 320—Western Europe

POL 321—Russia and the New States

POL 323—Latin America

POL 324—Southern Asia

POL 325—The Middle East

POL 326—Africa

POL 327—Southern Europe

POL 328—China

POL 329—Japan

3 sem. hrs. each

* **POL 331. NATIONALISM AND ETHNOPOLITICS:** An analysis of the politics of nationalism and ethnicity and their impact on social justice. Diverse case studies (US, USSR, Russia, Northern Ireland, Israeli-Palestinian) and institutions (European Community, United Nations) will be explored.

3 sem. hrs.

POL 335. UNITED STATES NATIONAL SECURITY POLICY: Analysis of various political, economic, and military issues and problems relating to U.S. national security.

3 sem. hrs.

POL 350. LEGISLATIVE POLITICS: Study of the U.S. Congress, its organization and procedures, and its powers and influence in the political system.

3 sem. hrs.

POL 360. URBAN POLITICS AND POLICY: 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 404. UNITED STATES-LATIN AMERICAN RELATIONS: This course examines the foreign relations of the United States with other countries of the Western hemisphere. Political, economic and security issues are examined from both theoretical and historical perspectives.

3 sem. hrs.

POL 405. FISCAL OPERATIONS IN GOVERNMENT: Course for students who plan careers in public service or not-for-profit agencies. Analytical tasks that relate to such fiscal areas as revenue estimation, budgeting, expenditure monitoring, and evaluation. Microcomputers may be used in instruction.

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 407. CHINESE FOREIGN POLICY: Analysis of the Chinese foreign policy structures and processes as well as the development of Chinese foreign policy and relations with the Soviet Union, the United States, and the Third World.

3 sem. hrs.

POL 408. AMERICAN FOREIGN POLICY: Critical study of the American foreign policy process and evaluation of the sources of American foreign policy. 3 sem. hrs.

POL 409. RUSSIAN FOREIGN POLICY: Analysis of the internal and external factors shaping the foreign policies of Russia and the independent republics. 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 role of the U.S. Supreme Court in its interpretation of the Constitution. Emphasis on the various methods of judicial interpretation as they affect such provisions as the commerce clause, the taxing and spending powers, due process, the dimensions of presidential and congressional authority, and the doctrine of judicial review. 3 sem. hrs.

POL 413. THE POLITICS OF BUREAUCRACY AND REGULATION: Examination of the nature and meaning of bureaucracy in contemporary American society and the devices for its evaluation and control. 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 431. INDEPENDENT STUDY AND RESEARCH: Individual reading and research on selected topics under faculty direction. Recommended for seniors only. Prerequisite: Permission of professor. 3 sem. hrs.

POL 437. PROBLEMS IN INTERNATIONAL POLITICS: Focus on selected problems in international politics such as the causes of war, negotiation, the Middle East, and the North-South conflict. May be repeated as the topic changes. Prerequisite: POL 214 or permission. 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; revolution, revolt, campus dissent, and political assassination. Emphasis on the roles of criminal justice and government agencies in meeting dissent. (Same as CRJ 401.) 3 sem. hrs.

POL 455. COMMUNISM AND POST-COMMUNISM: Analysis of communist theory and practice in various countries and the post-communist challenges facing states seeking to build democracy, a market economy, and overcome the communist legacy. 3 sem. hrs.

POL 456. THEORY AND PRACTICE OF FASCISM: The psychological and attitudinal elements of fascism; its manifestations in Italy, Germany, Spain, France, and Austria; its relevance as a political phenomenon today. 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; emphasis on the impact of modernization on political processes and change. 3 sem. hrs.

*POL 471. ENVIRONMENTAL POLICY: Examination of environmental public policymaking and implementation in the U.S. and in the international arena. Analysis of domestic and international governmental responses to specific environmental issues.

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 topic changes.

3 sem. hrs.

POL 495. INTERNSHIP: Supervised experience in government agencies and programs. Prelaw students are assigned to law firms and judicial chambers. Prerequisite: Permission of supervising professor.

3 sem. hrs.

*General Education course. See Chapter V.



PRELAW

At the University of Dayton, students thinking about attending law school join the Prelaw Program. That program provides them with the guidance and academic assistance necessary to prepare them for success in the study of law. Because law schools seek students with a broad, liberal arts education and discourage students from having a vocationally-oriented "prelaw" major, prelaw students at the University of Dayton select undergraduate majors based on their interests and aptitudes. They select these majors either as incoming first-year students or, with the aid of their prelaw advisors, later in their college career. However, in order to receive adequate counseling, all students thinking about postgraduate work in law should declare their prelaw intentions to the prelaw office as early as possible. This enables them to take full advantage of all the counseling, advising, and preparatory services provided by the Prelaw program.

In addition to courses in their majors, prelaw students select courses that help develop analytical skills and academic abilities necessary to success in law school and careers in law. While no prelaw course of study is perfect for all students, particular courses taken in conjunction with a traditional academic major provide the prelaw student with an excellent academic preparation for legal study. Students take courses which emphasize the following:

1. Skill in the analysis and synthesis of ideas. Courses in such disciplines as history, literature, mathematics, philosophy, and the sciences develop critical, analytical thinking.

2. Proficiency in communicating ideas effectively and clearly. Courses in such areas as composition theory and process, in exposition and argumentation, in persuasion, and in the techniques and uses of research aid in the development of this ability.

3. Comprehension of the basic principles of the American political and legal system, including their origins and functions. Courses in British and American history, political science, and criminal justice promote an understanding of these concepts.

4. A critical examination of the ethical issues in the law and the legal profession. Courses in philosophy and religious studies form a basis for such an examination.

5. An understanding of the basic principles of economics and accounting.

Members of the Prelaw Faculty Committee help students develop an appropriate course of study based on their interests, aptitudes and goals. In addition, they provide students with information about law school recruitment, financial aid, the Law School Admission Test (LSAT), and the writing of applications and securing of recommendations. The Prelaw Program also sponsors LSAT preparation workshops, a prelaw internship for which students receive course credit while working in an attorney's office, and mock trial competition. A chapter of Phi Alpha Delta, a national law fraternity, is active on campus.

PRELAW FACULTY COMMITTEE

Roberta Sue Alexander (History), *Director, Prelaw Program*

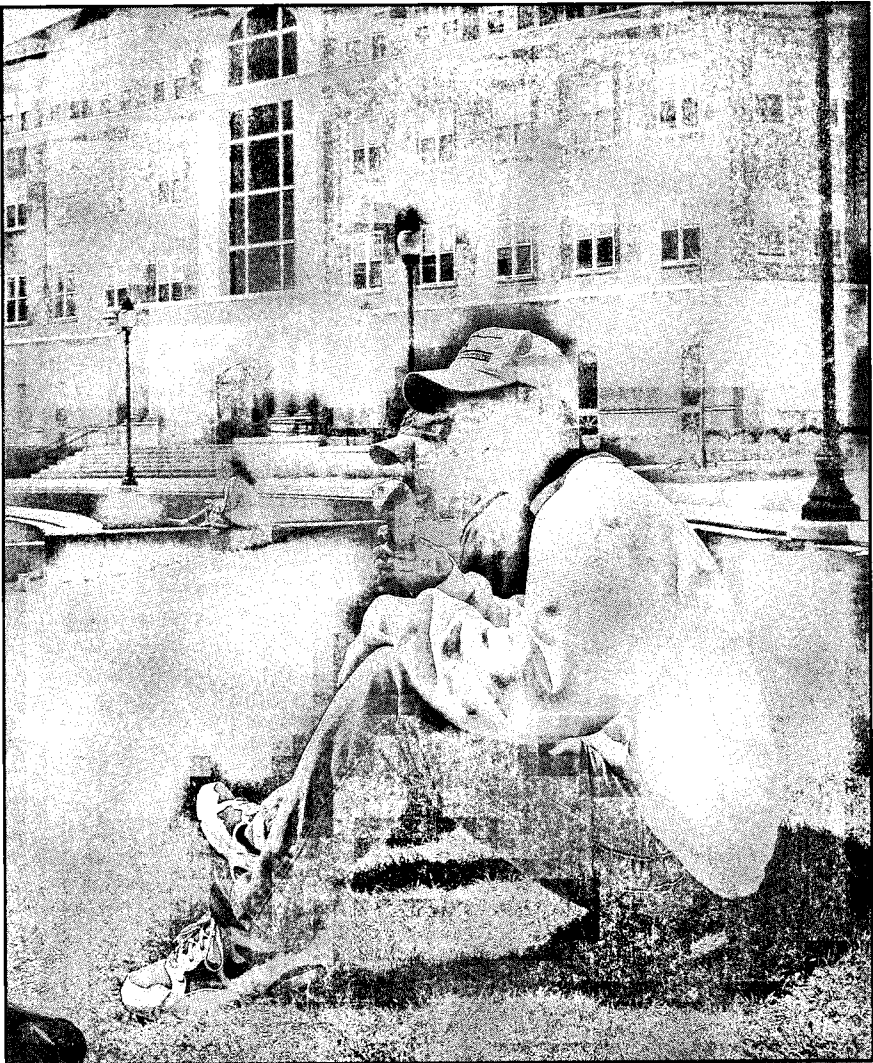
Gustafson (Economics), Ingram (Criminal Justice), Kerns (Political Science),

Kimbrough (English), Payne (Philosophy)

COURSES OF INSTRUCTION

PLW 301. MOCK TRIAL I: Practice and performance of attorney and witness roles for Mock Trial National Competition case. Repeatable up to 4 semester hours. 1 sem. hr.

PLW 302. MOCK TRIAL II: Practice and performance of attorney and witness roles for Mock Trial National Competition. Repeatable up to 4 semester hours. Prerequisite: PLW 301 and invitation by mock trial coaches. 1 sem. hr.



MED, DEN

PREMEDICINE (MED) AND PREDENTISTRY (DEN)

The Bachelor of Science with a major in premedicine (MED) or predentistry (DEN) is an interdisciplinary curriculum of study. It is distinctively designed to provide a science-based, diverse education as a preparation for admission to any of the professional health schools including medical, dental, veterinary, and chiropractic. Courses in biology, chemistry, mathematics, and physics comprise the major. Humanities and social sciences courses are also required. Within this framework the curriculum is flexible and can be tailored to suit personal interests. During the first two years, students enroll in courses appropriate for entry into professional schools while they also fulfill basic University requirements.

Admission to professional schools depends upon many factors in addition to the curriculum or major. Academic standing, performance on standardized examinations, practical experience relevant to the profession of interest, and adherence to application procedures are all important. The University addresses these factors in the following comprehensive manner.

While the Premedical Programs Office administers the DEN and MED majors, this office is also the focal point for all matters related to admission to any of the primary health schools. It is an information clearing house, functions as a liaison with professional schools, and coordinates the application process. Therefore, students in any major who plan to apply to professional schools should maintain a close relationship with this office.

The University automatically enrolls entering premedical or pre dental majors into special orientation classes, and identifies them to the Premedical Programs Office. Members of the Premedical-Predental Faculty Committee, which is composed of science faculty members, advise these students. However, advising services are available to all pre-professional students regardless of their major. Students in other majors may elect to have committee members serve as their secondary advisors; such students should identify themselves to the Premedical Programs Office.

In addition to providing counseling, the Premedical-Predental Faculty Committee also monitors students' academic progress. Since admission to professional schools is highly selective, premedical or pre dental students who have non-competitive academic records at the end of the second year of study are advised to transfer to a traditional major. Traditional majors provide students with alternate career paths, and are as acceptable to professional schools as a formal Premedical or Predental major. Transfers to other majors, particularly to science majors, can usually be accommodated during the first two years without affecting normal progress towards graduation.

PREMEDICAL-PREDENTAL FACULTY COMMITTEE

B. Lawrence Fox, (Chemistry) *Committee Chairperson*
Bajpai (Biology), Berney (Physics), Graham (Physics), Kearns (Biology),
Peterson (Mathematics), Singer (Chemistry)

**PROGRAM S9: BACHELOR OF SCIENCE WITH A MAJOR IN
PREMEDICINE (MED) OR PREDENTISTRY (DEN)¹**

	<i>Semester Hours</i>
Required science courses	45-50
BIO 151, 152, 152L, 201L	8
CHM 123, 123L, 124, 124L, 201, 201L, 313, 313L, 314, 314L	20
CPS 111	3
MTH 148-149 or 168-169 ²	6-8
PHY 201, 202, or PHY 206, 207, 208; PHY 201L, 202L ³	8-11
Elective science courses	17
Five lecture courses that must be selected from among mathematics, the natural sciences and/or engineering. The elective courses must be directly related to the primary field of interest. Laboratory sections must accompany two of the electives.	
Communication skills	6-12
CMM 101 ⁴	3
ENG 101-102 or 114 or 198; ENG elective ⁵	3-9
Philosophy and religious studies ⁶	12
History	6
Humanities	12
A modern foreign language is strongly recommended.	
Social and behavioral sciences	12
General electives ⁷	12
First-year experience: ASI 150	0-1
Total semester hours	122-134
(See advisors for term-by-term course listings.)	

¹Consult General Requirements for all Bachelor of Science programs and Chapter V for General Education requirements.

²Begin in MTH 116 if background is not suitable for MTH 148. MTH 116 counts as a general elective. Well qualified students are advised to take MTH 168-169.

³Well qualified students are strongly advised to take PHY 206-207-208 lecture sequence with PHY 201L and 202L.

⁴If CMM 101 is waived, a 3 sem. hr. humanities course must be taken in its place.

⁵Select ENG elective from among ENG 203, 204, 205, 272, 316, or any 300-level General Education ENG elective.

⁶One PHL or REL elective must be an ethics course. Select from among PHL 312, 315; REL 265, 357.

⁷Only general elective courses can be taken under grading option 2.

PSY

PSYCHOLOGY (PSY)

Psychology is the scientific study of behavior, 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 of Psychology 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 or her academic career. The remaining requirements are stated in the two outlines below. Exceptions to these requirements must be approved by the chairperson.

For a minor in psychology a student must complete PSY 101 and 12 semester hours of upper-level (300-400) courses and their prerequisites.

PROGRAM A15: BACHELOR OF ARTS WITH A MAJOR IN PSYCHOLOGY (PSY)¹

Semester Hours

Psychology requirements and electives	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 science	7
Mathematics: MTH 114, 116, 128, 129, 148, 149, 168, or 169	3
Social and behavioral sciences	12
Humanities	18
Philosophy and religious studies	12
Communication skills	0-9
First-year experience: ASI 150	0-1
General Education courses and academic electives to total at least	120

¹See also Distribution Table for Bachelor of Arts programs and Chapter V for General Education requirements.

²May substitute MTH 207 or 215 for PSY 216, but neither of these MTH courses count toward the 34 credit hours required in PSY for the major.

**PROGRAM S10: BACHELOR OF SCIENCE WITH A MAJOR IN
PSYCHOLOGY (PSS)¹**

	<i>Semester Hours</i>
Psychology requirements and electives	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 science ³ :	24
MTH 148, 149 ⁴ :	6
Humanities	9
Social and behavioral sciences	6
Philosophy and religious studies	12
Communication skills	0-9
First-year experience: ASI 150	0-1
General Education courses and academic electives to total at least	120

¹See Distribution Table for All Bachelor of Science Programs and Chapter V for General Education Requirements.

²May substitute MTH 207 or 215 for PSY 216, but neither of these MTH courses count toward the 34 credit hours required in PSY for the major..

³Two 3-sem. hr. natural science courses (BIO, CHM, GEO, PHY) with accompanying laboratories are required. The remaining 16 sem. hrs. may be fulfilled by courses in BIO, CHM, GEO, PHY, and CPS courses as well as by MTH courses beyond the departmental MTH requirement.

⁴May substitute MTH 116, 128, 129, 168, or 169 for MTH 148 or 149.

FACULTY

F. Thomas Eggemeier, *Chairperson*

Professors: Butter, DaPolito, Eggemeier, Kimble, Polzella

Associate Professors: Allik, Biers, Bower, Elvers, Katsuyama, Korte, Kuntz,
Moroney, Whitaker

Assistant Professors: Corbitt, Graetz, Reeb, Roecker

Adjunct Faculty: Kennedy, Martin, O'Connor, Ralston, Szoke

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: measures of central tendency and dispersion, sampling, estimation, hypothesis testing, tests between means, linear regression, correlation, and ANOVA. Prerequisites: PSY 101 and MTH 102 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 321. COGNITIVE PROCESSES: Information-processing approach to attention, perception, memory, imagery, and thought. Theoretical structures including neuron modeling of higher cognitive and experimental processes. Prerequisite: PSY 101. *3 sem. hrs.*

PSY 321L. COGNITIVE PROCESSES LABORATORY: In-depth discussion of seminal research in cognition. Collection, analysis, and interpretation of data. Prerequisites: PSY 101, 216, 217, 321 or permission of instructor. *1 sem. hr.*

PSY 322. LEARNING: Foundations of the learning process. Classical and instrumental paradigms and variants of each considered in preparation for investigations of complex learning. Prerequisite: PSY 101. *3 sem. hrs.*

PSY 323. PSYCHOLOGY OF PERCEPTION: Introduction to major theoretical and experimental work in perception, including visual, auditory, proprioceptive, and other sensory systems. 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, 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. *3 sem. hrs.*

PSY 344. INTERPERSONAL RELATIONS: Social psychological research in non-verbal behavior, social exchange, self-disclosure, and interpersonal attraction and how these are related to developing relationships. Prerequisite: PSY 101. *3 sem. hrs.*

PSY 351. CHILD PSYCHOLOGY: Study of psychological processes from the developmental point of view; changes in perception, cognition, emotion, and social behavior from infancy to adolescence. Prerequisite: PSY 101. *3 sem. hrs.*

PSY 352. FIELD EXPERIENCE IN CHILD PSYCHOLOGY: Practical experience with a community agency providing instructional, recreational, or therapeutic services. Volunteer 4-5 hours weekly. Prerequisites: PSY 101 and previous or concurrent registration in PSY 351. Grade option 2 only. *1 sem. hr.*

PSY 355. DEVELOPMENTAL PSYCHOPATHOLOGY: Survey of developmental theory and research related to the psychopathology of infants, children, and adolescents. Focus is on etiology, identification, and intervention. Prerequisites: PSY 101 and 351 or permission of the instructor. 3 sem. hrs.

PSY 361. PERSONALITY: Introduction to the study of personality through analysis of such major theories as those of Freud, Skinner, Maslow, and Rogers. The development of personality and the stability of personality characteristics over time. Review of 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 on similarities and differences in underlying theories of behavioral change and associated techniques. Prerequisite: PSY 101. 3 sem. hrs.

* PSY 375. PSYCHOLOGY OF THE ARTS: Explores the psychological experiences associated with the creation and appreciation of music, art, and literature. Course content is presented in terms of the theories, methods, and research findings in the fields of perception, cognition, and development. 3 sem. hrs.

PSY 422. PHYSIOLOGICAL PSYCHOLOGY: Neurophysiological analysis of attention, sensation, perception, emotion, motivation, and learning. Electrophysiological methods are discussed. Prerequisite: PSY 101. 3 sem. hrs.

PSY 431. INTERVIEWING AND COUNSELING: Integrated approach to the theory, techniques, skills, and values of interviewing and counseling. Practice through written assignments, self study, classroom exercises, and role-playing. Prerequisite: PSY 101 or permission of instructor. 3 sem. hrs.

PSY 435. HUMAN FACTORS: Essential psychological concepts and methods to improve use of human efforts and equipment. Principles governing design of equipment for human use. Prerequisite: PSY 101. 3 sem. hrs.

* PSY 443. PSYCHOLOGY OF WOMEN: Survey of topics related to the psychology of women, such as gender identity and roles, theories of female development, relationships, achievement, language, health issues, spirituality, sexuality, and violence. Prerequisite: PSY 101. 3 sem. hrs.

* PSY 444. ENVIRONMENTAL PSYCHOLOGY: Study of the effects of the physical and social environment on human behaviors, attitudes, and affective responses. Prerequisites: PSY 101 and 341 or permission of instructor. 3 sem. hrs.

* PSY 445. TECHNOLOGY, ENVIRONMENT, AND BEHAVIOR: Examines the cultural bases for the individual and societal choices which humans make about their use of technology. Technology is broadly defined to include human-machine systems. 3 sem. hrs.

* PSY 450. PSYCHOLOGY FOR MINISTRY: Human development and adjustment, interpersonal communication, and the psychology of religion. Prerequisite: Acceptance into the Lay Ministry Program or permission of instructor. 3 sem. hrs.

PSY 452. COGNITIVE DEVELOPMENT IN CHILDREN: Major approaches to the study of cognitive development; attentional and mediational development in children's learning, memory, and problem solving; language development and Piaget's theory. Prerequisite: PSY 101 and 351 or permission of instructor. *3 sem. hrs.*

PSY 457. TELEVISION AND ITS EFFECTS ON CHILDREN: Readings in psychological research on the broad effects of television on children. Emphasis on analyzing and evaluating the research. Prerequisite: PSY 101. *3 sem. hrs.*

PSY 461. CURRENT IMPLICATIONS OF DRUG DEPENDENCY: Survey of effects, symptoms, treatment, causalities, 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 SEXUALITY: Psychological factors in human sexuality including developmental, biological, and social perspectives. Such topics as sexual orientation, gender identity and roles, sexual relationships, sexual dysfunction, power and violence, and commercialization. *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. *3 sem. hrs.*

PSY 490. INTERNSHIP IN PSYCHOLOGY: Supervised experience arranged on an individual basis in appropriate settings. For psychology majors who have completed prescribed course work only. Consult internship director for details. May be repeated up to 6 sem. hrs. Grade Option 2 Only. *1-6 sem. hrs.*

PSY 493. INDEPENDENT STUDY: Problems of special interest investigated under 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, 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 490, 493 and/or 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.*

*General Education course. See Chapter V.

RELIGIOUS STUDIES (REL)

The Department of Religious Studies sees itself as a community of scholars serving the University community and the local community by teaching, research, criticism, and action. 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 denominations and with other world religions. Through its participation in the Sanders Judaic Studies Program, the department offers special courses in this area. It also engages in interdisciplinary studies.

Students minoring in religious studies must complete 18 semester hours in the Department of Religious Studies. At least 12 semester hours are to be at the 300-400 level. At least 3 semester hours are to be at the 400 level.

PROGRAM A16: BACHELOR OF ARTS WITH A MAJOR IN RELIGIOUS STUDIES (REL)¹

	<i>Semester Hours</i>
Religious studies	36
At least 24 sem. hrs. at 300-400 level; at least 9 sem. hrs. at 400 level. At least one course in each of these four areas:	
Biblical studies	
Historical theology	
Systematic theology	
Christian ethics—religion and culture	
Natural science	7
Mathematics (MTH 102, 204, 205 excluded)	3
Social and behavioral sciences	12
Humanities	18
Foreign language ² :	6-8
Philosophy	9
Communication skills	0-9
First-year experience: ASI 150	0-1
General Education courses and academic electives to total at least	120

¹See also Distribution Table for Bachelor of Arts programs and Chapter V for General Education requirements.

²Where appropriate, this credit may apply to the humanities breadth requirement.

FACULTY

Terrence W. Tilley, *Chairperson*

Distinguished Service Professor: Kohmescher

Professors: Anderson, Barnes, Branick, Burns, Friedland, Frost, Hater, Heft,

L'Heureux, Roberts, Tilley

Associate Professors: Doyle, Martin, Zukowski

Assistant Professors: Buby, Kozar, Lysaught, McGrath, Thimmes, Yocum Mize

COURSES OF INSTRUCTION

- * REL 103. INTRODUCTION TO RELIGION: Examination of the nature of religion, comparative aspect of religion, and the function of religion as a source of interpretation of life. The "Catholic Option" takes the majority of its perspectives and examples about religious beliefs and practices from the Roman Catholic tradition. *3 sem. hrs.*
- * REL 201. SELECTED RELIGIONS OF THE EAST: Introduction to several major religious traditions which originated in the East, including Hinduism, Buddhism, Jainism, Taoism, and Confucianism. *3 sem. hrs.*
- * REL 202. RELIGIONS OF THE MIDDLE EAST: Introduction to the monotheistic religious traditions which originated in the Middle East, including Zoroastrianism, Judaism, Christianity, and Islam. *3 sem. hrs.*
- * 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, form-critical, and sociological 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, redaction-critical, and sociological methodologies. *3 sem. hrs.*
- * 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 266. CHRISTIAN ETHICS—ECOCENTRIC APPROACH: A Christian ethic of relationality and responsibility. Explores various approaches and related values found in society; elements of ethical judgments; and specific ethical issues resulting from ecofeminist, technological, and ecological awareness. *3 sem. hrs.*
- * REL 305. ANCIENT NEAR EASTERN RELIGIONS: Examination of the mythology and religion of the Babylonians, Egyptians, and Canaanites with special attention to their relation to the Old Testament. *3 sem. hrs.*
- * REL 306. BUDDHISM AND CHRISTIANITY: Exploration of the 2,500-year-old Buddhist tradition—the life of its founder, development of its teachings, rituals, and meditation techniques. Survey of the spread of Buddhism to the West in the 20th century. Parallels and contrasts with the Christian tradition. *3 sem. hrs.*
- * REL 307. JUDAISM: Basic introduction to Judaism: its history, its faith, its worship. *3 sem. hrs.*
- * REL 310. THE PENTATEUCH: Examination of the first five books of the Hebrew Bible, known as the Torah or Pentateuch, emphasizing the traditions that relate primeval beginnings, ancestral history, the exodus, wilderness wanderings, and the legal codes. *3 sem. hrs.*

- *REL 311. THE PROPHETS: The prophetic texts of the Old Testament studied as reformulations of ancient religious traditions to meet new historical situations. The relevance of the prophets to contemporary life and thought. *3 sem. hrs.*
- *REL 312. THE PSALMS AND THE WISDOM LITERATURE: Critical examination of the biblical books of Psalms, Proverbs, Job, Ecclesiastes, and Ben Sira and of related literature within the historical context in which they arose. The contemporary relevance of this literature. *3 sem. hrs.*
- *REL 316. THE SYNOPTIC GOSPELS: With the Gospel of Mark as a point of departure, comparison of the Markan, Matthean, and Lukan narratives for an understanding of the various conceptions of Jesus found in these gospels. *3 sem. hrs.*
- *REL 317. STUDIES IN JOHN: Historical-critical study of the Gospel of John, its text, literary techniques, structure, and theology. The narrative world of John's Gospel related to the Johannine community. *3 sem. hrs.*
- *REL 318. STUDIES IN PAUL: Detailed examination of the letters of Paul, stressing the historical circumstances affecting their composition as well as the main religious ideas of Paul that govern their content. *3 sem. hrs.*
- REL 319. THE BOOK OF REVELATION: Detailed critical analysis of various biblical apocalyptic texts as found in Judaism and early Christianity. Focus on the Book of Revelation against the background of other biblical and intertestamental apocalyptic texts. *3 sem. hrs.*
- *REL 323. HISTORY OF CHRISTIANITY I (100-1100): Study of important events, movements, ideas, and people in the development of Christianity to the year 1100 including the formation of the Canon, early Church councils, Augustine, Gregory the Great, monasticism, the rise of Islam, Eucharistic and other controversies, and the Gregorian Reform. *3 sem. hrs.*
- *REL 324. HISTORY OF CHRISTIANITY II (1100-PRESENT): Study of important events, movements, ideas, and people in the development of Christianity from 1100 to the present, including the separation of the Churches of the East and West, rise of the mendicant orders, Scholasticism, key themes and figures of the Reformation, Vatican I, Modernist crisis, ecumenism, and Vatican II. *3 sem. hrs.*
- REL 326. PROTESTANT CHRISTIANITY: Survey of the development of Protestant thought from the Reformation. *3 sem. hrs.*
- *REL 327. U.S. PROTESTANT AND JEWISH EXPERIENCE: The growth and development of Protestant Christianity in the U.S. in its various expressions; its interaction with American culture; the Jewish experience; the Orthodox in the U.S.; modern religious movements. *3 sem. hrs.*
- *REL 328. U.S. CATHOLIC EXPERIENCE: The growth and development of Catholic Christianity in the U.S.; its interaction with America, its culture, and its people. *3 sem. hrs.*
- *REL 340. THE CHURCH: A biblical and theological study of the meaning of the Church which explores the relationship between Christ and the Church, the various models for understanding the Church, and the mission of the Church. *3 sem. hrs.*
- *REL 341. SIGNIFICANCE OF JESUS: Emphasis on the identity of Jesus and on the significance that his ministry, death, and resurrection have for the salvation of humankind. *3 sem. hrs.*

- * REL 343. THE SACRAMENTS: A study of the meaning of sacramentality. The sacraments in the context of Christ as the sacrament of the human encounter with God and in the context of the Church as the sacrament of Christ. *3 sem. hrs.*
- * REL 344. 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 349. SEARCH FOR IMMORTALITY: 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: Study of several types and forms of Christian prayer from various periods in Church history. The meaning of the act of faith expressed in prayer and its relationship to belief. *3 sem. hrs.*
- * REL 361. CORE RELIGION SEMINAR: Culminating course for students in CORE. Discussion of readings on values in a pluralistic society; such issues as wealth and poverty, education, war and peace. Open only to students in CORE. *3 sem. hrs.*
- * REL 362. CHRISTIAN FAMILY VALUES AND TELEVISION: Comparative study of the criteria and rationale for family life in various Christian pronouncements with present values and practices in society as reflected in and promoted by current television programming. *3 sem. hrs.*
- * REL 363. FAITH AND JUSTICE: This course explores the history, development, and basic principles of Catholic social teaching as well as other approaches to faith and justice. Issues of economic justice will receive special emphasis. In addition to church documents, the life and work of religious thinkers and activists will be examined. *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 topic changes. *3 sem. hrs.*
- * REL 367. CHRISTIAN ETHICS AND HEALTH CARE ISSUES: Study 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: Study of, and reflection upon, the principles of Christian ethics as these relate to the business world. *3 sem. hrs.*
- * REL 369. CHRISTIAN ETHICS AND ENGINEERING: Study in applied Christian ethics addressing the moral issues facing engineers. How to make a moral decision, engineering as a profession, codes of ethics, safety, environmental issues, confidentiality, employee rights, whistleblowing, consulting, conflicts, and career choices. *3 sem. hrs.*
- * REL 371. THE NEW RELIGIONS AND PERSONAL TRANSFORMATION: Experiential and holistic approach to contemporary movements that use ideas and techniques of Eastern religions to promote personal growth and transformation. *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 humans and of God in major modern writings, especially those of current collegiate interest. *3 sem. hrs.*
- * REL 374. RELIGION AND THE ARTS: Investigation of the religious interpretation of various art forms and the process by which the aesthetic experience assists in theological perception and construction. *3 sem. hrs.*
- * REL 376. THEOLOGY AND THE SOCIAL SCIENCES: Exploration of developments in Christian theology that have paralleled the rise of the human sciences, in particular of concepts of God, humanity, Church, sacraments, sin, and salvation in the light of history, anthropology, psychology, and sociology. *3 sem. hrs.*
- * REL 377. THE INNER JOURNEY IN MYTH, BIBLE, AND LITERATURE: Study of stories of heroic figures in the Bible and in other literature as patterns of personal and spiritual development. Throughout, efforts to relate the material to the needs of contemporary persons. *3 sem. hrs.*
- * REL 383. PHILOSOPHY OF RELIGIOUS EDUCATION: An attempt to construct a philosophy of religious education, various contemporary theoretical models, dimensions of teaching religion in a pluralistic society, the polarization generated. *3 sem. hrs.*
- * REL 385. LAY MINISTRY: A critical examination of lay ministry and its theological basis, in light of Vatican II and recent trends in the world and Church. Special topics: family ministry, ministry in the marketplace, leadership, evangelization, catechesis, women, social justice. *3 sem. hrs.*
- REL 392. SPECIAL QUESTIONS: Examination of issues pertinent to religion in either one or a series of courses. May be repeated when topic changes. *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 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 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. GOD AND ATHEISM: 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 446. CHRISTIAN LITURGY: Study of the basic principles of liturgy, the development of some of the basic forms of liturgy, and applications of the principles within current rites. *3 sem. hrs.*
- * REL 447. SELECTED CATHOLIC DOCTRINES: Detailed study of several important current theological questions primarily from a Catholic systematic and historical perspective. *3 sem. hrs.*

REL 464. LIBERATION THEOLOGY: A historical-critical analysis and study of the theology of liberation and its specific expression among theologians of the Third World, particularly Latin America. *3 sem. hrs.*

*REL 466. THEOLOGY OF SEXUALITY: A study of sexuality as seen in the Judaeo-Christian tradition with emphasis on an understanding of recent theological approaches to sexuality and a theological critique of the findings presented by related disciplines. *3 sem. hrs.*

*REL 471. WOMEN AND RELIGION: Examination of the impact of the women's movement on Judaism, Christianity, and other major world religions. Survey of traditional religious attitudes toward women. Relevance of feminist approaches to scripture, ethics, spirituality, and ministry in understanding contemporary global issues. *3 sem. hrs.*

*REL 472. ECOLOGY AND RELIGION: Examination of the relationship between religion and ecology; bridges the contributions of traditional theological inquiry and modern scientific insights and offers an enlarged vision of ecological concerns. *3 sem. hrs.*

*REL 474. WOMEN AND THE GLOBAL CHURCH: An exploration of the intersection between faith communities, traditional and non-traditional, and particular cultures in the lives of contemporary women. *3 sem. hrs.*

*REL 477. RELIGION AND SCIENCE: Survey of the ways science has affected religion on specific doctrines, methods of knowing what is true, and general worldviews; study of religious response to these. *3 sem. hrs.*

REL 484. PRACTICUM: Supervised in-service experience in an area of religious education chosen by the student. By permission only. *3 sem. hrs.*

REL 487. RELIGIOUS EDUCATION—THEORY AND PRACTICE: Study of theory and practice of religious education for those who will be teaching religion in the school and parish. Various models and methods. Emphasis on process and religious education as developmental. *3 sem. hrs.*

*REL 488. SPIRITUALITY AND RELIGIOUS EDUCATION: Exploration of impact of liturgy and spirituality on contemporary models of religious education; study of inter-relationship between faith experience and religious content; basic principles for developing practical programs. *3 sem. hrs.*

REL 492. SPECIAL TOPICS: Concentrated study of issues and subjects pertinent to religion. May be repeated when topic changes. *1-3 sem. hrs.*

*General Education course. See Chapter V.

SOCIAL WORK (SWK)

Social work is the profession sanctioned by society to provide social services. It is the professional activity of helping individuals, groups, or communities to enhance or restore their capacity for social functioning. The profession also engages in activities aimed at facilitating societal conditions that enhance and/or restore social functioning.

A minor in Social Work consists of a minimum of 15 semester hours, at least 12 of which are at the 300 or 400 level. No more than 6 semester hours of field experience credit can be accepted toward the minor. See also SOC.

COURSES OF INSTRUCTION

* SWK 101. SOCIAL WELFARE AND SOCIETY: Study of the emergence and current functioning of the social welfare system in contemporary U.S. society. Selected social issues and the social welfare programs designed to address these issues will be highlighted. *3 sem. hrs.*

SWK 202. VOLUNTEERS IN COMMUNITY SERVICE: Basic knowledge and skills for providing volunteer services to the social service system. Focus on, and observation of, volunteer services in planning social service programs, fund-raising, allocation of funds, and direct service. *3 sem. hrs.*

SWK 303. COMMUNITY PRACTICE AND RESEARCH: Study of the design and implementation of community research, including needs assessment and program evaluation in the social service system. Prerequisite: Permission of instructor. (Same as SOC 309). *3 sem. hrs.*

SWK 305. SOCIAL SERVICES IN THE HEALTH FIELD: The role of social services in health care facilities and governmental health programs. U.S. health care policies and programs; methods of social work intervention in medical settings. *3 sem. hrs.*

SWK 307. MENTAL HEALTH SERVICES: Study of historical perspectives, deinstitutionalization, the community mental health movement, inpatient care, and innovative approaches. Policy and practice implications are examined. *3 sem. hrs.*

SWK 310. 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 311. SOCIAL WELFARE POLICY AND SERVICES: Study of how social welfare policies are developed and translated into social services. A framework for analysis applied to specific social policies. The role of the social work practitioner in analyzing and planning for social welfare. Prerequisite: SWK 101. *3 sem. hrs.*

SWK 324. CHILD WELFARE SERVICES: Scope, problems, and trends in social welfare services to children. The role of the social worker in protective service, foster care, adoption, group and institutional settings. Children's rights, permanent planning for children, and child advocacy. *3 sem. hrs.*

SWK 325. CHILD ABUSE: Comprehensive study of child abuse: its history, scope, causal factors, indicators for detection, treatment resources and modalities, and community responsibility. *3 sem. hrs.*

SWK 327. PARENTING: SOCIAL WELFARE ROLE: Comprehensive study of historical and contemporary perspectives on parenting, future of parenting (assessing trends and choices in family structure and function), cross-cultural comparisons, policy and legal aspects of parenting, societal influences on parenting. *3 sem. hrs.*

SWK 330. PERSPECTIVES ON AGING: An introduction to the field of gerontology. Focus on the major physical, psychological, and social dynamics of aging. Selected issues will be highlighted. (Same as SOC 330.) *3 sem. hrs.*

* SWK 331. DEATH, DYING, AND SUICIDE: Study of the phenomena of death and dying. The role and responsibility of the professional in working with the dying and their survivors. Study of suicide in this society. *3 sem. hrs.*

SWK 342. ADDICTIONS AND SELF HELP: Study of theories of substance and experience addictions, traditional treatment models, and the self-help movement as a treatment approach for addicted people. Focus on understanding the principles and processes of 12 step groups. *3 sem. hrs.*

SWK 392. SPECIAL TOPICS: Exploration of special topics related to the field of human services. Assessment of appropriate literature and research. May be repeated as topics change. *1-3 sem. hrs.*

SWK 401. COMMUNITY FIELD EXPERIENCE—MICRO: Supervised field experience for students working with individuals and/or families in an agency setting. Concurrent seminar includes intensive basic communication and interviewing skill development. Students spend 150 hours in the agency. Prerequisite: Permission of instructor. *5 sem. hrs.*

SWK 402. COMMUNITY FIELD EXPERIENCE—MACRO: Supervised field experience for students interested in working with groups, organizations, and/or communities. Concurrent seminar includes overview of knowledge and skills for macro social work practice. Students complete 150 clock hours in a field placement. Prerequisite: Permission of instructor. *5 sem. hrs.*

SWK 465. INDEPENDENT STUDY: Individual research, study, and readings on specific topics and/or projects of importance to social work. Under individual faculty direction. Prerequisite: Permission of instructor. *3 sem. hrs.*

*General Education course. See Chapter V.

SOCIOLOGY (SOC)

Sociology is the scientific study of society. The unique insight of sociology is that people are who they are largely because of their social experiences and interactions with others. "The sociological imagination" is the ability to understand the relationship between the individual experience and the broader social context. In addition to studying various aspects of social behavior, sociology studies the nature and causes of social problems such as crime, marital instability, poverty, and racism. The challenge facing sociologists is to apply their knowledge in ever more constructive ways for the improvement of society.

Students intending to major or minor in sociology should consult with the department chairperson to plan their programs of courses. Majors may concentrate their studies in the fields of human relations or community relations. The requirements for majoring in sociology are stated in the outline below. A minor in sociology requires 15 semester hours of courses in the discipline, with at least 12 of those at the 300-400 level.

PROGRAM A17: BACHELOR OF ARTS WITH A MAJOR IN SOCIOLOGY (SOC)¹

	<i>Semester Hours</i>
Sociology requirements and electives	37
SOC 101 or 204	3
SOC 208, 303, 308, 308L, 409; SOC 351 or ANT 335	16
SOC electives ² :	18
Philosophy and religious studies	12
Communication skills	0-9
Natural science	7
Mathematics (MTH 102, 204, 205 excluded)	3
Social and behavioral sciences	12
Humanities	18
First-year experience: ASI 150	0-1
General education courses and academic electives to total at least	120

¹See also Distribution Table for Bachelor of Arts programs and Chapter V for General Education requirements.

²No more than 6 hours of field experience or internship may count toward the major.

FACULTY

Fred P. Pestello, *Chairperson, Department of Sociology, Anthropology, and Social Work*
Professor Emerita: Huth

Professor: Saxton

Associate Professors: Bregenzer, Davis-Berman, Donnelly, L. Majka, T. Majka,
 Miller, F. Pestello, H. Pestello

Assistant Professors: Dandaneau, Taylor

Adjunct Associate Professor: Voydanoff

COURSES OF INSTRUCTION

- SOC 101. PRINCIPLES OF SOCIOLOGY: Study of social groups, social processes, and society; 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 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 204L. URBAN PROBLEMS LABORATORY: Field study of selected urban problems. Focus on issues and problems of inequality, i.e., poverty, unemployment, discrimination, and homelessness as experienced by members of the urban community. (Corequisite SOC 204) *1 sem. hrs.*
- SOC 208. SOCIAL RESEARCH METHODS: Study of the logic of research design, data-gathering strategies, types of measurement, and sampling techniques. Both inductive and deductive approaches. Participation in research projects. *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 305. CRIMINOLOGICAL THEORY: Study of the major theories of crime; consideration of the implications of theory for the criminal justice system. *3 sem. hrs.*
- SOC 308. DATA ANALYSIS: The analysis and interpretation of both quantitative and qualitative social science data. Prerequisite: SOC 208. Corequisite: SOC 308L. *3 sem. hrs.*
- SOC 308L. DATA ANALYSIS LABORATORY: Training in appropriate computer programs and computer analysis of social science data. Prerequisite: SOC 208. Corequisite: SOC 308. *1 sem. hr.*
- SOC 309. COMMUNITY PRACTICE AND RESEARCH: Study of the design and implementation of community research, including needs assessment and program evaluation in the social service system. Prerequisite: Permission of instructor. (Same as SWK 303) *3 sem. hrs.*
- * SOC 321. THE SOCIOLOGY OF WORK AND OCCUPATIONS: Survey of the major features of work and occupations in industrial society. The meaning of work, occupational choice and recruitment, occupational socialization, career patterns, and occupational rewards. Unemployment, underemployment, sex-typing, automation and alienation. *3 sem. hrs.*
- * SOC 322. SEX ROLES AND SOCIETY: Research findings and major analytical approaches to study social and cultural influences on the development of personal sexual identity and relationships between men and women. Major social issues concerning human sexuality. *3 sem. hrs.*

SOC 323. JUVENILE JUSTICE: The environmental and internal factors that influence or determine delinquent behavior; roles of individual juvenile offenders, parents or guardians, school, church, police, business community, community agencies, and the juvenile justice and correctional system in preventing and treating delinquent behavior.

3 sem. hrs.

SOC 325. DEVIANT BEHAVIOR: Description of various types of deviant behavior; for example, mental illness, alcoholism, drug addiction, the professional criminal. Study of explanations for the consequences and the role of deviant behavior in modern society.

3 sem. hrs.

*SOC 326. LAW AND SOCIETY: 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; analysis of the legal profession.

3 sem. hrs.

SOC 327. CRIMINOLOGY: Social and cultural nature, origin, and development of law; criminal behavior; crime control. The influence of society in the creation and organization of legal and crime control systems. Biological, psychological, and sociological factors leading to criminal behavior.

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 330. PERSPECTIVES ON AGING: An introduction to the field of gerontology. Focus on the major physical, psychological, and social dynamics of aging. Selected issues will be highlighted. (Same as SWK 330.)

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 332. SOCIOLOGY OF WOMEN: Cross-societal analysis of the position of women, with emphasis on industrialized and developing societies. The social positions of women and men in the family, work, politics, and the legal system. Consideration of theories of the biological, psychological, and sociological bases for the behavior and characteristics of women in the context of societal institutions.

3 sem. hrs.

SOC 334. RELIGION AND SOCIETY: Definitions of religion and its role in society. Traditional and nontraditional expressions of religious life from the viewpoint of society. Varieties of religious experience and the interrelations between religious phenomena and other social institutions and societal behavior.

3 sem. hrs.

SOC 336. ORGANIZATIONS IN MODERN SOCIETY: Analysis of the dynamics of organizations in modern industrial society. Organizational social psychology, organizational structure and process, and organization-community relations.

3 sem. hrs.

SOC 337. POLITICAL SOCIOLOGY: Study of political power. Political influence by economic elites, impact of bureaucracies, competing ideologies, alienation and nonvoting, and social movements as challenges to power structures. *3 sem. hrs.*

* SOC 339. SOCIAL INEQUALITY: Study of social inequality in society. Emphasis on the processes that divide people into unequal groups based on wealth, status, and power. The effects of inequality on individual life chances and life styles. *3 sem. hrs.*

SOC 340. SOCIAL PSYCHOLOGY IN SOCIETY: Survey of the basic principles, concepts, theories, and methods of social psychology from the sociological perspective. *3 sem. hrs.*

* SOC 341. SELF AND SOCIETY: Study of the relationship between self and others. Socialization, self conceptions, deviant behavior, social influence, and social control. *3 sem. hrs.*

SOC 342. COLLECTIVE BEHAVIOR: 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: 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 345. SMALL GROUP DYNAMICS: Study of the social structures, relationships, and processes of small groups, including families, friends, work groups, and small organizations. *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. URBAN SOCIOLOGY: The study of the development of urban life from ancient times to the present, with an emphasis on contemporary urban population characteristics, social-economic-political structure, and problems. *3 sem. hrs.*

* SOC 352. COMMUNITY: Study of the interaction of groups and individuals related by common situations, problems and intentions; creation, maintenance, eclipse, and restoration of close social ties in urban neighborhoods, small towns, and groups with similar interests and lifestyles. *3 sem. hrs.*

SOC 355. FAMILIES AND THE ECONOMY: The relationship between families and their socio-economic environment. Consideration of public issues including family policy and government programs to assist families. *3 sem. hrs.*

SOC 357. SOCIOLOGICAL PERSPECTIVES OF TECHNOLOGY: Study of the relation between society and technology. Issues include conceptions of society and technology; sources, uses, and impacts of technology; professional conduct in relation to technology; and various forms of the relation between society and technology. *3 sem. hrs.*

SOC 392. SELECTED TOPICS IN SOCIOLOGY: Examination of a current topic of general interest in sociology. Majors and nonmajors may enroll. Consult composite for topics. May be repeated as topic changes. 1-6 sem. hrs.

SOC 398. SOCIOLOGICAL FIELD EXPERIENCE: Supervised research or community service experience complementing a specific upper division sociology course that is being taken concurrently. Prerequisite: Permission of instructor. Can be taken three times. 1 sem. hrs.

SOC 409. SENIOR SEMINAR IN SOCIOLOGY: Synthesis of previous course-work; examination of the logic of social inquiry through the analysis of competing sociological perspectives on a particular issue. Required for majors. Prerequisite: Permission of instructor. 3 sem. hrs.

SOC 410. VICTIMOLOGY: The study of victimization including the relationships between victims and offenders, the interactions of victims and the criminal justice system and other social groups and institutions. Prerequisite: Twelve hours of course work in the Social Sciences. 3 sem. hrs.

SOC 435. ECONOMY AND SOCIETY: Sociological analysis of modern economic institutions, with an emphasis on classical themes. Topics include capitalism, industrialism and social consequences of contemporary economic trends. Empirical research will be required. Prerequisite: Permission of instructor. 3 sem. hrs.

SOC 437. MARX AND SOCIOLOGY: Study of Marx's writings on topics relevant to the social sciences. Comparison of contemporary Marxian scholarship in such areas as social inequality, political structures, urban change, ideology and consciousness, and models for the future. Prerequisite: Junior or senior standing. 3 sem. hrs.

SOC 438. URBAN POVERTY: Study of the social factors that contribute to poverty in cities. Consideration of the social effects of government and other programs to alleviate poverty. 3 sem. hrs.

SOC 444. INTERACTION PROCESSES: Advanced study of the interaction processes of social life. Bargaining and negotiation, cooperation, social influence, 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. Consult composite for topics. May be repeated as topic changes. Prerequisite: Permission of instructor. 1-6 sem. hrs.

SOC 495. SOCIOLOGY INTERNSHIP: Supervised work experience related to course work in sociology in appropriate government, social service, and private organizations. May be repeated to a maximum of 6 sem. hrs. Prerequisite: Permission of chairperson. 1-6 sem. hrs.

SOC 498. INDEPENDENT STUDY: Research or special readings on problems of interest to the student under the guidance of sociology staff member. Prerequisite: Permission of chairperson. 1-6 sem. hrs.

*General Education course. See Chapter V.

EDT

TEACHER CERTIFICATION

COLLEGE BACCALAUREATE PROGRAM WITH TEACHER CERTIFICATION (E11A)

Students enrolled in the College of Arts and Sciences may enroll in the teacher education program (E11A) of the School of Education without transferring to the School of Education. The E11A program is designed for those students in the College of Arts and Sciences who wish to pursue secondary-school teaching certification and a major program of studies concurrently. Students admitted to the program must satisfy all the requirements for the 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.

Teaching fields represented in the College of Arts and Sciences are art, biological science, chemistry, communication, computer science, drama/theatre, earth science, English, general science, history, journalism, language (latin, french, german, spanish), mathematics, music, physical science, physics, political science, psychology/sociology, social studies, speech/communication, theology (religious studies).

The education courses below constitute a minor concentration in the College degree program. They are listed in the order in which students usually take them. For course descriptions see EDT, Chapter VIII.

			<i>Semester Hours</i>
EDT 110	The Profession of Teaching ¹	3	3
EDT 207	Child and Adolescent in Education	3	3
EDT 208	Teaching and Learning ¹	3	3
EDT 318	Human Relations in Education ²	2-4	2-4
EDT 351	School, Self and Society ¹	3	3
— —	Methods course (Fall term only) ^{1,2,3}	4	4
EDT 469	Reading in the Content Areas ¹	2	2
EDT 420	Student Teaching: Secondary	12	12
EDT 419	Philosophy of Education ²	3	3

Application for admission to the program is made through the Office of the Dean of the College of Arts and Sciences. Applicants should normally have cumulative grade-point averages 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 Teacher Education or a designated advisor.

¹Field experiences are required. Student must register for EDT 100.

²These courses are taken in as a block of courses, Fall term, senior year, daily 8:00 a.m. and 12:00.

³Praxis I (PPST) must be taken and *passed* before enrolling in a methods course.

THEATRE (THR)

A major in theatre, offered by the Department of Communication, provides a solid academic foundation plus the experience of working in a wide range of theatre productions, including mainstage productions in the Boll Theatre as well as experimental work in the Studio Theatre.

Theatre majors are required to audition for roles and participate in each major production, for which they receive credit in THR 100 or 300.

A minor in theatre requires a total of 21 semester hours: 3 each in THR 105, 203, 100 and /or 300, 415 or 425; and 9 additional at the 300 level and above. Courses in dance are not included.

The Department of Communication also offers a concentration in THR (CTR), as an option for the B.A. degree in Communication. See CMM.

PROGRAM A18: BACHELOR OF ARTS WITH A MAJOR IN THEATRE (THR)¹

	<i>Semester Hours</i>
Theatre requirements and electives	38
THR 100 and THR 300	4
THR 105, 310, 330 and 340	12
THR 305 or 307	3
THR 325 or 326, and 415 or 425	6
THR 440 or 485 or 490	3
THR electives	10
Natural science	7
Mathematics (MTH 102, 204, 205 excluded)	3
Social and behavioral sciences	12
Humanities	18
Philosophy and religious studies	12
Communication skills	0-9
First-year experience: ASI 150	0-1
General Education courses and academic electives to total at least	120

¹See also Distribution Table for Bachelor of Arts programs and Chapter V for General Education requirements.

FACULTY

Thomas D. Skill, *Chairperson, Department of Communication*

Professor Emeritus: Gilvary

Assistant Professors: Anderson, Dunlevy-Shackleford

COURSES OF INSTRUCTION

THR 100. THEATRE LABORATORY: Credit allowance for role playing and/or play production in mainstage productions. Fifty hours of work minimum for one sem. hr. of credit. Repeatable up to 3 sem. hrs. in first and second years. All registration retroactive. No advance registration. 1-3 sem. hrs.

* THR105. 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: Beginning course in movement introducing the basic principles of dance and performance technique. Open to all University students. 3 sem. hrs.

THR 202. STAGE MAKEUP: The basic principles of the art and technique of makeup so that the student may use them in design and execution to develop and project the character. Open to all University students. Studio fee. 2 sem. hrs.

THR 203. TECHNICAL PRODUCTION: Introductory survey of scene design, construction, painting, and lighting. Current theory will be examined along with practical applications and techniques. 3 sem. hrs.

THR 261. BEGINNING JAZZ DANCE: Beginning course in the theory and practice of jazz dance. 2 sem. hrs.

THR 271. BEGINNING BALLET: Beginning course in the theory and practice of classical ballet technique. 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 for THR 100. 1-3 sem. hrs.

THR 301. INTERMEDIATE DANCE FOR THE PERFORMING ARTIST: Intermediate-level course in movement for students interested in further developing dance and performance technique. Prerequisite: Permission. 2 sem. hrs.

THR 303. SCENE PAINTING: Basic principles of color paint theory and materials. Investigation of various scene-painting techniques. One three-hour class meeting weekly. Studio fee. Prerequisite: Permission. 3 sem. hrs.

THR 305. THEATRE STAGECRAFT: Study and application of scene construction, rigging, backstage organization, production analysis, and technician-designer relationship. Studio fee. 3 sem. hrs.

THR 307. THEATRE LIGHTING: Study and application of lighting for the stage: instruments, controls, sources, elements of electricity, and lighting design for all types of theatres, as well as graphic representation. Studio fee. 3 sem. hrs.

THR 310. ACTING I: The study and practice of basic techniques in rehearsal and performance. Emphasis on self-analysis and self-awareness. Development of basic skills in vocal, emotional, and mental interpretation of character. Prerequisite: THR 105 or permission. Required of all theatre majors. 3 sem. hrs.

THR 323. ACTING II: Further study and practice of techniques introduced in Acting I. Emphasis on interaction, ensemble, group processes, and scene study. Prerequisites: THR 105 and 310, or permission. 3 sem. hrs.

THR 324. THEATRICAL MOVEMENT: Emphasis on interpreting and employing body language. Prerequisites: THR 105 and 310, or permission. 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 required of all majors.) 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 required of all majors.) 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. Required of all theatre majors. 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. Required of all theatre majors. Prerequisites: THR 105, 310, 330. 3 sem. hrs.

THR 350. THEATRE STYLES: Examination of the relationships among playwright, audience, actor, designer, and director in the development of major theatre styles of expression. 3 sem. hrs.

THR 361. INTERMEDIATE JAZZ DANCE: An intermediate course in the theory and practice of jazz dance and technique. Prerequisite: Permission. 2 sem. hrs.

THR 371. INTERMEDIATE BALLET: Intermediate course in the theory and practice of classical ballet technique. Prerequisite: Permission. 2 sem. hrs.

THR 414 . ADVANCED SCENE DESIGN: Individual development in scene design through intensive study in plays of various styles. Detailed representation of design ideas in rendering and models required. Prerequisite: THR 330 and permission. 3 sem. hrs.

* THR 415. HISTORY OF THE THEATRE I: History of theatre from pre-Grecian through Elizabethan; the physical theatre as reflection of and influence on civilization. (THR 415 or 425 required of all majors.) 3 sem. hrs.

THR 424. PLAY DIRECTING: Study of the evolution of the modern director and the direction of two one-act plays or one full-length play. Prerequisite: THR 340. Studio fee. 3 sem. hrs.

THR 425. HISTORY OF THE THEATRE II: Continuance of 415 from the Italian Renaissance to the modern theatre. (THR 415 or 425 required of all majors.) 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. (THR 440 or THR 485 or THR 490 required of all majors.) Repeatable up to 12 sem. hrs. Prerequisite: Permission. 3 sem. hrs.

THR 485. THEATRE SEMINAR: Concentration on one theatrical figure, genre period, or discipline for research and analysis. (THR 440 or THR 485 or THR 490 required of all majors.) Repeatable up to 6 sem. hrs. Prerequisite: Permission. 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. (THR 440 or THR 485 or THR 490 required of all majors.) Repeatable up to 9 sem. hrs. 3-5 sem. hrs.

*General Education course. See Chapter V.

VAR

VISUAL ARTS (VAR)

The Department of Visual Arts teaches the perceptual, practical, and critical skills necessary for the creation and understanding of art in a variety of media and contexts. It also teaches the history of the visual arts and cultivates the ability to appreciate and articulate their meaning and value. The department emphasizes the highly integrative nature of the visual arts and their immense cultural and personal importance. In addition, the department offers opportunities for professional career development in many different fields.

The department offers eight degree programs:

Bachelor of Arts with a Major in Fine Arts (A19)

Bachelor of Fine Arts with a Major in Fine Arts (A19A)

Bachelor of Arts with a Major in Visual Communication Design (A20)

Bachelor of Fine Arts with a Major in Visual Communication Design (A20A)

Bachelor of Arts with a Major in Photography (A21)

Bachelor of Fine Arts with a Major in Photography (A21A)

Bachelor of Fine Arts with Teacher Certification (A22)

Bachelor of Arts with a Major in Art History (A23)

Visual Arts Minors

A minor in Fine Arts requires 21 semester hours: VAF 104, 112; VAH 201 or 202 or 203; and 12 additional semester hours of VAF electives.

A minor in Visual Communication Design requires 21 semester hours: VAF 104, 112; VAR 200; VAD 215 or 218; 315; and 9 additional upper-level semester hours of VAD electives.

A minor in Photography requires 12 semester hours of VAP 300-400-level courses and any prerequisites for those courses. VAH 382 may also be counted towards a minor in photography.

A minor in Art History requires 18 semester hours: six semester hours of survey courses chosen from VAH 201, 202, and 203 and 12 additional semester hours of art history electives at the 300-400-level.

Visual Arts Foundations

Visual Arts foundation courses introduce students to fundamental principles, practices, materials, and vocabulary common to all visual arts disciplines. These courses provide a common background of skill development along with an understanding of primary concepts in the visual arts and a basis for critical evaluation. All foundation courses share the objective of preparing students to face the challenges of their specific disciplines.

Second Year Review

Near the end of their second year, all Visual Arts majors are reviewed by the Visual Arts faculty. The review process is a valuable learning experience for the student and it helps the faculty to recommend ways in which students may build upon their assets and overcome their liabilities. Participation in the Second Year Review is mandatory for all majors.

FINE ARTS

The Bachelor of Arts (B.A.) with a Major in Fine Arts offers a program of study that introduces the student to a variety of media and approaches to the visual arts. This program combines the richness of a liberal arts education with opportunities to explore several possible directions in the visual arts.

The Bachelor of Fine Arts (B.F.A.) with a Major in Fine Arts offers a more intensive exploration of selected media and greater depth of study in a more extensive selection of visual arts courses.

PROGRAM A19: BACHELOR OF ARTS WITH A MAJOR IN FINE ARTS (ART)¹

	<i>Semester Hours</i>
Major program requirements	45
VAF 104, 112, 117, 206, 216, 226 or 253, 232 or 240, 498 & 499	25
Select two from VAH 201, 202, 203; 470 or 471 or 480 or 481	9
VAP 101	3
VAF, VAD, or VAP electives (300-400)	8
Communication skills	0-9
Natural science	7
Mathematics (MTH 102, 204, 205 excluded)	3
Social and behavioral sciences	12
Humanities	18
Philosophy and/or religious studies	12
First-year experience: ASI 150	0-1
Program and general electives to total at least	120

¹See also Distribution Table for Bachelor of Arts programs and Chapter V for General Education requirements.

PROGRAM A19A: BACHELOR OF FINE ARTS WITH A MAJOR IN FINE ARTS (STA)¹

	<i>Semester Hours</i>
Major program requirements	79
VAF 104, 112, 117, 206, 207, 216, 226, 232, 253, 306, 332, 353, 498, 499	40
Select two from VAH 201, 202, 203; VAH electives (300-400 level)	12
VAP 101	3
VAF concentration	12
Visual arts electives	12
Communication skills	0-9
Natural science	7
Mathematics (MTH 102, 204, 205 excluded)	3
Social and behavioral sciences	9
Humanities	12
Philosophy and/or religious studies	12
First-year experience: ASI 150	0-1
Program and general electives to total at least	120-130

¹See also Distribution Table for Bachelor of Arts programs and Chapter V for General Education requirements.

VISUAL COMMUNICATION DESIGN

The Visual Communication Design (B.A.) program offers a very flexible opportunity to combine a broad liberal arts education with a strong foundation in the visual arts and in visual communication design. In this program it is possible for students to earn a minor, or even a second major, in another discipline within the University.

The Visual Communication Design (B.F.A.) program combines visual arts foundation courses and an intensive visual communication design curriculum with a liberal arts education. It prepares students for professional careers in graphic design, advertising design, illustration, and related fields. Attention is given to conceptual and visual problem-solving. Program options include (1) design, (2) illustration, and, (3) computer imaging.

PROGRAM A20: BACHELOR OF ARTS WITH A MAJOR IN
VISUAL COMMUNICATION DESIGN (VCA)¹

	<i>Semester Hours</i>
Major program requirements requirements	45
VAF 104, 112, 117, 216,	12
VAR 200	1
VAD 215 or 218, 312, 315, 498, 499	12
VAD, VAF, VAP electives	11
From: VAD 318, 320, 321, 350, 395, 397, 398, 404, 411, 412, 415	
VAF 206, 226	
VAP 101, 240, 340, 345, 440, 445	
Select two from: VAH 201, 202, 203	6
VAH 383	3
Communication skills	0-9
Natural science	7
Mathematics (MTH 102, 204, 205 excluded)	3
Social and behavioral sciences	12
Humanities	18
First-year experience: ASI 150	0-9
Philosophy and religious studies	12
Program and general electives to total at least	120

¹See also Distribution Table for Bachelor of Arts programs and Chapter V for General Education Requirements.

PROGRAM A20A: BACHELOR OF FINE ARTS WITH A MAJOR
IN VISUAL COMMUNICATION
DESIGN (VCD)¹

	<i>Semester Hours</i>
Major program requirements	85
Design concentration:	
VAF 104, 112, 117, 206, 216, 226	18
VAD 215, 312, 315, 320, 350, 411, 412, 415, 498, 499	27

VAR 200	1
VAP 101, VAP elective	6
Select two from VAH 201, 202, 203	6
VAH 383	3
Visual arts electives	18
Marketing or communication	6
Illustration concentration:	
VAF 104, 112, 117, 206, 207, 216, 226, 303, 306	27
VAD 218, 312, 315, 321, 397, 398, 404, 498, 499	24
VAR 200	1
VAP 101	3
Select two from VAH 201, 202, 203	6
VAH 383	3
Visual arts electives	15
Marketing or communication	6
Computer Imaging concentration:	
VAF 104, 112, 117, 206, 216, 226	18
VAD 215 or 218, 312, 315, 320 or 321, 498, 499	15
VAR 200	1
VAP 101, 240, 340, 345, 440, 445	18
Select two from VAH 201, 202, 203	6
VAH 383	3
Visual arts electives	18
Marketing or communication	6
Communication skills	0-9
Natural science	7
Mathematics (MTH 102, 204, 205 excluded)	3
Social and behavioral sciences	3
Humanities	9
Philosophy and/or religious studies	12
First-year experience: ASI 150	0-1
Program and general electives to total at least	123-129

¹See also Distribution Table for Bachelor of Arts programs and Chapter V for General Education requirements.

PHOTOGRAPHY

The two programs in Photography (B.A. and B.F.A.) offer many approaches to using the medium. Art, journalism, advertising, and illustration are just a few of the fields in which accomplished photographers may find rewarding careers.

The B.A. program emphasizes a traditional liberal arts background with a thorough grounding in photographic practice. The B.F.A. allows for greater concentration within photography and related disciplines. Electives allow students to pursue individual interests and goals.

PROGRAM A21: BACHELOR OF ARTS WITH A MAJOR IN PHOTOGRAPHY (PHO)¹

	<i>Semester Hours</i>
Major program requirements	45
VAP 101, 201, 302, 410, 498, 499	16

Select two from: VAP 240, 320, 330	6
VAF 104, 112, 117 or 216	9
Select one from VAH 201, 202, 203	3
VAH 382, 482	6
Visual Arts electives (300-400 level)	5
Communication skills	0-9
Natural science	7
Mathematics (MTH 102, 204, 205 excluded)	3
Social and behavioral sciences	12
Humanities	18
Philosophy and/or religious studies	12
First-year experience: ASI 150	0-1
Program and general electives to total at least	120

¹See also Distribution Table for Bachelor of Arts programs and Chapter V for General Education requirements.

PROGRAM A21A: BACHELOR OF FINE ARTS WITH A MAJOR IN PHOTOGRAPHY (PTY)¹

	<i>Semester Hours</i>
Major program requirements	72
VAP 101, 201, 302, 410, 498, 499	16
Select two: VAP 240, 320, 330	6
VAF 104, 112, 117 or 216	9
Select two from VAH 201, 202, or 203	6
VAH 382, 480, 482	9
Visual arts electives	26
Communication skills	0-9
Natural science	7
Mathematics (MTH 102, 204, 205 excluded)	3
Social and behavioral sciences	9
Humanities	18
Philosophy and/or religious studies	12
First-year experience: ASI 150	0-1
Program and general electives to total	121-134

¹See also Distribution Table for Bachelor of Arts programs and Chapter V for General Education requirements.

ART EDUCATION

The Bachelor of Fine Arts with Teacher Certification, a B.F.A. (E11A) program, offers students expertise in studio practice, art history, aesthetics, and critical analysis of art. Field experience in the Dayton area allows students to transform theoretical knowledge into classroom practice. Graduates are well prepared for teaching positions in public or private schools K-12, as well as for master's degree programs.

PROGRAM A22: BACHELOR OF FINE ARTS WITH TEACHER CERTIFICATION (E11A) (FAE)¹

	<i>Semester Hours</i>
Major program requirements	65
VAF 104, 112, 117, 206, 207, 216, 226, 232, 240 or 331, 253 or 353, 498, 499	34
VAE 483	4
Select two from VAH 201, 202, 203; 470 or 471 or 480 and VAH elective	2
VAP 101	3
Visual arts electives	12
Education requirements: EDT 110, 207, 208, 318, 351, 419, 421, 469	30-32
Communication skills	0-9
Natural science	6
Mathematics (MTH 102, 204, 205 excluded)	3
Social and behavioral sciences	3
Humanities	6
Philosophy and/or religious studies (must include EDT 419)	12
First-year experience: ASI 150	0-1
Program and general electives to total	125-137

¹See also Distribution Table for Bachelor of Arts programs and Chapter V for General Education requirements.

ART HISTORY

Art history is the study of art and architecture, produced within specific cultural contexts, as a manifestation of human creativity and as a valuable form of historical documentation. Students learn to appreciate the fundamental and varied roles that the visual arts have played and continue to play in the lives of human beings. Toward this end, students would learn how images and objects, identified as art, embody—but also condition and control—social, religious, cultural, economic, political, and gender dynamics.

PROGRAM A23: BACHELOR OF ARTS WITH A MAJOR IN ART HISTORY (HOA)¹

	<i>Semester Hours</i>
Major Program Requirements	42
VAH 101, 201, 202, 203	12
VAH 485	3

VAH electives (300-400)	21
Major program electives ²	6
Natural science	7
Mathematics (MTH 102, 204, 205 excluded)	3
Social and behavioral sciences	12
Humanities	18
Philosophy and religious studies	12
Communication skills	0-9
Foreign language ³	6-8
First-year experience: ASI 150	0-1
General Education courses and academic electives to total at least	120

¹See also distribution table for Bachelor of Arts Programs and Chapter V for General Education requirements.

²Major program electives may be chosen, in consultation with an art history advisor, from among the following disciplines and courses: ANT 300, CMM 313, ENG 322, VAF 104, VAF 232, HST 406, HMS 395, PHL 320, PSY 375 and REL 374. Alternatives to these courses may be elected with the approval of an art history advisor. Major program electives must be at the 300-400 level (except in the case of Fine Arts courses), and they may not be used to satisfy the college breadth requirements for humanities or social sciences.

³Where appropriate, this credit may apply to other requirements.

FACULTY

Sean Wilkinson, *Chairperson*

Professor: Wilkinson

Associate Professors: Edwards, Gooch, Hitt, Niles, Wilbers, Zahner

Assistant Professors: Crum, Kettering, Marcinowski, Matlack, Murphy, Whitaker

Part-time Instructors: Baker, Bennett, Conard, Cronley, Crum, Grant, Holihan,

Jones, Langenderfer, Manera, Martin, Martino, Megginson, Peterson,

Rudegeair, Sholtis, Spenny, Stephan, Weber

COURSES OF INSTRUCTION

FINE ARTS

VAF 104. FOUNDATION DRAWING: Introduction to basic visual concepts, various drawing media, and approaches to experimental technique. Emphasis on perspective, perceptual awareness, volume in space, and expressive freedom. Studio fee.

3 sem. hrs.

VAF 112. FOUNDATION 2-D DESIGN: Study of the underlying elements and principles of design as they are used in two-dimensional composition and the creation of illusionistic three-dimensional space.

3 sem. hrs.

VAF 117. FOUNDATION 3-D DESIGN: Introduction to basic principles and practices of design in three dimensions. Emphasis on current theory and construction techniques using a variety of media and methods. Studio fee.

3 sem. hrs.

VAF 206. **FIGURE DRAWING I:** Studies of the nude model and the skeleton. Methods of expressing the human form using norms of proportion and distortion. Gesture study and expression with a variety of media to develop basic visual vocabulary. Prerequisite: VAF 104. Model fee. *3 sem. hrs.*

VAF 207. **FIGURE DRAWING II:** Emphasis on integrating work done in VAF 206 with composition. Development of finished drawings with convincing volume and space. Continued study of the nude figure plus anatomical diagrams. Prerequisite: VAF 206. Model fee. *3 sem. hrs.*

VAF 216. **DESIGN AND COLOR:** The study of color based on historical and contemporary color theories and the use of color in expressing and integrating design concepts. Prerequisite: VAF 112 or permission. *3 sem. hrs.*

VAF 226. **PAINTING I:** Introduction to basic painting principles, techniques, and materials; still life, landscape, figure, and abstraction. Prerequisites: VAF 104, 112, 216, or permission. Studio fee. *3 sem. hrs.*

VAF 228. **WATERCOLOR I:** Principles and techniques of transparent watercolor. Emphasis on technical mastery. Prerequisites: VAF 104, 112, 216, or permission. *3 sem. hrs.*

VAF 232. **SCULPTURE I:** Consideration of forms as a means of developing an understanding of mass, shape, and control of medium. The use of various materials such as wood, plaster, and clay, with emphasis on integrating material with personal expression. Studio fee. *3 sem. hrs.*

VAF 240. **CERAMICS I:** Introduction to basic methods of working in clay using coil and slab techniques. Studio fee. *3 sem. hrs.*

VAF 253. **PRINTMAKING I:** Introduction to the traditional printmaking methods of woodcut and intaglio. Instruction in edition-printing techniques and curating of prints. Prerequisites: VAF 104, 112, or permission. Studio fee. *3 sem. hrs.*

VAF 303. **DRAWING III:** Observational and expressive drawing. Use of accumulated knowledge from previous drawing experiences to develop individual creativity and original style. Portrait study and field trips. Prerequisites: VAF 206-207 or permission. Model fee. *3 sem. hrs.*

VAF 306. **PAINTING II:** Painting with oils or acrylics; continuing study of the principles and techniques of painting, with emphasis on personal expression and experimentation. Prerequisite: VAF 226 or 228 or permission. Studio fee. *3 sem. hrs.*

VAF 319. **STUDIO:** A faculty-supervised time block that allows students to pursue work in a variety of media as designated in the course composite by area: painting, drawing, etc. Prerequisites: 6 sem. hrs. of course work in the area selected or permission of the instructor. Repeatable up to 9 sem. hrs. Studio fee. *1-3 sem. hrs.*

VAF 325. **FIGURE PAINTING:** Painting from the model with a variety of media. Traditional and contemporary approaches to the figure. Prerequisite: VAF 206 or 207, 226 or permission. Model fee. *3 sem. hrs.*

VAF 328. WATERCOLOR II: Continuing investigation of watercolor techniques, both traditional and experimental. Still life, figure, landscape, and abstraction. Prerequisite: VAF 228 or permission. 3 sem. hrs.

VAF 331. CERAMICS II: Introduction to basic methods of working clay using the wheel. Studio fee. 3 sem. hrs.

VAF 332. SCULPTURE II: Continued exploration of three-dimensional concepts and materials, concentrating on wood, stone, and metal. Prerequisite: VAF 232 or permission. Studio fee. 3 sem. hrs.

VAF 343. CERAMICS III: Introduction to Raku, a 400-year-old Japanese ceramic glaze firing technique adapted for the contemporary potter. Study includes glaze formulation, handbuilding and/or wheel throwing techniques. Prerequisite: VAF 240, 331, or permission. Studio fee. 3 sem. hrs.

VAF 353. PRINTMAKING II: Following a review of woodcut and experiments in monoprinting, advanced work in intaglio, including dry-point, color etching, aquatint, sugar-lift, and experimental etching methods. Prerequisite: VAF 253 or permission. Studio fee. 3 sem. hrs.

VAF 364. JEWELRY CONSTRUCTION: Basic principles of construction with special emphasis on soldering techniques, use of tools, and the design of the piece of work. Prerequisite: VAF 112. Studio fee. 3 sem. hrs.

VAF 366. JEWELRY CASTING: The complete jewelry-casting process: designing of original pieces, making the wax models, spruing, investing, burning out, casting, and finishing. Emphasis at the beginning of the course on learning the process and correct procedures; later emphasis on the aesthetic and sculptural nature of the piece of work. Studio fee. 3 sem. hrs.

VAF 436. PAINTING III: Directed advanced studio problems; contemporary issues in painting. Prerequisites: VAF 306, 325, or permission. Studio fee. 3 sem. hrs.

VAF 453. PRINTMAKING III: Investigation of lithographic printing techniques. Emphasis on metal plate technology and production of print edition. Prerequisite: VAF 253 and VAF 353 or permission. Studio fee. 3 sem. hrs.

VAF 490. SPECIAL PROBLEMS: A course for advanced individual work in fine arts. Approval based on academic standing and permission of instructor. Repeatable up to 15 sem. hrs. Studio fee. 1-5 sem. hrs.

VAF 498. SENIOR/PROFESSIONAL SEMINAR—FINE ARTS: Capstone course required of all B.A. and B.F.A. fine arts and art education (E11) majors, to be taken in the first semester of the senior year. Examination of aesthetic, cultural, ethical, and pragmatic issues in preparation for post-graduate experience. Prerequisite: Senior standing or permission. Studio fee. 3 sem. hrs.

VAF 499. PORTFOLIO AND PAPER—FINE ARTS: Completion and presentation of undergraduate portfolio and paper, to be reviewed by faculty and peers. Faculty approval of portfolio and paper is required for graduation. Prerequisite: VAF 498 or permission. 1 sem. hr.

Studio fees: \$20. - \$60.

INTERIOR DESIGN

VAI 305. DRAWING FOR INTERIOR DESIGN I: Design and practice in the marker medium. Emphasis on presentation. Prerequisite: VAF 104 and permission. Studio fee. *2 sem. hrs.*

VAI 308. DRAWING FOR INTERIOR DESIGN II: Use of markers in rendering sketches that enable a client to visualize the designer's ideas. Prerequisite: HEC 395, VAI 305 and permission. Studio fee. *2 sem. hrs.*

VAI 490. SPECIAL PROBLEMS: A course for advanced individual work in interior design. Approval based on academic standing and permission of instructor. Repeatable up to 15 sem. hrs. Prerequisite: permission. Studio fee. *1-5 sem. hrs.*

Studio fees: \$20. - \$60.

VISUAL COMMUNICATION DESIGN

VAD 215. COMPUTER APPLICATIONS—DESIGN: An introduction to page design software programs and their use in the design process. Prerequisite: VAR 200 or permission. Studio fee. *2 sem. hrs.*

VAD 218. COMPUTER APPLICATIONS—ILLUSTRATION: An introduction to drawing and paint software programs and their use in illustration. Prerequisite: VAR 200 or permission. Studio fee. *2 sem. hrs.*

VAD 307. DRAWING FOR GRAPHIC DESIGN: Exploration of materials, procedures, and drawing techniques for design presentations. Prerequisite: VAF 104 or permission. Studio fee. *3 sem. hrs.*

VAD 312. VISUAL FORM: Investigation of the perceptual and psychological effect of the visual elements—line, shape, value, volume, texture, and color—in visual communication. Exploration of word and image relationships. Prerequisite: VAF 216. Studio fee. *3 sem. hrs.*

VAD 315. TYPOGRAPHY: The study of the appearance and arrangement of letter and word forms. Attention to their importance as both functional and expressive elements in communication messages. Studio fee. *3 sem. hrs.*

VAD 317. AIRBRUSH TECHNIQUE: Fundamental course in the use of airbrush as an illustration and design tool. Prerequisites: VAF 104, 216. Studio fee. *3 sem. hrs.*

VAD 318. GRAPHIC DESIGN FOR THREE DIMENSIONS: The application of graphic design principles to packaging, product, exhibition, and environmental design. Prerequisite: VAF 117, VAD 315, or permission. Studio fee. *3 sem. hrs.*

VAD 320. COMPUTER-AIDED GRAPHIC DESIGN: An exploration of the use of the computer as both a tool and a medium for the design and production of visual communication. Prerequisites: VAD 215, 315, or permission. Studio fee. *3 sem. hrs.*

VAD 321. COMPUTER-AIDED ILLUSTRATION: An exploration of the use of the computer as both a tool and a medium for the creation and production of illustrations. Prerequisites: VAD 218, 315, or permission. Studio fee. 3 sem. hrs.

VAD 350. DESIGN PROCESS: Focus on the developmental process of visual communication, including concept development, visualization techniques, presentation formats, and production methods. Prerequisite: VAD 215, 312, 315, or permission. Studio fee. 3 sem. hrs.

VAD 395. ADVERTISING DESIGN: Emphasis on print advertising, its creation and presentation. Concept development and attention to advertising layouts that carry motivating images and messages to consumers about products, services, or ideas. Studio fee. 3 sem. hrs.

VAD 397. ILLUSTRATION I: Attention to conceptual, visual, and technical development. Exploration of media and techniques employed by the illustrator in creating images for printed communication. Prerequisite: VAF 104 or permission. Studio fee. 3 sem. hrs.

VAD 398. ILLUSTRATION II: Interpretation and representation of concepts, products, or stories for magazines, books, newspapers, and advertising. Continued technical development with a variety of materials, media, and techniques. Prerequisite: VAD 397. Studio fee. 3 sem. hrs.

VAD 404. ILLUSTRATION III: Focus on developing an individual point of view and illustration style. Prerequisite: VAD 398. Studio fee. 3 sem. hrs.

VAD 411. GRAPHIC DESIGN I: Study, design, and application of marks, logos, and symbols in visual communication. Attention to effective visual relationships between typographic elements and images in single-page applications. Prerequisites: VAD 315, 350. Studio fee. 3 sem. hrs.

VAD 412. GRAPHIC DESIGN II: Continued study of effective visual relationships between typographic elements and images. Emphasis on sequential page design. Prerequisite: VAD 411 or permission. Studio fee. 3 sem. hrs.

VAD 414. TRADEMARK DESIGN: Advanced study of marks, logos, and symbols as communication and identification elements. Emphasis on conceiving design marks of identity for small businesses, corporations, institutions, products, and/or services. Prerequisite: VAD 411. Studio fee. 3 sem. hrs.

VAD 415. GRAPHIC DESIGN III: The study and design of identification and image systems for products, organizations, institutions, or corporations. Emphasis on continuity in the application of visual communication factors. Prerequisites: VAD 411. Studio fee. 3 sem. hrs.

VAD 480. VISUAL COMMUNICATION DESIGN INTERNSHIP: Opportunities for practical experience in professional working environments. Prerequisite: second semester junior status or permission. Repeatable up to 12 sem. hrs. 3 sem. hrs.

VAD 490. SPECIAL PROBLEMS: A course for advanced individual work in design or illustration. Approval based on academic standing and permission of instructor. Repeatable up to 15 sem. hrs. Studio fee. 1-3 sem. hrs.

VAD 498. SENIOR/PROFESSIONAL SEMINAR—VCD: Capstone course required of all B. A. and B.F.A. visual communication design majors, to be taken in the first semester of the senior year. Examination of aesthetic, cultural, ethical, and pragmatic issues in preparation for post-graduate experience. Prerequisite: Senior standing or permission. Studio fee. *3 sem. hrs.*

VAD 499. PORTFOLIO AND PAPER—VCD: Completion and presentation of undergraduate portfolio and paper, to be reviewed by faculty and peers. Faculty approval of portfolio and paper is required for graduation. Prerequisite: VAD 498 or permission. *1 sem. hrs.*

Studio fees: \$20. - \$60.

ART EDUCATION

VAE 101. FUNDAMENTALS AND MATERIALS OF ART: Acquaints students with the principles and concepts of art and with the various kinds of materials and techniques used in artistic expression. Open to all students. Studio fee. *2 sem. hrs.*

VAE 483. TEACHING ART IN ELEMENTARY AND SECONDARY SCHOOLS: Philosophy, curriculum, planning, diagnosis, instructional methods, materials, safety, and evaluation techniques for teaching art to students with varied needs and abilities. Art education majors only. Studio fee. First term. *4 sem. hrs.*

VAE 483W. ELEMENTARY AND SECONDARY SCHOOL ART: Workshop to give the student of elementary and secondary education new approaches to teaching studio arts, art criticism, art history, and aesthetics. Studio fee. *3 sem. hrs.*

VAE 490. SPECIAL PROBLEMS: A course for advanced individual work in art education. Approval based on academic standing and permission of instructor. Repeatable up to 15 sem. hrs. Studio fee. *1-5 sem. hrs.*

Studio Fees: \$20. - \$40.

PHOTOGRAPHY

VAP 101. FOUNDATION PHOTOGRAPHY: Emphasis on learning and exploring the visual language of photographic imagery through a series of creative assignments. Fundamentals of black-and-white still photography: camera function, exposure, film processing, and printing. Students gain sound technical and creative control of the medium. Studio fee. *3 sem. hrs.*

VAP 201. PHOTOGRAPHY II: Specific projects to develop personal expression and sustained creative growth, increased technical competence and greater visual awareness. Students learn more advanced photographic techniques, including negative and printing controls, and different camera formats. Prerequisite: VAP 101 or equivalent. Studio fee. *3 sem. hrs.*

VAP 240. DIGITAL IMAGERY I: Introduction to the theory, ethics, aesthetics, and practice of computer image digitizing, enhancement, compositing, and manipulation. No prior knowledge of computers is required. Studio fee. *3 sem. hrs.*

VAP 302. COLOR PHOTOGRAPHY I: Introduction to techniques and aesthetics of color photography; students learn to use transparency and negative films and to make color prints. Prerequisite: VAP 101, 201 or permission. Studio fee. *3 sem. hrs.*

VAP 320. STUDIO PRACTICE I: Extensive use of medium and large format cameras, studio grip equipment, tungsten and electronic flash lighting techniques; still-life and portrait photography in a studio environment. Prerequisite: VAP 201. Studio fee. *3 sem. hrs.*

VAP 321. STUDIO PRACTICE II: Emphasis on the production of a professional-quality portfolio which will demonstrate advanced knowledge of the studio and image production. Prerequisite: VAP 320. Studio fee. *3 sem. hrs.*

VAP 330. ALTERNATIVE PHOTOGRAPHY I: Introduction to specialized image production utilizing silver and non-silver photographic processes. Emphasis on technical and aesthetic aspects of alternative photographic practice. Prerequisite: VAP 101. Studio fee. *3 sem. hrs.*

VAP 331. ALTERNATIVE PHOTOGRAPHY II: Continuing work with alternative silver and non-silver processes. Emphasis on completion of an artist book or installation which demonstrates advanced technical command and aesthetic understanding of the processes employed. Prerequisite: VAP 330. Studio fee. *3 sem. hrs.*

VAP 340. DIGITAL IMAGERY II: Continuation of the theory and practice of computer digitizing techniques; the incorporation of digital images into other media. Emphasis on videographic imaging and the role of digital images in art and society. Prerequisite: VAP 240. Studio fee. *3 sem. hrs.*

VAP 345. COMPUTER MODELING AND ANIMATION I: Introduction to history, theory, and practice of 3-dimensional computer modeling and animation for video and print media. Visualization, Cartesian space, simple polygonal modeling, rendering, and animation techniques will be explored. Prerequisite: VAP 240 or permission. Studio fee. *3 sem. hrs.*

VAP 350. VIEW CAMERA: Extensive experience with the view camera, examination of refined techniques, various applications, and concepts of large format photography. Prerequisite: VAP 201. Studio fee. *3 sem. hrs.*

VAP 402. COLOR PHOTOGRAPHY II: A continuation of color printing from negatives; completion of individual projects which will demonstrate an advanced understanding of the techniques and aesthetics peculiar to color photography. Prerequisite: VAP 302. Studio fee. *3 sem. hrs.*

VAP 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: VAP 201, 302; VAH 382. Studio fee. *3 sem. hrs.*

VAP 420. PHOTOJOURNALISM: A variety of ways of using photography as documentation, narrative, and propaganda. Editing of work, layout, and image-text relationships. Personal photographic essay required. Prerequisite: VAP 201. Studio fee.

3 sem. hrs.

VAP 430. PROFESSIONAL PHOTOGRAPHIC APPLICATIONS: Problem-solving associated with professional photography; may include commercial, editorial, industrial, architectural, and illustrative photographic work both in the studio and on location.

Prerequisites: VAP 320 or permission. Studio fee.

3 sem. hrs.

VAP 440. COMPUTER MODELING AND ANIMATION II: Detailed study of spline-based modeling, surface rendering and mapping, editing complex animation sequences, motion control, and other topics. Prerequisite: VAP 345. Studio fee.

3 sem. hrs.

VAP 445. COMPUTER MODELING AND ANIMATION III: Individual projects in conceptualization and production of animated or high-resolution sequence from storyboard to final presentation. Prerequisite: VAP 440. Studio fee.

3 sem. hrs.

VAP 450. PHOTOGRAPHY INTERNSHIP: Practical applications of photographic skills. Opportunities for advanced development and practical experience in professional working environments. Repeatable up to 6 sem. hrs. for B.F.A. students.. Prerequisite: Permission.

1-3 sem. hrs.

VAP 490. SPECIAL PROBLEMS IN PHOTOGRAPHY: Series of assignments to guide independent study in photography, formulated to meet individual needs of the student. Prerequisites: VAP 201 and permission. Studio fee.

1-5 sem. hrs.

VAP 498. SENIOR/PROFESSIONAL SEMINAR—PHOTOGRAPHY: Capstone course required of all B.A. and B.F.A. photography majors, to be taken in the first semester of the senior year. Examination of aesthetic, cultural, ethical, and pragmatic issues in preparation for post-graduate experience. Prerequisite: Senior standing or permission. Studio fee.

3 sem. hrs.

VAP 499. PORTFOLIO AND PAPER—PHOTOGRAPHY: Completion and presentation of undergraduate portfolio and paper, to be reviewed by faculty and peers. Faculty approval of portfolio and paper is required for graduation. Prerequisite: VAP 498 or permission.

1 sem. hr.

Studio fees : \$30. - \$60.

ART HISTORY

* VAH 101. INTRODUCTION TO THE VISUAL ARTS: Introduction to the media of painting, sculpture, and architecture in the history of art. Emphasis on understanding the technical, formal, and expressive aspects of the visual arts and their various roles in society. Open to all students. Fee.

3 sem. hrs.

* VAH 201. SURVEY OF ART I: Survey of Western art from pre-history through the late medieval period. Open to all students. Fee.

3 sem. hrs.

* VAH 202. SURVEY OF ART II: Survey of Western art from the late medieval period through the Baroque. Open to all students. Fee.

3 sem. hrs.

- * VAH 203. SURVEY OF ART III: Survey of Western art from the eighteenth through the twentieth centuries. Open to all students. Fee. *3 sem. hrs.*
- VAH 350. WESTERN ARCHITECTURE: Introduction to the history, theory, and practice of western architecture from pre-history through the contemporary period. Open to all students. Fee. *3 sem. hrs.*
- * VAH 360. ART HISTORY AND FEMINISM: Introduction to feminist approaches to art history and women artists from the medieval period to the present. Open to all students. Fee. *3 sem. hrs.*
- VAH 370. AMERICAN ART: Introduction to American art and architecture from the colonial period to World War II. Prerequisite: One Survey of Art course. Fee. *3 sem. hrs.*
- * VAH 382. HISTORY OF PHOTOGRAPHY I: History of the cultural, social, and aesthetic roles of photography from the camera obscura to 1945. Emphasis on the changing practice and perception of the medium as an art form, as social document, and as popular culture. Open to all students. Fee. *3 sem. hrs.*
- VAH 383. HISTORY OF VISUAL COMMUNICATION DESIGN: Study of the significant developments, movements, and figures in the history of visual communication with an emphasis on the modern period. Open to all students. Fee. *3 sem. hrs.*
- VAH 450. ITALIAN RENAISSANCE ART: Introduction to the painting, sculpture, and architecture of Italy between c. 1300 and c. 1550. Prerequisite: VAH 202 or permission. Fee. *3 sem. hrs.*
- VAH 460. BAROQUE ART: Study of the major painters, sculptors, and architects of the seventeenth century. Prerequisite: VAH 202 or permission. Fee. *3 sem. hrs.*
- * VAH 470. NINETEENTH-CENTURY ART I: Study of the major artists and movements in European art from Neo-Classicism to the beginnings of Realism. Prerequisite: VAH 203 or permission. Fee. *3 sem. hrs.*
- * VAH 471. NINETEENTH-CENTURY ART II: Study of the major artists and movements in European art from Realism through Art Nouveau. Prerequisite: VAH 470 or permission. Fee. *3 sem. hrs.*
- * VAH 480. TWENTIETH-CENTURY ART: Study of the major movements and artists in the painting, sculpture, and architecture of the twentieth century. Prerequisite: VAH 203 or permission. Fee. *3 sem. hrs.*
- VAH 481. CONTEMPORARY ART: Study of the major movements and artists in painting, sculpture, architecture, and other media in the contemporary period. Prerequisite: VAH 203, 480, or permission. Fee. *3 sem. hrs.*
- VAH 482. HISTORY OF PHOTOGRAPHY II: The history of photography from 1945 to the present. Prerequisite: VAH 382. *3 sem. hrs.*
- VAH 485. ART HISTORY SEMINAR: A seminar and capstone reading and research course concentrating on one art historical topic for detailed analysis. May be repeated as topics change. Permission of instructor. *3 sem. hrs.*

VAH 490. SPECIAL PROBLEMS: Advanced, independent study with faculty direction in art history. Prerequisite: one art history course or permission. *1-5 sem. hrs.*

Slide library and film fees: \$25.

VISUAL ARTS

VAR 200. INTRODUCTION TO VISUAL ARTS COMPUTING: An introduction to the computer as a tool, and the computer lab as an environment, for visual art production. Studio fee. *1 sem. hr.*

VAR 490. SPECIAL PROBLEMS: Advanced, independent study with faculty direction in a visual arts subject or topic that is not covered in existing, discipline-specific courses. Permission. Studio fee. *1-5 sem. hrs.*

Studio fees: \$25. - \$60.

* General Education course. See Chapter V.



WST

WOMEN'S STUDIES (WST)

The interdisciplinary minor in women's studies provides a timely academic concentration appropriate to many majors and useful in many fields. As an academic pursuit, women's studies attempts to compensate for the traditional omission from many curricula of the historical and contemporary contributions of women. It also looks to the future, intending to enhance the dignity, worth, and effectiveness of all women.

The minor in women's studies requires 13 semester hours. It must include the interdisciplinary seminar ASI 228, Focus on Women, and 12 semester hours in upper-division courses (300-level or above) from at least three different disciplines. The following courses are among those offered.

ASI	228	Focus on Women
CMS	415	Women and Communication
HPS	427	Women and Alcohol
HPS	130	Self Defense for Women
HPS	540	Women in Sport (may be taken for undergraduate credit)
ENG	204	Major American Writers: Women Writers ¹
ENG	319	Contemporary Fiction: Women Writers ¹
ENG	324	The Novel: Contemporary Women Novelists ¹
ENG	329	The Short Story: Women Writers ¹
ENG	333	Images of Women in Literature
ENG	335	Modern Black Literature
HEC	318	Family Living
HST	351	History of American Women
HST	352	History of the American Family
HST	353	Women in European Society
HST	469	Technology, Labor and Gender
MGT	440	Women in Management
PHL	307	Philosophy and Women
POL	300	Women and Politics
PSY	443	Psychology of Women
PSY	462	Human Sexuality
REL	471	Women and Religion
REL	472	Ecology and Religion
REL	492	Women and Global Church
SOC	322	Sex Roles and Society
SOC	332	Sociology of Women
VAH	377	Women Artists

In addition, independent study courses and UDI courses may be applicable.

¹Topics courses in various departments may be applicable if they are readily identifiable as pertinent to women's studies. Students who wish to be recorded as minoring in women's studies should notify their respective deans and the director of women's studies.

WOMEN'S STUDIES COMMITTEE

L. Majka (Sociology, Anthropology, and Social Work), *Director of Women's Studies*
Benz (Educational Administration), Bowen (School of Education), J. Burnell
(Counseling Center), Carlson (History), Dunlevy-Shakelford (Communication/
Theatre), Fischer (Philosophy), T. George (Counseling Center), Hirshfield
(History), Masters (Art Series), Martin (Religious Studies), O'Leary (Law Clinic),
O'Meara (Languages), Pestello (Sociology, Anthropology, and Social Work),
Shereen (English), Vesper (Arts & Sciences), R.M. Bowen (undergraduate).

