The College of Arts and Science represents a range of academic disciplines and contributes to the general and professional education of all undergraduate students at the University.

Students enrolled in the college may choose among a number of degree programs and options designed to permit undergraduates as much flexibility as possible in the pursuit of their educational goals, within guidelines or requirements established by the faculty. These formal requirements ensure that all students in the college include in their selections courses representative of each of the major disciplinary groupings in the College: Arts and Humanities, Culture and Institutions Through Time, Behavioral and Social Sciences, and Natural Sciences and Mathematics.

The arts and humanities deal with the development and refinement of systems of value, aesthetic appreciation, a comprehensive world view, and increased skill in communication, both verbal and nonverbal. Courses in the grouping Culture and Institutions Through Time provide an understanding of the impact of history upon the way we live and think, dealing with a wide variety of social, technological, literary, artistic, scientific and political subject matter from a historical perspective. Through the behavioral and social sciences, students should acquire knowledge of facts and concepts relating to social and political organization and patterns of interaction among individuals and groups; awareness of the practical, moral and ethical issues in society; and an understanding of psychological development and the determinants of individual behavior.

In an increasingly complex, technological society, an educated person must have some knowledge of the natural sciences and competency to deal with mathematical and quantitative concepts.
The intent of these requirements is to provide students acquaintance with, and appreciation of, the materials and methodologies of each area and, ideally, to foster an awareness that the works of an artist, novelist, sociologist, and physicist may all be equally valid representations of reality. In the process, students should develop a heightened understanding of all aspects of human environment, intellectual curiosity, respect for fact, perception of the complexity of truth, skill in reasoning, and concern for integrity and logical consistency and should acquire perceptions, skills, and attitudes that will assist them in achieving a full and satisfying life as contributing members of society.

In addition to the requirements listed for the various degrees, students must fulfill the general University requirements for baccalaureate degrees listed in the all-campus Academic Regulations section of this catalog.

Specific Requirements for Students in the College of Arts and Science Critical Reading and Writing, ENGL 110 (3 credits), with a minimum grade of C.

Courses to fulfill degree requirements may not be taken pass/fail unless they are offered only on a pass/fail basis.

Bachelor of Arts

This degree, offered by all departments of the College of Arts and Science, is awarded to those students who follow a broad course of study and is designed to provide a liberal education. For this degree, students must complete a minimum of 124 credits, composed of requirements for general education, required courses in a major, and elective courses.

Core Curriculum

UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing 3

ENGL 110 will be taken by all students as freshmen, except by students who have otherwise demonstrated the skills taught in that course. A score of 650 on the College Board Achievement Test in English Composition will be a satisfactory demonstration of basic writing skills. ENGL 110 must be completed by the time a student has earned 60 credits. Students who transfer into the College of Arts and Science with 45 credits or more must complete this requirement within two semesters.

Multicultural Course # 3

Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content. (For a list of approved courses, see page 26.)

Bachelor of Arts

College Requirements

Skill Requirements

Writing: 3,4

A second writing course involving significant writing experience including two papers with a combined minimum of 3,000 words to be submitted for extended faculty critique of both composition and content. This course must be taken after completion of 62 credit hours. Appropriate writing courses are normally designated in the semester's Registration Booklet. (See list of courses approved for second writing requirement, page 83.)

Mathematics:

MATH 114 or MATH 170 Elementary Mathematics and Statistics 3

(designed for students who do not intend to continue the study of mathematics)

or

MATH 115 or MATH 171 Pre-Calculus 3

(designed for students who intend to continue the study of mathematics)

or

Successful completion of any mathematics course at or above the 200 level except MATH 251 or MATH 252.

or

Successful performance on a proficiency test in mathematics administered by the Department of Mathematical Sciences through the College of Arts and Science Advisement Center.

The math requirement must be completed by the time a student has earned 60 credits. Students who transfer into the College of Arts and Science with 45 credits or more must complete this requirement within two semesters.

Foreign Language 0-12

Completion of the intermediate-level course (107 or 112) in a given foreign language (ancient or modern). Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Breadth Requirements

GROUP A 12

Analysis and appreciation of the creative arts and humanities. Twelve credits of courses representing at least two departments or appropriate instructional units.

GROUP B 12

The study of culture and institutions over time. Twelve credits of courses representing at least two departments or appropriate instructional units.

GROUP C 12

Empirically based study of human beings and their environment. Twelve credits of courses representing at least two departments or appropriate instructional units.

GROUP D 13

The study of natural phenomena through experiment or analysis. Thirteen credits of courses representing at least two departments or appropriate instructional units and including a minimum of one course with an associated laboratory.

A course may be applied both toward the major requirements and a breadth requirement, but the credits are counted only once toward the total credits for gradua-
 tion. If all but one course in a group has been taken in one department or program, a course cross-listed with that program will not satisfy the distribution requirement. For a complete list of the courses which fulfill breadth requirements, see pages 84-89.

**COURSES APPROVED FOR SECOND WRITING REQUIREMENT**

**NOTE:** Only the sections designated in the Registration Booklet as satisfying the Arts and Science Second Writing Course apply. Only a limited number of courses, when transferred from another institution, will satisfy the second writing requirement. Please contact the Arts and Science Advisement Center and Dean’s Office for further information.

**Anthropology (ANTH)**
- ANTH 486 Tutorial in Social and Cultural Anthropology
- ANTH 487 Tutorial in Archaeology
- ANTH 488 Tutorial in Physical Anthropology

**Art History (ARTH)**
- ARTH 213 Art of the Northern Renaissance
- ARTH 250 Rules' Images
- ARTH 301 Research and Methodology in Art History
- ARTH 302 Prints and Society
- ARTH 310 The Role of the Artist in Society
- ARTH 405 Seminar in Greek and Roman Art
- ARTH 406 Seminar in Medieval Art
- ARTH 408 Seminar in Northern Renaissance Art
- ARTH 413 Seminar in Italian Renaissance Art
- ARTH 417 Seminar in Northern Baroque Art
- ARTH 423 Seminar in Twentieth Century Art
- ARTH 429 Seminar in Modern Architecture
- ARTH 431 Seminar in American Architecture
- ARTH 435 Seminar in American Art

**Arts and Science (ARSC)**
- ARSC 316 Honors: Peer Tutoring/Advanced Composition (cross-listed with ENGL 316)

**Biology (BISC)**
- BISC 450 Proseminar in Environmental Science (cross-listed with GEOG 450 and GEOL 450)
- BISC 498 Topics in Biology (cross-listed with CSCC 498)
- BISC 605 Nucleoprotein Interactions

**Black American Studies (BAMS)**
- BAMS 415 Race, Class and Gender (cross-listed with SOCI 415 and WOMS 415)
- BAMS 432 Psychological Perspectives on the Black American (cross-listed with PSYC 416)

**Center for Science and Culture (CSCC)**
- CSCC 355 Computers, Ethics and Society (cross-listed with SOCI 355)
- CSCC 368 Literature and Science (cross-listed with ENGL 368)
- CSCC 385 History of Biological Ideas (cross-listed with HIST 385)
- CSCC 411 Seminar in American History (cross-listed with HIST 411)
- CSCC 444 Medical Ethics (cross-listed with PHIL 444)
- CSCC 498 Topics in Biology (cross-listed with BISC 498 and WOMS 411)

**Chemistry (CHEM)**
- CHEM 610 History of Chemistry

**Communication (COMM)**
- COMM 458 Speech and Language in Human Behavior
- COMM 452 Communication, Power and Values
- COMM 485 Analysis of Verbal Communication

**Comparative Literature (CMLT)**
- CMLT 311 Twentieth-Century Literature I (cross-listed with FLIT 311)
- CMLT 312 Twentieth-Century Literature II (cross-listed with FLIT 312)
- CMLT 341 Theatre/Drama: Classic/Medieval (cross-listed with THEA 341)
- CMLT 342 Theatre/Drama: Renaissance to 1700 (cross-listed with THEA 342)
- CMLT 343 Theatre/Drama: 1700 to 1900 (cross-listed with THEA 343)
- CMLT 344 Theatre/Drama: 1900 to Present (cross-listed with THEA 344)
- CMLT 480 Seminar (cross-listed with ENGL 480, and WOMS 480)

**Criminal Justice (CRJU)**
- CRJU 428 Corporate Crime (cross-listed with SOCI 428)
- CRJU 456 Lawyers and Society (cross-listed with SOCI 456)
- CRJU 460 Criminal Justice Policy

**English (ENGL)**
- ENGL 200 Approaches to Literature
- ENGL 301 Problems in Composition
- ENGL 302 Advanced Composition
- ENGL 307 News Writing and Editing
- ENGL 309 Feature and Magazine Writing
- ENGL 312 Written Communications in Business
- ENGL 316 Honors: Peer Tutoring/Advanced Composition (cross-listed with ARSC 316)
- ENGL 368 Literature and Science (cross-listed with CSCC 368)
- ENGL 409 Topics in Journalism
- ENGL 410 Technical Writing
- ENGL 480 Seminar (cross-listed with CMLT 480 and WOMS 480)

**Foreign Languages and Literatures (FLIT)**
- FLIT 311 Twentieth-Century Literature I (cross-listed with CMLT 311)
- FLIT 312 Twentieth-Century Literature II (cross-listed with CMLT 312)

**Geography (GEOG)**
- GEOG 346 Urban Cultural Geography
- GEOG 445 Method and Theory in Geography
- GEOG 450 Proseminar in Environmental Science (cross-listed with BISC 450 and GEL 450)

**Geology (GEOLE)**
- GEOLE 450 Proseminar in Environmental Science (cross-listed with BISC 450 and GEL 450)

**History (HIST)**
- HIST 250 Roots of Contemporary Culture
- HIST 300 Women in American History (cross-listed with WOMS 300)
- HIST 301 The Worker in American Life
- HIST 302 The World in Our Time (cross-listed with WOMS 302)
- HIST 305 American Intellectual History
- HIST 304 American Intellectual History
- HIST 307 The U.S. in the Early National Period
- HIST 309 U.S. Business and Political Economy
- HIST 315 Early Twentieth-Century America
- HIST 314 Twentieth-Century America
- HIST 318 Colonial America
- HIST 319 Revolutionary America
- HIST 328 American Industrial Society: 1815 to Present
- HIST 330 Peasants and Revolution in Africa
- HIST 334 History of Mexico
- HIST 341 Ancient Rome
- HIST 344 Renaissance Europe
- HIST 345 Europe in the Reformation Era: 1517 to 1648
- HIST 346 Age of Louis XIV
- HIST 347 The French Revolution and Napoleon
- HIST 355 Early Modern Intellectual History
- HIST 356 Modern European Intellectual History
- HIST 361 European Business History: 1850 to Present
- HIST 364 Modern Germany: 1870 to 1945

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WOMS 409 Varieties of Modern Feminism (cross-listed with HIST 409)

HIST 411 Seminar in American History
(cross-listed with CSCC 411 and WOMS 411)

HIST 416 The American Family 1608 to 1900
(cross-listed with WOMS 416)

WOMS 411 Seminar in American History
(cross-listed with CSCC 411 and HIST 411)

WOMS 415 Race, Class and Gender
(cross-listed with BAMS 415 and SOCI 415)

WOMS 416 The American Family 1608 to 1900
(cross-listed with HIST 416)

WOMS 473 Studies in Early Modern European History
(cross-listed with HIST 473)

WOMS 480 Seminar (cross-listed with CMLT 480 and ENGL 480)

COURSES APPROVED FOR BREADTH REQUIREMENTS

GROUP A

Anthropology (ANTH)
ANTH 205 Anthropology and Human Nature

ANTH 227 American Culture

ANTH 231 Personality and Culture

ANTH 251 Introduction to the Ethnic Arts

ANTH 328 Arts and Crafts of Native South America

ANTH 360 Humanities Colloquium

Art History (ARTH)
ARTH 150 Monuments and Methods in the History of Art

ARTH 151 Myth, Religion, and Art

ARTH 152 Design and Expression in the Visual Arts

ARTH 161 Art in East and West

ARTH 162 Buildings, Builders and Human Environment

Center for Science and Culture (CSCC)
CSCC 241 Ethical Issues in Health Care
(cross-listed with PHIL 241)

CSCC 245 Ethical Issues in Scientific Research
(cross-listed with PHIL 245)

CSCC 246 Philosophical Perspectives of Medicine
(cross-listed with PHIL 246)

CSCC 368 Literature and Science
(cross-listed with ENGL 368)

CSCC 369 Literature and Medicine (cross-listed with ENGL 369)

Comparative Literature (CMLT)
CMLT 202 Biblical and Classical Literature
(cross-listed with ENGL 202 and FLIT 202)

CMLT 217 Introduction to Film (cross-listed with ENGL 217)

CMLT 218 Introduction to Drama (cross-listed with ENGL 218)

CMLT 219 Introduction to the Novel (cross-listed with ENGL 219)

CMLT 311 Introduction to Folklore and Folklife
(cross-listed with ENGL 311)

CMLT 316 Classical Mythology (cross-listed with FLIT 316)

CMLT 319 Varying Authors and Genres (cross-listed with FLIT 319)

CMLT 322 Topics: Classical Literature in Translation
(cross-listed with FLIT 322)

English (ENGL)
ENGL 200 Approaches to Literature

ENGL 202 Biblical and Classical Literature
(cross-listed with ENGL 202 and FLIT 202)

ENGL 204 Great American Writers

ENGL 207 Introduction to Poetry

ENGL 208 Introduction to Drama (cross-listed with CMLT 208)

ENGL 209 Introduction to the Novel (cross-listed with CMLT 209)

ENGL 210 Short Story

ENGL 217 Introduction to Film (cross-listed with CMLT 217)

ENGL 311 Introduction to Folklore and Folklife
(cross-listed with CMLT 311)

ENGL 315 Ballad and Folksong

ENGL 324 Shakespeare

ENGL 327 English Bible

ENGL 368 Literature and Science (cross-listed with CSCC 368)

ENGL 369 Literature and Medicine (cross-listed with CSCC 369)

ENGL 380 Women Writers (cross-listed with WOMS 380)
### Foreign Languages and Literatures (FLLT)
- FLLT 202 Biblical and Classical Literature
  (cross-listed with CMLT 202 and ENGL 202)
- FLLT 316 Classical Mythology
  (cross-listed with CMLT 316)
- FLLT 320 Varying Authors and Genres
  (cross-listed with CMLT 320 and WOMS 320)
- FLLT 322 Topics: Classical Literature in Translation
  (cross-listed with CMLT 322)
- FLLT 324 Topics: French Literature in Translation
  (cross-listed with WOMS 324)
- FLLT 325 Topics: German Literature in Translation
  (cross-listed with WOMS 325)
- FLLT 326 Topics: Hispanic Literature in Translation
  (cross-listed with WOMS 326)
- FLLT 327 Topics: Russian Literature in Translation
- FLLT 328 Topics: Japanese Literature in Translation

### German (GRMN)
- GRMN 211 German Reading and Composition: Short Fiction
  (to be taught in German)

### Linguistics (LING)
- LING 301 Dictionaries

### Music (MUSC)
- MUSC 101 Appreciation of Music
- MUSC 102 Appreciation of Music
- MUSC 103 Introduction to Opera
- MUSC 105 Fundamentals of Music I
- MUSC 106 Fundamentals of Music II
- MUSC 195 Harmony I
- MUSC 196 Harmony II
- MUSC 197 Jazz Harmony

### Philosophy (PHIL)
- PHIL 100 Philosophies of Life
- PHIL 101 Great Western Philosophers
- PHIL 102 Introduction to Philosophy
- PHIL 201 Social and Political Philosophy
- PHIL 202 Contemporary Moral Problems
  (cross-listed with WOMS 203)
- PHIL 204 World Religions
- PHIL 210 Women and Religion
  (cross-listed with WOMS 210)
- PHIL 216 Introduction to Feminist Theory
  (cross-listed with WOMS 216)
- PHIL 241 Ethical Issues in Health Care
  (cross-listed with CSCC 241)
- PHIL 244 Philosophy of Art
- PHIL 245 Ethical Issues in Scientific Research
  (cross-listed with CSCC 245)
- PHIL 246 Philosophical Perspectives of Medicine
  (cross-listed with CSCC 246)
- PHIL 317 American Philosophy

### Political Science (POSC)
- POSC 285 Currents in Political Theory
- POSC 333 Communism, Fascism, and Democracy

### Theatre (THEA)
- THEA 102 Introduction to Performance
- THEA 104 Introduction to Theatre and Drama
- THEA 106 The Theatrical Experience Abroad
- THEA 200 Introduction to Theatre Production
- THEA 292 Introduction to Theatre Design
- THEA 293 Introduction to Costuming
- THEA 296 Introduction to Dance
- THEA 410 Fundamentals of Dramaturgy

### University (UNIV)
- UNIV 490 Honors Tutorial: Humanities

### Women's Studies (WOMS)
- WOMS 203 Contemporary Moral Problems
  (cross-listed with PHIL 292)
- WOMS 204 Gender and Knowledge
- WOMS 205 Women in the Arts and Humanities
- WOMS 210 Women and Religion
  (cross-listed with PHIL 210)
- WOMS 216 Introduction to Feminist Theory
  (cross-listed with PHIL 216)
- WOMS 320 Varying Authors and Genres
  (cross-listed with CMLT 320 and FLLT 320)
- WOMS 324 French Literature in Translation
  (cross-listed with FLLT 324)
- WOMS 325 German Literature in Translation
  (cross-listed with FLLT 325)
- WOMS 326 Hispanic Literature in Translation
  (cross-listed with FLLT 326)
- WOMS 380 Women Writers
  (cross-listed with ENGL 380)

### Anthropology (ANTH)
- ANTH 101 Introduction to Social and Cultural Anthropology
- ANTH 228 Peoples and Cultures of the Southwest
- ANTH 260 Sociocultural History of Africa
- ANTH 261 Peoples and Cultures of the Middle East
- ANTH 205 High Civilizations of the Americas
- ANTH 278 Historic Cultures of the Mid-Atlantic Region
  (cross-listed with HIST 278)
- ANTH 322 The City in American Culture
  (cross-listed with HIST 322)
- ANTH 323 Prehistory of South America
- ANTH 375 Peoples and Cultures of Modern Latin America

### Art History (ARTH)
- ARTH 153 Introduction to Art History I
- ARTH 154 Introduction to Art History II
- ARTH 155 Asian Art
- ARTH 207 Origins of Art
- ARTH 208 Greek and Roman Art
- ARTH 209 Early Medieval Art A.D. 200-1000
- ARTH 210 Later Medieval Art 1000-1400
- ARTH 217 Early Renaissance Art
- ARTH 218 High Renaissance and Mannerist Art
- ARTH 220 Architecture and Urbanism in Renaissance Italy
- ARTH 222 Baroque Art
- ARTH 223 Baroque and Rococo Architecture and Urbanism
- ARTH 225 Rococo to Neoclassicism
- ARTH 227 Neoclassicism to Impressionism
- ARTH 228 Post-Impressionism to Contemporary Art
- ARTH 230 American Art: 1607-1865
- ARTH 231 American Art: 1865-Present
- ARTH 233 Art of China
- ARTH 234 Art of Japan
- ARTH 235 Art of India
- ARTH 236 The Arts of Islam
- ARTH 290 Rulers' Images from Augustus to George Washington
- ARTH 302 Prints and Society
- ARTH 304 Northern Baroque Art
- ARTH 305 Italian Baroque: Metaphor and Marvel
- ARTH 308 Modern Architecture I: 1750-1900
- ARTH 309 Modern Architecture II: 20th Century
- ARTH 310 Role of the Artist in Society
- ARTH 318 History of Photography
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<td>Western Civilization: 1648 to Present</td>
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<td>HIST 278</td>
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<td>Politics of Developing Nations</td>
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Arts and Science (ARSC)

CSCC 311
CSCC 243 Society, Politics, and Health Care
BAMS 361 Race, Power, and Social Conflict

Russian (RUSS)
RUSS 310 Introduction to Russian Literature I
RUSS 312 Introduction to Russian Literature II
RUSS 325 Russian Civilization and Culture

Spanish (SPAN)
SPAN 301 Survey of Spanish Literature
SPAN 302 Survey of Spanish Literature
SPAN 303 Survey of Spanish-American Literature
SPAN 304 Survey of Spanish-American Literature
SPAN 305 Spanish Civilization and Culture
SPAN 306 Latin American Civilization and Culture

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ANTH 380
ANTH 377
ANTH 370
ANTH 337
ANTH 320
ANIH 230
ANTH 259

CSCC 310
CSCC 271
CSCC 302
CSCC 293
CSCC 361

CSCC 243 Society, Politics, and Health Care
CSGC 243 Introduction to Medical Anthropology
CSGC 310 Sociology of Health Care
CSGC 311 Hospitals

Communication (COMM)
COMM 200 Introduction to Human Communication Systems
COMM 245 Mass Communication and Culture
COMM 251 The Development of Verbal Communication
COMM 330 Communication and Social Behavior

Criminal Justice (CRJU)
CRJU 110 Introduction to Criminal Justice
CRJU 120 Illicit Drug Use in America
CRJU 201 Problems of Law Enforcement
CRJU 202 Problems of Criminal Judiciary
CRJU 203 Problems of Corrections
CRJU 345 Sociology of the Law

Economics (ECON)
ECON 100 Economic Issues and Policies
ECON 151 Introduction to Microeconomics
ECON 152 Introduction to Macroeconomics
ECON 305 Capitalism and Socialism: Comparative Economic Systems
ECON 306 Public Choice (cross-listed with POSC 306)
ECON 311 Economic Growth and Development Policy
ECON 332 Public Finance and Fiscal Policy
ECON 340 International Economic Relations
ECON 348 Industrial Policies of France
ECON 350 Government and Business
ECON 351 Economics of Human Resources
ECON 352 Urban Economics

English (ENGL)
ENGL 390 Introduction to the English Language

Geography (GEOG)
GEOG 102 Human Geography
GEOG 120 World Regional Geography
GEOG 210 Economic Geography
GEOG 230 Humans and the Earth Ecosystem
GEOG 235 Conservation of Natural Resources
GEOG 240 Environment and Behavior
GEOG 320 Water and Society

History (HIST)
HIST 327 American Labor before Industrialization

Linguistics (LING)
LING 101 Introduction to Linguistics
LING 102 Language, Mind and Society
LING 222 Language and Gender
LING 265 Studies: Language
LING 270 Introduction to Cognitive Science
LING 390 Introduction to the English Language

Political Science (POSC)
POSC 105 The American Political System
POSC 106 Introduction to Political Science: Issues
POSC 220 Introduction to Public Policy
POSC 240 Introduction to International Relations
POSC 306 Public Choice (cross-listed with ECON 306)

Psychology (PSYC)
PSYC 201 General Psychology
PSYC 301 Personality
PSYC 303 Introduction to Social Psychology
PSYC 325 Child Psychology
PSYC 333 Psychology of Women

Sociology (SOCI)
SOCI 201 Introduction to Sociology
SOCI 202 Social Deviance
GROUP D

Anthropology (ANTH)
ANTH 102 Introduction to Biological Anthropology (duplicate credit with ANTH 104)
ANTH 104 Introduction to Archaeology and Biological Anthropology (duplicate credit with ANTH 102, and with ANTH 103 in Group C)
ANTH 202 Human Evolution and the Fossil Record

Biology (BISC)
BISC 103 General Biology (Both BISC 103 and BISC 207 cannot be used to fulfill Group D)
  Duplicate credit if taken after BISC 207)
BISC 113 General Biology Laboratory
BISC 104 Neurobiology of the Brain
BISC 105 Human Heredity and Development
BISC 115 Human Heredity and Development Laboratory
BISC 106 Elementary Human Physiology
BISC 116 Elementary Human Physiology Laboratory
BISC 107 Elementary Evolutionary Ecology
BISC 117 Elementary Evolutionary Ecology Laboratory
BISC 108 Molecular Bases of Human Disease
BISC 110 Viruses, Genes, and Cancer
BISC 132 Biology of Human Sexuality
BISC 171 Microbiology in Modern Society
BISC 179 Viruses and Human Diseases
BISC 195 Biological Evolution
BISC 207 Introductory Biology I (Both BISC 103 and BISC 207 cannot be used to fulfill Group D)
BISC 208 Introductory Biology II

Chemistry (CHEM)
CHEM 100 Chemistry and the Human Environment
CHEM 101 General Chemistry (duplicate credit with CHEM 103, 105, 111)
CHEM 102 General Chemistry (duplicate credit with CHEM 104, 112)
CHEM 103 General Chemistry (duplicate credit with CHEM 101, 105, 111)
CHEM 104 General Chemistry (duplicate credit with CHEM 102, 112)
CHEM 105 General Chemistry (duplicate credit with CHEM 101, 103, 111)
CHEM 111 General Chemistry (duplicate credit with CHEM 101, 103, 105)
CHEM 112 General Chemistry (duplicate credit with CHEM 102, 104)

Computer and Information Sciences (CISC)
CISC 105 General Computer Science
CISC 200 Introduction to Information Processing (CISC 300 alternate)
CISC 300 Introduction to Scientific Computation (alternate to CISC 200)

Entomology (ENTO)
ENTO 201 Wildlife Conservation and Ecology
ENTO 205 Elements of Entomology
ENTO 205 Entomology Laboratory

Geography (GEOG)
GEOG 101 Physical Geography
GEOG 152 Climate and Life
GEOG 206 Physical Geography: Topography—Soils
GEOG 225 Meteorology
GEOG 250 Computer Methods in Geography

Geology (GEOL)
GEOL 105 General Geology (duplicate credit with GEOL 107)
GEOL 106 General Geology (duplicate credit with GEOL 108)
GEOL 107 General Geology I (duplicate credit with GEOL 105)
GEOL 110 Evolution and Extinction (duplicate credit with GEOL 144)
GEOL 144 Evolution and Earth History (duplicate credit with GEOL 110)
GEOL 203 The Ice Ages and Human Chronology
GEOL 204 Earth Resources and Ecology
GEOL 205 Geology of the Solar System
GEOL 245 Rocks and Minerals
GEOL 245 Volcanoes and Earthquakes

Linguistics (LING)
LING 253 Laboratory Phonetics

Mathematical Sciences (MATH)
MATH 210 Discrete Mathematics I
MATH 221 Calculus I (duplicate credit with MATH 241)
MATH 230 Finite Mathematics with Applications
MATH 241 Analytic Geometry and Calculus A (duplicate credit with MATH 221)

Nutrition and Dietetics (NTTD)
NTTD 200 Nutrition Concepts

Philosophy (PHIL)
PHIL 205 Logic (PHIL 351 alternate)
  Duplicate credit if taken after PHIL 351)
PHIL 207 Inductive Logic and Scientific Method
PHIL 251 Mathematical Logic (alternate to PHIL 205)

Physics (PHYS)
PHYS 101 Introduction to Physics (duplicate credit with PHYS 201, 207, and SCEN 101)
PHYS 102 Introduction to Physics (duplicate credit with PHYS 202, 208)
PHYS 133 Introduction to Astronomy
PHYS 134 Introduction to Astronomy
PHYS 143 Energy, Technology, and Society
PHYS 144 Concepts of the Universe (duplicate credit if taken after PHYS 135 or 134)
PHYS 145 Quasars, Black Holes, and the Universe
PHYS 201 General Physics (duplicate credit with PHYS 101, 104
  which is not in Group D, PHYS 207, and SCEN 101)
PHYS 202 General Physics (duplicate credit with PHYS 102, 206)
PHYS 207 General Physics (duplicate credit with PHYS 101, 104
  which is not in Group D, PHYS 201, and SCEN 101)
PHYS 208 General Physics (duplicate credit with PHYS 102, 202)
The College of Arts and Science publishes a handbook of further information regarding the specific courses that are applicable and a detailed description of the objectives of each group. The handbook is available from the Advisement Center and Dean’s Office. Questions on the application of courses to group requirements may be directed to the Advisement Center and Dean’s Office.

**MAJOR OPTIONS**

**Single Major.** A departmental major consists of at least 30 credits with the specified and elective courses determined by the individual department. A grade of C- is normally required in all major courses.

Several departments, e.g., English and history, have a number of internal options or specializations. To round out the departmental major, students may be required to take a designated number of credits of related work determined in consultation with a faculty adviser.

The faculty of the college have ruled that for the Bachelor of Arts degree, a maximum of 45 credits with the same departmental prefix may be applied to the total number of credits required for the degree. A cross-listed course will be considered a part of the 45 credit total, regardless of which prefix a student used to register for the course.

Students who choose a single major will normally have a number of “free elective” credits. Considerable thought should be given to the best use of these “elective” credits.

**Double Major.** This involves fulfilling the major requirements of two Bachelor of Arts or two Bachelor of Science majors within the College of Arts and Science. The advantage of a double major is that the student is able to develop and demonstrate strength in each area covered in the undergraduate program. Admission to double major status requires the approval of both departments and the dean of the college. The minimum grade necessary in all courses required for the double major is the same as that needed for a single major in that degree program.

**Interdepartmental Major.** Students whose goals and interests heavily involve materials from two departments but do not extend to all aspects of each subject area may work out and submit for the approval of both departments and the dean of the college an interdepartmental proposal. More detailed instructions on the Interdepartmental Major are available in the Advisement Center and Dean’s Office, but basically this major involves a minimum of 21 credits from each department with another nine credits that may be distributed in a number of ways. Examples of departments frequently combined in such programs are Communication and English or Political Science and Economics. With the approval of the other college or department, one area of the interdepartmental major may be from outside the College of Arts and Science.

A minimum grade of C- is normally required in all courses constituting the 21 credits of each area, and a C average is necessary for all the 51 credits in the interdepartmental major.

**Area Study.** Opportunity is provided for students interested in pursuing a broader field of study such as Comparative Literature or International Relations. Students majoring in International Relations would be required to take 51 credits distributed among appropriate departments. Thirty of the 51 credits must be earned with at least a C grade, and a C average is required for the total of the 51 credits.

**GENERAL INFORMATION (All Degrees)**

**Physical Education.** A maximum of two credits of PHED 120 may be counted toward the required minimum credits of all degrees in the college.

**Duplicate Credits.** Credits may be counted only once toward a degree. Courses repeated to improve a passing grade may not be counted a second time toward the minimum total credit hours required. Certain courses offered in a sequence will not be counted toward a degree if taken in reverse order of difficulty, e.g., a French 105 course would not be considered if taken after a French 107; similarly, a Math 115 course would not be acceptable if taken after a Math 221 course.

Certain other courses have sufficient overlap of content, although taught at different degrees of difficulty, that credit would not be offered for both courses regardless of the order taken. For instance, credit will be offered only once for the following pairs of courses: MATH 221 and MATH 241, MATH 222 and MATH 242.

**Minors.** In addition to the major, students may also elect a minor concentration. Departments offering a minor set their own requirements, but these always include at least 15 credits of course work. A minimum grade of C- is normally required in all courses for the minor. (See the list of minors in the front of this catalog.)

**Plant Science (PLSC)**
- PLSC 101 Botany I

**Psychology (PSYC)**
- PSYC 314 Brain and Behavior

**Science (SCEN)**
- SCEN 101 Physical Science (duplicate credit with PHYS 101, 104 which is not in Group D, PHYS 201, and 207)
- SCEN 102 Physical Science

**Statistics (STAT)**
- STAT 201 Introduction to Statistics I (duplicate credit with STAT 205)
- STAT 205 Statistical Methods (duplicate credit with STAT 201)

Students whose goals and interests are directed to the Advisement Center and Dean’s Office. Questions on the application of courses to group requirements may be directed to the Advisement Center and Dean’s Office.
BACHELOR OF SCIENCE
Students whose goals indicate a high level of concentration or specialization may elect to fulfill requirements for the Bachelor of Science degree. Similar degrees are the Bachelor of Fine Arts, with a heavy concentration on studio work, and the Bachelor of Music with its own areas of specialization. Curricular details for all of these degree programs can be found in the sections devoted to the individual departments.

BACHELOR OF ARTS IN LIBERAL STUDIES
An option that offers a great deal of flexibility is the Bachelor of Arts in Liberal Studies (B.A.L.S.). The degree is designed for students who have need and justification for developing their own undergraduate major program within the 124-credit minimum.

This degree differs from the regular Bachelor of Arts degree in that it requires that 60 credits be at the 300-level or higher. The most significant difference from the more conventional degree, however, is that, instead of a major, students pursue a sequence of courses of their choice that are consistent with their stated educational goals.

Admission into Bachelor of Arts in Liberal Studies is determined by the College Faculty Senate Committee on Special Academic Programs which reviews student proposals and approves them or makes suggestions on improving or strengthening them. To be eligible to apply to the program, a student must have a cumulative grade index of 2.25 and must have completed no more than 75 credit hours at the time of the application. The committee looks for proposals that are cohesive and realistic, designed to afford the student knowledge in some broad, interdisciplinary field or focused more narrowly and in greater depth on one theme and, in general, involve course combinations that would not be feasible within one of the other degree options. A minimum of 39 credit hours must be related to the main theme of the B.A.L.S. project and a minimum grade of C must be earned in these core courses.

Advisement and planning are essential in formulating such a proposal. Students are urged to seek advice from faculty members and the Dean’s Office as they work on drawing up their programs. The screening committee will expect the applications to carry the signature of at least two faculty members one of whom will be the candidate’s adviser. Proposals should be submitted to the Dean’s Office by October 15 in the fall semester and by March 15 in the spring semester.

DEAN’S SCHOLAR PROGRAM
Each year some undergraduate colleges consider upon application a number of highly motivated students who have clear educational goals and the ability to achieve those goals. These students may be appointed Dean’s Scholars. These students are freed of all college general education requirements so that they can build their entire program with faculty advisers. They are generally selected after they have finished three semesters at the University. Additional information is available from the Dean’s Office upon request.

LIBERAL ARTS/ENGINEERING
These five-year programs combine work in liberal arts and engineering and lead to the simultaneous awarding of a bachelor’s degree in Arts and Science and a bachelor’s degree in the appropriate engineering field. For complete details on these programs, see the Arts and Science–Engineering Curricula section.

ASSOCIATE DEGREES
The nonterminal degrees of Associate in Arts (A.A.) and Associate in Science (A.S.) may be awarded upon application before completion of a prescribed curriculum. Information regarding admission requirements and eligibility for the associate degree programs may be found in the Undergraduate Admissions section of this catalog.

Associate Degrees from the College of Arts and Science. The nonterminal degrees of Associate in Arts and Associate in Science may be awarded upon application before completion of 75 earned credit hours. Specific requirements follow:

Associate in Arts Requirements
If any of the course requirements are satisfied through proficiency tests or exams, elective credits must be substituted to make up 60 hours.

CURRICULUM CREDITS
UNIVERSITY REQUIREMENTS
Writing
ENGL 110 .................................................. 3
or Exemption .................................................. 0
Multicultural Course ........................................... 3

SKILL REQUIREMENTS
Mathematics
MATH 114 .................................................. 3
or MATH 115 .................................................. 3
or Successful completion of any mathematics course above the 100 level (except MATH 251 and MATH 252) ........... 3-4
or Proficiency Test ............................................. 0

Foreign Language
Elementary Level ............................................. 4
or Proficiency Test ............................................. 0
Breadth Requirements
Courses in each of the groups A-D must be taken in at least two departments. If all but one course in a group has been taken in one department or program, a course cross-listed with that department or program will not satisfy the distribution requirement.

Group A: Creative Arts and Humanities ........................................... 9
Group B: Culture and Institutions through Time ................................. 9
Group C: Humans and Their Environment ........................................ 9
Group D: Natural Phenomena ....................................................... 10
At least one course in Group D must be a laboratory science.

Electives
Elective Courses 1,2,3
After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF ............................................ 60

Associate in Science Requirements
If any of the course requirements are satisfied through proficiency tests or exams, elective credits must be substituted to make up 60 hours.

Curriculum Credits

University Requirements
Writing
ENGL 110 ................................................................. 3
or Exemption ......................................................... 0
Multicultural Course ................................................... 3

Skill Requirements
Mathematics
MATH 221-222 ............................................................. 6
or MATH 241-242 .......................................................... 8
Foreign Language
Elementary Level .......................................................... 4
or Proficiency Test ....................................................... 0

Breadth Requirements
Courses in each of the groups A-D must be taken in at least two departments. If all but one course in a group has been taken in one department or program, a course cross-listed with that department or program will not satisfy the distribution requirement.

Group A: Creative Arts and Humanities ........................................... 9
Group B: Culture and Institutions through Time ................................. 9
Group C: Humans and Their Environment ........................................ 9
Group D: Natural Phenomena ....................................................... 12
At least one course in Group D must be a laboratory science.

Electives
Elective Courses 1,2,3
After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF ............................................ 60

Academic Advisement is available in the College of Arts and Science Advisement Center, 127 Memorial Hall.

Teacher Education Programs
The College of Arts and Science offers teacher education programs in twenty-two areas for students who wish to prepare themselves to be certified teachers in Delaware or in twenty-seven other states and the overseas dependent schools. For secondary certification (high school, junior high school, middle school), programs are offered in biology, chemistry, earth sciences, English, foreign languages (Classics, French, German, Latin, Russian, Spanish), mathematics, physics, and social studies (anthropology, economics, geography, history, political science, psychology, and sociology). For K-12 certification, teacher education programs are offered in music (instrumental, keyboard, voice).

See Teacher Education Programs in the College of Education section of this catalog.

Advisement
Students who have declared majors will be assigned an adviser who is a faculty member in the appropriate department. Undeclared students are assigned a member of the professional staff of the College of Arts and Science Advisement Center located at 127 Memorial Hall. All freshman students who have earned less than 28 credit hours are required to meet with their advisers during preregistration for the spring and fall semesters. All other students are strongly encouraged to meet regularly with their academic advisers.

Preprofessional committees are available to advise students who plan to study dentistry, law, medicine, social work, or veterinary medicine. Dean’s Office personnel will be glad to direct students to appropriate faculty members.

1 Course credit may be counted only once toward a degree. A course repeated to improve a passing grade already received may not be counted a second time toward the minimum total credit hours required.
2 Courses taken to fulfill specific, group, or language proficiency requirements must be on a regular grade, not pass/fail, basis. Students may opt to take one free elective course per semester P/F, but the total number of credits taken on a pass/fail basis may not exceed 12 in the associate degree program, excluding courses that are graded pass/fail only.
3 Courses numbered below 100 (e.g., MATH 010, Intermediate Algebra) do not count toward a degree.
PREMEDICINE AND PREDENTISTRY

Preparation for admission to professional schools in medicine, dentistry, and related fields must include specific course work in biology, chemistry, physics and mathematics. Although many preprofessional students major in biology or chemistry because these disciplines include the science training required, nonscience majors are acceptable and, in fact, encouraged by many professional schools.

Preprofessional students usually begin their career-related course work in the first semester of the freshman year in order to complete the relevant courses before taking professional aptitude tests as juniors. Early academic advisement is essential to ensure that the preprofessional curriculum requirements are met. The Health Sciences Advisory Committee (Room 117A, Wolf Hall) coordinates advisory services for all students preparing for admission to health-related professional schools.

HUMANITIES SEMESTER

The Humanities Semester at the University of Delaware offers students an opportunity to take, during a single semester, all or most of their courses in a carefully coordinated and conflict-free program of related studies in the humanities. Humanities Semesters typically center upon a major theme or chronological period, such as The Search for Identity, Classical Civilization, Medieval Culture, or The Black Experience. A unique aspect of the program is the student-faculty colloquium that caps each series of courses and meets once a week for reports, papers, discussions, and occasional presentations by visiting scholars. To qualify for a Humanities Semester colloquium a student must take (or have taken) at least two of the regular courses that are listed under the appropriate group. All of the courses in the Humanities Semester are open to any interested student.

FIELD STUDIES OPTION

Many students may benefit from a semester devoted to a carefully planned field studies program away from the campus. Opportunity is available under this option to develop an academic program involving field research and data collection or involving associated work in a government organization or private company. Such an academic option must be developed in detail with an academic adviser. More information is available from the Dean’s office, to which proposals should be submitted by October 15 in the fall semester and by March 15 in the spring semester.

THE DEPARTMENTS

Every attempt has been made to present an accurate description of the curriculum requirements in the programs that follow. However, programs and policies may be changed during the academic year, and students are advised to check with the department concerned or the Advisement Center and Dean’s Office, Room 127, Memorial Hall, 831-1281, for the most current information.

ANTHROPOLOGY

Anthropology is the study of humans and their works. The field is wide in scope, addressing itself both to the comparative study of worldwide variations in culture and to the development of humankind from prehistoric to contemporary times. Anthropology at the University of Delaware encompasses three distinct but interconnected fields of study: social and cultural anthropology, physical or biological anthropology, and archaeology. Social and cultural anthropologists undertake holistic comparative studies of communities throughout the world, studying their art forms, religions, social organizations, and political and economic institutions. Physical anthropology addresses itself to the evolutionary differentiation of primates, the emergence of hominid populations, primate behavior and processes of adaptation in modern populations. Archaeological work is directed toward recovering the physical remains of prehistoric and historic communities and retracing their many different forms of cultural development and adaptation.

The undergraduate program at the University emphasizes a variety of subspecialties in social and cultural anthropology, but provides, nevertheless, a broad perspective on the fields of archaeology and physical anthropology. Because the department is devoted primarily to undergraduate instruction, students can take advantage of many opportunities to work closely with the faculty and to participate in small seminar classes. Courses are enriched by visits to museums and special exhibits in neighboring cultural centers, by films, and by local field inquiry.

DEGREE: BACHELOR OF ARTS
MAJOR: ANTHROPOLOGY

CURRICULUM

See page 82 for University and College requirements.

MAJOR REQUIREMENTS

Within the Department
Social and Cultural Anthropology courses ........................................... 12-14
Biological Anthropology courses ......................................................... 6-14
Archaeological Anthropology courses .................................................. 6-14
ANTH 486 Tutorial in Social and Cultural Anthropology ....................... 3-14

* Superior figures indicate year or years in which the course is normally taken, e.g., 1freshman year, 2sophomore year, etc.
ANTH 487 Tutorial in Archaeology ........................................... 3
or
ANTH 488 Tutorial in Physical Anthropology ......................... 3
Anthropology course ......................................................... 3
A minimum of six credits must be taken at the 200 level and a
minimum of twelve credits must be taken at the 300 level

ELECTIVES
Electives
After required courses are completed sufficient elective credits
must be taken to meet the minimum credit requirement for
the degree.

CREDITS TO TOTAL A MINIMUM OF ................................. 124

INTERDEPARTMENTAL MAJORS
An interdepartmental major, for students having interests
in two areas, requires 21 credits each in anthropology
and in one other department. The following areas are
required by the Anthropology department:

- 3 Credits in biological anthropology
- 3 Credits in archaeology
- 9 Credits in social and cultural anthropology
- 12 Credits at the 300 level or above
- 3 Credits of any 48X Tutorial

A 48X Tutorial satisfies a 300+ requirement as well as
any three credits in a subdiscipline (e.g. ANTH 486
would also satisfy three of the nine credit hours required
in social and cultural anthropology).

Students should consult with their advisors for addi-
tional information on interdepartmental majors.

REQUIREMENTS FOR THE MINOR IN ANTHROPOLOGY
Students wishing to minor in anthropology must com-
plete 18 credits in anthropology courses distributed as follows: 6 credits in 200-level courses and 12 credits in
300- and 400-level courses.

ART
The Department of Art is a studio-oriented department
offering a wide range of visual arts activities and subject
areas. The art major may elect to concentrate in ceramics,
fibers, illustration, metals, painting and drawing, photog-
raphy, printmaking, sculpture, or visual communications
(advertising design, applied photography, graphic
design). The courses of study are designed to prepare the
student for professional practice in the student's chosen
area of specialization.

*Superior figures indicate year or years in which the course is normally taken, i.e., 1freshman year, 2sophomore year, etc.
The Department of Art offers three undergraduate degrees: Bachelor of Arts (B.A.), Bachelor of Fine Arts (B.F.A.), and Bachelor of Science (B.S.) (in visual communications). The department offers two graduate degrees: Master of Fine Arts (M.F.A.) and Master of Arts (M.A.).

Admission to the B.S. in visual communications and B.F.A. is contingent upon submission of a portfolio of slides and/or original work after completion of the freshman year and a minimum of 15 credits of studio courses. A limited number of students are admitted to the programs.

The department enjoys an excellent reputation and has recently equipped a Macintosh-based computer site within the department, including imaging and layout software, scanners, and color printers. The proximity of the University to major cultural centers of the northeastern United States provides students with easy access to important museums and galleries and allows for an outstanding program of visiting artists.

DEGREE: BACHELOR OF ARTS
MAJOR: ART

CURRICULUM

See page 82 for University and College requirements.

MAJOR REQUIREMENTS

Within the Department:

Foundations

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 110</td>
<td>3</td>
</tr>
<tr>
<td>ART 111</td>
<td>3</td>
</tr>
<tr>
<td>ART 112</td>
<td>3</td>
</tr>
</tbody>
</table>

One required course selected from 2-D study:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 222</td>
<td>3</td>
</tr>
<tr>
<td>ART 234</td>
<td>3</td>
</tr>
<tr>
<td>ART 240</td>
<td>3</td>
</tr>
<tr>
<td>ART 241</td>
<td>3</td>
</tr>
<tr>
<td>ART 242</td>
<td>3</td>
</tr>
<tr>
<td>ART 244</td>
<td>3</td>
</tr>
</tbody>
</table>

One required course selected from 3-D study:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 170</td>
<td>3</td>
</tr>
<tr>
<td>ART 250</td>
<td>3</td>
</tr>
<tr>
<td>ART 254</td>
<td>3</td>
</tr>
<tr>
<td>ART 260</td>
<td>3</td>
</tr>
</tbody>
</table>

Core**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>One course of 3-D Study selected from Sculpture, Ceramics, Fibers, or Metals</td>
<td>3-14</td>
</tr>
<tr>
<td>One course of 2-D Study selected from Photography, Painting, Printmaking, Drawing or Illustration</td>
<td>3-14</td>
</tr>
</tbody>
</table>

Area of Concentration

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nine credits beyond those that might have been taken as part of foundations or core requirements. Six of these must be at or above the 300 level</td>
<td>9-14</td>
</tr>
<tr>
<td>Art electives</td>
<td>6-14</td>
</tr>
</tbody>
</table>

Within the College

Art History courses

3-14

ELECTIVES

Electives

After required courses are completed sufficient elective credits must be taken to meet the minimum credit requirement for the degree

CREDITS TO TOTAL A MINIMUM OF 124

DEGREE: BACHELOR OF SCIENCE
MAJOR: VISUAL COMMUNICATIONS

CURRICULUM

UNIVERSITY REQUIREMENTS

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 110</td>
<td>3</td>
</tr>
<tr>
<td>Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content</td>
<td>3-14</td>
</tr>
</tbody>
</table>

COLLEGE REQUIREMENTS

Skill Requirements

Writing ††

A second writing course involving significant writing experience including two papers with a combined minimum of 3,000 words to be submitted for extended faculty critique of both composition and content. This course must be taken after completion of 62 credit hours. Appropriate writing courses are normally designated in the semester’s Registration Booklet. (See list of courses approved for second writing requirement, page 83.)

Mathematics:

MATH 114 College Mathematics and Statistics

3

or

MATH 115 Pre-Calculus

3

or

One of the following:

MATH 221 Calculus I

3

MATH 241 Analytic Geometry and Calculus A

4

Successful performance on the college proficiency exam

Breadth Requirements†† (See page 84)

Group A

Understanding and appreciation of the creative arts and humanities

6-14

Group B

The study of culture and institutions over time

6-14

Group C

Empirically based study of human beings and their environment

6-14

Group D

The study of natural phenomena through experiment and analysis Seven credits including a minimum of one course with an associated laboratory

7-14

*Superior figures indicate year or years in which the course is normally taken, i.e., freshman year, sophomore year, etc.
†No more than forty-five credits of studio art courses may be counted toward the degree. All courses in the major must be passed with a grade of C or better
**Core courses must be taken in disciplines other than those experienced as part of the foundation requirements
††A minimum grade of “C-” is required
MAJOR REQUIREMENTS

ART 110 Foundation I Design ............................................. 3
ART 111 Foundation I Drawing .......................................... 3
ART 112 Foundation II Drawing ........................................ 3

One required course selected from 2-D study:
ART 222 Illustration I ................................................... 3
ART 234 Painting I ......................................................... 3
ART 240 Intro. to Woodcut and Etching Processes .............. 3
ART 241 Intro. to Screenprinting and Lithography Processes 3
ART 242 Intro. to Monoprinting and Papermaking Processes 3
ART 244 Photography I .................................................. 3

One required course selected from 3-D study:
ART 170 Basic CAD: Fibers .............................................. 3
ART 250 Sculpture I ......................................................... 3
ART 254 Ceramics I ........................................................ 3
ART 260 Metals I ........................................................... 3

Art electives (2) ............................................................ 6

ART 290 Visual Communications Process I ................. 4
ART 291 Visual Communications Process II ............... 4
ART 210 Photo Design ..................................................... 4
ART 302 Introduction to Graphic Design .................. 3
ART 304 Introduction to Advertising Design .......... 3
ART 310 Introduction to Applied Photography .......... 3
ART 408 Practicum ......................................................... 3

Required for Visual Communications majors
concentrating in graphic design:
ART 303 Graphic Design ............................................... 3
ART 305 Advertising Design .......................................... 3
ART 402 Advanced Graphic Design I ....................... 6
ART 403 Advanced Graphic Design II ...................... 6

Required for Visual Communications majors
concentrating in advertising design:
ART 303 Graphic Design ............................................... 3
ART 305 Advertising Design .......................................... 3
ART 404 Advanced Advertising Design I ................. 6
ART 405 Advanced Advertising Design II ................. 6

Required for Visual Communications majors
concentrating in applied photography:
ART 311 Applied Photography ....................................... 3
ART 410 Advanced Applied Photography I ............... 6
ART 411 Advanced Applied Photography II ............... 6

Within the College

Related Work
Art History courses .................................................. 9

ELECTIVES

Electives

After required courses are completed, sufficient elective credits
must be taken to meet the minimum credit requirement for the
degree:

CREDITS TO TOTAL A MINIMUM OF ....................... 127

DEGREE: BACHELOR OF FINE ARTS

MAJOR: FINE ARTS

CREDITS*

UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing ......................... 3
Three credits in an approved course or courses stressing   3
multicultural, ethnic, and/or gender-related content #

COLLEGE REQUIREMENTS

Skill Requirements

Writing ††

A second writing course involving significant writing experience
including two papers with a combined minimum of 3,000 words
to be submitted for extended faculty critique of both composi-
tion and content. This course must be taken after completion of
62 credit hours. Appropriate writing courses are normally desig-
nated in the semester's Registration booklet. (See list of courses
approved for second writing requirement, page 83.)

Mathematics:
MATH 114 College Mathematics and Statistics ............. 3
(designed for students who do not intend to continue the study of
mathematics)

or
MATH 115 Pre-Calculus .............................................. 3
(designed for students who intend to continue the study of
mathematics)

One of the following:
MATH 221 Calculus I ................................................... 3
MATH 241 Analytic Geometry and Calculus A ............ 4

or
Successful performance on the college proficiency exam.

Breadth Requirements† (See page 84)

Group A ........................................................................ 12
Understanding and appreciation of the creative arts and
humanities. Twelve credits representing at least two areas.

Group B ........................................................................ 9
The study of culture and institutions over time. Nine credits
representing at least two areas.

Group C ........................................................................ 9
Empirically based study of human beings and their environ-
ment. Nine credits representing at least two areas.

Group D ........................................................................ 10
The study of natural phenomena through experiment and
analysis. A minimum of ten credits representing at least two
areas including a minimum of one course with an associated
laboratory.

MAJOR REQUIREMENTS

Within the Department‡

Foundations

ART 110 Foundation I Drawing ........................................ 3
ART 111 Foundation I Design ........................................... 3
ART 112 Foundation II Drawing ...................................... 3

One required course selected from 2-D study:
ART 222 Illustration I ................................................... 3
ART 234 Painting I ......................................................... 3
ART 240 Intro. to Woodcut and Etching Processes ........ 3

* Superior figures indicate year or years in which the course is normally taken; i.e., 1 freshmen year, 2 sophomore year, etc.
# This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 26
† A course may be applied toward both the major requirements and a breadth requirement, but credits are counted only once toward the total credits for graduation.
†† A minimum grade of "C-" is required.
NOTE: 60 credit hours minimum Art Department courses; 80 credit hours maximum Art Department courses; all grades in art must be C or better.

95
ART 241 Intro. to Screenprinting and Lithography Processes 3
ART 242 Intro. to Monoprinting and Papermaking Processes 3
ART 244 Photography I 3

One required course selected from 3-D study:
ART 170 Basic CAD: Fibers 3
ART 250 Sculpture I 3
ART 254 Ceramics I 3
ART 260 Metals I 3

Core**

One course of 3-D Study selected from Sculpture, Ceramics, Fibers, or Metals.

One course of 2-D Study selected from Photography, Painting, Printmaking, Drawing or Illustration

ART Studio Major 18* 14
ART Studio Minor 9* 14
Art Department Electives 12* 14
B.F.A. Senior Exhibition 6 4

Within the College

Art History courses 12* 14

ELECTIVES

Electives

After required courses are completed sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF ......................... 126

REQUIREMENTS FOR A MINOR IN ART

Students must obtain written permission from the chair before declaring the minor. Admitted students will be assigned an adviser, generally in the area of study. Eighteen credits are required, distributed as follows:

a) Three studio art courses at the 100-200 level from one or two areas .................. 9 credits
b) Two studio art courses at the 300-400 level from one or two areas .................. 6 credits
c) One related nonstudio art, art history or art criticism course .................. 3 credits

ART HISTORY

Art history is concerned with the historical development of ideas and institutions as expressed in the visual arts throughout the ages. The Department offers courses in nearly every area of art history, but its faculty has special expertise in various areas of American and European painting, photography, sculpture, and architecture from antiquity to the present. The faculty of the Department also collaborate with the research and vocational objectives of the Winterthur Program in Early American Culture and the Department of Art Conservation. Visits to various museums from New York to Washington, are scheduled in connection with many art history courses. The University Gallery houses a collection of original works of art and offers internship, research, and exhibition opportunities for students. Advanced students may draw upon the departmental slide and photograph collections, including the Wayne Andrews photographic archive of American architecture and the Index of American Sculpture.

Because art history is an interdisciplinary field that touches on many aspects of civilization, the course of study also includes work in such related disciplines as anthropology, studio art, English, history, languages and literatures, music, philosophy, and theater. While art history majors may concentrate in a particular area, the program is designed to provide students with a broad liberal arts education that is necessary preparation for a variety of careers. Art history majors have gone on to positions in businesses that are art related, education, museums, art galleries, historic preservation, fine arts and slide librarianship, state and national arts and humanities agencies, art book and magazine publishing, art journalism, and various posts connected with architecture and the decorative arts. Additional study on the graduate level prepares students for professional careers in the fields of college teaching, museums, historic preservation, librarianship, and research.

Undergraduate students may participate in an interdepartmental major in art, art history, and chemistry that will prepare them for graduate study or apprenticeship in art conservation, or they may enroll in the technology of artistic and historic objects major, an interdisciplinary program. See the section on Interdisciplinary Programs in this catalog. Students interested in museum work should consider taking museum studies courses offered at the University.

DEGREE: BACHELOR OF ARTS
MAJOR: ART HISTORY

CURRICULUM

See page 82 for University and College requirements.

MAJOR REQUIREMENTS

Within the Department

ARTH 153 Introduction to Art History I 3
ARTH 154 Introduction to Art History II 3

Fifteen credits at the 200 level or above distributed as follows: 15* 3* 1
a. Ancient ................................................. 3* 1
b. Medieval (including Northern Renaissance) 3* 1
c. Renaissance 3* 1
d. Baroque or 18th Century 3* 1
e. Modern 3* 1

ARTH 301 Research and Methodology in Art History 3
many chemicals in common use is becoming more and more necessary for the nonchemists who are concerned with public policy. Because of the central position of chemistry in the sciences, it covers areas from the fundamental to the applied and allows strong interactions with areas as diverse as physics, mathematics, biology, geology, computer science, business, economics, chemical engineering, criminal justice, art history, medicine, and marine studies.

Because of the large number of elective credits in the chemistry and biochemistry curricula, it is possible to arrange a course of study that will include work in another area of interest in order to broaden the student's education or more precisely fit the student for the specific career in view. Students in the B.A. programs must earn a minimum of C- in each course counted toward the degree.

The department has extensive equipment and space for research, and advanced undergraduates are encouraged to undertake research with graduate students under the supervision of the faculty. Undergraduate research often leads to publication, and seniors frequently present the results of their research at the annual Intercollegiate Student Chemists Convention. The department has a vigorous graduate teaching and research program and an active seminar program with many notable visiting speakers. Seminars are generally open to undergraduates.

**ART HISTORY**

(See School of Art and Architecture)

Several courses in art history may be applied toward fulfilling the group requirements in humanities and art for the B.A. degree.

**ASTRONOMY**

(See Physics and Astronomy)

**BIOLOGICAL SCIENCES**

(See School of Life and Health Sciences)

See also Animal Science and Agricultural Biochemistry, Entomology and Applied Ecology, and Plant and Soil Sciences in the College of Agricultural Sciences section.

**CHEMISTRY AND BIOCHEMISTRY**

Chemists are concerned with matter and its properties: composition, structure, and reactions. The methods and techniques of chemistry are broadly applicable in many areas of science and engineering. Familiarity with the
CHEM 444 Physical Chemistry ........................................ 3
CHEM 445 Physical Chemistry Laboratory ................................ 1
One of the following eight courses:
CHEM 457 Inorganic Chemistry ........................................ 3,4
CHEM 527 Introductory Biochemistry .................................... 3,4
CHEM 650 Analytical Spectroscopy ....................................... 4
CHEM 622 Electroanalytical Chemistry .................................... 4
CHEM 633 Advanced Organic Chemistry: Physical .................. 3,4
CHEM 634 Advanced Organic Chemistry: Synthesis and Reactivity ... 3,4

Within the College

Related Work
Mathematics
MATH 221 Calculus I .................................................. 3,1-4
or
MATH 241 Analytic Geometry and Calculus A (strongly preferred) ... 4

Physics
PHYS 201 General Physics ............................................. 4,1-4
PHYS 202 General Physics ............................................. 4,1-4
or
PHYS 207 General Physics ............................................. 4
PHYS 208 General Physics ............................................. 4

ELECTIVES

Electives

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF .................................................. 124

DEGREE: BACHELOR OF ARTS
MAJOR: CHEMISTRY EDUCATION

CURRICULUM
CREDITS*

See page 82 for University and College requirements.

MAJOR REQUIREMENTS

Within the Department

(30 credits)
CHEM 111 General Chemistry .......................................... 3
CHEM 112 General Chemistry .......................................... 3
CHEM 119 Quantitative Chemistry I .................................... 2
CHEM 120 Quantitative Chemistry II ................................... 3
or
CHEM 103 General Chemistry .......................................... 4
CHEM 104 General Chemistry .......................................... 4
CHEM 220 Quantitative Analysis ....................................... 3,2,3
CHEM 221 Quantitative Analysis Laboratory ........................ 2,3
CHEM 213 Elementary Organic Chemistry ......................... 2,3
or
CHEM 321 Organic Chemistry .......................................... 4
CHEM 322 Organic Chemistry .......................................... 4
or
CHEM 331 Organic Chemistry .......................................... 3
CHEM 332 Organic Chemistry .......................................... 3
CHEM 333 Organic Chemistry Laboratory I ........................ 2
CHEM 437 Instrumental Methods ....................................... 3,3,4
CHEM 438 Instrumental Methods Laboratory ....................... 1,3,4
CHEM 418 Introductory Physical Chemistry .......................... 3,5,4
CHEM 445 Physical Chemistry Laboratory ............................ 3,5,4
or
CHEM 443 Physical Chemistry .......................................... 3
CHEM 445 Physical Chemistry Laboratory ............................ 1
CHEM 214 Elementary Biochemistry .................................... 2
CHEM 216 Elementary Biochemistry Laboratory .................... 1
Chemistry courses selected with consent of adviser .................. 0-4,1-4

Within the College

Related Work
BISC 207 Introductory Biology I ....................................... 3,1-4
GEOL 105 General Geology ............................................. 4,1-4
MATH 221 Calculus I .................................................. 3,1-4
MATH 222 Calculus II .................................................. 3,1-4
or
MATH 241 Analytic Geometry and Calculus A ...................... 4
MATH 242 Analytic Geometry and Calculus B ...................... 4
PHYS 201 General Physics ............................................. 4,1-4
PHYS 207 General Physics ............................................. 4
PHYS 208 General Physics ............................................. 4

Professional Studies
(23 credits)
EDST 201 Education and Society ...................................... 3,1-4
EDST 304 Educational Psychology – Social Aspects .............. 3,1-4
EDST 305 Educational Psychology – Cognitive Aspects .......... 3,2-4
SCEN 491 Science Materials and Approaches ...................... 4
EDST 420 Reading in the Content Areas ............................. 1,1-4
EDDV 400 Student Teaching .......................................... 9,1-4

CREDITS TO TOTAL A MINIMUM OF .................................................. 124

DEGREE: BACHELOR OF SCIENCE
MAJOR: CHEMISTRY

CURRICULUM
CREDITS*

UNIVERSITY REQUIREMENTS
ENGL 110 Critical Reading and Writing ................................ 3
Three credits in an approved course or courses stressing ............ 3,1-4
multicultural, ethnic, and/or gender-related content.

COLLEGE REQUIREMENTS

Skill Requirements
Writing: 
A second writing course involving significant writing experience including two papers with a combined minimum of 5,000 words to be submitted for extended faculty critique of both composition and content. This course must be taken after completion of 62 credit hours. Appropriate writing courses are normally designated in the semester's Registration Booklet. (See list of courses approved for second writing requirement, page 83.)

Foreign Language:
Completion of the intermediate-level course (107 or 112) in a modern foreign language. Students with four or more years of high school work in a single modern foreign language may attempt to fulfill the requirement in that language by taking an exemption examination. (German recommended)

*Superior figures indicate year or years in which the course is normally taken, i.e., freshman year, sophomore year, etc.

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 26

††A minimum grade of "C-" is required
Breadth Requirements (See page 84)

A total of twenty-one credits from Groups A, B and C is required with a minimum of six credits in each group. The six credits from each group could be from the same area.

**Group A**
Understanding and appreciation of the creative arts and humanities

**Group B**
The study of culture and institutions over time

**Group C**
Empirically based study of human beings and their environment

**MAJOR REQUIREMENTS**

*Within the Department*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CHEM 111 General Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 119 Quantitative Chemistry I</td>
<td>2</td>
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<td>CHEM 120 Quantitative Chemistry II</td>
<td>3</td>
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<td>CHEM 331 Organic Chemistry</td>
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<td>CHEM 332 Organic Chemistry</td>
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<tr>
<td>CHEM 333 Organic Chemistry Laboratory I</td>
<td>2</td>
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<tr>
<td>CHEM 334 Organic Chemistry Majors Laboratory II</td>
<td>2</td>
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<tr>
<td>CHEM 445 Physical Chemistry</td>
<td>3</td>
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<td>CHEM 446 Physical Chemistry Laboratory</td>
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<td>CHEM 447 Instrumental Methods</td>
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<td>CHEM 486 Instrumental Methods Laboratory</td>
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<td>CHEM 527 Introductory Biochemistry</td>
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<td>CHEM 641 Biochemistry</td>
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<td>CHEM 646 Physical Chemistry Laboratory</td>
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<tr>
<td>CHEM 647 Inorganic Chemistry</td>
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<td>CHEM 648 Inorganic Chemistry Laboratory</td>
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</table>

(Chemistry credits to total a minimum of 45)

*Within the College*

**Related Work**

<table>
<thead>
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<tbody>
<tr>
<td>MATH 241 Analytic Geometry and Calculus A</td>
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<tr>
<td>MATH 242 Analytic Geometry and Calculus B</td>
<td>4</td>
</tr>
<tr>
<td>MATH 243 Analytic Geometry and Calculus C</td>
<td>4</td>
</tr>
<tr>
<td>MATH 302 Ordinary Differential Equations I</td>
<td>3</td>
</tr>
</tbody>
</table>

(Recommended)

**ELECTIVES**

**Electives**

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

**CREDITS TO TOTAL A MINIMUM OF** .......... 128

Candidates for a B.S. in chemistry must achieve a cumulative GPA of at least 2.00 for all chemistry courses taken. The calculation of the chemistry course GPA (2.00 minimum required for graduation) for candidates for the B.S. degree in Chemistry or Biochemistry will not include grades earned for lower-level subdisciplinary courses taken after a higher-level course in the same subdiscipline has been taken and passed with a grade of C or higher. Likewise, freshman-level courses may not be used by upperclassmen as GPA enhancers after those required for graduation have been taken. CHEM 342 and CHEM 100 will be regarded as exceptions to the foregoing prohibitions, since their subject matter coverage is considerably different than that found in higher-level courses.

Example: A grade earned in CHEM 214 subsequent to a C or better grade earned in CHEM 527 (or CHEM 641/642) would not be counted in the chemistry GPA calculation for B.S. chemistry or biochemistry majors.

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DEGREE: BACHELOR OF SCIENCE

MAJOR: BIOCHEMISTRY

**CURRICULUM**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENGL 110 Critical Reading and Writing</td>
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<td>MATH 241 Analytic Geometry and Calculus A</td>
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<td>MATH 331 Real Analysis I</td>
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<td>MATH 341 Linear Algebra</td>
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<td>MATH 401 Abstract Algebra</td>
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<td>MATH 411 Advanced Calculus III</td>
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<td>MATH 421 Advanced Calculus IV</td>
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</tbody>
</table>

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*Superior figures indicate year or years in which the course is normally taken, i.e., freshman year, sophomore year, etc.*

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 26

†A course may be applied toward both the major requirements and a breadth requirement, but credits are counted only once toward the total credits for graduation.

††A minimum grade of "C-" is required.
CHEM 119  Quantitative Chemistry I .................................................. 2  
CHEM 120  Quantitative Chemistry II ................................................ 3  
CHEM 351  Organic Chemistry ............................................................ 4  
CHEM 353  Organic Chemistry Laboratory I ........................................... 2  
CHEM 354  Organic Chemistry ............................................................. 4  
CHEM 354  Organic Chemistry Majors Laboratory II ................................. 2  
CHEM 442  Introduction to Biochemistry ............................................... 3  
CHEM 410  Computers in Chemistry (Recommended) .................................. 3  
CHEM 418  Introductory Physical Chemistry ........................................... 3  
CHEM 443  Physical Chemistry ........................................................... 3  
CHEM 443  Physical Chemistry ........................................................... 3  
CHEM 445  Physical Chemistry Laboratory ............................................. 1  
CHEM 642  Biochemistry ................................................................. 3  
CHEM 419  Introductory Physical Chemistry ........................................... 3  
CHEM 444  Physical Chemistry ........................................................... 3  
CHEM 445  Physical Chemistry Laboratory ............................................. 1  
CHEM 642  Biochemistry ................................................................. 3  
Advanced Chemistry or Biochemistry course at 600 level ....................... 6  
Advanced Biochemistry courses at 600 level ....................................... 6  
Biology courses selected from the following: ...................................... 6-8  
BISC 301  Molecular Biology of the Cell (4) .........................................  
BISC 303  Genetic and Evolutionary Biology (4) .....................................  
BISC 601  Immunology (4) .................................................................  
BISC 604  Recombinant DNA Laboratory (4) .........................................  
BISC 654  Biochemical Genetics (3) ....................................................  
BISC 679  Virology (3) .................................................................  
BISC 695  Comparative Endocrinology (3) .............................................  
CHEM 465  Seminar (two semesters) ................................................... 2  
CHEM 608  Undergraduate Research ...................................................... 6  
Biology laboratory courses selected from the following: ....................... 8  
BISC 303  Genetic and Evolutionary Biology (4) .....................................  
BISC 306  General Physiology (4) .......................................................  
BISC 371  Introduction to Microbiology (4) ..........................................  
BISC 601  Immunology (4) .................................................................  
(Chemistry credits to total a minimum of 46)

**Within the College**

**Related Work**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>MATH 241</td>
<td>4 1/2</td>
<td>Analytic Geometry and Calculus A</td>
</tr>
<tr>
<td>or MATH 221</td>
<td>3 1/2</td>
<td>Calculus I</td>
</tr>
<tr>
<td>or MATH 242</td>
<td>4 1/2</td>
<td>Analytic Geometry and Calculus B</td>
</tr>
</tbody>
</table>

**Electives**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 222</td>
<td>3 1/2</td>
<td>Calculus II</td>
</tr>
<tr>
<td>BISC 207</td>
<td>4 1/2</td>
<td>Introductory Biology I</td>
</tr>
<tr>
<td>BISC 208</td>
<td>4 1/2</td>
<td>Introductory Biology II</td>
</tr>
<tr>
<td>PHYS 201</td>
<td>4 1/2</td>
<td>General Physics</td>
</tr>
<tr>
<td>PHYS 202</td>
<td>4 1/2</td>
<td>General Physics</td>
</tr>
</tbody>
</table>

**Credits to Total a Minimum of** ........................................ 127

Candidates for a B.S. in chemistry must achieve a cumulative GPA of at least 2.00 for all chemistry courses taken. The calculation of the chemistry course GPA (2.00 minimum required for graduation) for candidates for the B.S. degree in Chemistry or Biochemistry will not include grades earned for lower level subdisciplinary courses taken after a higher level course in the same subdiscipline has been taken and passed with a grade of C or higher. Likewise, freshman-level courses may not be used by upperclassmen as GPA enhancers after those required for graduation has been taken. CHEM 342 and CHEM 100 will be regarded as exceptions to the foregoing prohibitions, since their subject matter coverage is considerably different than that found in higher level courses.

**Example:** A grade earned in CHEM 214 subsequent to a C or better grade earned in CHEM 527 (or CHEM 641/642) would not be counted in the chemistry GPA calculation for B.S. chemistry or biochemistry majors.

**Requirements for a Minor in Chemistry**

The minor in chemistry requires a minimum of 19 credits as follows:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 103, 104, (or 111,112,119)</td>
<td>8</td>
</tr>
<tr>
<td>CHEM 220, 221 (or 437, 438)</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 321, 325 (or 331, 333)</td>
<td>4-5</td>
</tr>
<tr>
<td>CHEM 457, 458</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 418, 445 (or 443, 445)</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 527 or 641</td>
<td>3</td>
</tr>
</tbody>
</table>

Students must have a minimum grade of C- in each course counted toward the minor.

**Communication**

A major in communication is designed to help students develop an understanding of themselves and others as communicators, to increase knowledge about the communication process, to increase awareness of the responsibility and potential impact of communication on society, and to make students more competent in communicating with others and in assisting others to communicate more effectively.

Communication is viewed as a social and behavioral science. Courses are offered in the areas of interpersonal communication, small-group communication, public speaking, organizational communication, mass communication, public relations, and human communication theory.

The communication major is a junior-senior major. Students enter this major as communication interest majors and complete the four-course, two-year sequence (with a grade-point average of 2.75 or better) to qualify as communication majors.

Students who major in communication will plan with their assigned faculty adviser a program of courses, satisfactory to the department, leading to the degree of Bachelor of Arts. Further information may be obtained from the department.
# DEGREE: BACHELOR OF ARTS
## MAJOR: COMMUNICATION
### CONCENTRATION: INTERPERSONAL/ORGANIZATIONAL COMMUNICATION

**CURRICULUM**

See page 82 for University and College requirements.

**MAJOR REQUIREMENTS**

**Within the Department**

**NOTE:** All 4XX communication courses may be limited to COMM majors.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 245 Mass Communication and Culture</td>
<td>3.15</td>
</tr>
<tr>
<td>COMM 256 Principles of Communication Theory</td>
<td>3.12</td>
</tr>
<tr>
<td>COMM 301 Introduction to Communication Inquiry</td>
<td>3.28</td>
</tr>
<tr>
<td>COMM 330 Communication and Social Behavior</td>
<td>3.39</td>
</tr>
<tr>
<td>COMM 350 Public Speaking</td>
<td>3.34</td>
</tr>
<tr>
<td>COMM 361 Interpersonal Communication</td>
<td>3.35</td>
</tr>
<tr>
<td>COMM 417 Communication and the Management of Conflict</td>
<td>3.39</td>
</tr>
<tr>
<td>COMM 435 Symbolism in Organizations</td>
<td>3.48</td>
</tr>
<tr>
<td>COMM 456 Communication in Organizations</td>
<td>3.46</td>
</tr>
<tr>
<td>One additional 400-level COMM course, not COMM 466 or COMM 440</td>
<td>3.12</td>
</tr>
<tr>
<td>COMM 464, outside your concentration</td>
<td></td>
</tr>
</tbody>
</table>

Six to 15 COMM elective credits 6-15.34

for a total of not less than 36 nor more than 45 COMM credits. These may be taken from the other concentrations or from the following:

**Interpersonal/Organizational Communication Electives**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 200 Introduction to Human Communication Systems</td>
<td>3</td>
</tr>
<tr>
<td>COMM 251 The Development of Verbal Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMM 356 Small Group Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMM 438 Speech and Language in Human Behavior</td>
<td>3</td>
</tr>
<tr>
<td>COMM 440 Topics in Interpersonal and Organizational Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

**COMM 452 Communication, Power and Values**

**COMM 485 Analysis of Verbal Communication**

**Mass Communication Electives**

**NOTE:** COMM 325 is prerequisite to COMM 388 and COMM 435.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 325 Television Production</td>
<td>3</td>
</tr>
<tr>
<td>COMM 388 TV Production Practicum</td>
<td>3</td>
</tr>
<tr>
<td>COMM 418 Topics in Mass Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMM 435 Advanced TV Production and Direction</td>
<td>3</td>
</tr>
<tr>
<td>COMM 454 Children and the Mass Media</td>
<td>3</td>
</tr>
</tbody>
</table>

**Public Relations Electives**

**NOTE:** ENGL 307 is prerequisite to the following sequence and should be taken in the sophomore year.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 309 Introduction to Public Relations</td>
<td>3</td>
</tr>
<tr>
<td>COMM 311 Public Relations Communication Techniques</td>
<td>3</td>
</tr>
<tr>
<td>COMM 409 Public Relations</td>
<td>3</td>
</tr>
<tr>
<td>COMM 413 Public Relations Program Design</td>
<td>3</td>
</tr>
</tbody>
</table>

**General Electives**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM x65 Independent Study/Special Problems (366/466)</td>
<td>1-6</td>
</tr>
<tr>
<td>COMM 464 Internship</td>
<td>1-6</td>
</tr>
<tr>
<td>COMM x67 Experimental Courses (367/467)</td>
<td>3</td>
</tr>
</tbody>
</table>

**ELECTIVES**

**Electives**

After required courses are completed sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

**CREDITS TO TOTAL A MINIMUM OF** 124

*Superior figures indicate semester (fall or spring) and/or years in which the course is normally taken, i.e., fall of freshman year, spring of sophomore year, etc.

†Must be completed with a grade point average of 2.75 or better
## COMPUTER AND INFORMATION SCIENCES

With the aid of computers, it is possible to solve problems previously well beyond the reach of human capability at speeds that are equal to the urgency created by the modern world. Problems recently considered far too complex to be treated quantitatively are now solved routinely. These same computers, which are helping to solve the problems of science, technology, government, and business, are widely applied in information systems of service to everyone and in automation systems to further reduce the toil of humankind. Their potential for extending human brainpower is just beginning to be appreciated.

In recognition of the importance of these new concepts, techniques and technology, the Department of Computer and Information Sciences offers four-year undergraduate programs leading to either a Bachelor of Arts degree in computer science or a Bachelor of Science degree in computer science. The latest information on these programs is available in the department office in 103 Smith Hall.

Courses are also provided for students in other areas who desire an understanding of the application of computers to the subject of their major interest. In many courses, problem solutions require the use of computers located in the University of Delaware Computing Center. These computers are available to undergraduate students for use in connection with both course work and research.

### DEGREE: BACHELOR OF ARTS

**MAJOR: COMPUTER AND INFORMATION SCIENCES**

<table>
<thead>
<tr>
<th>CURRICULUM</th>
<th>CREDITS*</th>
</tr>
</thead>
<tbody>
<tr>
<td>See page 82 for University and College requirements.</td>
<td></td>
</tr>
<tr>
<td><strong>MAJOR REQUIREMENTS</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Within the Department</strong></td>
<td></td>
</tr>
<tr>
<td>CISC 180  Introduction to Computer Science I</td>
<td>3</td>
</tr>
<tr>
<td>CISC 181  Introduction to Computer Science II</td>
<td>3</td>
</tr>
<tr>
<td>CISC 220  Data Structures</td>
<td>3</td>
</tr>
<tr>
<td>CISC 260  Machine Organization and Microcomputers</td>
<td>3</td>
</tr>
<tr>
<td>Eighteen credits of Computer Science numbered 301 or above, approved by the student’s adviser.</td>
<td></td>
</tr>
<tr>
<td><strong>Within the College</strong></td>
<td></td>
</tr>
<tr>
<td>MATH 210  Discrete Mathematics I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 241  Analytic Geometry and Calculus A</td>
<td>4</td>
</tr>
<tr>
<td>MATH 315  Discrete Mathematics II</td>
<td>3</td>
</tr>
<tr>
<td><strong>ELECTIVES</strong></td>
<td></td>
</tr>
<tr>
<td>Electives</td>
<td></td>
</tr>
<tr>
<td>After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.</td>
<td></td>
</tr>
<tr>
<td><strong>CREDITS TO TOTAL A MINIMUM OF</strong></td>
<td>124</td>
</tr>
</tbody>
</table>

---

### DEGREE: BACHELOR OF SCIENCE

**MAJOR: COMPUTER AND INFORMATION SCIENCES**

<table>
<thead>
<tr>
<th>CURRICULUM</th>
<th>CREDITS*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UNIVERSITY REQUIREMENTS</strong></td>
<td></td>
</tr>
<tr>
<td>ENGL 110  Critical Reading and Writing</td>
<td>3</td>
</tr>
<tr>
<td>Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content.</td>
<td>3</td>
</tr>
<tr>
<td><strong>COLLEGE REQUIREMENTS</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Skill Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>Writing †</td>
<td>3</td>
</tr>
<tr>
<td>A second writing course involving significant writing experience including two papers with a combined minimum of 3,000 words to be submitted for extended faculty critique of both composition and content. This course must be taken after completion of 62 credit hours. Appropriate writing courses are normally designated in the semester's Registration Booklet. (See list of courses approved for second writing requirement, page 83.)</td>
<td></td>
</tr>
<tr>
<td><strong>Breadth Requirements</strong></td>
<td>(See page 84)</td>
</tr>
<tr>
<td>Six credits from each of the following groups</td>
<td>18</td>
</tr>
<tr>
<td>Group A</td>
<td></td>
</tr>
<tr>
<td>Understanding and appreciation of the creative arts and humanities.</td>
<td></td>
</tr>
<tr>
<td>Group B</td>
<td></td>
</tr>
<tr>
<td>The study of culture and institutions over time.</td>
<td></td>
</tr>
<tr>
<td>Group C</td>
<td></td>
</tr>
<tr>
<td>Empirically based study of human beings and their environment</td>
<td></td>
</tr>
<tr>
<td><strong>Within the Department</strong></td>
<td></td>
</tr>
<tr>
<td>CISC 180  Introduction to Computer Science I</td>
<td>3</td>
</tr>
<tr>
<td>CISC 181  Introduction to Computer Science II</td>
<td>3</td>
</tr>
<tr>
<td>CISC 220  Data Structures</td>
<td>3</td>
</tr>
<tr>
<td>CISC 260  Machine Organization and Microcomputers</td>
<td>3</td>
</tr>
<tr>
<td>CISC 310  Logic and Programming</td>
<td>3</td>
</tr>
<tr>
<td>CISC 320  Algorithms and Advanced Programming</td>
<td>3</td>
</tr>
<tr>
<td>CISC 360  Computer Architecture</td>
<td>3</td>
</tr>
<tr>
<td>CISC 361  Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>CISC 471  Compiler Design</td>
<td>3</td>
</tr>
<tr>
<td><strong>CISC Electives</strong></td>
<td>9</td>
</tr>
<tr>
<td>Nine credits of Computer Science numbered 301 or above, approved by the student’s adviser.</td>
<td></td>
</tr>
<tr>
<td><strong>CISC Concentration</strong></td>
<td>12</td>
</tr>
<tr>
<td>Twelve credits in advanced courses in an adviser-approved concentration. Students are encouraged to explore how other subject areas impact and are impacted by computer science. An approval form signed by the CISC adviser is required.</td>
<td></td>
</tr>
<tr>
<td><strong>Within the College</strong></td>
<td></td>
</tr>
<tr>
<td>Related Work</td>
<td></td>
</tr>
<tr>
<td>MATH 210  Discrete Mathematics I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 241  Analytic Geometry and Calculus A</td>
<td>4</td>
</tr>
<tr>
<td>MATH 315  Discrete Mathematics II</td>
<td>3</td>
</tr>
<tr>
<td>STAT 315  Statistical Methods</td>
<td>4</td>
</tr>
<tr>
<td>ENGL 312  Written Communications in Business</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>ENGL 410  Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>CSCC 355  Computers, Ethics and Society</td>
<td>3</td>
</tr>
</tbody>
</table>
One of the following sequences of laboratory science courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 207</td>
<td>4 (^1)</td>
</tr>
<tr>
<td>PHYS 208</td>
<td>4 (^1)</td>
</tr>
<tr>
<td>CHEM 105</td>
<td>4 (^1)</td>
</tr>
<tr>
<td>CHEM 106</td>
<td>4 (^1)</td>
</tr>
<tr>
<td>BISC 207</td>
<td>4 (^1)</td>
</tr>
<tr>
<td>BISC 208</td>
<td>4 (^1)</td>
</tr>
<tr>
<td>GEOL 106</td>
<td>4 (^1)</td>
</tr>
<tr>
<td>GEOL 107</td>
<td>4 (^1)</td>
</tr>
</tbody>
</table>

Within the University

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELEG 202</td>
<td>2</td>
</tr>
</tbody>
</table>

ECONOMICS

Economics, a social science, analyzes the market and non-market production and allocation of goods and services. The problems associated with society’s effort to prosper in a world possessing finite resources provide the focus.

The policy problems encountered in this study are varied, fascinating, and important for social welfare. The issues include (1) the conflicts between efficiency in production and equity in the distribution of income; (2) the causes of, and solutions to, unemployment and inflation; (3) the prospects for growth and development in the world’s poorer nations; (4) the contrasts between managed and market economics; (5) efficient and fair solutions for pollution problems; (6) the implications of monopoly and other private constraints on economic efficiency; and (7) the advantages of, and difficulties with, international trade.

Economics is often confused with business administration. Economics and business administration courses both deal with the production and distribution of goods and services. Both are concerned with business firms, with industrial organizations, and with governmental policies affecting such matters. They differ sharply, however, in both the methodology and viewpoint taken. Most business administration courses view the business firm and its well-being as the central focus; economics courses focus on society’s economic well-being. Economics is the study of how individuals in society can improve their material well-being and how society can achieve its economic goals.

The program leading to a Bachelor of Arts degree with a major in economics for a student enrolled in the College of Arts and Science has the same group and language requirements as other Bachelor of Arts programs offered in the College of Arts and Science.

Both a Bachelor of Arts and Bachelor of Science degree are available to students enrolled in the College of Business and Economics. The group and language (Bachelor of Arts) or quantitative proficiency (Bachelor of Science) requirements for students enrolled in the College of Business and Economics are described in the College of Business and Economics section of this catalog.

A minor program in economics is also available. Students majoring in economics will be advised by the faculty of the Department of Economics within the College of Business and Economics.

DEGREE: BACHELOR OF ARTS
MAJOR: ECONOMICS

<table>
<thead>
<tr>
<th>CURRICULUM</th>
<th>CREDITS*</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 201</td>
<td>3 (^1)</td>
</tr>
<tr>
<td>STAT 370</td>
<td>3</td>
</tr>
<tr>
<td>STAT 202</td>
<td>3 (^1)</td>
</tr>
<tr>
<td>STAT 371</td>
<td>3</td>
</tr>
</tbody>
</table>

ECONOMICS

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 151</td>
<td>3</td>
</tr>
<tr>
<td>ECON 152</td>
<td>3</td>
</tr>
<tr>
<td>ECON 300</td>
<td>3</td>
</tr>
<tr>
<td>ECON 301</td>
<td>3</td>
</tr>
<tr>
<td>ECON 302</td>
<td>3 (^2)</td>
</tr>
<tr>
<td>ECON 303</td>
<td>3 (^2)</td>
</tr>
<tr>
<td>ECON 304</td>
<td>3 (^2)</td>
</tr>
</tbody>
</table>

Nine credits chosen from any 300-level or higher course in Accounting, Anthropology, Business Administration, Computer Science, Geography, History, Mathematics, Philosophy, Political Science, Psychology, Sociology and Statistics. Also acceptable are ACCT 207/208 and any 200-level Mathematics course.

ELECTIVES

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 305</td>
<td>3</td>
</tr>
<tr>
<td>ECON 306</td>
<td>3</td>
</tr>
</tbody>
</table>

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

<table>
<thead>
<tr>
<th>CREDITS TO TOTAL A MINIMUM OF</th>
<th>124</th>
</tr>
</thead>
</table>
Credit will not be allowed for both courses of any of the following sets of corresponding courses: ECON 311 and EC 411; ECON 392 and ECON 493; ECON 340 and ECON 445; ECON 360 and ECON 461 or ECON 465; and ECON 391 and ECON 485.

Departmental requirements and course descriptions are subject to continual revision. Up-to-date statements of requirements, course descriptions, and departmental policies are available in the department office.

DEGREE: BACHELOR OF ARTS
MAJOR: ECONOMICS EDUCATION

CURRICULUM

See page 82 for University and College requirements.

MAJOR REQUIREMENTS

Within the Department

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 151</td>
<td>Introduction to Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 152</td>
<td>Introduction to Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 300</td>
<td>Intermediate Microeconomic Theory</td>
<td>3</td>
</tr>
<tr>
<td>ECON 301</td>
<td>Quantitative Microeconomic Theory</td>
<td>3</td>
</tr>
<tr>
<td>ECON 302</td>
<td>Money, Credit and Banking</td>
<td>4</td>
</tr>
<tr>
<td>ECON 303</td>
<td>Intermediate Macroeconomic Theory</td>
<td>3</td>
</tr>
<tr>
<td>ECON 461</td>
<td>and ECON 463 or ECON 391</td>
<td>3</td>
</tr>
</tbody>
</table>

Six Economics courses, three of which are at or above the 400 level

Within the College

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 201</td>
<td>Introduction to Statistics I</td>
<td>3-4</td>
</tr>
<tr>
<td>or</td>
<td>STAT 370</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>STAT 202</td>
<td>3-4</td>
</tr>
<tr>
<td>or</td>
<td>STAT 371</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 201</td>
<td>General Psychology</td>
<td>3-4</td>
</tr>
</tbody>
</table>

Fifteen credits in the following social sciences with at least three credits in each department: Anthropology, Geography, History, Political Science and International Relations, and Sociology

Professional Studies

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDST 201</td>
<td>Education and Society</td>
<td>3-4</td>
</tr>
<tr>
<td>EDST 304</td>
<td>Educational Psychology – Social Aspects</td>
<td>3-4</td>
</tr>
<tr>
<td>EDST 305</td>
<td>Educational Psychology – Cognitive Aspects</td>
<td>3-4</td>
</tr>
<tr>
<td>HIST 491</td>
<td>Planning a Course of Instruction</td>
<td>3</td>
</tr>
<tr>
<td>HIST 493</td>
<td>Seminar: Problems in Teaching History and Social Sciences</td>
<td></td>
</tr>
<tr>
<td>EDDV 490</td>
<td>Reading in the Content Areas</td>
<td>1-4</td>
</tr>
<tr>
<td>EDDV 400</td>
<td>Student Teaching</td>
<td>9</td>
</tr>
</tbody>
</table>

CREDITS TO TOTAL A MINIMUM OF 124

ENGLISH

The English Department has a widely varied undergraduate program. In the undergraduate literary studies major, students can study literature in English from Britain, America, and around the world. Undergraduates may elect concentrations in journalism, film, or business/technical writing, or, if they meet the admission requirements, may elect the program in English education. Journalism concentrators undergo intensive training in written journalism and serve on the staff of the University newspaper, The Review, in connection with their study. A number of undergraduate journalism concentrators also gain internship experience with local newspapers, TV stations, and other organizations. The film concentration includes courses in history and theory of film as well as film and literature, Black cinema, and other subjects. The program in business/technical writing is designed to prepare students for positions as professional writers or editors in industry and government. This concentration requires internships of qualified students. The concentration in English education prepares students to teach English in the secondary schools (grades 7-12). Graduates of this program receive the B.A. in English and are eligible for teacher certification in 27 states and the Overseas Dependent Schools System.

The department regularly offers a series of creative writing courses both comprehensive and tailored to individual student needs. Courses in writing poetry and fiction are available at all levels, and the department publishes a literary magazine called Caesura. In addition, the students give poetry and fiction readings, both with the faculty and by themselves.

Almost all faculty work with both undergraduate and graduate students, and many of the faculty have won University teaching awards for superior teaching. Since most classes have fewer than 35 students, the faculty is easily accessible for consultation. The department also sponsors every year a series of creative writers and scholars who give readings and lectures on campus and spend a period of time with undergraduate students. Department faculty also offer colloquia to which all undergraduates are invited and in which the faculty discuss their own research projects and the work in which they are engaged. In conjunction with the University Honors Program, the department offers opportunities for undergraduate students to conduct research under the supervision of regular faculty. Outstanding students are also eligible to join Sigma Tau Delta, the national English honor society.

The undergraduate curriculum is designed to insure that all required courses are regularly offered and that there is an extensive variety of offerings from the whole range of English, American and continental literatures from their origins to the most contemporary literature. Since 1978, the English Department has participated in a Semester-in-London program in which undergraduates live in London during a semester while taking courses in English literature and other allied disciplines.

The following courses may not be counted toward the English major or minor: ENGL 200, 204, 210, 301, and 365. ENGL 307, 308, 309, 310, 407, and 409 may be

*Superior figures indicate year or years in which the course is normally taken, i.e., 1 freshmen year, 2 sophomore year, etc.
counted only as part of the journalism concentration; ENGL 312, 410, 411, 412, 413, 414, and 464 may be counted only as part of the concentration in business/technical writing; and ENGL 384 may be counted only as part of the concentration in English education.

**DEGREE: BACHELOR OF ARTS**
**MAJOR: ENGLISH**

**CURRICULUM**

See page 82 for University and College requirements.

**MAJOR REQUIREMENTS**

**Within the Department**
- ENGL 202 Biblical and Classical Literature .. 3
- ENGL 205 Great English Writers I .. 3
- ENGL 206 Great English Writers II .. 3
- ENGL 324 Shakespeare .. 3
- ENGL 424 Studies in Shakespeare .. 3
- ENGL 340 American Literature to the Civil War .. 3
- ENGL 341 American Literature: Civil War to World War II .. 3

**Electives**

Twelve credits at the 300 level or above distributed as follows: 12
- a. A course other than Shakespeare in Medieval or Renaissance literature.
- b. A course in literature between 1700 and 1900.
- c. A course in Modern literature.
- d. A course in cultural and theoretical studies.

English courses at or above the 500 level .. 6
English courses at or above the 200 level .. 3

All English majors must take at least one ENGL 480 seminar and can count only one 200 level course toward the minimum number of credits for the major.

**ELECTIVES**

**Electives**

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree. Most concentrators take a core of courses in a technical or business discipline such as Computer Science, Chemistry, Business Administration or Accounting.

**CREDITS TO TOTAL A MINIMUM OF** .. 124

**DEGREE: BACHELOR OF ARTS**
**MAJOR: ENGLISH**

**CONCENTRATION: BUSINESS/TECHNICAL WRITING**

**CURRICULUM**

See page 82 for University and College requirements.

**MAJOR REQUIREMENTS**

**Within the Department**
- ENGL 202 Biblical and Classical Literature .. 3
- ENGL 205 Great English Writers I .. 3
- ENGL 206 Great English Writers II .. 3
- ENGL 324 Shakespeare .. 3
- ENGL 424 Studies in Shakespeare .. 3
- ENGL 340 American Literature to the Civil War .. 3
- ENGL 341 American Literature: Civil War to World War II .. 3

Nine credits at the 300 level or above distributed as follows: 9
- a. A course other than Shakespeare in Medieval or Renaissance literature or a course in literature between 1700 and 1900.
- b. A course in Modern literature or a course in cultural and theoretical studies.
- c. A literature course.

One of the following two courses
- ENGL 312 Written Communications in Business .. 3
- ENGL 410 Technical Writing .. 3
- ENGL 411 Rhetoric for Business and Technical Writers .. 3
- ENGL 412 Business and Technical Publication .. 3
- ENGL 464 Internship in Business/Technical Writing .. 3

**Optional:**
- ENGL 414 Technical Editing .. 3
- ENGL 413 Topics in Technical Writing or one other EBT course .. 3

All EBT majors must take at least one ENGL 480 seminar and can count only one 200 level course toward the minimum number of credits for the major.

**DEGREE: BACHELOR OF ARTS**
**MAJOR: ENGLISH**

**CONCENTRATION: FILM**

**CURRICULUM**

See page 82 for University and College requirements.

**MAJOR REQUIREMENTS**

**Within the Department**
- ENGL 202 Biblical and Classical Literature .. 3
- ENGL 205 Great English Writers I .. 3
- ENGL 206 Great English Writers II .. 3
- ENGL 324 Shakespeare .. 3
- ENGL 424 Studies in Shakespeare .. 3
- ENGL 340 American Literature to the Civil War .. 3
- ENGL 341 American Literature: Civil War to World War II .. 3

**Electives**

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree. Most concentrators take a core of courses in a technical or business discipline such as Computer Science, Chemistry, Business Administration or Accounting.

**CREDITS TO TOTAL A MINIMUM OF** .. 124

*Superior figures indicate year or years in which the course is normally taken, i.e., 1 freshman year, 2 sophomore year, etc.*
All EFM majors must take at least one ENGL 480 seminar and can count only one 200-level course toward the minimum number of credits for the major.

**ELECTIVES**

Electives

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF 124

---

**DEGREE: BACHELOR OF ARTS**

**MAJOR: ENGLISH**

**CONCENTRATION: JOURNALISM**

**CURRICULUM**

See page 82 for University and College requirements.

**MAJOR REQUIREMENTS**

Within the Department

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 202 Biblical and Classical Literature</td>
<td>3.14</td>
</tr>
<tr>
<td>ENGL 205 Great English Writers I</td>
<td>3.14</td>
</tr>
<tr>
<td>ENGL 206 Great English Writers II</td>
<td>3.14</td>
</tr>
<tr>
<td>ENGL 324 Shakespeare</td>
<td>3.14</td>
</tr>
<tr>
<td>ENGL 340 American Literature to the Civil War</td>
<td>3.14</td>
</tr>
</tbody>
</table>

Nine credits at the 300 level or above distributed as follows:

a. A course other than Shakespeare in Medieval or Renaissance literature or a course in literature between 1700 and 1900.

b. A course in Modern literature or a course in cultural and theoretical studies.

c. A literature course.

Prior to enrolling in the following course, ENGL 110 or equivalent must be completed with a grade of B or better.

ENGL 307 News Writing and Editing       3.14

At least nine credits chosen from among the following courses:

ENGL 308 Reporter's Practicum           3
ENGL 309 Feature and Magazine Writing   3
ENGL 310 Copy Editing and Layout        3
ENGL 407 Advanced Reporting             1-3
ENGL 409 Topics in Journalism           3

May be taken in addition to the 36 required credits in English:

ENGL 466 Internship                     1-6

All EJR majors must take at least one ENGL 480 seminar and can count only one 200-level course toward the minimum number of credits for the major.

**ELECTIVES**

Electives

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF 124

---

**REQUIREMENTS FOR OTHER PROGRAMS IN ENGLISH**

The English Department also offers a program leading to a minor in English. The course of study for the English minor includes ENGL 202, 205, 206, 324 and two additional courses in literature and composition above the 200 level. One course must be in British/World Literature, and one course must be in American Literature, Cultural and Theoretical Studies. By earning 15 credits in recommended courses at or above the 300 level, a student may minor in Irish Studies. Required courses

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* Superior figures indicate year or years in which the course is normally taken, i.e., 1 freshman year, 2 sophomore year, etc.

† A course may be applied toward both the major requirements and a breadth requirement, but credits are counted only once toward the total credits for graduation.

** Some breadth requirements are specified by the major.
include ENGL 351 and HIST 373. A student may also minor in Medieval Studies.

Eligible students may elect to pursue the Honors degree in English or the Degree with Distinction. Those taking the Honors degree must satisfy all the requirements established by the University Honors Program; in addition, they must meet requirements set by the English Department: a minimum of 12 credits in Honors courses in English, not including the thesis (one course must be an Honors Seminar, ENGL 480 Honors); and an Honor thesis.

FOREIGN LANGUAGES AND LITERATURES

Modern. Almost all spheres of human activity—from business to politics to humanistic studies—now have crucial international components. In order to be competitive in today’s world, an educated person must understand other people’s patterns of thought and action. The surest way to achieve this understanding is by learning how to speak other languages and by the study of other cultures.

To prepare students to speak, understand, read and write the language they are studying, the Department of Foreign Languages and Literatures uses proficiency-oriented communicative approaches to language learning. Many of the elementary/intermediate courses are team taught, and there are special programs for students at this level who want to continue their language/culture study abroad. A high-tech Foreign Language Media Center is available for the use of students and faculty.

All majors are encouraged to spend at least one semester, one winter session, or one summer of study in a country in which the foreign language is spoken natively.

Ancient. The program offers a liberal education in the fullest sense of that term by giving one the means to identify a problem, solve it without losing sight of its larger implications, express the solution clearly, and persuade others of its validity. Students of the classics learn habits of accuracy and clarity of expression, not only in Latin but in their own language as well, and in the process grapple with the universal ethical, social, and political problems and gain perspective, sensitivity, and insight. These are qualities that equip students for effective action in any profession.

The teaching of the classics will be the goal of some who select this major; whether they look to secondary education or to graduate school. Students who intend to enter the field of law, theology, or medicine will find it appropriate, and it is a desirable choice as a major or a field of concentration for future writers, businesspersons, and public servants.

PLACEMENT AND DUPLICATE CREDIT

Students intending to enroll in a foreign language course will be placed according to the number of years of previous study of that language. As a general rule, students with fewer than two years of high school foreign language or the equivalent will be placed at the 105 level; students with two-three years will be placed at the 106 level, and students with more than three years will be placed at the 107 level. Exceptions to this rule can be made only upon the recommendation of the Foreign Language Placement Officer.

No credit will be granted for a 100-level course if the student has already successfully completed a 200-level course or a course higher in the 100-level sequence in the same language, e.g., credit for a 105 course will not be given if a 106 course has already been successfully completed.

Skipping Courses: Students are advised that once they begin their foreign language courses at the 100-level, they are not permitted to skip courses in the sequence (for example, students are not permitted to move directly from 105 to 107). The prerequisite for each 100-level course must be observed.

It is important to note that only 12 credits of the same elementary/intermediate language will be counted towards the degree.

FOREIGN LANGUAGE EDUCATION

The Department of Foreign Languages & Literatures administers the B.A. program in Foreign Language Education leading to secondary certification in Classics, French, German, Latin, Russian, and Spanish. Those students pursuing teaching certification are encouraged to study in the country where their particular foreign language is spoken. Information on study abroad programs is available through the Department of Foreign Languages and Literatures.

DEGREE: BACHELOR OF ARTS

MAJOR: HISTORY/CLASSICS, FRENCH, GERMAN, RUSSIAN, OR SPANISH

CURRICULUM

CREDITS

See page 82 for University and College requirements. Note: Latin 214 may also be taken to complete the intermediate level college requirement in Foreign Language.

MAJOR REQUIREMENTS

Within the Department of History

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 101</td>
<td>Western Civilization to 1648</td>
<td>3 1/2</td>
</tr>
<tr>
<td>HIST 102</td>
<td>Western Civilization: 1648 to the Present</td>
<td>3 1/2</td>
</tr>
<tr>
<td></td>
<td>Five 300-level courses, at least two of which must deal with countries that use the chosen foreign language</td>
<td>15 1/4</td>
</tr>
<tr>
<td></td>
<td>History seminar at the 400 level or above (excluding HIST 491 and 493 and Independent Study)</td>
<td>3 1/4</td>
</tr>
</tbody>
</table>

*Superior figures indicate year or years in which the course is normally taken, i.e., 1 freshman year, 2 sophomore year, etc.*
Within the Department of Foreign Languages and Literatures

### Classics

Civilization: Two classical civilization (or culture) courses:  
- e.g., FLLT 202 (Biblical and Classical Literature)  
- FLLT 316 (Mythology)  

<table>
<thead>
<tr>
<th>Literature</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Either 9 credits of Latin at the 200-level or above and 3 credits of Latin at the 300 level or above, or</td>
<td>6-14</td>
</tr>
<tr>
<td>GREK 213 and GREK 214 and 6 credits of Latin at the 200-level or above</td>
<td>12-14</td>
</tr>
</tbody>
</table>

### French

Civilization: FREN 310 (French Civilization I), or FREN 311 (French Civilization II) or FREN 312 (French Civilization III)  

<table>
<thead>
<tr>
<th>Literature</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREN 301 (Introduction to French Literature: Prose) and FREN 302 (Introduction to French Literature: Poetry and Theatre)</td>
<td>6-14</td>
</tr>
<tr>
<td>400-level literature course</td>
<td>3-14</td>
</tr>
<tr>
<td>Two courses at the 200, 300, or 400 level</td>
<td>6-14</td>
</tr>
</tbody>
</table>

### German

Civilization: GRMN 325 (German Civilization and Culture)  

<table>
<thead>
<tr>
<th>Literature</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRMN 311 (Introduction to German Literature I) and GRMN 312 (Introduction to German Literature II)</td>
<td>6-14</td>
</tr>
<tr>
<td>400-level literature course</td>
<td>3-14</td>
</tr>
<tr>
<td>Two courses at the 200, 300, or 400 level</td>
<td>6-14</td>
</tr>
</tbody>
</table>

### Russian

Civilization: RUSS 325 (Russian Civilization)  

<table>
<thead>
<tr>
<th>Literature</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RUSS 310 (Introduction to Russian Literature I) and RUSS 312 (Introduction to Russian Literature II)</td>
<td>6-14</td>
</tr>
<tr>
<td>400-level literature course</td>
<td>3-4</td>
</tr>
<tr>
<td>Two courses at the 200, 300, or 400 level</td>
<td>6-24</td>
</tr>
</tbody>
</table>

### Spanish

Civilization: SPAN 325 (Spanish Civilization and Culture) or SPAN 326 (Latin American Civilization and Culture)  

<table>
<thead>
<tr>
<th>Literature</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN 301 (Survey of Spanish Literature) and SPAN 302 (Survey of Spanish Literature)</td>
<td>6-14</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>SPAN 303 (Survey of Spanish-American Literature) and SPAN 304 (Survey of Spanish-American Literature)</td>
<td>6-14</td>
</tr>
<tr>
<td>400-level literature course</td>
<td>3-14</td>
</tr>
<tr>
<td>Two courses at the 200, 300, or 400 level</td>
<td>6-14</td>
</tr>
</tbody>
</table>

### ELECTIVES

**Electives**

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF 124

### DEGREE: BACHELOR OF ARTS

**MAJOR: FRENCH, GERMAN, OR SPANISH/ POLITICAL SCIENCE**

<table>
<thead>
<tr>
<th>CURRICULUM</th>
<th>CREDITS*</th>
</tr>
</thead>
<tbody>
<tr>
<td>See page 82 for University and College requirements.</td>
<td></td>
</tr>
</tbody>
</table>

**MAJOR REQUIREMENTS†**

### Within the Department of Political Science and International Relations

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>POSC 105</td>
<td>Political Science</td>
<td>3</td>
</tr>
<tr>
<td>(or other required intro courses)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Within the Department of Foreign Languages and Literatures**

In addition to completing the courses listed below, students are required to participate in a semester abroad program sponsored by the Department of Foreign Languages and Literatures (in Caen, or the equivalent, for French; in Bayreuth, or the equivalent, for German; in Granada, or the equivalent, for Spanish).

<table>
<thead>
<tr>
<th>Language</th>
<th>Required Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>French</td>
<td>FREN 2xx, 3xx, 4xx</td>
</tr>
<tr>
<td></td>
<td>FREN 3xx, 4xx</td>
</tr>
<tr>
<td></td>
<td>FREN 4xx (literature)</td>
</tr>
<tr>
<td>German</td>
<td>GRMN 2xx, 3xx, 4xx</td>
</tr>
<tr>
<td></td>
<td>GRMN 3xx, 4xx</td>
</tr>
<tr>
<td></td>
<td>GRMN 4xx (literature)</td>
</tr>
<tr>
<td>Spanish</td>
<td>SPAN 2xx, 3xx, 4xx</td>
</tr>
<tr>
<td></td>
<td>SPAN 3xx, 4xx</td>
</tr>
<tr>
<td></td>
<td>SPAN 4xx (literature)</td>
</tr>
</tbody>
</table>

**Electives**

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF 124

---

*Superior figures indicate year or years in which the course is normally taken, e.g., 1freshman year, 2sophomore year, etc.

**Students must choose either the Peninsular (325, 301, 302) or the Latin American (326, 303, 304) track.

†French, German or Spanish/Political Science majors must complete all designated courses and any prerequisite courses (e.g., for admission to the 200-level language courses) with no grade below a C.

‡Must be completed prior to leaving for the semester abroad (FREN 255, GRMN 255 and SPAN 255 are recommended for French, German or Spanish majors, respectively.)

††This 400-level literature course must be taken on the Newark Campus.
Admission and Financial Aid. The departments of Political Science and International Relations and Foreign Languages and Literatures will jointly make decisions regarding admission of students to the program and recommendations for financial aid.

---

**DEGREE: BACHELOR OF ARTS**  
**MAJOR: FOREIGN LANGUAGES AND LITERATURES**  
**CONCENTRATION: CLASSICAL STUDIES**

<table>
<thead>
<tr>
<th>CURRICULUM</th>
<th>CREDITS*</th>
</tr>
</thead>
<tbody>
<tr>
<td>See page 82 for University and College requirements. Note: Latin 214 may also be taken to complete the intermediate level College requirement in Foreign Language.</td>
<td></td>
</tr>
</tbody>
</table>

**MAJOR REQUIREMENTS**

Within the Department
- GREK 101 Elementary Greek I  
- GREK 102 Elementary Greek II  
- Nine credits in Latin at the 200 level or above  
- Three credits in Latin or Greek at the 200 level or above

Within the College
- Twenty-one credits at the 200 level or above

Electives

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF 124

---

**DEGREE: BACHELOR OF ARTS**  
**MAJOR: CLASSICS EDUCATION**

<table>
<thead>
<tr>
<th>CURRICULUM</th>
<th>CREDITS*</th>
</tr>
</thead>
<tbody>
<tr>
<td>See page 82 for University and College requirements. Note: Latin 214 may also be taken to complete the intermediate level College requirement in Foreign Language.</td>
<td></td>
</tr>
</tbody>
</table>

**MAJOR REQUIREMENTS**

Within the Department
- GREK 101 Elementary Greek I  
- GREK 102 Elementary Greek II  
- Twelve credits in Greek and Latin at or above the 100 level with six credits at or above the 300 level, and at least three credits in each language
- FLLT 202 Biblical and Classical Literature
- FLLT 316 Classical Mythology
- FLLT 322 Topics: Classical Literature in Translation

Professional Studies
- EDST 201 Education and Society  
- EDST 304 Educational Psychology - Social Aspects  
- EDST 305 Educational Psychology - Cognitive Aspects  
- FLLT/LING 421 Methods of Teaching Foreign Language  
- FLLT/LING 422 Language Syllabus Design  
- LING/FLLT 424 Second Language Testing  
- EDOV 400 Student Teaching

Electives

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF 124

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**DEGREE: BACHELOR OF ARTS**  
**MAJOR: FOREIGN LANGUAGES AND LITERATURES**  
**CONCENTRATION: FRENCH STUDIES**

For the different options available under the French Studies concentration (language and literature, civilization and culture, area studies, period studies, linguistics), students should consult their advisor or the associate chair of the department.

<table>
<thead>
<tr>
<th>CURRICULUM</th>
<th>CREDITS*</th>
</tr>
</thead>
<tbody>
<tr>
<td>See page 82 for University and College requirements. Note: Latin 214 may also be taken to complete the intermediate level College requirement in Foreign Language.</td>
<td></td>
</tr>
</tbody>
</table>

**DEGREE REQUIREMENTS**

Within the Department
- Twelve credits in FREN electives at the 200 level and above
- Twelve credits in FREN literature at the 300 or 400 level (at least six credits must be at the 400 level)

Electives

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF 124

---

*Superior figures indicate year or years in which the course is normally taken, i.e., 1st year, 2nd year, etc.
Within the College
A total of twelve to fifteen credits at the 200 level or above, chosen with prior approval of the adviser and according to option requirements, from the following areas: French, Anthropology, Art History, Comparative Literature, English, Foreign Languages and Literatures, History, Linguistics, Music, Philosophy, Political Science, Theatre.

ELECTIVES
Electives
After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF 124

Note: See the associate chair of the department for detailed requirements. The faculty of each program shall determine specific course requirements, which may be more stringent than those listed above.

DEGREE: BACHELOR OF ARTS
MAJOR: FOREIGN LANGUAGES AND LITERATURES

CURRICULUM
See page 82 for University and College requirements. Note: Latin 214 may also be taken to complete the intermediate level College requirement in Foreign Language.

MAJOR REQUIREMENTS
Within the Department
FREN 201 French Reading & Composition: Short Story 3
or
FREN 202 French Reading & Composition: Theatre 3
FREN 301 French Literature: Prose 3
FREN 302 French Literature: Poetry & Theatre 3
FREN 304 French Phonetics 3
One of the following courses:
FREN 303 Intensive French Composition 3
FREN 305 Advanced French Conversation 3
Two of the following courses:
FREN 308 Contemporary France II 3
FREN 310 French Civilization I 3
FREN 311 French Civilization II 3
FREN 312 French Civilization III 3
One of the following courses:
FREN 401 Advanced French Grammar 3
FREN 402 Advanced French Composition 3
FREN 403 History & Evolution of French Language 3
FREN 406 Advanced French Language 3
LING 440 Structure of French 3
Six credits in French Literature at the 400 level 6

Professional Studies
EDST 201 Education and Society 3
EDST 304 Educational Psychology - Social Aspects 3
EDST 305 Educational Psychology - Cognitive Aspects 3
FLLT/LING 421 Methods of Teaching Foreign Language 3
FLLT/LING 422 Language Syllabus Design 3
LING/FLLT 424 Second Language Testing 3
EDDV 400 Student/Teaching 9

ELECTIVES
Electives
After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF 124

DEGREE: BACHELOR OF ARTS
MAJOR: GERMAN STUDIES

CURRICULUM
See page 82 for University and College requirements. Note: Latin 214 may also be taken to complete the intermediate level College requirement in Foreign Language.

MAJOR REQUIREMENTS
Within the Department
GRMN 203 German Grammar Review 3
or
GRMN 205 German Conversation 3

Within the College
A total of twelve to fifteen credits at the 200 level or above, chosen with prior approval of the adviser and according to option requirements, from the following areas: German, Anthropology, Art History, Comparative Literature, English, Foreign Languages and Literatures, History, Linguistics, Music, Philosophy, Political Science, Theatre.

ELECTIVES
Electives
After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF 124

Note: See the associate chair of the department for detailed requirements. The faculty of each program shall determine specific course requirements, which may be more stringent than those listed above.

DEGREE: BACHELOR OF ARTS
MAJOR: FRENCH EDUCATION

CURRICULUM
See page 82 for University and College requirements. Note: Latin 214 may also be taken to complete the intermediate level College requirement in Foreign Language.

MAJOR REQUIREMENTS
Within the Department
FREN 201 French Reading & Composition: Short Story 3
or
FREN 202 French Reading & Composition: Theatre 3
FREN 203 Intensive French Composition 3
FREN 306 Practical Oral/Written Expression 3
FREN 305 Advanced French Conversation 3
Two of the following courses:
FREN 308 Contemporary France II 3
FREN 310 French Civilization I 3
FREN 311 French Civilization II 3
FREN 312 French Civilization III 3
One of the following courses:
FREN 401 Advanced French Grammar 3
FREN 402 Advanced French Composition 3
FREN 403 History & Evolution of French Language 3
FREN 406 Advanced French Language 3
LING 440 Structure of French 3
Six credits in French Literature at the 400 level 6

Professional Studies
EDST 201 Education and Society 3
EDST 304 Educational Psychology - Social Aspects 3
EDST 305 Educational Psychology - Cognitive Aspects 3
FLLT/LING 421 Methods of Teaching Foreign Language 3
FLLT/LING 422 Language Syllabus Design 3
LING/FLLT 424 Second Language Testing 3
EDDV 400 Student/Teaching 9

*Superior figures indicate year or years in which the course is normally taken, i.e., freshman year, sophomore year, etc.
GRMN 211 German Reading and Composition: Short Fiction 3
or
GRMN 212 German Reading and Composition: Drama 3
GRMN 305 German Conversation and Composition 3
or
GRMN 306 Practical Oral/Written Expression 3
GRMN 311 Introduction to German Literature I 3
and
GRMN 312 Introduction to German Literature II 3
GRMN 308 Contemporary Germany II 3
or
GRMN 325 German Civilization and Culture 3
GRMN 340 Focus on Genre: German Drama, Prose or Poetry 3
or
GRMN 355 Special Topics 3
One of the following courses:
GRMN 404 History of the German Language 3
GRMN 406 Advanced German Language 3
LING 460 The Structure of German 3
Six credits in GRMN literature at the 400 level 6

**Professional Studies**
EDST 201 Education and Society 3
EDST 304 Educational Psychology - Social Aspects 3
EDST 305 Educational Psychology - Cognitive Aspects 3
FLLT/LING 421 Methods of Teaching Foreign Language 5
FLLT/LING 422 Language Syllabus Design 5
LING/FLLT 424 Second Language Testing 5
EDDV 400 Student Teaching 9

**ELECTIVES**

*Electives*
After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

**CREDITS TO TOTAL A MINIMUM OF** 124

**DEGREE: BACHELOR OF ARTS**
**MAJOR: FOREIGN LANGUAGES AND LITERATURES**
**CONCENTRATION: LATIN STUDIES**

For the different options available under the Latin Studies concentration (language and literature, area studies, period studies), students should see their adviser or the associate chair of the department.

**CURRICULUM CREDITS**
See page 82 for University and College requirements. Note: Latin 214 may also be taken to complete the intermediate level College requirement in Foreign Language.

**MAJOR REQUIREMENTS**

Within the Department
Twelve credits in LATN electives at the 200 level and above 12
Twelve credits in LATN literature at the 300 or 400 level (at least six credits must be at the 400 level) 12

Within the College
A total of twelve to fifteen credits at the 200 level or above 12-15
chosen with prior approval of the adviser and according to option requirements, from the following areas: Latin, Anthropology, Art History, Comparative Literature, English, Foreign Languages and Literature, History, Linguistics, Music, Philosophy, Political Science, Theatre

**ELECTIVES**

*Electives*
After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

**CREDITS TO TOTAL A MINIMUM OF** 124

**DEGREE: BACHELOR OF ARTS**
**MAJOR: FOREIGN LANGUAGES AND LITERATURES**
**CONCENTRATION: ITALIAN STUDIES**

For the different options available under the Italian Studies concentration (language and literature, civilization and culture, linguistics, area studies, period studies), students should see their adviser or the associate chair of the department.

**CURRICULUM CREDITS**
See page 82 for University and College requirements. Note: Latin 214 may also be taken to complete the intermediate level College requirement in Foreign Language.

**MAJOR REQUIREMENTS**

Within the Department
Twelve credits in ITAL electives at the 200 level and above 12
Twelve credits in ITAL literature at the 300 or 400 level (at least six credits must be at the 400 level) 12

Within the College
A total of twelve to fifteen credits at the 200 level or above 12-15
chosen with prior approval of the adviser and according to option requirements, from the following areas: Italian, Anthropology, Art History, Comparative Literature, English, Foreign Languages and Literature, History, Linguistics, Music, Philosophy, Political Science, Theatre

**ELECTIVES**

*Electives*
After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

**CREDITS TO TOTAL A MINIMUM OF** 124

*Note: See the associate chair of the department for detailed requirements. The faculty of each program shall determine specific course requirements, which may be more stringent than those listed above.*

*Superior figures indicate year or years in which the course is normally taken, i.e., 1freshman year, 2sophomore year, etc.*
After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

**DEGREE: BACHELOR OF ARTS**
**MAJOR: RUSSIAN EDUCATION**

**CURRICULUM**

See page 82 for University and College requirements. Note: Latin 214 may also be taken to complete the intermediate level College requirement in Foreign Language.

**MAJOR REQUIREMENTS**

Within the Department

Twelve credits in RUSS electives at the 200 level and above

Twelve credits in RUSS literature at the 300 or 400 level

(at least six credits must be at the 400 level)

FLLT 327 Topics in Russian Literature in Translation

FLLT 375 Topics in Russian and Soviet Culture in Translation

Within the College

A total of nine credits at the 200 level or above, chosen with prior approval of the adviser and according to option requirements, from the following areas: Russian, Art History, Comparative Literature, English, Foreign Languages and Literatures, History, Linguistics, Music, Political Science

**ELECTIVES**

Electives

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

**CREDITS TO TOTAL A MINIMUM OF**

124

*Superior figures indicate year or years in which the course is normally taken, i.e., 1 freshmen year, 2 sophomore year, etc.*
DEGREE: BACHELOR OF ARTS
MAJOR: FOREIGN LANGUAGES AND LITERATURES
CONCENTRATION: THREE LANGUAGES
CURRICULUM CREDITS*
See page 82 for University and College requirements. Note: Latin 214 may also be taken to complete the intermediate level College requirement in Foreign Language.

MAJOR REQUIREMENTS

Within the Department

First Language
Six first-language elective credits at the 200 level and above........ 6 \textsuperscript{1-4}
Nine credits in literature at the 300 and 400 level ............ 9 \textsuperscript{1-4}
(at least three credits at each level)
Three additional credits at the 400 level ..................... 3 \textsuperscript{1-4}

Second Language
Six second-language elective credits at the 200 level and above..... 6 \textsuperscript{1-4}
Nine credits in literature at the 300 and 400 level ............ 9 \textsuperscript{1-4}
(at least three credits at each level)
Three additional credits at the 400 level ..................... 3 \textsuperscript{1-4}

Third Language
Nine to eleven credits of third-language courses (at least three... 9-11 \textsuperscript{1-4}
credits at or above the 200 level for Western language).

Related Work
Three credits in Linguistics at the 200, 300, or 400 level .... 3 \textsuperscript{1-4}
Three credits from 200-, 300-, or 400-level courses .......... 3 \textsuperscript{1-4}
(including courses in translation) in Foreign Languages and Literatures, Comparative Literature, or Linguistics, selected in consultation with the adviser.

ELECTIVES

Electives
After required courses are completed, sufficient elective credits must
be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF ........................... 124

DEGREE: BACHELOR OF ARTS
MAJOR: FOREIGN LANGUAGES AND LITERATURES
CONCENTRATION: FOUR LANGUAGES
CURRICULUM CREDITS*
See page 82 for University and College requirements. Note: Latin 214 may also be taken to complete the intermediate level College requirement in Foreign Language.

MAJOR REQUIREMENTS

Within the Department

First Language
Six first-language elective credits at the 200 level and above........ 6 \textsuperscript{1-4}
Nine credits in literature at the 300 and 400 level ............ 9 \textsuperscript{1-4}
(at least three credits at each level)
Three additional credits at the 400 level ..................... 3 \textsuperscript{1-4}

Second Language
Six second-language elective credits at the 200 level and above..... 6 \textsuperscript{1-4}
Nine credits in literature at the 300 and 400 level ............ 9 \textsuperscript{1-4}
(at least three credits at each level)
Three additional credits at the 400 level ..................... 3 \textsuperscript{1-4}

Third Language
Nine to eleven credits of third-language courses (at least three... 9-11 \textsuperscript{1-4}
credits at or above the 200 level for Western language).

Related Work
Three credits in Linguistics at the 200, 300, or 400 level .... 3 \textsuperscript{1-4}
Three credits from 200-, 300-, or 400-level courses .......... 3 \textsuperscript{1-4}
(including courses in translation) in Foreign Languages and Literatures, Comparative Literature, or Linguistics, selected in consultation with the adviser.

ELECTIVES

Electives
After required courses are completed, sufficient elective credits must
be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF ........................... 124

\*Superior figures indicate year or years in which the course is normally taken, i.e., \textsuperscript{1}freshman year, \textsuperscript{2}sophomore year, etc.
Fourth Language
Six to eight credits of fourth-language courses (at or above the intermediate level for Western language)

Related Work
Three credits in Linguistics at the 200, 300, or 400 level
Three credits of courses in Foreign Languages and Literatures, Comparative Literature, or Linguistics, selected in consultation with the adviser.

ELECTIVES
Electives
After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF 124

BA DEGREES WITH HONORS IN FOREIGN LANGUAGES AND LITERATURES OR IN FOREIGN LANGUAGE EDUCATION

The following B.A. Degrees may be taken as Honors Degrees:

1. Foreign Languages and Literatures
   Concentrations:
   - Classics, French Studies, German Studies, Italian Studies, Latin Studies, Russian Studies, Spanish Studies, Three Languages, Four Languages
2. Classics Education
3. French Education
4. German Education
5. Latin Education
6. Russian Education
7. Spanish Education

Honors Degree Requirements
To receive the B.A. with Honors, students must complete the following:

A. All requirements for the B.A. in Foreign Languages and Literatures or for the B.A. in Foreign Language Education.

B. All the University's generic requirements for the Honors Degree.

Note: At least six of the Honors credits in the major must be at the 300 level or above.

The Honors Thesis will normally be written in the target language. With the prior approval of the thesis director and the Department Chair, the thesis may be written in English.

STUDY ABROAD

In addition to several University-sponsored semester programs abroad in such locations as Costa Rica, London, Paris, Vienna, and Madrid, various programs for study abroad are specifically designed for students of foreign languages.

For the advanced foreign language student, the Department of Foreign Languages and Literatures sponsors fall semester programs in France (Caen), Germany (Bayreuth) and Spain (Granada). Beginning and intermediate-level students may participate in winter session programs in Costa Rica, France, Germany, Italy, Mexico, Russia or Spain.

Students majoring in French, German, and Spanish are expected to spend a semester abroad, and minors are strongly encouraged to do so.

Please consult the main office of the Department of Foreign Languages and Literatures for further details on all programs.

INTERNATIONAL HONORS CERTIFICATES

Foreign Languages and Literatures (French Studies, German Studies, Spanish Studies) or Political Science and International Relations. This program requires participation in a semester program abroad (in Caen for French, Bayreuth for German, or Granada for Spanish).

18 credits of Honors courses at the 300 level or above are required for this interdisciplinary certificate, 9 in a foreign language (French, German, or Spanish), and 9 in Political Science or International Relations.

Information is available at the Department offices.

FOREIGN LANGUAGE CERTIFICATES FOR ENGINEERING STUDENTS

The Foreign Language Certificate Program is intended to enhance the Bachelor's degree in Engineering by adding the increasingly crucial international dimension. To earn a Bachelor's degree in Engineering with a Foreign Language Certificate or an Honors Foreign Language Certificate in German, the student is required to complete the four courses listed below, the first two of which must be taken during Winter Session in Germany, followed by two courses on the Delaware campus.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRMN 206</td>
<td>Culture through Conversation</td>
<td>3</td>
</tr>
<tr>
<td>GRMN 208</td>
<td>Contemporary Germany I</td>
<td>5</td>
</tr>
</tbody>
</table>

Delaware Campus

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRMN 240</td>
<td>German Culture and Technology</td>
<td>3</td>
</tr>
<tr>
<td>GRMN 325</td>
<td>German Civilization and Culture</td>
<td>5</td>
</tr>
</tbody>
</table>

Foreign Language Certificate: To earn a Bachelor's degree in Engineering with a Foreign Language Certificate in German, the student is required to complete the designated sequence of courses listed above with no grade below a C.

Honors Foreign Language Certificate: To earn a Bachelor's degree in Engineering with an Honors Foreign Language Certificate, the student must:
FOREIGN LANGUAGES AND LITERATURES • COLLEGE OF ARTS AND SCIENCE

- Complete the designated sequence of courses listed above with no grade below a B.
- Take all four of these courses for Honors credit.
- Achieve a 3.0 cumulative grade index by the time of graduation.

Honors Foreign Language Certificates will be awarded at an appropriate Honors ceremony and recorded on the recipient's official transcript. The Honors Foreign Language Certificate can be earned in addition to other kinds of Honors certificates. Honors courses taken in the sequence leading to the Honors Foreign Language Certificate can also be applied toward those required for other forms of Honors recognition.

RESIDENCY REQUIREMENT
At least 15 hours of courses acceptable for credit in the major language and literature, including at least 6 credits at the 400 level, must be taken on campus or as part of a semester abroad program sponsored by the Department of Foreign Languages and Literatures. In the case of the three- and four-languages majors, at least 12 of the hours must be taken in Language One on campus or as part of a semester abroad program sponsored by the Department of Foreign Languages and Literatures.

MISCELLANY

Special Interest Housing: Foreign language students who wish to practice their linguistic skills in an informal setting may elect to live in a residence hall housing students with a special interest in French, German, Russian or Spanish language and culture. In addition to providing an opportunity for daily conversation in the foreign language, these residences sponsor relevant cultural events.

Credit by Examination: Students may receive credit by examination for language courses at the 200 level and above. The normal prerequisite is foreign study. Native speakers may not receive credits for courses in conversation.

Language Proficiency: For information concerning language proficiency see Requirements for the Degree of Bachelor of Arts, under College of Arts and Science.

Waivers or Substitutions: Waivers or substitutions for any requirements may be made upon recommendation of the adviser and approval of the department chair.

MINORS

Foreign Language Minors: A minor in a foreign language requires a minimum of 18 credits at the 200 level and above, as follows:

FRENCH: 18 credits above the 100 level including FREN 201 or 202, FREN 301 and 302, one course at the 300 or 400 level, and one other 400-level course.
GERMAN: 18 credits above the 100 level including two 300-level courses, one 400-level literature course, and one other 400-level course.
ITALIAN: 18 credits composed of ITAL 211 or 212; one additional course at the 200, 300 or 400 level; one 300-level literature course; two 300- or 400-level courses; and one 400-level literature course.
RUSSIAN: 18 credits composed of two Russian courses at the 200 level; three courses at the 300 or 400 level, one of which must be a 400-level course; and 3 credits of related work (e.g., Russian history, political science, art, music, etc.).
SPANISH: 18 credits including SPAN 203 or SPAN 204 and an additional 200-level course; two 300-level courses (one must be a Survey of Literature) and two 400-level courses (one must be a literature course).
CLASSICS: 18 credits including 12 credits in Latin and/or Greek at or above the 200 level and 6 credits in FLTT courses, with one course at or above the 300 level.

An adviser on minors for each language will help students tailor the chosen minor program to their needs.

Foreign Language Studies Minors: The Foreign Language Studies (FLS) minor (in French, German or Spanish) requires participation in a UD Department of Foreign Languages and Literatures sponsored semester abroad program. See the Foreign Languages and Literatures Study Abroad Officer for details and prerequisites. Credit requirements for the FLS minors are as follows:

• Complete the designated sequence of courses listed above with no grade below a B.
• Take all four of these courses for Honors credit.
• Achieve a 3.0 cumulative grade index by the time of graduation.

Honors Foreign Language Certificates will be awarded at an appropriate Honors ceremony and recorded on the recipient's official transcript. The Honors Foreign Language Certificate can be earned in addition to other kinds of Honors certificates. Honors courses taken in the sequence leading to the Honors Foreign Language Certificate can also be applied toward those required for other forms of Honors recognition.

RESIDENCY REQUIREMENT
At least 15 hours of courses acceptable for credit in the major language and literature, including at least 6 credits at the 400 level, must be taken on campus or as part of a semester abroad program sponsored by the Department of Foreign Languages and Literatures. In the case of the three- and four-languages majors, at least 12 of the hours must be taken in Language One on campus or as part of a semester abroad program sponsored by the Department of Foreign Languages and Literatures.

MISCELLANY

Special Interest Housing: Foreign language students who wish to practice their linguistic skills in an informal setting may elect to live in a residence hall housing students with a special interest in French, German, Russian or Spanish language and culture. In addition to providing an opportunity for daily conversation in the foreign language, these residences sponsor relevant cultural events.

Credit by Examination: Students may receive credit by examination for language courses at the 200 level and above. The normal prerequisite is foreign study. Native speakers may not receive credits for courses in conversation.

Language Proficiency: For information concerning language proficiency see Requirements for the Degree of Bachelor of Arts, under College of Arts and Science.

Waivers or Substitutions: Waivers or substitutions for any requirements may be made upon recommendation of the adviser and approval of the department chair.

MINORS

Foreign Language Minors: A minor in a foreign language requires a minimum of 18 credits at the 200 level and above, as follows:

FRENCH: 18 credits above the 100 level including FREN 201 or 202, FREN 301 and 302, one course at the 300 or 400 level, and one other 400-level course.
GERMAN: 18 credits above the 100 level including two 300-level courses, one 400-level literature course, and one other 400-level course.
ITALIAN: 18 credits composed of ITAL 211 or 212; one additional course at the 200, 300 or 400 level; one 300-level literature course; two 300- or 400-level courses; and one 400-level literature course.
RUSSIAN: 18 credits composed of two Russian courses at the 200 level; three courses at the 300 or 400 level, one of which must be a 400-level course; and 3 credits of related work (e.g., Russian history, political science, art, music, etc.).
SPANISH: 18 credits including SPAN 203 or SPAN 204 and an additional 200-level course; two 300-level courses (one must be a Survey of Literature) and two 400-level courses (one must be a literature course).
CLASSICS: 18 credits including 12 credits in Latin and/or Greek at or above the 200 level and 6 credits in FLTT courses, with one course at or above the 300 level.

An adviser on minors for each language will help students tailor the chosen minor program to their needs.

Foreign Language Studies Minors: The Foreign Language Studies (FLS) minor (in French, German or Spanish) requires participation in a UD Department of Foreign Languages and Literatures sponsored semester abroad program. See the Foreign Languages and Literatures Study Abroad Officer for details and prerequisites. Credit requirements for the FLS minors are as follows:

FRENCH STUDIES MINOR
FREN 2xx, 3xx, 4xx ........................................... 6†
FREN 306 or 406 ........................................... 3
FREN 308 ..................................................... 3
Three of: ARTH 339, FREN 355,
  FREN 455, HIST 339, POSC 441 .............. 9

Minors in French Studies are required to take at least one literature class at the 300-level or above.

Note: A student cannot receive both a French Minor and a French Studies Minor.
†Must be completed prior to study in Caen.

GERMAN STUDIES MINOR
GRMN 2xx, 3xx, 4xx ........................................... 6†
GRMN 306 or 406 ........................................... 3
GRMN 308 ..................................................... 3
Three of: ARTH 339, GRMN 355,
  GRMN 455, HIST 339, POSC 441 .............. 9

Minors in German Studies are required to take at least one literature class at the 300-level or above.
Note: A student cannot receive both a German Minor and a German Studies Minor.

†Must be completed prior to study in Bayreuth.

SPANISH STUDIES MINOR
SPAN 2xx, 3xx, 4xx ........................................ 6 †
SPAN 306 or 406 ........................................... 3
SPAN 308 ..................................................... 3
Three of: ARTH 339, SPAN 355,
SPAN 455, HIST 339, POSC 441 ................. 9

Minors in Spanish Studies are required to take at least one literature class at the 300-level or above.

Note: A student cannot receive both a Spanish Minor and a Spanish Studies Minor.

†Must be completed prior to study in Granada.

GEOGRAPHY
Geographers investigate processes that explain the location of human and natural phenomena, as well as the interactions between people and their environment. At the University of Delaware, geographic research includes modeling of the impact of climate on socioeconomic conditions, the role of energy and water budgets in the solution of environmental problems, the examination of urban development and landscape aesthetics, and new approaches to cartographic representation. The study of migration and settlement, and of cultural attitudes toward land and nature, represent further dimensions of inquiry in the department. Such a broad range of interests exemplifies the integrative nature of geography and reflects its position simultaneously in the natural sciences, social sciences, and humanities.

Students who major in geography may, if they choose, specialize. The department has an excellent program in climatology, for instance, and research may be undertaken through its Center for Climatic Research. Other areas include environmental studies, biogeography, conservation, cultural-historical geography, urban geography and geomorphology. Computer, cartographic and other skills also are studied by geography majors. Students are required to take an introductory sequence of courses to provide a common background for all majors. An additional component of the program is the opportunity for majors to take a number of courses in allied disciplines, tailored to the student’s particular interests. During the senior year, majors may, at their option, undertake a research paper under the direction of their program advisers. A detailed brochure describing the geography program and requirements is available upon request from the department office.

DEGREE: BACHELOR OF ARTS
MAJOR: GEOGRAPHY
CURRICULUM

ELECTIVES
Electives
After required courses are completed sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF ..................................................... 124

DEGREE: BACHELOR OF ARTS
MAJOR: GEOGRAPHY EDUCATION

CURRICULUM

SPANISH STUDIES MINOR
SPAN 2xx, 3xx, 4xx ........................................ 6 †
SPAN 306 or 406 ........................................... 3
SPAN 308 ..................................................... 3
Three of: ARTH 339, SPAN 355,
SPAN 455, HIST 339, POSC 441 ................. 9

Minors in Spanish Studies are required to take at least one literature class at the 300-level or above.

Note: A student cannot receive both a Spanish Minor and a Spanish Studies Minor.

†Must be completed prior to study in Granada.

Students who major in geography may, if they choose, specialize. The department has an excellent program in climatology, for instance, and research may be undertaken through its Center for Climatic Research. Other areas include environmental studies, biogeography, conservation, cultural-historical geography, urban geography and geomorphology. Computer, cartographic and other skills also are studied by geography majors. Students are required to take an introductory sequence of courses to provide a common background for all majors. An additional component of the program is the opportunity for majors to take a number of courses in allied disciplines, tailored to the student's particular interests. During the senior year, majors may, at their option, undertake a research paper under the direction of their program advisers. A detailed brochure describing the geography program and requirements is available upon request from the department office.

DEGREE: BACHELOR OF ARTS
MAJOR: GEOGRAPHY
CURRICULUM

Within the Department

Six credits selected from the following natural geography courses:
GEOG 101 Physical Geography ........................................ 3-4
GEOG 152 Climate and Life ........................................... 4
GEOG 206 Physical Geography: Topography-Soils ............... 3
GEOG 220 Meteorology ............................................. 3
GEOG 230 Humans and the Earth Ecosystem ...................... 3
GEOG 235 Conservation of Natural Resources ................... 3
GEOG 255 Applied Climatology ..................................... 3

Six credits selected from the following human geography courses:
GEOG 102 Human Geography .......................................... 3-4
GEOG 120 World Regional Geography .............................. 3
GEOG 203 Cultural Geography ....................................... 3
GEOG 210 Economic Geography ..................................... 3
GEOG 225 Historical Geography of the United States ......... 3
GEOG 236 Conservation: Global Issues ............................ 3

Three credits selected from the following methods courses:
GEOG 250 Computer Methods in Geography ...................... 4-14
GEOG 270 Map Communication and Design ...................... 3
GEOG 272 Map and Air Photo Interpretation ..................... 3

Nine credits selected from geography courses at the 300 or 400 level (GEOG 445 strongly recommended). Six credits selected from geography courses at the 200, 300, or 400 level.

CREDITS TO TOTAL A MINIMUM OF ..................................................... 124

DEGREE: BACHELOR OF ARTS
MAJOR: GEOGRAPHY EDUCATION

CURRICULUM

Within the Department

Six credits selected from the following natural geography courses:
GEOG 101 Physical Geography ........................................ 3-14
GEOG 152 Climate and Life ........................................... 4
GEOG 206 Physical Geography: Topography-Soils ............... 3
GEOG 220 Meteorology ............................................. 3
GEOG 230 Humans and the Earth Ecosystem ...................... 3
GEOG 235 Conservation of Natural Resources ................... 3
GEOG 255 Applied Climatology ..................................... 3

Students who major in geography may, if they choose, specialize. The department has an excellent program in climatology, for instance, and research may be undertaken through its Center for Climatic Research. Other areas include environmental studies, biogeography, conservation, cultural-historical geography, urban geography and geomorphology. Computer, cartographic and other skills also are studied by geography majors. Students are required to take an introductory sequence of courses to provide a common background for all majors. An additional component of the program is the opportunity for majors to take a number of courses in allied disciplines, tailored to the student's particular interests. During the senior year, majors may, at their option, undertake a research paper under the direction of their program advisers. A detailed brochure describing the geography program and requirements is available upon request from the department office.
Six credits selected from the following human geography courses:

- GEOG 102 Human Geography ........................................3
- GEOG 120 World Regional Geography ................................3
- GEOG 203 Cultural Geography ........................................3
- GEOG 210 Economic Geography .....................................3
- GEOG 225 Historical Geography of the United States ..........3
- GEOG 236 Conservation: Global Issues ............................3

Three credits selected from the following methods courses:

- GEOG 250 Computer Methods in Geography ........................4
- GEOG 270 Map Communication and Design ....................3
- GEOG 272 Map and Air Photo Interpretation ....................3

Nine credits selected from geography courses at the 300 or 400 level (GEOG 445 strongly recommended):

- GEOG 203 Cultural Geography ........................................3
- GEOG 210 Economic Geography .....................................3
- GEOG 225 Historical Geography of the United States ..........3
- GEOG 236 Conservation: Global Issues ............................3
- GEOG 230, 245, 246                                     3
- GEOG 250, 252, 260, 265, 280 ..........................3

Eight credits selected from the following social sciences:

- Anthropology ................................. 3
- Economics ...................................... 3
- History ......................................... 3
- Political Science ................................. 3
- Sociology ....................................... 3
- PSYC 201 General Psychology .................................3

Six additional credits selected from the departments listed above .................................6

Within the College

Twenty-four credits in the following social sciences with at least three credits in each department:

- Anthropology course ..............................................3
- Economics course ...............................................3
- History course .................................................3
- Political Science course .....................................3
- Sociology course ...............................................3
- PSYC 201 General Psychology ....................................3

Professional Studies

- EDST 201 Education and Society ..................................3
- EDST 304 Educational Psychology – Social Aspects ..........3
- EDST 305 Educational Psychology – Cognitive Aspects ....3
- HIST 491 Planning a Course of Instruction ..................3
- HIST 493 Seminar: Problems in Teaching History .........3
- EDST 420 Reading in the Content Areas .......................1
- EDDV 400 Student Teaching .....................................4

CREDITS TO TOTAL A MINIMUM OF ...........................124

INTERDEPARTMENTAL AND DOUBLE MAJORS

An interdepartmental major, for students having interests in two areas, requires 21 credits each in geography and in one other department in the college plus 9 more elective credits, approved by both departments. Of the minimum of 21 credits in geography, a student must take 9 credits from the foundation level, of which one course must be from the Natural Geography area, one course from the Human Geography area, and one course from the Methods area. Nine more geography credits must be taken at the 300/400 level. The remaining three geography credits may be chosen from any 200-, 300-, or 400-level course.

Students may also declare a double major with another department in the College of Arts and Science, provided they satisfy the requirements of both geography and their second major field. Departmental requirements for the double major are identical to those for the major.

REQUIREMENTS FOR THE MINOR IN GEOGRAPHY

A minimum of 18 credits of course work in geography must be completed for a minor. Nine credits must be taken at the foundation level, with three credits from each of the foundation areas (Natural Geography, Human Geography, Methods). Nine more geography credits must be taken at the 300/400 level.

ELECTIVES FOR NONMAJORS

Many geography courses are on the list of approved courses for fulfilling the general education requirements in the College of Arts and Science. At least two geography courses are found within each of the four groups, underscoring geography's role as a discipline that integrates the human and natural environments. The following geography courses presently fulfill requirements within each of the groups:

GROUP A: GEOG 203, 245, 246
GROUP B: GEOG 225, 227
GROUP C: GEOG 102, 120, 210, 230, 235, 320
GROUP D: GEOG 101, 152, 206, 220, 250

BACHELOR OF ENVIRONMENTAL SCIENCE

Complementing the B.A. programs in Geography, the Geography Department, in cooperation with the Geology Department and the School of Life and Health Sciences, offers a B.S. degree in Environmental Science. The program emphasizes a broad scientific understanding of the character, function and analysis of environmental systems. It is hoped that Environmental Science B.S. students will be able to contribute to society's understanding of and solutions to problems that arise from the human occupance and use of the environment. Curriculum and requirements associated with the Environmental Science B.S. program appear below.

DEGREE: BACHELOR OF SCIENCE
MAJOR: ENVIRONMENTAL SCIENCE
CURRICULUM

UNIVERSITY REQUIREMENTS

- ENGL 110 Critical Reading and Writing .........................3
- Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content. # 3

COLLEGE REQUIREMENTS

Skill Requirements

- Writing: †† .................................................. 3
- A second writing course involving significant writing experience including two papers with a combined minimum of 3,000 words

* Superior figures indicate year or years in which the course is normally taken, i.e., 1 freshman year, 2 sophomore year, etc.
# This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 26.
† †A minimum grade of "C-" is required.
to be submitted for extended faculty critique of both composition and content. This course must be taken after completion of 62 credit hours. Appropriate writing courses are normally designated in the semester's Registration Booklet. (See list of courses approved for second writing requirement, page 83.)

Foreign Language: 4-12

Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Breadth Requirements (See page 84)

Nine credits are required in each of the following groups: 27

Group A

Understanding and appreciation of the creative arts and humanities. At least two areas must be represented.

Group B

The study of culture and institutions over time. At least two areas must be represented.

Group C

Empirically based study of human beings and their environment. At least two areas must be represented.

MAJOR REQUIREMENTS

Within the Cooperating Departments

GEOL 101 General Geology 4.1,2
BISC 207, BISC 208 Introductory Biology I and II 8.1,2
GEOL 220 Meteorology 3.1,2
GEOL 250 Computer Methods in Geography 4.2,3
BISC 302 General Ecology 3.2,3
BISC 312 General Ecology Lab 1.2,3
GEOL 412 Physical Climatology 4.5,4
GEOL 414 Quaternary Geology and Geochronology 3.5,4
GEOL 450 or BISC 450 Proseminar in Environmental Science 3.4

Two additional courses from within one of the following three areas of concentration:

Atmospheric Environment

GEOL 420 Atmospheric Physics 3.5,4
GEOL 451 Micrometeorology 3.5,4
GEOL 455 Synoptic Climatology 3.5,4
GEOL 455 Water Budget in Environmental Analysis 3.5,4
GEOL 657 Climatic Dynamics 3.5,4

Biological Environment

BISC 321 Environmental Biology 3.5,4
BISC 494 Experimental Ecology 3.5,4
BISC 495 Evolution 3.5,4
BISC 637 Population Ecology 3.5,4
BISC 641 Microbial Ecology 3.5,4

Geology

GEOL 203 Mineralogy and Crystallography 3.5,4
GEOL 303 Sedimentology 3.5,4
GEOL 304 Stratigraphy 3.5,4
GEOL 305 Structural Geology 3.5,4

Three additional courses taken from the following list or from the courses listed under the three areas of concentration above. At least one course must be outside the chosen area of concentration. For students following the Geology track, one course must be GEOL 402 and another course must be a 400-level geology course.

PLSC 204 Plastics and the Environment 3.5,4
GEOG 230 Humans and the Earth Ecosystem 3.1,4
GEOG 235 Conservation of Natural Resources 3.1,4
GEOG 256 Conservation: Global Issues 3.1,4
GEOG 255 Applied Climatology 3.1,4
GEOG 272 Map and Air Photo Interpretation 3.2,4
GEOG 320 Water and Society 3.2,4
GEOG 330 Biogeography 3.2,4
GEOG 342 Bioclimatology 3.2,4
GEOG 343 Climatic Geomorphology 3.2,4
GEOG 351 Urban Climatology 3.2,4
GEOG 357 Palaeoclimatology 3.2,4
GEOG 372 Geographic Information Systems 3.2,4
GEOG 423 Atmospheric Dynamics 3.3,4
GEOG 430 Conservation Forest Ecosystems 3.4
GEOG 468 Remote Sensing of Environment 3.5,4
GEOL 204 Properties of Rocks and Minerals 4.2,4
GEOL 402 History of the Earth 3.5,4
GEOL 403 Regional Geology of North America 3.5,4
GEOL 411 Quantitative Geomorphology 3.5,4
GEOL 412 Geologic Approaches to Archaeology and History 3.5,4
GEOL 421 Environmental and Applied Geology 3.5,4
GEOL 428 Hydrogeology 3.5,4
GEOL 431 Marine Geology 3.5,4
GEOL 432 Recent Sedimentary Environments 3.5,4
GEOL 434 The Geology of Coasts 3.5,4
GEOL 446 General Geochemistry 3.5,4
GEOL 460 Field Geology in the Western States 3.5,4
MAST 201 Concepts in Oceanography 3.5,4
PHYS 208 General Physics 4.2,3
PLSC 204 Introduction to Soil Science 4.1,4
POSC 350 Politics and the Environment 3.2,4

Within the College

Related Work

MATH 241, MATH 242, MATH 243 Analytic Geometry and Calculus 12.1,2

One of the following four courses:

MATH 302 Differential Equations 3.2,3
MATH 349 Elements of Linear Systems 3.2,3
STAT 450 Statistics for Engineering & Physical Sciences 3.3,4
STAT 657 Statistics for Earth Sciences 3.3,4

CHEM 103, CHEM 104 General Chemistry 8.1,2
PHYS 207 General Physics 4.2,3
or
PHYS 201 General Physics 4.2,3

ELECTIVES

Electives

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF 127

GEOLOGY

GEOLOGY, the study of the earth, employs the methods of other sciences, as well as those unique to geology, to investigate the nature, processes, and history of the earth. Geology is vital to the discovery and recovery of earth
resources including petroleum and other fuels, metals and building materials. Geologists and geophysicists also deal with environmental issues and the understanding of natural hazards such as earthquakes, volcanoes, landslides and floods. New interest in the earth as an integrated global system and shifting employment opportunities for geologists have dictated a major change in emphasis for the earth sciences. Future trends predict that there will be a 25% increase in the number of positions for geoscientists over the next few years, primarily in the environmental field.

Advanced undergraduate geology students are encouraged to undertake research, under the supervision of the faculty, in areas such as geochemistry, geophysics, igneous and metamorphic petrology, micropaleontology and paleontology, mineralogy, paleomagnetism, sedimentary petrology, stratigraphy, and structural geology. As an additional resource, the Department maintains close ties with the Delaware Geological Survey and with the College of Marine Studies.

In view of the close relationship between geology and other disciplines, interdepartmental and double majors are encouraged. Various interdisciplinary programs within the field of geology are also possible. Examples of such programs include paleobiology, geochemistry, and geophysics. Students interested in any of these programs should contact the Geology Department for information.

The Department of Geology offers B.A. degrees in geology (including a B.A. with a concentration in paleobiology) and in earth science education. The Department offers B.S. degrees in geology and geophysics (jointly with the Physics Department), and a minor in geology. Environmental Science majors can concentrate in geology while earning a B.S. in Environmental Science.

In recognition of the relationship of geology to many academic disciplines and the many applications of geology to problems of the environment and the recovery of earth resources, the Department of Geology offers courses in varied aspects of geology for nonmajors. These include the general courses, GEOL 105 and 106, as well as specialty courses, such as GEOL 110, 144, 233, 234, 235, 243, and 245. These courses fulfill the GROUP D requirements for the College of Arts and Science.

### DEGREE: BACHELOR OF ARTS
### MAJOR: GEOLOGY
### CURRICULUM

See page 82 for University and College requirements.

### MAJOR REQUIREMENTS

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 107 General Geology I</td>
<td>4</td>
</tr>
<tr>
<td>GEOL 203 Mineralogy and Crystallography</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 204 Properties of Rocks and Minerals</td>
<td>4</td>
</tr>
<tr>
<td>GEOL 301 Systematic and Evolutionary Paleontology</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 303 Sedimentology</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 304 Stratigraphy</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 305 Structural Geology</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 402 History of the Earth</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 407 Igneous and Metamorphic Petrology</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 452 Plate Tectonics and Geophysics</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 432 Recent Sedimentary Environment</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 460 Field Geology in the Western States</td>
<td>3</td>
</tr>
</tbody>
</table>

**Three credits of field geology (taught only in the summer):**
- GEOL 432 Recent Sedimentary Environment
- GEOL 460 Field Geology in the Western States

**Within the College**
- Chemistry courses (CHEM 103-104)
- Physics courses (PHYS 201-202)
- Mathematics courses through college-level trigonometry

### ELECTIVES

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

### CREDITS TO TOTAL A MINIMUM OF 124

### DEGREE: BACHELOR OF ARTS
### MAJOR: GEOLOGY
### CONCENTRATION: PALEOBIOLOGY

See page 82 for University and College requirements.

### MAJOR REQUIREMENTS

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
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</tr>
<tr>
<td>GEOL 204 Properties of Rocks and Minerals</td>
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</tr>
<tr>
<td>GEOL 301 Systematic and Evolutionary Paleontology</td>
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<tr>
<td>GEOL 303 Sedimentology</td>
<td>3</td>
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<tr>
<td>GEOL 304 Stratigraphy</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 305 Structural Geology</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 402 History of the Earth</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 407 Igneous and Metamorphic Petrology</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 452 Plate Tectonics and Geophysics</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 432 Recent Sedimentary Environment</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 460 Field Geology in the Western States</td>
<td>3</td>
</tr>
</tbody>
</table>

**Three credits of field geology (taught only in the summer):**
- GEOL 432 Recent Sedimentary Environment
- GEOL 460 Field Geology in the Western States

**Within the College**
- BISC 207 Introductory Biology I
- BISC 208 Introductory Biology II
- BISC 302 General Ecology
- BISC 324 Invertebrate Zoology
- BISC 442 Vertebrate Morphology (recommended)
- BISC 495 Evolution
- STAT 201 Introduction to Statistics I
- STAT 202 Introduction to Statistics II
- CHEM 105 General Chemistry
- CHEM 104 General Chemistry
- MATH 115 Precalculus

### ELECTIVES

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

### CREDITS TO TOTAL A MINIMUM OF 124

---

*Superior figures indicate year or years in which the course is normally taken, i.e., ¹freshman year, ²sophomore year, etc.
**DEGREE: BACHELOR OF SCIENCE**  
**MAJOR: GEOLOGY**

**CURRICULUM**  
**CREDITS**

**UNIVERSITY REQUIREMENTS**

<table>
<thead>
<tr>
<th>COURSE</th>
<th>CREDITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 110 Critical Reading and Writing</td>
<td>3.1</td>
</tr>
<tr>
<td>Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content</td>
<td>3.1-4</td>
</tr>
</tbody>
</table>

**COLLEGE REQUIREMENTS**

**Skill Requirements**

<table>
<thead>
<tr>
<th>Area</th>
<th>CREDITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Writing</td>
<td>3.3</td>
</tr>
</tbody>
</table>

A second writing course involving significant writing experience including two papers with a combined minimum of 3,000 words to be submitted for extended faculty critique of both composition and content. This course must be taken after completion of 62 credit hours. Appropriate writing courses are normally designated in the semester’s Registration Booklet. (See list of courses approved for second writing requirement, page 83.)

**Foreign Language**

Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

**Breadth Requirements**

Thirty credits are required with a minimum of six credits in each of the following groups:

**Group A**
Understanding and appreciation of the creative arts and humanities.

**Group B**
The study of culture and institutions over time.

**Group C**
Empirically based study of human beings and their environment.

**MAJOR REQUIREMENTS**

**Within the College**

<table>
<thead>
<tr>
<th>COURSE</th>
<th>CREDITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 105 General Geology</td>
<td>4.1</td>
</tr>
<tr>
<td>or GEOL 107 General Geology</td>
<td>4.1</td>
</tr>
<tr>
<td>GEOL 106 General Geology</td>
<td>4.1</td>
</tr>
<tr>
<td>GEOG 101 Physical Geography</td>
<td>3.1-4</td>
</tr>
<tr>
<td>GEOG 209 Mineralogy and Crystallography</td>
<td>3.2</td>
</tr>
<tr>
<td>GEOG 220 Meteorology</td>
<td>3.1-4</td>
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<tr>
<td>GEOG 235 Conservation of Natural Resources</td>
<td>3.1-4</td>
</tr>
<tr>
<td>GEOL 303 Sedimentology</td>
<td>3.5</td>
</tr>
<tr>
<td>GEOG 343 Climatic Geomorphology</td>
<td>3.1-4</td>
</tr>
<tr>
<td>or GEOG 255 Applied Climatology</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 133 Introduction to Astronomy</td>
<td>4.1-2</td>
</tr>
<tr>
<td>PHYS 201 General Physics</td>
<td>4.1-2</td>
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<tr>
<td>PHYS 202 General Physics</td>
<td>4.1-2</td>
</tr>
<tr>
<td>CHEM 103 General Chemistry</td>
<td>4.1-2</td>
</tr>
<tr>
<td>BISC 195 Biological Evolution</td>
<td>3.1-4</td>
</tr>
<tr>
<td>MATH 221 Calculus I</td>
<td>3.1-2</td>
</tr>
<tr>
<td>GEOL 432 Recent Sedimentary Environments</td>
<td>3.5-4</td>
</tr>
<tr>
<td>GEOL 460 Field Geology in the Western States</td>
<td>3.6-5,4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COURSE</th>
<th>CREDITS</th>
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</thead>
<tbody>
<tr>
<td>or GEOL 482 Recent Sedimentary Environments</td>
<td>3.5,4</td>
</tr>
<tr>
<td>Geology courses (400 level)</td>
<td>9.3,4</td>
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**Within the College**

**Related Work**

<table>
<thead>
<tr>
<th>COURSE</th>
<th>CREDITS</th>
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<tbody>
<tr>
<td>MATH 241 Analytic Geometry and Calculus A</td>
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<tr>
<td>MATH 242 Analytic Geometry and Calculus B</td>
<td>4.1</td>
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<tr>
<td>CHEM 103 General Chemistry</td>
<td>4.2</td>
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<tr>
<td>PHYS 201 General Physics</td>
<td>4.3</td>
</tr>
<tr>
<td>PHYS 202 General Physics</td>
<td>4.5</td>
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</table>

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>GEOL 460 Field Geology in the Western States</td>
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<tr>
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</table>

**External to the College**

<table>
<thead>
<tr>
<th>COURSE</th>
<th>CREDITS</th>
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<tbody>
<tr>
<td>MAST 200 Introduction to Marine Studies</td>
<td>3.1-4</td>
</tr>
<tr>
<td>EDST 201 Education and Society</td>
<td>3.1-4</td>
</tr>
<tr>
<td>EDST 304 Educational Psychology - Social Aspects</td>
<td>3.1-4</td>
</tr>
<tr>
<td>EDST 305 Educational Psychology - Cognitive Aspects</td>
<td>3.1-4</td>
</tr>
<tr>
<td>SCEN 491 Teaching Science in Secondary Schools</td>
<td>4.1-4</td>
</tr>
<tr>
<td>EDST 420 Reading in the Content Area</td>
<td>1.1-4</td>
</tr>
<tr>
<td>EDDV 400 Student Teaching</td>
<td>9.1</td>
</tr>
</tbody>
</table>

**CREDITS TO TOTAL A MINIMUM OF**  
125

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Eight credits from the departments:

- BISC 207, BISC 208, and STAT 205 are strongly encouraged.
- Physics, Chemistry, Biology, Mathematical Science, Statistics, Computer Science, Engineering (see department chair for a list of approved courses).

**ELECTIVES**

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

**CREDITS TO TOTAL A MINIMUM OF**  
125

**REQUIREMENTS OF THE MINOR IN GEOLOGY**

The minor consists of at least 18 credit hours in geology. The requirements are: GEOL 107; GEOL 402; at least two of the following: GEOL 203, 204, 301, 303, 304, 305; any 400-level course or courses may be used to obtain the remaining credits to reach a total of 18.

---

**DEGREE: BACHELOR OF ARTS**  
**MAJOR: EARTH SCIENCE EDUCATION**

**CURRICULUM**  
**CREDITS**

See page 82 for University and College requirements.

**MAJOR REQUIREMENTS**

**Within the College**

<table>
<thead>
<tr>
<th>COURSE</th>
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</tr>
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<tbody>
<tr>
<td>GEOL 105 General Geology</td>
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<tr>
<td>or GEOL 107 General Geology</td>
<td>4.1</td>
</tr>
<tr>
<td>GEOL 106 General Geology</td>
<td>4.1</td>
</tr>
<tr>
<td>GEOG 101 Physical Geography</td>
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<td>PHYS 133 Introduction to Astronomy</td>
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<td>BISC 195 Biological Evolution</td>
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<td>MATH 221 Calculus I</td>
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</tr>
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<td>GEOL 432 Recent Sedimentary Environments</td>
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</tbody>
</table>

**External to the College**

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<thead>
<tr>
<th>COURSE</th>
<th>CREDITS</th>
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<tbody>
<tr>
<td>MAST 200 Introduction to Marine Studies</td>
<td>3.1-4</td>
</tr>
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</table>

**Professional Studies**

<table>
<thead>
<tr>
<th>COURSE</th>
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<tbody>
<tr>
<td>EDST 201 Education and Society</td>
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<tr>
<td>EDDV 400 Student Teaching</td>
<td>9.1</td>
</tr>
</tbody>
</table>

**CREDITS TO TOTAL A MINIMUM OF**  
124

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*Superior figures indicate year or years in which the course is normally taken, i.e., 1freshman year, 2sophomore year, etc.

*This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 26.

*This course may be applied toward both the major requirements and a breadth requirement, but credits are counted only once toward the total credits for graduation.

*+ A minimum grade of "C-" is required.
BACHELOR OF SCIENCE DEGREE IN GEOPHYSICS

The Geology Department, jointly with the Physics Department, offers a B.S. degree in geophysics. Geophysics involves the use of seismic, gravity, magnetic, and electrical methods to study the structure and tectonic evolution of the earth. Geophysicists may perform such diverse tasks as using ground penetrating radar to detect the presence of buried hazardous wastes to modeling seismic waves to determine the nature of the earth's core-mantle boundary. The geophysics program is designed to produce students well-grounded in both geology and physics, but specifically trained in geophysical principles and techniques.

DEGREE: BACHELOR OF SCIENCE

MAJOR: GEOPHYSICS

CURRICULUM CREDITS

UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing 3
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #

COLLEGE REQUIREMENTS

Skill Requirements

Writing: † 3,4
A second writing course involving significant writing experience including two papers with a combined minimum of 3,000 words to be submitted for extended faculty critique of both composition and content. This course must be taken after completion of 62 credit hours. Appropriate writing courses are normally designated in the semester's Registration Booklet. (See list of courses approved for second writing requirement, page 85.)

Breadth Requirements (See page 84) A total of eighteen credits from Groups A, B and C is required with six credits in each group. The six credits from each group could be from the same area.

Group A Understanding and appreciation of the creative arts and humanities.

Group B The study of culture and institutions over time.

Group C Empirically based study of human beings and their environment.

MAJOR REQUIREMENTS

Within the Department

GEOL 107 General Geology I 4
GEOL 203 Mineralogy and Crystallography 3
GEOL 204 Properties of Rocks and Minerals 3
GEOL 303 Sedimentology 3
GEOL 305 Structural Geology 3
GEOL 402 History of the Earth 3
GEOL 451 Geophysical Field Methods 3,4
GEOL 452 Plate Tectonics and Geophysics 3,4
GEOL 453 Elementary Geophysics I 3
GEOL 454 Elementary Geophysics II 3
GEOL 460 Field Geology in the Western States 3,4

One of the following three courses:

GEOL 301 Systematic and Evolutionary Paleontology 3
GEOL 304 Stratigraphy 3
GEOL 407 Igneous and Metamorphic Petrology 3

Within the College

PHYS 207 General Physics 4
PHYS 208 General Physics 4
PHYS 209 General Physics 3
PHYS 645 Electronics for Scientists 3,4
PHYS 646 Instrumentation for Scientists 3,4

One of the following four courses:

PHYS 313 Physical Optics 4
PHYS 603 Electricity and Magnetism 3,4
(If PHYS 603 is selected, PHYS 604 is strongly encouraged as an elective course.)
PHYS 616 Kinetic Theory and Thermodynamics 3
PHYS 631 Acoustics 3

Related Work

CISC 106 General Computer Science for Engineers 3,2
MATH 241 Analytic Geometry and Calculus A 4
MATH 242 Analytic Geometry and Calculus B 4
MATH 243 Analytic Geometry and Calculus C 4
MATH 302 Ordinary Differential Equations I 3
CHEM 105 General Chemistry 4

External to the College

MEEG 213 Principles of Mechanics I 3,4

CREDITS TO TOTAL A MINIMUM OF 125

HISTORY

The study of history combines literary art and critical analysis, enabling us to analyze complex situations and to present our findings clearly and effectively. These intellectual and literary skills can be easily transferred to other disciplines and to real life situations.

Strengths of the department include the fields of U.S. and European history; social, cultural, and intellectual history; the history of science and technology; and the history of American civilization as well as course offerings in African, East Asian, Latin American, and history of women.

The History Department offers a rich array of programs. In addition to the regular major, students can choose a concentration in American, European, Global, or Policy history. In conjunction with the College of Education, it offers a History Education program for those choosing a career as secondary school social studies teachers. Collaboration with the Department of Foreign Languages and Literatures has resulted in a major combining languages with the history of the regions in which those languages are spoken. Together with the Department of English, the History Department administers a
History/Journalism major. The department also maintains an advisory program for prelaw students majoring in history.

The department encourages interdepartmental or double majors that enable a student to develop competence in two areas, such as history and art history, or history and literature. An adviser in the History Department can provide details.

DEGREE: BACHELOR OF ARTS
MAJOR: HISTORY

CURRICULUM CREDITS*

See page 82 for University and College requirements.

MAJOR REQUIREMENTS

Within the Department
HIST 101 Western Civilization to 1648 3
HIST 102 Western Civilization: 1648 to the Present 3
HIST 268 Seminar 3
History course on the history of Asia, Africa, Latin America, or the Ancient World 3
History courses at or above the 300 level 12
History seminar at the 400 level or above 3
(excluding HIST 491 and 493 and Independent Study)
History course 3

ELECTIVES

Electives
After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF 124

DEGREE: BACHELOR OF ARTS
MAJOR: HISTORY

CONCENTRATION: EUROPEAN HISTORY

CURRICULUM CREDITS*

See page 82 for University and College requirements.

MAJOR REQUIREMENTS

Within the Department
HIST 101 Western Civilization to 1648 3
HIST 102 Western Civilization: 1648 to the Present 3
HIST 268 Seminar 3
History course on the history of Asia, Africa, Latin America, or the Ancient World 3
Seven courses in the field of emphasis. With written approval of the advisor, a student may take two of these courses outside the Department of History 21
History seminar at the 400 level or above 3
(excluding HIST 491 and 493 and Independent Study)

ELECTIVES

Electives
After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF 124

DEGREE: BACHELOR OF ARTS
MAJOR: HISTORY

CONCENTRATION: GLOBAL HISTORY

CURRICULUM CREDITS*

See page 82 for University and College requirements.

MAJOR REQUIREMENTS

Within the Department
HIST 101 Western Civilization to 1648 3
HIST 102 Western Civilization: 1648 to the Present 3
HIST 268 Seminar 3
History course on the history of Asia, Africa, Latin America, or the Ancient World 3
Seven courses in the field of emphasis. With written approval of the advisor, a student may take two of these courses outside the Department of History 21
History seminar at the 400 level or above 3
(excluding HIST 491 and 493 and Independent Study)

ELECTIVES

Electives
After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF 124

DEGREE: BACHELOR OF ARTS
MAJOR: HISTORY

CONCENTRATION: POLICY HISTORY

CURRICULUM CREDITS*

See page 82 for University and College requirements.

MAJOR REQUIREMENTS

Within the Department
HIST 101 Western Civilization to 1648 3
HIST 102 Western Civilization: 1648 to the Present 3
HIST 268 Seminar 3
History course on the history of Asia, Africa, Latin America, or the Ancient World 3
Seven courses in the field of emphasis. With written approval of the advisor, a student may take two of these courses outside the Department of History 21
History seminar at the 400 level or above 3
(excluding HIST 491 and 493 and Independent Study)

ELECTIVES

Electives
After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF 124

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*Superior figures indicate year or years in which the course is normally taken, i.e., 1freshman year, 2sophomore year, etc.
HIST 268 Seminar ............................................. 3\-4
History course on the history of Asia, Africa, Latin America, or the Ancient World ............................................. 3\-4
Seven courses in the field of emphasis. With written approval of the advisor, a student may take two of these courses outside the Department of History ............................................. 21\-4
History seminar at the 400 level or above ............................................. 3\-4
(excluding HIST 491 and 493 and Independent Study)

ELECTIVES
Electives
After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF ............................................. 124

DEGREE: BACHELOR OF ARTS
MAJOR: HISTORY/EDUCATION

See page 82 for University and College requirements.

MAJOR REQUIREMENTS

Within the Department

HIST 101 Western Civilization to 1648 ............................................. 3\-4
HIST 102 Western Civilization: 1648 to the Present ............................................. 3\-4
HIST 268 Seminar ............................................. 3\-4
History course on the history of Asia, Africa, Latin America, or the Ancient World ............................................. 3\-4
History courses at or above the 300 level ............................................. 12\-4
History seminar at the 400 level or above ............................................. 3\-4
(excluding HIST 491 and 493 and Independent Study)
History course ............................................. 3\-4

Within the College

Twenty-four credits in the following social sciences with at least three credits in each department
Anthropology course ............................................. 3
Economics course ............................................. 3
Geography course ............................................. 3
Political Science course ............................................. 3
Sociology course ............................................. 3
PSYC 201 General Psychology ............................................. 3\-4
Six additional credits selected from the departments listed ............................................. 6\-4

Professional Studies

EDST 201 Education and Society ............................................. 3\-4
EDST 304 Educational Psychology - Social Aspects ............................................. 3\-4
EDST 305 Educational Psychology - Cognitive Aspects ............................................. 3\-4
HIST 491 Planning a Course of Instruction† ............................................. 3\-1
HIST 493 Seminar: Problems in Teaching History and Social Sciences‡ ............................................. 3\-1
EDST 420 Reading in the Content Areas ............................................. 1\-4
EDDV 400 Student Teaching ............................................. 9\-4

CREDITS TO TOTAL A MINIMUM OF ............................................. 124

Students planning to enroll in EDDV 400 Student Teaching in their senior year must submit a student teaching application in February of their junior year. Applications may be obtained from the History Department Office, or from the program director, Dr. William E. Pulliam, by the end of the preceding semester. To continue in the program in their senior year, students must have a 3.0 in history and a 2.75 cumulative g.p.a.

DEGREE: BACHELOR OF ARTS
MAJOR: HISTORY/CLASSICS, FRENCH, GERMAN, RUSSIAN, SPANISH

See page 82 for University and College requirements. Note: Latin 214 may also be taken to complete the intermediate level College requirement in Foreign Language.

MAJOR REQUIREMENTS

Within the Department of History

HIST 101 Western Civilization to 1648 ............................................. 3\-4
HIST 102 Western Civilization: 1648 to the Present ............................................. 3\-4
Five 300-level courses, at least two of which must deal with countries that use the chosen foreign language ............................................. 15\-4
History seminar at the 400 level or above ............................................. 3\-4
(excluding HIST 491 and 493 and Independent Study)

Within the Department of Foreign Languages and Literatures

Classics
Civilization: Two classical civilization (or culture) courses:
- e.g., FLIT 202 (Biblical and Classical Literature) ............................................. 6\-4
- and FLIT 316 (Mythology) .............................................
Literature: Either 9 credits of Latin at the 200-level or above and 3 credits of Latin at the 300 level or above, or
- GREK 215 and GREK 214 and 6 credits of Latin at the 200-level or above ............................................. 12\-4

French
Civilization: FREN 310 (French Civilization), or FREN 311 (French Civilization) or FREN 312 (Contemporary France) ............................................. 3\-4
Literature: FREN 301 (Introduction to French Literature: Prose) and FREN 302 (Introduction to French Literature: Poetry and Theatre) ............................................. 6\-4
- 400-level literature course ............................................. 3\-4
- Two courses at the 200, 300, or 400 level ............................................. 6\-4

German
Civilization: GRMN 325 (German Civilization and Culture) ............................................. 3\-4
Literature: GRMN 311 (Introduction to German Literature I) and GRMN 312 (Introduction to German Literature II) ............................................. 6\-4
- 400-level literature course ............................................. 3\-4
- Two courses at the 200, 300, or 400 level ............................................. 6\-4

Russian
Civilization: RUSS 325 (Russian Civilization) ............................................. 3\-3
Literature: RUSS 310 (Introduction to Russian Literature I) and RUSS 312 (Introduction to Russian Literature II) ............................................. 6\-4
- 400-level literature course ............................................. 3\-4
- Two courses at the 200, 300, or 400 level ............................................. 6\-4

Spanish**
Civilization: SPAN 325 (Spanish Civilization and Culture) or SPAN 326 (Latin American Civilization and Culture) ............................................. 3\-4
Literature: SPAN 301 (Survey of Spanish Literature) and SPAN 302 (Survey of Spanish Literature) ............................................. 6\-4

*Superior figures indicate year or years in which the course is normally taken, i.e., *freshman year, †sophomore year, etc.
†Fall semester only (minimum grade of C+)
‡Spring semester only
**Students must choose either the Peninsular (325, 301, 302) or the Latin American (326, 303, 304) track.
ELECTIVES

Electives

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF 124

DEGREE: BACHELOR OF ARTS
MAJOR: HISTORY
CONCENTRATION: JOURNALISM

CURRICULUM

See page 82 for University and College requirements.

MAJOR REQUIREMENTS

Within the Department

HIST 101 Western Civilization to 1648 3-4
HIST 102 Western Civilization: 1648 to the Present 3-4
HIST 268 Seminar 3-4

History course on the history of Asia, Africa, Latin America, or the Ancient World 3-4
History courses at or above the 300 level 12-14
History seminar at the 400 level or above 3-4
(excluding HIST 491 and 493 and Independent Study)

CREDITS TO TOTAL A MINIMUM OF 124

Within the College

ENGL 307 New Writing and Editing 3-4
Nine credits chosen from the following courses: 9-14
ENGL 308 Reporter's Practicum 3
ENGL 309 Feature and Magazine Writing 3
ENGL 310 Copy Editing and Layout 3
ENGL 407 Advanced Reporting 1-3
ENGL 409 Topics in Journalism 3
ENGL 466 Independent Study 1-6

ELECTIVES

Electives

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF 124

REQUIREMENTS FOR A MINOR IN HISTORY

A student may minor in history by taking 15 credits: two courses in any combination from HIST 101, 102 (Western civilization), 205, 206 (American history), and the remaining 9 credits at or above the 300 level.

Many history courses fulfill Group B requirements of the College of Arts and Science. HIST 327 fulfills a Group C requirement.

LINGUISTICS

Although the Department of Linguistics offers only a minor at the undergraduate level, there are a number of courses in linguistics at the introductory, intermediate, and advanced levels in both applied and theoretical areas. Many Linguistics courses fulfill the Group C or Group A General Education Requirement in the College of Arts and Science.

The minor in linguistics requires 18 credits, distributed as follows:

LING 101 Introduction to Linguistics 3

One of the following:

LING 407 Phonology I 3
LING 409 Syntax I 3
LING 477 Structure of English 3
LING 491 Semantics I 3

Any four additional LING courses, two of which must be at the 300 level or above 12

Special problems courses and courses other than those specified above must have approval of the Undergraduate Studies Committee of the Department of Linguistics.

COGNITIVE SCIENCE MINOR

Cognitive Science studies the computational and representational structure of the mind by combining linguistics, philosophy, computer science (especially artificial intelligence), and psychology. Courses for the minor in cognitive science focus on three areas: (1) broad foundational issues in linguistics, psychology, and computing; (2) narrower issues in mental representation, computation, theoretical linguistics, and epistemology; (3) prob-

*Superior figures indicate year or years in which the course is normally taken, i.e., 1 freshmen year, 2 sophomore year, etc.
lem in cognition, data processing, and language and formal representation that are related to students' particular interests.

The minor is administered through the Department of Linguistics. It requires 18 credits, distributed as follows (most of these courses have prerequisites, as listed):

A. All the following:
LING 101 Introduction to Linguistics
PSYC 201 General Psychology
CISC 105 General Computer Science
or
CISC 180 Introduction to Computer Science I
(prereq: CISC 105 or programming experience)

B. One of the following:
LING 409 Syntax I (prereq: LING 101)
LING 491 Semantics (prereq: LING 101)
CISC 480 Computers and the Mind
PSYC 340 Cognition (prereq: PSYC 201)

C. Two of the following:
PSYC 310 Sensation & Perception (prereq: PSYC 309)
PSYC 314 Brain & Behavior
CISC 220 Data Structures (prereq: CISC 181)
CISC 681 Artificial Intelligence (prereq: CISC 220 & 310)
PHIL 205 Logic
EDST 462 Language Acquisition
LING 610 Syntax II (prereq: LING 409)
The courses not chosen under B

No more than 3 courses may be from a single department.

For more information, contact: Professor William Frawley,
Department of Linguistics
(302) 831-6806
e-mail: billf@brähms.udel.edu

CONFERENCE INTERPRETATION PROGRAM

Intensive Summer Seminar in Simultaneous and Consecutive Interpretation

Within the Department of Linguistics, the Conference Interpretation Program offers an intensive course in simultaneous and consecutive interpretation during the summer session. The Delaware program is one of only five in existence in the United States.

Coursework includes: basic theoretical constructs, pre-interpretation exercises, consecutive note-taking and note-reading, public speaking skills, simultaneous interpretation, self-monitoring techniques, short term memory strategies, ethics, scenario writing and role playing.

The languages of the intensive summer seminar are English and Spanish. Candidates must have a good working knowledge of both languages in order to participate. Other languages may be offered based on student demand and faculty availability. Prospective students are urged to contact the Department of Linguistics regarding additional working languages.

MATHEMATICAL SCIENCES

No other scientific field has such wide applicability in human affairs as the mathematical sciences. Mathematics is an intellectual discipline, a structured way of thinking, a universal language. The science of statistics provides a rational basis for condensing observed data, drawing inferences from incomplete information, and making decisions in the face of uncertainty.

The Department of Mathematical Sciences provides service courses for those who need to use mathematics and statistics in their career, be it engineering, science, medicine, or management. Mathematical sciences majors must also delve deeply into the structure of their subject without neglecting its applications. The balance between these two phases of mathematical education will depend on the goals and the inclination of the student. To meet these various needs, the Department offers four degree programs: the Bachelor of Science in Mathematical Sciences, which provides concentrations in mathematical physics/applied mathematics, in mathematics of computation, or in mathematics of management sciences and operations research; the Bachelor of Science in Statistics, which provides a concentration in statistics with a related area of application; the Bachelor of Arts in Mathematical Sciences, which gives students more choices of upper level major courses along with an area of application; and the Bachelor of Arts in Mathematics Education, which trains students for careers in secondary school mathematics education.

Since mathematics is a highly structured discipline, careful attention must be paid to prerequisites. The successful mathematical sciences major must complete several courses in the major each year to graduate within a reasonable time frame. Thus, the Department of Mathematical Sciences carefully monitors student progress and will drop from the major any student not making satisfactory progress in the program. A normally matriculated student majoring in the Department of Mathematical Sciences is not making satisfactory progress if he or she: (1) has not successfully completed a required Mathematical Science course by the beginning of the third semester; or (2) has not successfully completed MATH 302 by the end of the fifth semester; or (3) has failed to successfully complete any required Mathematical Science course for two consecutive semesters. Consistent with the program requirements, "successfully complete" means to earn a grade of C- or better. A student not making satisfactory progress may petition the department to remain as a major when there are extenuating circumstances.

Departmental requirements and course descriptions are subject to continual revision. Up-to-date statements of requirements, course descriptions and departmental policies are available at the departmental office.
DEGREE: BACHELOR OF ARTS
MAJOR: MATHEMATICAL SCIENCES

CURRICULUM
See page 82 for University and College requirements.

MAJOR REQUIREMENTS:

Within the Department
MATH 210 Discrete Mathematics I .................................................. 3
MATH 242 Analytic Geometry and Calculus B** .................................. 4
MATH 243 Analytic Geometry and Calculus C .................................... 4
MATH 349 Elementary Linear Algebra .............................................. 3
MATH 302 Ordinary Differential Equations ...................................... 3
MATH 303 Differential Equations Computing Lab ............................. 1
MATH 503 Advanced Calculus for Applications .................................. 3,4
or MATH 508 Introduction to Complex Variables and Applications .... 3
or MATH 600 Fundamentals of Real Analysis .................................. 3
MATH 389 Graph Theory ................................................................. 3,4
or MATH 529 Linear Programming: Methods and Applications .......... 3
STAT 370 Introduction to Statistical Analysis I .................................. 3
STAT 371 Introduction to Statistical Analysis II ................................ 3
Twelve credits of mathematics and/or statistics at the 300 level or above. MATH 379, MATH 380, MATH 381, MATH 555, STAT 450, and STAT 555 are not applicable.

Within the College
CISC 105 General Computer Science ........................................... 3,1,2
or CISC 106 General Computer Science for Engineers ..................... 3
or CISC 180 Introduction to Computer Science I ................................ 3
ENGL 312 Written Communications in Business ............................ 3,5,4
Suitable equivalent

Within the University
Area of application outside the department must be approved by the department Undergraduate Studies Committee. Student should check with adviser.

ELECTIVES
Electives
After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree, at least 79 outside Mathematical Sciences.

CREDITS TO TOTAL A MINIMUM OF .............................................. 124

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DEGREE: BACHELOR OF SCIENCE
MAJOR: MATHEMATICAL SCIENCES
CONCENTRATION: MATHEMATICS OF COMPUTATION

CURRICULUM

UNIVERSITY REQUIREMENTS
ENGL 110 Critical Reading and Writing ...................................... 3
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #

COLLEGE REQUIREMENTS

Skill Requirements
Writing: .......................... .......................... 3,4
A second writing course involving significant writing experience including two papers with a combined minimum of 3,000 words to be submitted for extended faculty critique of both composition and content. This course must be taken after completion of 62 credit hours. Appropriate writing courses are normally designated in the semester's Registration Booklet. (See list of courses approved for second writing requirement, page 83.)

Foreign Language: .......................... 0-12
Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination. French, Russian, or German is recommended.

Breadth Requirements: (See page 84)
A total of twenty-one credits from Groups A, B and C is required with a minimum of six credits in each group. Six credits from each group could be from the same area.

Group A
Understanding and appreciation of the creative arts and humanities.

Group B
The study of culture and institutions over time.

Group C
Empirically based study of human beings and their environment.

MAJOR REQUIREMENTS:

Within the Department
MATH 210 Discrete Mathematics I .................................................. 3
MATH 242 Analytic Geometry and Calculus B** .................................. 4
MATH 243 Analytic Geometry and Calculus C .................................... 4
MATH 260 Concepts of Analysis ...................................................... 3
MATH 349 Elementary Linear Algebra .............................................. 3
MATH 302 Ordinary Differential Equations ...................................... 3
MATH 303 Differential Equations Computing Lab ............................. 1
MATH 508 Introduction to Complex Variables and Application ....... 3,4
MATH 529 Linear Programming: Methods and Applications .......... 3
MATH 315 Discrete Mathematics II .................................................. 3
MATH 389 Graph Theory ................................................................. 3,4
MATH 426 Introduction to Numerical Analysis and Algorithmic Computation .................................................. 3,4
MATH 503 Advanced Calculus for Applications ............................... 3,4
or MATH 600 Advanced Calculus – Introduction to Analysis I ........ 3
and MATH 602 Advanced Calculus – Introduction to Analysis II .... 3
MATH 508 Introduction to Complex Variables and Application ....... 3,4
MATH 529 Linear Programming: Methods and Applications .......... 3,4
STAT 370 Introduction to Statistical Analysis I ............................ 3
STAT 371 Introduction to Statistical Analysis II ............................ 3

Within the College
Related Work
CISC 180 Introduction to Computer Science I .................................. 3,1,2
or CISC 181 Introduction to Computer Science II .......................... 3
CISC 220 Data Structures .............................................................. 3,4

# Superior figures indicate year or years in which the course is normally taken, i.e., 1 Freshman year, 2 Sophomore year, etc.
# This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 26.
† A course may be applied toward both the major requirements and a breadth requirement, but credits are counted only toward the total credits for graduation.
‡ A grade of C- or better is required for major courses and related work.
** Students lacking adequate preparation for MATH 242 should begin with MATH 241.
†† A minimum grade of "C-" is required.

126
CISC 411 Algorithmic and Numerical Solution of Differential Equations 3
CISC 627 Simulation of Discrete Systems 3
ENGL 312 Written Communications in Business 3
Two-semester sequence of laboratory science 8

**ELECTIVES**

*Electives*

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

**CREDITS TO TOTAL A MINIMUM OF** 128

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**DEGREE: BACHELOR OF SCIENCE**
**MAJOR: MATHEMATICAL SCIENCES**

**CONCENTRATION: MATHEMATICS OF MANAGEMENT SCIENCES AND OPERATION RESEARCH**

**CURRICULUM**

**CREDITS**

**UNIVERSITY REQUIREMENTS**

ENGL 110 Critical Reading and Writing 3
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content 3

**COLLEGE REQUIREMENTS**

*Skill Requirements*

Writing: 3
A second writing course involving significant writing experience including two papers with a combined minimum of 3,000 words to be submitted for extended faculty critique of both composition and content. This course must be taken after completion of 62 credit hours. Appropriate writing courses are normally designated in the semester’s Registration Booklet. (See list of courses approved for second writing requirement, page 83.)

**Foreign Language:**
Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination in French, Russian, or German is recommended.

**Breadth Requirements:** (See page 84)
A total of twenty-one credits from Groups A, B and C is required with a minimum of six credits in each group. The six credits from each group could be from the same area.

**Group A**
Understanding and appreciation of the creative arts and humanities.

**Group B**
The study of culture and institutions over time.

**Group C**
Empirically based study of human beings and their environment.

**MAJOR REQUIREMENTS:**

**Within the Department**
MATH 210 Discrete Mathematics I 3
MATH 242 Analytic Geometry and Calculus B** 4
MATH 243 Analytic Geometry and Calculus C 4

MATH 260 Concepts of Analysis 3
MATH 349 Elementary Linear Algebra 3
MATH 302 Ordinary Differential Equations 3
MATH 305 Differential Equations Computing Lab 1
MATH 389 Graph Theory 3
MATH 426 Introduction to Numerical Analysis and Algorithmic Computation 3
MATH 450 Abstract Algebra 3
MATH 508 Introduction to Complex Variables and Applications 3
MATH 529 Linear Programming: Methods and Applications 3
MATH 600 Fundamentals of Real Analysis 3
MATH 602 Advanced Calculus – Introduction to Analysis II 3
MATH 672 Vector Spaces 3
STAT 370 Introduction to Statistical Analysis I 3
STAT 371 Introduction to Statistical Analysis II 3

Nine credits from the following:
MATH 428 Algorithmic and Numerical Solution to Differential Equations 3
MATH 518 Mathematical Models and Applications 3
MATH 630 Introduction to Probability Theory 3
MATH 631 Introduction to Stochastic Processes 3
MATH 632 Topics in Applied Probability 3
MATH 688 Combinatorics and Graph Theory with Applications I 3
MATH 689 Combinatorics and Graph Theory with Applications II 3
MATH 694 Methods of Optimization 3

**Within the College**

**Related Work**
PHYS 207 General Physics 4
PHYS 208 General Physics 4
CISC 105 General Computer Science 3
CISC 106 General Computer Science for Engineers 3
CISC 180 Introduction to Computer Science I 3
ENGL 312 Written Communications in Business 3

**ELECTIVES**

*Electives*

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

**CREDITS TO TOTAL A MINIMUM OF** 128

---

**DEGREE: BACHELOR OF SCIENCE**
**MAJOR: MATHEMATICAL SCIENCES**

**CONCENTRATION: MATHEMATICAL PHYSICS/ APPLIED MATHEMATICS**

**CURRICULUM**

**CREDITS**

**UNIVERSITY REQUIREMENTS**

ENGL 110 Critical Reading and Writing 3
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content 3

**COLLEGE REQUIREMENTS**

*Skill Requirements*

Writing: 3
A second writing course involving significant writing experience including two papers with a combined minimum of 3,000 words

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*Sophomore year or year in which the course is normally taken, i.e., freshman year, sophomore year, etc.

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 26.

†A course may be applied toward both the major requirements and a breadth requirement, but credits are counted only once toward the total credits for graduation.

‡A grade of C– or better is required for major courses and related work.

**Students lacking adequate preparation for MATH 242 should begin with MATH 241.

††A minimum grade of "C-" is required.
to be submitted for extended faculty critique of both composition and content. This course must be taken after completion of 62 credit hours. Appropriate writing courses are normally designated in the semester’s Registration Booklet. (See list of courses approved for second writing requirement, page 83)

### Foreign Language

Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination. French, Russian or German is recommended.

**Breadth Requirements** (See page 84)

A total of twenty-one credits from Groups A, B and C is required with a minimum of six credits in each group. The six credits from each group could be from the same area.

**Group A**

The study of culture and institutions over time.

**Group B**

Empirically based study of human beings and their environment.

**MAJOR REQUIREMENTS**

### Within the Department

- **MATH 210 Discrete Mathematics I**
- **MATH 242 Analytic Geometry and Calculus B**
- **MATH 243 Analytic Geometry and Calculus C**
- **MATH 260 Concepts of Analysis**
- **MATH 349 Elementary Linear Algebra**
- **MATH 302 Ordinary Differential Equations**
- **MATH 303 Differential Equations Computing Lab**
- **MATH 426 Introduction to Numerical Analysis and Algorithmic Computation**
- **MATH 450 Abstract Algebra**
- **MATH 600 Fundamentals of Real Analysis**
- **MATH 602 Advanced Calculus—Introduction to Analysis II**
- **MATH 608 Introduction to Complex Variables and Application**
- **MATH 672 Vector Spaces**
- **MATH 609 Intermediate Ordinary Differential Equations**
- **MATH 610 Introduction to Partial Differential Equations with Applications**
- **MATH 616 Introduction to Applied Mathematics I**
- **STAT 370 Introduction to Statistical Analysis I**
- **STAT 371 Introduction to Statistical Analysis II**
- **PHYS 207 General Physics**
- **PHYS 208 General Physics**
- **PHYS 209 General Physics**
- **PHYS 419 Analytical Mechanics**
- **PHYS 620 Analytical Mechanics**
- **CISC 105 General Computer Science**
- **CISC 106 General Computer Science for Engineers**

**Electives**

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

**COSTS TO TOTAL A MINIMUM OF** 128

### DEGREE: BACHELOR OF SCIENCE

**MAJOR: STATISTICS**

**CURRICULUM**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 110 Critical Reading and Writing</td>
<td>3</td>
</tr>
<tr>
<td>Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #</td>
<td>3,4</td>
</tr>
</tbody>
</table>

**UNIVERSITY REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISC 180 Introduction to Computer Science</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 312 Written Communications in Business</td>
<td>3,4</td>
</tr>
</tbody>
</table>

**COLLEGE REQUIREMENTS**

**Skill Requirements**

**Writing:**

A second writing course involving significant writing experience including two papers with a combined minimum of 3,000 words to be submitted for extended faculty critique of both composition and content. This course must be taken after completion of 62 credit hours. Appropriate writing courses are normally designated in the semester’s Registration Booklet. (See list of courses approved for second writing requirement, page 83)

Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination. French, Russian or German is recommended.

**Breadth Requirements** (See page 84)

A total of twenty-one credits from Groups A, B and C is required with a minimum of six credits in each group. The six credits from each group could be from the same area.

**Group A**

Understanding and appreciation of the creative arts and humanities.

**Group B**

The study of culture and institutions over time.

**Group C**

Empirically based study of human beings and their environment.

**MAJOR REQUIREMENTS**

### Within the Department

- **MATH 210 Discrete Mathematics I**
- **MATH 242 Analytic Geometry and Calculus B**
- **MATH 243 Analytic Geometry and Calculus C**
- **MATH 260 Concepts of Analysis**
- **MATH 349 Elementary Linear Algebra**
- **MATH 302 Ordinary Differential Equations**
- **MATH 303 Differential Equations Computing Lab**
- **MATH 426 Introduction to Numerical Analysis and Algorithmic Computation**
- **MATH 450 Abstract Algebra**
- **MATH 600 Fundamentals of Real Analysis**
- **MATH 602 Advanced Calculus—Introduction to Analysis II**
- **MATH 608 Introduction to Complex Variables and Application**
- **MATH 672 Vector Spaces**
- **MATH 609 Intermediate Ordinary Differential Equations**
- **MATH 610 Introduction to Partial Differential Equations with Applications**
- **MATH 616 Introduction to Applied Mathematics I**
- **STAT 370 Introduction to Statistical Analysis I**
- **STAT 371 Introduction to Statistical Analysis II**
- **PHYS 207 General Physics**
- **PHYS 208 General Physics**
- **PHYS 209 General Physics**
- **PHYS 419 Analytical Mechanics**
- **PHYS 620 Analytical Mechanics**
- **CISC 105 General Computer Science**
- **CISC 106 General Computer Science for Engineers**

* Superior figures indicate year or years in which the course is normally taken, i.e., 1 freshman year, 2 sophomore year, etc.

# This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 26.

1 A course may be applied toward both the major requirements and a breadth requirement, but credits are counted only once toward the total credits for graduation.

1 A grade of C- or better is required for major courses and related work.

* Students lacking adequate preparation for MATH 242 should begin with MATH 241.

† A minimum grade of "C" is required.
MATH 303 Differential Equations Computing Lab .......................... 3
MATH 420 Introduction to Numerical Analysis and Algorithmic Computation .......................... 3
MATH 503 Advanced Calculus for Applications .................................. 3
MATH 600 Fundamentals of Real Analysis .................................... 3
MATH 602 Advanced Calculus Introduction to Analysis II ............. 3
STAT 205 Statistical Methods .................................................... 4
STAT 370 Introduction to Statistical Analysis ............................ 3
STAT 371 Introduction to Statistical Analysis II ....................... 3
STAT 418 Sampling Methods ...................................................... 3
STAT 420 Data Analysis and Nonparametric Statistics .............. 3
STAT 611 Regression Analysis ................................................ 3
STAT 615 Design and Analysis of Experiments ......................... 3
Three credits from the following: STAT 616 Design and Analysis of Experiments II .......... 3
STAT 617 Multivariate Methods .............................................. 3
STAT 618 Sampling Techniques ................................................ 3

Within the College

Related Work
CISC 105 General Computer Science .................................. 3
CISC 106 General Computer Science for Engineers ................ 3
CISC 180 Introduction to Computer Science I .................... 3
ENGL 312 Written Communications in Business ................. 3
Two-semester sequence of laboratory science ..................... 3
Area of Application: ..................................................................
This program requires a fifteen-credit area of application out-
side the department. Students must meet regularly with the
adviser to develop it.

ELECTIVES

Electives

After required courses are completed, sufficient elective credits
must be taken to meet the minimum credit requirement for the
degree.

CREDITS TO TOTAL A MINIMUM OF 128

DEGREE: BACHELOR OF ARTS

MAJOR: MATHEMATICS EDUCATION

CURRICULUM  CREDITS*

UNIVERSITY REQUIREMENTS
ENGL 110 Critical Reading and Writing ................................ 3
Three credits in an approved course or courses stressing
multicultural, ethnic, and/or gender-related content #

COLLEGE REQUIREMENTS

Skill Requirements

Writing: †† .......................................................... 3
A second writing course involving significant writing experience
including two papers with a combined minimum of 3,000 words
to be submitted for extended faculty critique of both composit-
tion and content. This course must be taken after completion of
62 credit hours. Appropriate writing courses are normally design-
ated in the semester's Registration Booklet. (See list of courses
approved for second writing requirement, page 83.)

Foreign Language......................................................... 0-12
Completion of the intermediate-level course (107 or 112) in a
given language or, for students with more than 4 years of high
school foreign language or the equivalent, satisfactory perform-
ance on a proficiency test in that language. French, Russian
or German is recommended.

Breadth Requirements* (See page 84)

Group A......................................................................... 12
Understanding and appreciation of the creative arts and
humanities. Twelve credits representing at least two areas

Group B .......................................................................... 9
The study of culture and institutions over time. Nine credits
representing at least two areas.

Group C.......................................................................... 9
Empirically based study of human beings and their environ-
ment. Nine credits representing at least two areas.

Group D.......................................................................... 15
The study of natural phenomena through experiment and
analysis. A minimum of thirteen credits representing at least
two areas including a minimum of one course with an associat-
ed laboratory.

MAJOR REQUIREMENTS:

Within the Department

MATH 210 Discrete Mathematics I .................................. 3
MATH 242 Analytic Geometry and Calculus B** ................ 4
MATH 243 Analytic Geometry and Calculus C ................. 4
MATH 350 Concepts of Analysis .................................... 3
MATH 362 Ordinary Differential Equations .................... 3
MATH 380 Differential Equations Computing Lab .......... 3
MATH 391 Elementary Linear Algebra ............................ 3
MATH 450 Abstract Algebra ............................................. 3
MATH 518 Mathematical Models and Applications .......... 3
MATH 540 Fundamentals of Geometry ............................ 3
STAT 370 Introduction to Statistical Analysis I .............. 3
STAT 371 Introduction to Statistical Analysis II ............. 3

In addition, students seeking certification to teach calculus
must complete:

MATH 503 Advanced Calculus for Applications ............... 3
MATH 508 Introduction to Complex Variables and Application ....... 3

Within the College

CISC 105 General Computer Science ................................ 3
CISC 106 General Computer Science for Engineering .......... 3
CISC 180 Introduction to Computer Science .................... 3
PHYS 207 General Physics ............................................. 4
ENGL 312 Written Communications in Business .............. 3

Professional Studies

EDST 201 Education and Society .................................. 3
EDST 304 Educational Psychology Social Aspects ............ 3
EDST 305 Educational Psychology Cognitive Aspects ....... 3
MATH 379 Problem Solving Strategies ......................... 1
MATH 380 Approaches to Teaching Mathematics .............. 3

* Superior figures indicate year or years in which the course is normally taken, i.e., freshman year, sophomore year, etc.

# A course may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 26.

†† A grade of C- or better is required for major courses and related work.

** Students lacking adequate preparation for MATH 242 should begin with MATH 241.

†† A minimum grade of "C" is required.
Credit for corresponding courses from different tracks

A student seeking a minor in mathematics must obtain Department of Mathematical Sciences. Course requirements from the chairperson or his designee in the levels for students not expecting to continue at the 200 levels.

MATH 221 and 222; MATH 302 and MATH 341; MATH 114 and 115; MATH 210 and 230; MATH 221 and 222 as an alternative to trigonometry, a high aptitude for mathematics, or an expectation of pursuing more quantitative aspects might seriously consider taking MATH 210 as an alternative to MATH 230 and MATH 241-242 as an alternative to MATH 221-222.

The sequence MATH 251-252 is designed for training elementary school teachers and is restricted to declared majors in the appropriate programs of the College of Education and College of Human Resources.

Students who need further preparation in algebra and trigonometry prior to a 200-level course should take MATH 115. MATH 114 serves to establish minimal skill levels for students not expecting to continue at the 200 level. Students seeking mathematical electives for self-enrichment may select MATH 280 if their skills are adequate for the 200 level.

Ordinarily, credit is not given for 100-level courses that follow successful completion of 200-level courses. Credit for corresponding courses from different tracks MATH 114 and 115; MATH 210 and 230; MATH 221 and 241; MATH 222 and 242; MATH 302 and MATH 341; and, MATH 349 and MATH 342 will be given only upon approval of the chair.

SERVICES COURSES

The three-semester calculus sequence MATH 241-242-243 is the traditional basis for programs in the physical sciences and engineering. Students with a sound preparation in calculus are encouraged to enroll in MATH 242 to avoid repetition of known material. Students with advanced placement are automatically placed in MATH 242, and others should follow the advice given during freshman orientation.

The calculus sequence MATH 221-222 and finite mathematics course MATH 230 are designed for students in the biological, behavioral, management and social sciences. Trigonometry is not a prerequisite for these courses. Requirements in mathematics preparation for these programs vary greatly; thus students with preparation in trigonometry, a high aptitude for mathematics, or an expectation of pursuing more quantitative aspects might seriously consider taking MATH 210 as an alternative to MATH 230 and MATH 241-242 as an alternative to MATH 221-222.

The sequence MATH 251-252 is designed for training elementary school teachers and is restricted to declared majors in the appropriate programs of the College of Education and College of Human Resources.

Students who need further preparation in algebra and trigonometry prior to a 200-level course should take MATH 115. MATH 114 serves to establish minimal skill levels for students not expecting to continue at the 200 level. Students seeking mathematical electives for self-enrichment may select MATH 280 if their skills are adequate for the 200 level.

Ordinarily, credit is not given for 100-level courses that follow successful completion of 200-level courses. Credit for corresponding courses from different tracks MATH 114 and 115; MATH 210 and 230; MATH 221 and 241; MATH 222 and 242; MATH 302 and MATH 341; and, MATH 349 and MATH 342 will be given only upon approval of the chair.

REQUIREMENTS FOR A MINOR IN MATHEMATICS

A student seeking a minor in mathematics must obtain permission from the chairperson or his designee in the Department of Mathematical Sciences. Course requirements consist of a total of 18 credits in mathematics to include 9 credits above MATH 303 (MATH 341 is not considered above MATH 303 since it is a comparable course from a different track. However, MATH 342 may be counted as above MATH 303, provided MATH 349 is not included in the count.) STAT 370 or any course cross-listed with a mathematics course may be counted toward the minor, except that courses in mathematics education (e.g., MATH 379, 380, 381) do not apply.

MILITARY SCIENCE

Students at the University of Delaware have the opportunity to earn a commission as a Second Lieutenant in the U.S. Army upon completion of military science and a baccalaureate degree. The normal four-year program consists of the completion of eight semester courses, totaling 12 credits, and one six-week summer camp. Courses at the 100 and 200 level are electives open to freshmen and sophomores. A military obligation is incurred only if the student contracts for a commission during the last two years and receives a commission.

Two-Year Program. The two-year program provides sophomores, juniors, and graduate students who have not completed the first two years of military science the opportunity to qualify for advanced ROTC and to obtain a commission. The student must have at least two years of full-time academic status remaining to qualify. As a prerequisite, the student must complete a six-week summer basic camp. Students are paid while attending this camp. Military veterans with two academic years remaining generally qualify automatically for the two-year program.

Advanced Camp. The ROTC student desiring to receive a commission must successfully complete a six-week summer camp, normally between the junior and senior years. This camp allows the student to apply, in a military environment, those leadership and technical skills studied on campus. Students are provided uniforms, food, lodging, and medical care at no cost and are paid during this period. Transportation to and from the student’s home is provided.

Pay and Allowances. ROTC students contracting for a commission during the junior and senior years receive a subsistence allowance of $100 per academic month.

Army ROTC Scholarship. Three- and four-year scholarships are awarded on the basis of academic merit and leadership potential. Scholarships pay tuition, an allowance for books and supplies, fees, and $100 subsistence allowance per academic month. A limited number of scholarships are available to qualified students who desire a commission in the Army Reserve or National Guard.

Obligation. All ROTC graduates must serve in some capacity for eight years. This may be fulfilled by serving two to four years on active duty, followed by service in the
Four semesters of recital attendance are required. No more than forty-five credits of music courses may count toward the degree Bachelor of Music, or Applied Music (band or orchestral instruments, organ, piano, classical guitar, and voice). The degree Bachelor of Arts offers the opportunity for professional study in music within a liberal arts context. All programs in music provide effective preparation for graduate study.

**Educational Delay.** ROTC graduates may apply for a delay from entry on active duty for the purpose of obtaining an additional academic degree.

**Academic Credit.** The colleges of Agricultural Sciences, Arts and Science, Business and Economics, Education, Human Resources, and Physical Education, Athletics and Recreation accept all 12 military science credits toward graduation. The College of Nursing and College of Engineering accept 6 and 4 credits, respectively.

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**MUSIC**

The Department of Music provides a wide variety of educational opportunities, ranging from experiences directed to the cultural enrichment of the entire University community to the preparation of students for professional careers in music. The department is a leader in the development of computer-based instruction in music and video-disc technology. It is a full member of the National Association of Schools of Music.

For the general University student, the department offers courses in the fundamentals of music, music literature, and class study of voice and piano. All courses in the department are available to any University student who meets course and department prerequisites. Music courses may be taken as partial fulfillment of group requirements in the arts and humanities of the College of Arts and Science. Private study is also available to freshmen in the University Honors Program and to other non-majors, on a space-available basis, through the Music Merit Program. Auditions for these programs are held during the first week of the academic year by arrangement with the department office. A variety of performing organizations are available to all University students: marching band, wind and jazz ensembles, choral groups, gamelan, opera workshop, and various chamber ensembles. A minor in music is available in applied music, musical studies, or jazz studies.

The curricula for students majoring in music lead to the degrees Bachelor of Music and Bachelor of Arts. The programs in the degree Bachelor of Music are directed to those who intend to become professional musicians. They offer opportunities to major in Music Education, Theory-Composition, or Applied Music (band or orchestral instruments, organ, piano, classical guitar, and voice). The degree Bachelor of Arts offers the opportunity for professional study in music within a liberal arts context. All programs in music provide effective preparation for graduate study.

Entering majors are expected to demonstrate a high level of musical achievement and aptitude. Placement auditions and musicality tests for those students who wish to enter in the fall semester should be completed by June 1 of the preceding spring and must be completed before acceptance is granted. **Acceptance to the University does not indicate acceptance as a music major.** Students who transfer from accredited colleges are placed in appropriate levels of music theory, literature, and applied music according to the results of tests given at the time of transfer.

Part-time music majors must have the permission of the department chair to enroll for private study.

Credit for large ensembles, as required by various curricula, is given only for participation during the fall and spring semesters. The Department of Music requires the successful completion of a Sophomore Review before continuation as a music major. Detailed information about these and other aspects of curricular policy are published in the Department's Student Handbook.

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**DEGREE: BACHELOR OF ARTS**

**MAJOR: MUSIC**

**CURRICULUM**

See page 82 for University and College requirements.

**MAJOR REQUIREMENTS**

**Within the Department:**

- **Applied Music**
  - MUSC 100 Recital Attendance (four semesters required) ... 0\(^{1,2}\)
  - MUSC 161 Private Study ... 2\(^{1,3}\)
  - MUSC 162 Private Study ... 2\(^{1,3}\)
  - MUSC 175 Class Piano: Elementary I ... 1\(^1\)
  - MUSC 261 Private Study ... 2\(^{2,4}\)
  - MUSC 262 Private Study ... 2\(^{2,4}\)

- **Theory**
  - MUSC 185 Ear Training and Sight Singing I ... 2\(^{1,3}\)
  - MUSC 186 Ear Training and Sight Singing II ... 2\(^{1,3}\)
  - MUSC 285 Advanced Ear Training and Sight Singing I ... 2\(^{2,4}\)
  - MUSC 286 Advanced Ear Training and Sight Singing II ... 2\(^{2,4}\)
  - MUSC 195 Harmony I ... 3\(^{1,3}\)
  - MUSC 196 Harmony II ... 3\(^{1,3}\)
  - MUSC 295 Advanced Harmony I ... 3\(^{2,4}\)
  - MUSC 296 Advanced Harmony II ... 3\(^{2,4}\)

- **Ensemble**
  - Four credits of large ensembles. (Students must be enrolled in a large ensemble during all semesters in which they are enrolled in Applied Music.)

- **Literature**
  - MUSC 111 Introduction to Music History ... 3\(^{2,3}\)
  - MUSC 311 Music History: 1450-1750 ... 3\(^{2,3}\)
  - MUSC 312 Music History: 1715-1825 ... 3\(^{3,4}\)
  - MUSC 313 Music History: 1825 to the Present ... 3\(^{3,4}\)

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\(^{1}\)Superior figures indicate year or years in which the course is normally taken, i.e., \(^{1}\)freshman year, \(^{2}\)second year, etc.

\(^{2}\)Four semesters of recital attendance are required. No more than forty-five credits of music courses may count toward the degree.

\(^{3}\)BA. Music Majors with principle instrument of piano, organ or guitar must refer to the Department for required ensembles.

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ELECTIVES
Electives
After required courses are completed sufficient elective credits must be taken to meet the minimum credit requirement for the degree.
CREDITS TO TOTAL A MINIMUM OF 124

DEGREE: BACHELOR OF MUSIC
MAJOR: APPLIED MUSIC—INSTRUMENTAL
CONCENTRATION: PRINCIPAL INSTRUMENTS‡

COLLEGE REQUIREMENTS
Skill Requirements
Writing: ††
A second writing course involving significant writing experience including two papers with a combined minimum of 3,000 words to be submitted for extended faculty critique of both composition and content. This course must be taken after completion of 62 credit hours. Appropriate writing courses are normally designated in the semester’s Registration Booklet. (See list of courses approved for second writing requirement, page 83.)
Mathematics:
MATH 114 Elementary Mathematics and Statistics 3 (designed for students who do not intend to continue the study of mathematics)
or
MATH 115 Pre-Calculus 3 (designed for students who intend to continue the study of mathematics)
or
One of the following:
MATH 221 Calculus I 3
MATH 241 Analytic Geometry and Calculus A 4
Successful performance on the college proficiency exam
English literature course (200 level—Group A or B) 3
HIST 101 Western Civilization to 1648 3
HIST 102 Western Civilization: 1648 to the Present 3
Foreign Language
Two semesters of the same modern foreign language 8
Breadth Requirements† (See page 84)

Group A
Understanding and appreciation of the creative arts and humanities (This requirement is satisfied by MUSC 195 and 196.)

Group B
The study of culture and institutions over time. Fifteen credits representing at least two areas. (This requirement is satisfied by MUSC 311, 312, 313, HIST 101, and 102.)

Group C
Empirically based study of human beings and their environment. Nine credits representing at least two areas.

Group D
The study of natural phenomena through experiment and analysis.

MAJOR REQUIREMENTS
Within the Department
Applied Music
MUSC 100 Recital Attendance (six semesters required) 1
MUSC 161 Private Study 4
MUSC 162 Private Study 4
MUSC 261 Private Study 4
MUSC 262 Private Study 4
MUSC 361 Private Study 4
MUSC 362 Private Study 4
MUSC 461 Private Study 4
MUSC 462 Private Study 4
MUSC 175 Class Piano: Elementary I 1
MUSC 176 Class Piano: Elementary II 1
MUSC 301 Junior Recital 0
MUSC 401 Senior Recital 0
Theory
MUSC 185 Ear Training and Sight Singing I 2
MUSC 186 Ear Training and Sight Singing II 2
MUSC 285 Advanced Ear Training and Sight Singing I 2
MUSC 286 Advanced Ear Training and Sight Singing II 2
MUSC 195 Harmony I 3
MUSC 196 Harmony II 3
MUSC 295 Advanced Harmony I 3
MUSC 296 Advanced Harmony II 3
MUSC Theory courses 4

Ensemble
Twelve credits selected from the following: 12
MUSC 115 Band, MUSC 116 Jazz Ensemble, MUSC 117 University Orchestra, MUSC 118 Percussion Ensemble, and MUSC 321 Ensemble
(All Ensembles may be repeated.)

Guitarists must complete the following:
MUSC 321 Ensemble: Guitar 8

Two semesters of any departmental ensemble 2

Literature
MUSC 111 Introduction to Music History 3
MUSC 311 Music History: 1450-1750 3
MUSC 312 Music History: 1715-1825 3
MUSC 313 Music History: 1825 to the Present 3
Music Elective 3

Music Electives
Excludes private study on primary instrument 7
May include two credits of ensemble

CREDITS TO TOTAL A MINIMUM OF 130

* Superior figures indicate year or years in which the course is normally taken, i.e., freshman year, sophomore year, etc.
† This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 26.
‡ A course may be applied toward both the major requirements and a breadth requirement, but credits are counted only once toward the total credits for graduation.
§ The concentration designates the student’s principal instrument. A list of instrumental options can be found in the chart on page vi at the front of this catalog, or can be obtained from the Department or the College of Arts and Science Advisement Center.
Do a minimum grade of "C" is required.
DEGREE: BACHELOR OF MUSIC
MAJOR: APPLIED MUSIC—PIANO

CREDITS*

UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing 3

Three credits in an approved course or courses stressing
multicultural, ethnic, and/or gender-related content #

COLLEGE REQUIREMENTS

Skill Requirements

Writing ††
A second writing course involving significant writing experience
including two papers with a combined minimum of 3,000 words
to be submitted for extended faculty critique of both composi-
tion and content. This course must be taken after completion of
62 credit hours. Appropriate writing courses are normally desig-
nated in the semester’s Registration Booklet. (See list of courses
approved for second writing requirement, page 83.)

Mathematics:
MATH 114 Elementary Mathematics and Statistics 3
(designed for students who do not intend to continue the study
of mathematics)
or
MATH 115 Pre-Calculus 3
(designed for students who intend to continue the study of
mathematics)
or
One of the following:
MATH 221 Calculus I 8
or
MATH 241 Analytic Geometry and Calculus A 4
or
Successful performance on the college proficiency exam

English literature course (200 level—Group A or B) 5
HIST 101 Western Civilization to 1648 5
HIST 102 Western Civilization: 1648 to the Present 5

Foreign Language
Two semesters of the same modern foreign language 8

Breadth Requirements† (See page 84)

Group A
Understanding and appreciation of the creative arts and
humanities. (This requirement is satisfied by MUSC 195
and 196.)

Group B
The study of culture and institutions over time. Fifteen credits
representing at least two areas. (This requirement is satisfied by
MUSC 311, 312, 313, HIST 101, and 102.)

Group C
Empirically based study of human beings and their environ-
ment. Nine credits representing at least two areas.

Group D
The study of natural phenomena through experiment and
analysis.

MAJOR REQUIREMENTS

Within the Department

Applied Music
MUSC 100 Recital Attendance (six semesters required) 9
MUSC 161 Private Study 4

MUSC 162 Private Study 4
MUSC 261 Private Study 4
MUSC 262 Private Study 4
MUSC 263 Private Study 4
MUSC 264 Private Study 4
MUSC 265 Private Study 4
MUSC 301 Junior Recital 6
MUSC 401 Senior Recital 6

Theory
MUSC 185 Ear Training and Sight Singing I 2
MUSC 186 Ear Training and Sight Singing II 2
MUSC 285 Advanced Ear Training and Sight Singing I 2
MUSC 286 Advanced Ear Training and Sight Singing II 2
MUSC 195 Harmony I 3
MUSC 196 Harmony II 3
MUSC 295 Advanced Harmony I 3
MUSC 296 Advanced Harmony II 3
MUSC 393 Keyboard Harmony 3
MUSC 394 Keyboard Harmony 3
MUSC 395 Keyboard Literature I 3
MUSC 396 Keyboard Literature II 3

Music Electives
Excludes private study on primary instrument.
May include two credits of ensemble.

CREDITS TO TOTAL A MINIMUM OF 135

DEGREE: BACHELOR OF MUSIC
MAJOR: APPLIED MUSIC—VOICE

CREDITS*

UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing 3

Three credits in an approved course or courses stressing
multicultural, ethnic, and/or gender-related content #

COLLEGE REQUIREMENTS

Skill Requirements

Writing ††
A second writing course involving significant writing experience
including two papers with a combined minimum of 3,000 words

*Superior figures indicate year or years in which the course is normally taken, i.e., 1 freshman year, 2 sophomore year, etc.
#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements See page 26
†A course may be applied toward both the major requirements and a breadth requirement, but credits are counted only once toward the total credits for graduation
**B M Applied Music—Piano majors must take MUSC 241, 242, 341, 342, 441 and 442 (Accompanying Chamber Music: Piano) plus two semesters of any ensemble
offered in the Department of Music
††A minimum grade of "C-" is required
to be submitted for extended faculty critique of both composition and content. This course must be taken after completion of 62 credit hours. Appropriate writing courses are normally designated in the semester's Registration Booklet. (See list of courses approved for second writing requirement, page 83.)

Mathematics:
MATH 114 Elementary Mathematics and Statistics .............................................. 3
(designed for students who do not intend to continue the study of mathematics)
MATH 115 Pre-Calculus ................................................................. 3
(designed for students who intend to continue the study of mathematics)

One of the following:
MATH 221 Calculus I ................................................................. 3
MATH 241 Analytic Geometry and Calculus A .................................................. 4

Successful performance on the college proficiency exam.
HIST 102 Western Civilization: 1648 to the Present ......................................... 3
Languages courses (French, German and Italian) ........................................... 24
THEA 226 Acting I ................................................................. 3

Breadth Requirements† (See page 84)

Group A ................................................................. 6
Understanding and appreciation of the creative arts and humanities. (This requirement is satisfied by MUSC 195 and 196.)

Group B ................................................................. 12
The study of culture and institutions over time. Twelve credits representing at least two areas. (This requirement is satisfied by MUSC 311, 312, 313 and HIST 102)

Group C ................................................................. 6
Empirically based study of human beings and their environment. Six credits representing at least two areas.

Group D ................................................................. 3
The study of natural phenomena through experiment and analysis.

MAJOR REQUIREMENTS

Within the Department

Applied Music

MUSC 100 Recital Attendance (six semesters required) ........................................ 0
MUSC 161 Private Study ................................................................. 4
MUSC 162 Private Study ................................................................. 4
MUSC 261 Private Study ................................................................. 4
MUSC 262 Private Study ................................................................. 4
MUSC 361 Private Study ................................................................. 4
MUSC 362 Private Study ................................................................. 4
MUSC 461 Private Study ................................................................. 4
MUSC 462 Private Study ................................................................. 4
MUSC 175 Class Piano: Elementary I ..................................................... 1
MUSC 176 Class Piano: Elementary II ..................................................... 1
MUSC 275 Class Piano: Intermediate I ................................................... 1
MUSC 276 Class Piano: Intermediate II ................................................... 1
MUSC 301 Junior Recital ................................................................. 0
MUSC 401 Senior Recital ................................................................. 0

Theory

MUSC 185 Ear Training and Sight Singing I ..................................................... 2
MUSC 186 Ear Training and Sight Singing II ..................................................... 2

MUSC 285 Advanced Ear Training and Sight Singing I ..................................... 2
MUSC 286 Advanced Ear Training and Sight Singing II ..................................... 2
MUSC 195 Harmony I .................................................................. 3
MUSC 196 Harmony II ................................................................. 3
MUSC 295 Advanced Harmony I ................................................................. 3
MUSC 296 Advanced Harmony II ................................................................. 3

Ensemble

MUSC 219 Choral Union ................................................................. 8

Literature

MUSC 111 Introduction to Music History ......................................................... 3
MUSC 311 Music History: 1450-1750 ......................................................... 3
MUSC 312 Music History: 1715-1825 ......................................................... 3
MUSC 313 Music History: 1825 to the Present ................................................ 3

Related Music Studies

MUSC 171 Diction: English and Italian ......................................................... 1
MUSC 271 Diction: German ................................................................. 1
MUSC 272 Diction: French ................................................................. 1
MUSC 305 Vocal Coaching I ................................................................. 1
MUSC 465 Vocal Coaching II ................................................................. 1
MUSC 489 Opera Workshop ................................................................. 1

Music Electives

Twelve credits from the following: (including four credits from MUSC 327, 427 and/or 428)

MUSC 103 Introduction to Opera ......................................................... 3
MUSC 327 German Lieder ................................................................. 3
MUSC 335 Basic Conducting ................................................................. 3
MUSC 395 Form Analysis ................................................................. 3
MUSC 397 Contemporary Harmony ......................................................... 3
MUSC 427 French Art Song ................................................................. 2
MUSC 428 Twentieth-Century Art Song ................................................... 2
MUSC 479 Opera Production ................................................................. 3
MUSC 480 Vocal Pedagogy ................................................................. 3
MUSC 495 Analysis for Performance ......................................................... 3

Electives

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF ......................................................... 139

DEGREE: BACHELOR OF MUSIC
MAJOR: MUSIC EDUCATION- INSTRUMENTAL CONCENTRATION: PRINCIPAL INSTRUMENT†

CURRICULUM

UNIVERSITY REQUIREMENTS

ENG 110 Critical Reading and Writing ......................................................... 3

Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content.#

COLLEGE REQUIREMENTS

Skill Requirements

Writing †† ............................................................................. 3

A second writing course involving significant writing experience including two papers with a combined minimum of 3,000 words

*Superior figures indicate year or years in which the course is normally taken, i.e., 1freshman year, 2sophomore year, etc.
†This requirement may be fulfilled through a course taken to complete major, breadth, or elective requirements. See page 26.
†A course may be applied toward both the major requirements and a breadth requirement, but credits are counted only once toward the total credits for graduation.
††The concentration designates the student's principal instrument. A list of instrumental options can be found in the chart on page vi at the front of this catalog, or can be obtained from the Department or the College of Arts and Science Advisement Center.
††A minimum grade of "C-" is required.
to be submitted for extended faculty critique of both composition and content. This course must be taken after completion of 62 credit hours. Appropriate writing courses are normally designated in the semester's Registration Booklet. (See list of courses approved for second writing requirement, page 83.)

Mathematics:
MATH 114 Elementary Mathematics and Statistics ........................................... 3
(designed for students who do not intend to continue the study of mathematics)
MATH 115 Pre-Calculus ............................................................................. 3
(designed for students who intend to continue the study of mathematics)

One of the following:
MATH 221 Calculus I ............................................................................. 3
MATH 241 Analytic Geometry and Calculus A ........................................... 4

Successful performance on the college proficiency exam.

Breadth Requirements (See page 84)

Art or Art History course, to be selected from Group A or B ....................... 3

Understanding and appreciation of the creative arts and humanities. Nine credits representing at least two departments (This requirement is partially satisfied by MUSC 195 and 196.)

Group A .................................................................................. 9

The study of culture and institutions over time. (MUSC 311, 312, and 313 count toward completion of this requirement.)

Group C .................................................................................. 9

Empirically based study of human beings and their environment. Nine credits representing at least two areas.

Group D .................................................................................. 9

The study of natural phenomena through experiment and analysis. One science course with an associated laboratory

MAJOR REQUIREMENTS
Within the Department

Applied Music
MUSC 100 Recital Attendance (six semesters required) ......................... 0
MUSC 161 Private Study ......................................................................... 2
MUSC 162 Private Study ......................................................................... 2
MUSC 261 Private Study ......................................................................... 2
MUSC 262 Private Study ......................................................................... 2
MUSC 361 Private Study ......................................................................... 2
MUSC 362 Private Study ......................................................................... 2
MUSC 461 Private Study ......................................................................... 2
MUSC 175 Class Piano: Elementary I ...................................................... 1
MUSC 176 Class Piano: Elementary II ..................................................... 1
MUSC 174 Class Voice: Beginning ........................................................... 1
MUSC 501 Junior Recital ......................................................................... 0

Theory
MUSC 185 Ear Training and Sight Singing I ............................................. 2
MUSC 186 Ear Training and Sight Singing II ............................................. 2
MUSC 285 Advanced Ear Training and Sight Singing I ......................... 2
MUSC 286 Advanced Ear Training and Sight Singing II ......................... 2
MUSC 195 Harmony I ........................................................................... 1
MUSC 196 Harmony II ........................................................................... 1
MUSC 295 Advanced Harmony I ............................................................ 2
MUSC 296 Advanced Harmony II ............................................................ 2
MUSC 331 Orchestration ........................................................................ 2

MUSC 115 Band .................................................................................. 7

Literature
MUSC 111 Introduction to Music History ................................................. 3
MUSC 311 Music History: 1450-1750 ...................................................... 3
MUSC 312 Music History: 1715-1825 ...................................................... 3
MUSC 313 Music History: 1825 to the Present ........................................ 3

Secondary Instruments
MUSC 214 Stringed Instruments Class .................................................... 1
MUSC 215 High Brass Instruments Class ................................................ 1
MUSC 216 Low Brass Instruments Class ............................................... 1
MUSC 217 Woodwind Instruments Class I ............................................. 1
MUSC 218 Woodwind Instruments Class II ............................................ 1
MUSC 219 Percussion Instruments ........................................................ 1

Music Methods
MUSC 335 Basic Conducting ................................................................. 2
MUSC 337 Instrumental Conducting ....................................................... 2
MUSC 379 Music in the Elementary and Junior High, (Middle) School ...... 3
MUSC 479 Secondary Music Materials and Approaches ....................... 3

Music Electives
Six music electives excluding ensemble and private study on primary instrument.

Professional Studies
Education
EDST 201 Education and Society .......................................................... 3
EDST 294 Educational Psychology — Social Aspects .............................. 3
EDST 305 Educational Psychology — Cognitive Aspects ....................... 3
EDDV 400 Student Teaching ................................................................. 9

CREDITS TO TOTAL A MINIMUM OF 126

DEGREE: BACHELOR OF MUSIC
MAJOR: MUSIC EDUCATION—GENERAL/CHORAL CONCENTRATION: PIANO

CURRICULUM CREDITS*

UNIVERSITY REQUIREMENTS
ENGL 110 Critical Reading and Writing ................................................. 3
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #

COLLEGE REQUIREMENTS

Skill Requirements
Writing: **
A second writing course involving significant writing experience including two papers with a combined minimum of 5,000 words to be submitted for extended faculty critique of both composition and content. This course must be taken after completion of 62 credit hours. Appropriate writing courses are normally designated in the semester's Registration Booklet. (See list of courses approved for second writing requirement, page 83.)

Mathematics:
MATH 114 Elementary Mathematics and Statistics ................................. 3
(designed for students who do not intend to continue the study of mathematics)

*Superior figures indicate year or years in which the course is normally taken, i.e. 1freshman year, 2sophomore year, etc.
#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 26
**A course may be applied toward both the major requirements and a breadth requirement, but credits are counted only once toward the total credits for graduation.
***A minimum grade of "C-" is required
MATH 115 Pre-Calculus (designed for students who intend to continue the study of mathematics) 3

or

One of the following:
MATH 221 Calculus I 3
MATH 241 Analytic Geometry and Calculus A 4

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 84)
Art or Art History course, to be selected from Group A or B 3–4

Group A
Understanding and appreciation of the creative arts and humanities. Nine credits representing at least two areas. (This requirement is partially satisfied by MUSC 195 and 196.) 9

Group B
The study of culture and institutions over time. (MUSC 311, 312, and 313 count toward completion of this requirement.) 9

Group C
Empirically based study of human beings and their environment. Nine credits representing at least two areas. 9

Group D
The study of natural phenomena through experiment and analysis. One science course with an associated laboratory. 4

MAJOR REQUIREMENTS
Within the Department

Applied Music
MUSC 100 Recital Attendance (six semesters required) 6
MUSC 161 Private Study 2
MUSC 162 Private Study 2
MUSC 261 Private Study 2
MUSC 262 Private Study 2
MUSC 361 Private Study 2
MUSC 362 Private Study 2
MUSC 461 Private Study 2
MUSC 174 Class Voice: Beginning 1
MUSC 274 Class Voice: Advanced 1
MUSC 480 Vocal Pedagogy 3
MUSC 171 Diction: English and Italian 1
MUSC 271 Diction: German 1
MUSC 272 Diction: French 1
MUSC 301 Junior Recital 1

Theory
MUSC 185 Ear Training and Sight Singing I 2
MUSC 186 Ear Training and Sight Singing II 2
MUSC 285 Advanced Ear Training and Sight Singing I 2
MUSC 286 Advanced Ear Training and Sight Singing II 2
MUSC 195 Harmony I 3
MUSC 196 Harmony II 3
MUSC 295 Advanced Harmony I 3
MUSC 296 Advanced Harmony II 3
MUSC 305 Contemporary Harmony 3

Ensemble
MUSC 109 Choral Union 7

Literature
MUSC 111 Introduction to Music History 3
MUSC 311 Music History: 1450-1750 3
MUSC 312 Music History: 1715-1825 3
MUSC 313 Music History: 1825 to the Present 3
MUSC 328 Choral Literature 3

Secondary Instruments
MUSC 214 Stringed Instruments Class 1
MUSC 215 High Brass Instruments Class 1
MUSC 217 Woodwind Instruments Class I 1

Music Methods
MUSC 335 Basic Conducting 2
MUSC 379 Music in the Elementary and Junior High (or Middle) School 3

Music Electives
Three credits of music electives excluding ensemble and private study on primary instrument (MUSC 407 recommended) 3

Professional Studies
Education
EDST 201 Education and Society 3
EDST 304 Educational Psychology — Social Aspects 3
EDST 305 Educational Psychology — Cognitive Aspects 3

Breadth Requirements!
(See page 84)
Art or Art History course, to be selected from Group A or B, nine credits representing at least two areas, (This requirement is partially satisfied by MUSC 195 and 196.)

Group A
Understanding and appreciation of the creative arts and humanities. Nine credits representing at least two areas.

Group B
The study of culture and institutions over time.

Group C
Empirically based study of human beings and their environment. Nine credits representing at least two areas.

Group D
The study of natural phenomena through experiment and analysis. One science course with an associated laboratory.

Skill Requirements
Writing: A second writing course involving significant writing experience including two papers with a combined minimum of 3,000 words to be submitted for extended faculty critique of both composition and content. This course must be taken after completion of 62 credit hours. Appropriate writing courses are normally designated in the semester's Registration Booklet. (See list of courses approved for second writing requirement, page 83.)

Mathematics:
MATH 114 Elementary Mathematics and Statistics 3
(Mathematics: designed for students who do not intend to continue the study of mathematics)

MATH 115 Pre-Calculus 3 (designated for students who intend to continue the study of mathematics)

One of the following:
MATH 221 Calculus I 3
MATH 241 Analytic Geometry and Calculus A 4

Successful performance on the college proficiency exam.

*Superior figures indicate year or years in which the course is normally taken, i.e., freshman year, sophomore year, etc.
†A course may be applied toward both the major requirements and a breadth requirement, but credits are counted only once toward the total credits for graduation.
†A minimum grade of "C-" is required.

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MUSIC • COLLEGE OF ARTS AND SCIENCE

Breadth Requirements? (See page 84)

Art or Art History course, to be selected from Group A or B ........................................... 3

Group A

Understanding and appreciation of the creative arts and humanities. Nine credits representing at least two areas. (This requirement is partially satisfied by MUSC 195 and 196.)

Group B

The study of culture and institutions over time. (MUSC 311, 312, and 313 count toward completion of this requirement.)

Group C

Empirically based study of human beings and their environment. Nine credits representing at least two areas.

Group D

The study of natural phenomena through experiment and analysis. One science course with an associated laboratory.

MAJOR REQUIREMENTS

Within the Department

Applied Music

MUSC 100 Recital Attendance (six semesters required) ............................................................. 0

MUSC 161 Private Study ............................................................................................................... 2

MUSC 261 Private Study ............................................................................................................... 2

MUSC 361 Private Study ............................................................................................................... 2

MUSC 362 Private Study ............................................................................................................... 2

MUSC 461 Private Study ............................................................................................................... 2

MUSC 175 Class Piano: Elementary I ......................................................................................... 1

MUSC 176 Class Piano: Elementary II ......................................................................................... 1

MUSC 275 Class Piano: Intermediate I ......................................................................................... 1

MUSC 276 Class Piano: Intermediate II ......................................................................................... 1

MUSC 171 Diction: English and Italian ....................................................................................... 1

MUSC 271 Diction: German .......................................................................................................... 1

MUSC 272 Diction: French ........................................................................................................... 1

MUSC 480 Vocal Pedagogy .......................................................................................................... 1

MUSC 301 Junior Recital ............................................................................................................ 0

Theory

MUSC 185 Ear Training and Sight Singing I ............................................................................... 1

MUSC 186 Ear Training and Sight Singing II ............................................................................. 1

MUSC 285 Advanced Ear Training and Sight Singing I .............................................................. 1

MUSC 286 Advanced Ear Training and Sight Singing II ............................................................ 1

MUSC 195 Harmony I ................................................................................................................. 1

MUSC 196 Harmony II ................................................................................................................ 1

MUSC 295 Advanced Harmony I ................................................................................................ 1

MUSC 296 Advanced Harmony II .............................................................................................. 1

MUSC 397 Contemporary Harmony .......................................................................................... 1

Ensemble

MUSC 109 Choral Union ........................................................................................................... 7

Literature

MUSC 111 Introduction to Music History .................................................................................... 3

MUSC 311 Music History: 1450-1750 ....................................................................................... 3

MUSC 312 Music History: 1715-1825 ....................................................................................... 3

MUSC 313 Music History: 1825 to the Present .............................................................................. 3

MUSC 328 Choral Literature ...................................................................................................... 3

Secondary Instruments

MUSC 214 Stringed Instruments Class ......................................................................................... 1

MUSC 215 High Brass Instruments Class .................................................................................... 1

MUSC 217 Woodwind Instruments Class ..................................................................................... 1

Music Methods

MUSC 335 Basic Conducting ....................................................................................................... 3

MUED 279 Practicum in Music Education .................................................................................. 3

MUED 336 Choral Conducting .................................................................................................... 3

MUED 379 Music in the Elementary and Junior High (or Middle) School .................................................. 3

MUED 479 Secondary Music Materials and Approaches ............................................................. 3

Music Electives

Three credits of music electives excluding ensemble and private study on primary instrument. (MUSC 407 recommended)

Professional Studies

Education

EDST 291 Education and Society ................................................................................................ 3

EDST 304 Educational Psychology – Social Aspects ................................................................. 3

EDST 305 Educational Psychology – Cognitive Aspects ............................................................ 3

EDDV 400 Student Teaching ....................................................................................................... 3

CREDITS TO TOTAL A MINIMUM OF 130

DEGREE: BACHELOR OF MUSIC

MAJOR: THEORY/COMPOSITION

CONCENTRATIONS: THEORY/COMPOSITION

CURRICULUM CREDITS*

UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing ...................................................................................... 3

Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #

COLLEGE REQUIREMENTS

Skill Requirements

Writing: ††

A second writing course involving significant writing experience including two papers with a combined minimum of 3,000 words to be submitted for extended faculty critique of both composition and content. This course must be taken after completion of 62 credit hours. Appropriate writing courses are normally designated in the semester’s Registration Booklet. (See list of courses approved for second writing requirement, page 85.)

Mathematics:

MATH 114 Elementary Mathematics and Statistics ................................................................. 3

(designated for students who do not intend to continue the study of mathematics)

or

MATH 115 Pre-Calculus ............................................................................................................. 3

(designated for students who intend to continue the study of mathematics)

or

One of the following:

MATH 221 Calculus I .................................................................................................................. 3

MATH 241 Analytic Geometry and Calculus A ......................................................................... 4

or

Successful performance on the college proficiency exam.

Modern Languages

Twelve credits in one of the following: French, German ......................................................... 12

or Italian

HIST 101 Western Civilization to 1648 .................................................................................... 3

or

HIST 102 Western Civilization to the Present ........................................................................... 5

*Superior figures indicate year or years in which the course is normally taken, i.e., 1-freshman year, 2-sophomore year, etc.
†This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 26.
‡A course may be applied toward both the major requirements and a breadth requirement, but credits are counted only once toward the total credits for graduation.
††A minimum grade of "C-" is required.
**Breadth Requirements** (See page 84)

Two 200-level or higher English literature courses selected from Group A or B

**Group A**

Understanding and appreciation of the creative arts and humanities. (This requirement is satisfied by MUSC 195 and 196.)

**Group B**

The study of culture and institutions over time. Fifteen credits representing at least two areas. (This requirement is satisfied by MUSC 311, 312, 313, HIST 101, and 102.)

**Group C**

Empirically based study of human beings and their environment. Nine credits representing at least two areas

**Group D**

The study of natural phenomena through experiment and analysis. Nine credits in at least two areas.

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**MAJOR REQUIREMENTS**

Within the Department

**Applied Music**

- MUSC 100 Recital Attendance (six semesters required)
- MUSC 175 Class Piano: Elementary I
- MUSC 176 Class Piano: Elementary II
- MUSC 321 Stringed Instruments Class
- MUSC 325 Music Technology

**Theory**

- MUSC 185 Ear Training and Sight Singing I
- MUSC 186 Ear Training and Sight Singing II
- MUSC 195 Harmony I
- MUSC 196 Harmony II
- MUSC 295 Advanced Harmony I
- MUSC 296 Advanced Harmony II
- MUSC 287 Music Technology
- MUSC 331 Orchestration
- MUSC 392 Contrapuntal Writing
- MUSC 393 Keyboard Harmony I
- MUSC 394 Keyboard Harmony II
- MUSC 395 Form Analysis
- MUSC 397 Contemporary Harmony

**Theory Concentration**

- MUSC 485 Pedagogy of Theory
- MUSC 420 Advanced Composition
- MUSC 420 Advanced Composition

**Composition Concentration**

- MUSC 485 Pedagogy of Theory
- MUSC 420 Advanced Composition

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**MUSIC MINOR: APPLIED MUSIC-PRINCIPAL INSTRUMENT**

The Applied Music minor is for nonmusic majors with some musical background who wish to continue their musical training on a more formal basis or music majors who wish to receive formal training on an additional instrument. Places in the minor program are dependent upon the total load of the applied faculty member involved. Admission into the Applied Music minor is determined by audition and musicality testing. The requirements are:

**Credits**

| Class Piano* MUSC 175 | 1 |
| Applied Music** MUSC 161, 162, 261, 262 | 8 |
| Ensemble | 4 |
| Theory/Composition | 5 |
| MUSC 185 and 195 | |
| Music Literature/History | 3 |
| (MUSC 101 and 102 do not fulfill this requirement) | |
| Any other music history course will do | |

**Total Credits**

**21**

(For Piano minors 20)

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**MUSIC MINOR: JAZZ STUDIES**

The Music Minor in Jazz Studies offers a concentrated study of the history, theory, and performance elements of the field of jazz. It is directed towards two groups of students: (1) The non-music major who desires a focused study of jazz and its performance techniques; (2) Music Majors who wish to round out their education in music with a structured study of jazz. For this group, the Minor is an important component in a comprehensive education in Music. The requirements are:

**Credits**

| Jazz Styles/Tech MUSC 181 and 281 | 4 |
| Ensemble MUSC 116 (four semesters), MUSC 321 | 5 |

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*Not required of persons minoring in Applied Music—Piano.

†A course may be applied toward both the major requirements and a breadth requirement, but credits are counted only once toward the total credits for graduation.

**Lessons will be 1/2 hour per week and will include a repertory class.

††Ensemble and private study must be taken concurrently (See Ensemble Policy in the Department of Music Student Handbook) Music Minors with principal instrument of piano, organ or guitar must refer to the Department for required ensembles.

†‡This title represents 39 applied music minors, the actual titles of which include the name of the instrument of study (e.g. Applied Music—Bassoon). A list of applied music minors can be found in the chart on page viii in the front of this catalog, or can be obtained from the Department or the College of Arts and Science Advisement Center.
MUSC 313 Music History: 1825 to Present

MUSC History/Literature Elective (MUSC 101 and 102 do not fulfill this requirement. Any other music history course will do.)

MUSC Theory Elective (MUSC 186, 196, 197, 287, 385) 2-3

Total Credits 18-19

MUSIC MINOR: MUSICAL STUDIES

The Musical Studies minor is for nonmusic majors who wish to increase their knowledge and understanding of the history and theory of music. No audition is required for admission into the Musical Studies minor. The requirements are:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 185</td>
<td>Ear Training and Sight Singing I</td>
<td>2</td>
</tr>
<tr>
<td>MUSC 195</td>
<td>Harmony I</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 311</td>
<td>Music History: 1450-1750</td>
<td>3</td>
</tr>
<tr>
<td>MUSC 312</td>
<td>Music History: 1715-1825</td>
<td></td>
</tr>
<tr>
<td>or MUSC 313</td>
<td>Music History: 1825 to Present</td>
<td>2</td>
</tr>
<tr>
<td>MUSC Ensemble</td>
<td></td>
<td></td>
</tr>
<tr>
<td>or MUSC History/Literature Elective (MUSC 101 and 102 do not fulfill this requirement. Any other music history course will do.)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MUSC Theory Elective (MUSC 186, 196, 197, 287, 385)</td>
<td>2-3</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 21

PHILOSOPHY

Philosophy provides training in basic methods of reasoning, both clear thinking procedures for everyday decision making and more formal techniques of logical analysis. It examines fundamental issues and ideas about our knowledge and values. It furnishes a critical perspective on the methods and results of other disciplines.

A major, a minor, or a concentration in philosophy is a useful background for many careers including the teaching of philosophy. Majors often go on to graduate work in other arts and science disciplines, as well as to further schooling in law, theology, education, data processing, or business. In general, philosophy offers all students opportunities to develop their critical and analytical skills.

DEGREE: BACHELOR OF ARTS

MAJOR: PHILOSOPHY

CURRICULUM

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 203</td>
<td>Ethics</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 301</td>
<td>Ancient Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 303</td>
<td>Modern Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 465</td>
<td>Philosophical Topics</td>
<td>3</td>
</tr>
</tbody>
</table>

Fifteen additional Philosophy credits at least six of which must be at the 300 level or above. Must include one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 302</td>
<td>Medieval Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 304</td>
<td>Nineteenth Century Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 305</td>
<td>Twentieth Century Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 317</td>
<td>American Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 320</td>
<td>Experience, Knowledge and Reality</td>
<td>3</td>
</tr>
</tbody>
</table>

Within the College

Six of the hours in the student’s program must consist of multicultural courses, selected in consultation with the advisor, from suitable courses in Philosophy, Black-American Studies, Women’s Studies, Jewish Studies, or Oriental, Latin-American or African Studies. The six hours may include courses in Philosophy which count toward completing the major requirement.

ELECTIVES

Electives

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF 124

REQUIREMENTS FOR A MINOR IN PHILOSOPHY

A minor in philosophy requires a minimum of 15 credits, consisting of PHIL 105 or 205; PHIL 203; PHIL 301 or PHIL 303; an additional 300-level PHIL course; and a PHIL elective.

The American Philosophical Association’s national headquarters is on the Delaware campus.

PHYSICAL THERAPY

Prephysical therapy (undergraduate) students are admitted to the University as “physical therapy interest” and follow a program of study leading to a baccalaureate degree with a major in one of the traditional disciplines (e.g., biological sciences, psychology, or other choices). Students receive academic advice by staff members in the advisement office in their major department. They receive career counseling from faculty in the Physical Therapy Program. Upon graduation from their undergraduate program, students will have the necessary course work that will allow them to compete for admission to graduate programs throughout the United States, including the University of Delaware.

*Superior figures indicate year or years in which the course is normally taken, i.e., 1freshman year, 2 sophomore year, etc.
PHYSICS AND ASTRONOMY

The Department of Physics and Astronomy maintains a balanced program of instruction at all levels from elementary physics through the doctoral degree, for students who wish to acquire some understanding of physics as part of their cultural background as well as for those who require training in physics in preparation for engineering or scientific careers. Intermediate and advanced courses are offered for students who plan teaching or research careers in physics or related disciplines. The research activity of the staff of the Physics and Astronomy Department and of the staff of the Bartol Research Institute, which is affiliated with the University of Delaware and housed in Sharp Laboratory, is diverse and substantial.

DEGREE: BACHELOR OF ARTS
MAJOR: PHYSICS

CURRICULUM

See page 82 for University and College requirements. Note: MATH 341 Analytical Geometry and Calculus A satisfies the Mathematics Skills College requirement and is strongly recommended as the first math course for physics majors, unless the placement exam suggests differently.

MAJOR REQUIREMENTS

Within the Department§

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 207</td>
<td>General Physics (strongly recommended)</td>
<td>4 ½</td>
</tr>
<tr>
<td>or</td>
<td>PHYS 201</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 208</td>
<td>General Physics (strongly recommended)</td>
<td>4 ½</td>
</tr>
<tr>
<td>or</td>
<td>PHYS 202</td>
<td>4</td>
</tr>
</tbody>
</table>

Twenty-two credits in Physics, of which fifteen must be at the 300 level or higher.

Within the College

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 241</td>
<td>Analytic Geometry and Calculus A (recommended)</td>
<td>4 ½</td>
</tr>
<tr>
<td>MATH 242</td>
<td>Analytic Geometry and Calculus B</td>
<td>4 ½</td>
</tr>
<tr>
<td>MATH 243</td>
<td>Analytic Geometry and Calculus C</td>
<td>4 ½</td>
</tr>
<tr>
<td>or</td>
<td>MATH 221 Calculus I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 222</td>
<td>Calculus II</td>
<td>3</td>
</tr>
</tbody>
</table>

ELECTIVES

Electives

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF 124

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DEGREE: BACHELOR OF SCIENCE
MAJOR: PHYSICS

CURRICULUM

UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing ........................................ 3 1

Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #

COLLEGE REQUIREMENTS

Skill Requirements

Writing  ††  3 3 4

A second writing course involving significant writing experience including two papers with a combined minimum of 3,000 words to be submitted for extended faculty critique of both composition and content. This course must be taken after completion of 62 credit hours. Appropriate writing courses are normally designated in the semester's Registration Booklet. (See list of courses approved for second writing requirement, page 83.)

Foreign Language: 0-12 3 4

Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Breadth Requirements†‡ (See page 84)

A total of twenty-one credits from Groups A, B and C is required with a minimum of six credits in each group. The six credits from each group could be from the same area.

Group A

Understanding and appreciation of the creative arts and humanities.

Group B

The study of culture and institutions over time.

Group C

Empirically based study of human beings and their environment.

MAJOR REQUIREMENTS

Within the Department§

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 207</td>
<td>General Physics</td>
<td>4 ½</td>
</tr>
<tr>
<td>PHYS 208</td>
<td>General Physics</td>
<td>4 ½</td>
</tr>
<tr>
<td>PHYS 209</td>
<td>General Physics</td>
<td>3 ½</td>
</tr>
<tr>
<td>PHYS 313</td>
<td>Physical Optics</td>
<td>4 ½</td>
</tr>
<tr>
<td>PHYS 419</td>
<td>Analytical Mechanics</td>
<td>3 ½</td>
</tr>
<tr>
<td>PHYS 603</td>
<td>Electricity and Magnetism</td>
<td>3 ½</td>
</tr>
<tr>
<td>PHYS 604</td>
<td>Electricity and Magnetism</td>
<td>3 ½</td>
</tr>
<tr>
<td>PHYS 616</td>
<td>Kinetic Theory and Thermodynamics</td>
<td>3 ½</td>
</tr>
<tr>
<td>PHYS 617</td>
<td>Atomic and Nuclear Physics Laboratory</td>
<td>3 ½</td>
</tr>
<tr>
<td>PHYS 618</td>
<td>Atomic and Nuclear Physics Laboratory</td>
<td>3 ½</td>
</tr>
<tr>
<td>PHYS 620</td>
<td>Analytical Mechanics</td>
<td>3 ½</td>
</tr>
<tr>
<td>PHYS 621</td>
<td>Introduction to Modern Physics</td>
<td>3 ½</td>
</tr>
<tr>
<td>PHYS 622</td>
<td>Introduction to Modern Physics</td>
<td>3 ½</td>
</tr>
<tr>
<td>PHYS 645</td>
<td>Electronics for Scientists</td>
<td>3 ½</td>
</tr>
<tr>
<td>PHYS 646</td>
<td>Instrumentation for Scientists</td>
<td>3 ½</td>
</tr>
</tbody>
</table>

Within the College

Mathematics:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 241</td>
<td>Analytic Geometry and Calculus A</td>
<td>4 ½</td>
</tr>
</tbody>
</table>

---

#Superior figures indicate year or years in which the course is normally taken, i.e., 1 freshman year, 2 sophomore year, etc.

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 26.

†A course may be applied toward both the major requirements and a breadth requirement, but credits are counted only once toward the total credits for graduation.

§Ordinarily, no more than four credits from among PHYS 101, 201, and 207 may be counted toward graduation requirements; similarly no more than four from among PHYS 102, 202, 208. Students interested in majoring in Physics who have taken an introductory sequence other than PHYS 207-8 should consult with a member of the Physics faculty to consider the need for additional introductory courses, for which some additional credit toward graduation may be given with permission of the Physics Chair.

††A minimum grade of "C" is required.
MATH 242 Analytic Geometry and Calculus B ........................................... 4\,1\,2
MATH 243 Analytic Geometry and Calculus C ........................................... 4\,3
MATH 302 Ordinary Differential Equations .............................................. 3\,4
MATH 503 Advanced Calculus for Applications ........................................... 3
One of the following four courses:
MATH 349 Elements of Linear Systems ..................................................... 3
MATH 508 Introduction to Complex Variables and Application ......................... 3\,4
MATH 514 Topics in Advanced Mathematics for Engineers ............................ 3
MATH 521 Fourier Series and Orthogonal Polynomials .................................... 3

Natural Science
CHEM 103 General Chemistry ................................................................. 4\,1\,3
CHEM 104 General Chemistry ................................................................. 4\,1\,3

ELECTIVES
Electives
After required courses are completed, sufficient elective credits
must be taken to meet the minimum credit requirement for
the degree.

CREDITS TO TOTAL A MINIMUM OF ......................................................... 130

DEGREE: BACHELOR OF SCIENCE
MAJOR: PHYSICS
CONCENTRATION: ASTRONOMY

CREDITS+

UNIVERSITY REQUIREMENTS
ENGL 110 Critical Reading and Writing .................................................... 3\,1
Three credits in an approved course or courses stressing
multicultural, ethnic, and/or gender-related content

COLLEGE REQUIREMENTS

Skill Requirements
Writing: †† ........................................................................................................ 3\,3\,4
A second writing course involving significant writing experience
including two papers with a combined minimum of 5,000 words
to be submitted for extended faculty critique of both composition
and content. This course must be taken after completion of
62 credit hours. Appropriate writing courses are normally design-
ated in the semester’s Registration Booklet. (See list of courses
approved for second writing requirement, page 83.)

Foreign Language ....................................................................................... 0-12\,1\,4
Completion of the intermediate-level course (107 or 112) in a
given language. Students with four or more years of high school
work in a single foreign language may attempt to fulfill the require-
ment in that language by taking an exemption examination.

Breadth Requirements† (See page 84)
A total of twenty-one credits from Groups A, B and C is ......................... 21\,1\,4
required with a minimum of six credits in each group. The six
credits from each group could be from the same area

Group A
Understanding and appreciation of the creative arts and
humanities.

Group B
The study of culture and institutions over time

Group C
Empirically based study of human beings and their
environment.

MAJOR REQUIREMENTS

Within the Department

PHYS 207 General Physics ................................................................. 4\,1
PHYS 208 General Physics ................................................................. 4\,1\,2
PHYS 209 General Physics ................................................................. 4\,3
PHYS 313 Physical Optics ................................................................. 4\,3
PHYS 419 Analytical Mechanics ......................................................... 3\,3
PHYS 620 Analytical Mechanics ......................................................... 3\,3
PHYS 629 Instrumentation for Scientists .............................................. 3\,3
PHYS 630 Electricity and Magnetism .................................................... 3\,3

or
PHYS 645 Electronics for Scientists ..................................................... 3\,3
PHYS 646 Instrumentation for Scientists .............................................. 3\,3
PHYS 647 Introduction to Modern Physics ............................................ 3\,3
PHYS 648 Introduction to Modern Physics ............................................ 3\,3
PHYS 649 Kinetic Theory and Thermodynamics .................................... 3\,3
PHYS 650 Introduction to Astronomy ................................................... 3\,3
PHYS 651 Introduction to Research ...................................................... 3\,3
Six credits of Astronomy courses above the 200 level ....................... 6\,1\,3
Two credits of Physics or Mathematics electives above the
200 level.

Within the College

Mathematics

MATH 241 Analytic Geometry and Calculus A ....................................... 4\,1
MATH 242 Analytic Geometry and Calculus B ....................................... 4\,1\,2
MATH 243 Analytic Geometry and Calculus C ....................................... 4\,3
MATH 302 Ordinary Differential Equations ............................................ 3\,4
MATH 503 Advanced Calculus for Applications ..................................... 3\,3

ELECTIVES
Electives
After required courses are completed, sufficient elective credits
must be taken to meet the minimum credit requirement for
the degree.

CREDITS TO TOTAL A MINIMUM OF ......................................................... 130

DEGREE: BACHELOR OF SCIENCE
MAJOR: PHYSICS
CONCENTRATION: CHEMICAL PHYSICS

CREDITS+

UNIVERSITY REQUIREMENTS
ENGL 110 Critical Reading and Writing .................................................... 3\,1
Three credits in an approved course or courses stressing
multicultural, ethnic, and/or gender-related content

*Superior figures indicate year or years in which the course is normally taken, i.e., 1freshman year, 2sophomore year, etc.
This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 26.
†A course may be applied toward both the major requirements and a breadth requirement, but credits are counted only once toward the total credits for graduation.
§Ordinarily, no more than four credits from among PHYS 101, 201, and 207 may be counted toward graduation requirements; similarly no more than four from
among PHYS 102, 202, 208. Students interested in majoring in Physics who have taken an introductory sequence other than PHYS 207-8 should consult with a
member of the Physics faculty to consider the need for additional introductory courses, for which some additional credit toward graduation may be given with
permission of the Physics chair.
††A minimum grade of "C-" is required.
**COLLEGE REQUIREMENTS**

**Skill Requirements**

<table>
<thead>
<tr>
<th>Writing: ††</th>
</tr>
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<tbody>
<tr>
<td>A second writing course involving significant writing experience including two papers with a combined minimum of 3,000 words to be submitted for extended faculty critique of both composition and content. This course must be taken after completion of 62 credit hours. Appropriate writing courses are normally designated in the semester’s Registration Booklet. (See list of courses approved for second writing requirement, page 83.)</td>
</tr>
</tbody>
</table>

**Breadth Requirements† (See page 84)**

A total of twenty-one credits from Groups A, B, and C is required with a minimum of six credits in each group. The six credits from each group could be from the same area.

- **Group A**
  - Understanding and appreciation of the creative arts and humanities.

- **Group B**
  - The study of culture and institutions over time.

- **Group C**
  - Empirically based study of human beings and their environment.

**MAJOR REQUIREMENTS**

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<th>Within the Department§</th>
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<tr>
<td>PHYS 620 Analytical Mechanics</td>
</tr>
<tr>
<td>PHYS 603 Electricity and Magnetism</td>
</tr>
<tr>
<td>PHYS 645 Electronics for Scientists</td>
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<td>PHYS 621 Introduction to Modern Physics</td>
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<tr>
<td>PHYS 622 Introduction to Modern Physics</td>
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</tbody>
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<tr>
<th>Natural Science</th>
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<tbody>
<tr>
<td>CHEM 103 General Chemistry</td>
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<td>CHEM 104 General Chemistry</td>
</tr>
<tr>
<td>CHEM 321 Organic Chemistry</td>
</tr>
<tr>
<td>CHEM 457 Inorganic Chemistry</td>
</tr>
</tbody>
</table>

**ELECTIVES**

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<tr>
<th>Electives</th>
</tr>
</thead>
<tbody>
<tr>
<td>After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.</td>
</tr>
</tbody>
</table>

**CREDITS TO TOTAL A MINIMUM OF**

| 130 |

**DEGREE: BACHELOR OF SCIENCE**

<table>
<thead>
<tr>
<th>MAJOR: PHYSICS</th>
</tr>
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</table>

**CONCENTRATION: APPLIED PHYSICS**

<table>
<thead>
<tr>
<th>CURRICULUM</th>
</tr>
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</table>

<table>
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<th>UNIVERSITY REQUIREMENTS</th>
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**Breadth Requirements† (See page 84)**

A total of twenty-one credits from Groups A, B, and C is required with a minimum of six credits in each group. The six credits from each group could be from the same area.

- **Group A**
  - Understanding and appreciation of the creative arts and humanities.

- **Group B**
  - The study of culture and institutions over time.

- **Group C**
  - Empirically based study of human beings and their environment.

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* Superior figures indicate year or years in which the course is normally taken, i.e., 1-freshman year, 2-sophomore year, etc.

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 26

†A course may be applied toward both the major requirements and a breadth requirement, but credits are counted only once toward the total credits for graduation.

§Ordinarily, no more than four credits from among PHYS 101, 201, and 207 may be counted toward graduation requirements; similarly no more than four from among PHYS 208, 209, and 207.

Students interested in majoring in Physics who have taken an introductory sequence other than PHYS 207-8 should consult with a member of the Physics faculty to consider the need for additional introductory courses, for which some additional credit toward graduation may be given with permission of the Physics chair.

††A minimum grade of "C" is required.
Professional Studies
EDST 201 Education and Society 3^1,4
EDST 304 Educational Psychology - Social Aspects 3^1,4
EDST 305 Educational Psychology - Cognitive Aspects 3^1,4
SCEN 491 Teaching Science in Secondary Schools 3^1,4
EDST 420 Reading in the Content Areas 1^1,4
EDDV 400 Student Teaching 9^4

CREDITS TO TOTAL A MINIMUM OF 124

BACHELOR OF SCIENCE DEGREE IN GEOPHYSICS
The Geology Department, jointly with the Physics Department, offers a B.S. degree in geophysics. Geophysics involves the use of seismic, gravity, magnetic, and electrical methods to study the structure and tectonic evolution of the earth. Geophysicists may perform such diverse tasks as using ground penetrating radar to detect the presence of buried hazardous wastes to modeling seismic waves to determine the nature of the earth’s core-mantle boundary. The geophysics program is designed to produce students well-grounded in both geology and physics, but specifically trained in geophysical principles and techniques.

REQUIREMENTS FOR A MINOR IN PHYSICS
Students in other departments can receive credit for work in physics by means of a physics minor; consisting of PHYS 207-208 plus 9 credits from PHYS courses at or above the 300 level. Students considering minoring in physics should consult the physics associate chair for advice or prerequisites for these courses and for assignment to an adviser.

POLITICAL SCIENCE
A major in political science provides liberal arts students with opportunities to acquire a broad education that will equip them to adapt to a wide variety of careers. The program for majors is designed to encourage the student to analyze the theories, institutions, and processes of political systems in the context provided by the social sciences; to stimulate the student to attain a grasp of the broad sweep of political science as a discipline; to develop a continuing and responsible interest in political activity and public affairs; to provide the student with the opportunity to acquire a fundamental understanding of political science as a basis for citizenship, a career in government, business, journalism, law, or professional study or service; and to stimulate the qualified student’s interest in graduate study in political science.

*Superior figures indicate year or years in which the course is normally taken, i.e., 1^freshman year, 2^sophomore year, etc.
Students changing their major to political science must have completed POSC 105 with a grade of C or better and completed at least 12 additional hours of University courses. Students must have a minimum of a 2.3 average to change their major to political science. Students transferring into the major from outside the University of Delaware will have their transcripts evaluated by the Department on a case-by-case basis.

The department maintains an advisory program for prelaw students and for students interested in government service.

Except as otherwise indicated, nonmajors may enroll in any political science course with consent of the instructor and without prerequisites.

DEGREE: BACHELOR OF ARTS
MAJOR: POLITICAL SCIENCE

CURRICULUM

See page 82 for University and College requirements.

MAJOR REQUIREMENTS

Within the Department

POSC 105 The American Political System 31.44

Eighteen credits distributed as follows: 18.1.4

Nine credits from courses at the 400 level; nine credits from courses at the 300 or 400 level.

A student must take at least one course numbered at the 300 or 400 level in four of the five fields listed below:

a. American Government and Politics
b. Comparative Government and Politics
c. International Relations
d. Public Administration and Public Policy
e. Political Theory

Political Science courses including POSC 302 Research Methods (Recommended), POSC 464 Fieldwork in Political Science (Internship) 9.1.4

No more than three courses at the 200 level can be counted toward the thirty credits required for completion of the major.

ELECTIVES

Electives

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF 124

DEGREE: BACHELOR OF ARTS
MAJOR: FRENCH, GERMAN, OR SPANISH/ POLITICAL SCIENCE

CURRICULUM

See page 82 for University and College requirements.

MAJOR REQUIREMENTS†

Within the Department of Political Science and International Relations

POSC 105 The American Political System 3

(Other required intro courses) 3

POSC 240 Introduction to International Relations 3

POSC 270 Comparative Politics 3

POSC 310 European Governments 3

POSC 441 Problems of Western European Politics by Country 3

or

POSC 442 Problems of Western European Politics 3

3 additional courses at the 300 or 400 level with a least 2 at the 400 level and at least 2 in the area of International Relations 9

Within the Department of Foreign Languages and Literatures

In addition to completing the courses listed below, students are required to participate in a semester abroad program sponsored by the Department of Foreign Languages and Literatures.

*Superior figures indicate year or years in which the course is normally taken, i.e., 1freshman year, 2sophomore year, etc.
†French, German or Spanish/Political Science majors must complete all designated courses and any prerequisite courses (e.g. for admission to the 200-level language courses) with no grade below a C.
Field requirements: Three courses numbered 300 or above are required. Two of these courses must be at the 400 level in two of the five fields of political science, as indicated under requirements for the major. Students are required to take one additional political science course.

REQUIREMENTS FOR A MINOR IN PUBLIC ADMINISTRATION

The required 18 credits for this minor are distributed as follows:

Lower-division course: POSC 105, 302, 303.

Field requirements: Any two of three courses numbered 400 or above in Organization Theory, Public Personnel Administration, and Public Financial Management are required. Students are also required to take one additional course from a list of nine political science electives.

PSYCHOLOGY

Psychology is a biological, behavioral, social, and applied science, whose theories are integral to an understanding of ourselves and our place in the world.

The Department of Psychology provides students with an understanding of the principles of behavior, of the scientific methods used to derive and add to those principles, and of appropriate ways in which to apply such knowledge. Experimental psychology seeks to isolate in the laboratory the basic processes involved in neural systems, learning, perception, social behavior, personality development, thinking, etc. Applied psychology focuses on methods used to approach problems in settings such as industry, government, and the general community, as well as in the field of mental health. The many aspects of theoretical, experimental and applied psychology are represented in the introductory and 300-level courses, and more advanced courses enable students to pursue special interests in greater depth. Many courses offer experience in laboratory or field research. Laboratory experiences include the study of cognitive, learning, perceptual, physiological, and social processes, and the investigation of clinically interesting phenomena. Facilities are also available, both on campus and at nearby institutions, for computer modeling of psychological processes and for data analysis.

REQUIREMENTS FOR A MINOR IN POLITICAL SCIENCE

The required 15 credits for a minor are distributed as follows:

Lower-division courses: POSC 105.
In addition to a B.A. degree with a major in psychology, an interdisciplinary major between psychology and biology with an emphasis on neuroscience is also available. Students first learn the fundamentals of biology and psychology and then concentrate on courses that examine the structure and function of the nervous system and its relationship to behavior. Detailed instructions regarding an interdisciplinary major are available from the Department or the Arts and Science Advisement Center and Dean's Office.

DEGREE: BACHELOR OF ARTS
MAJOR: PSYCHOLOGY

CURRICULUM

See page 82 for University and College requirements.

MAJOR REQUIREMENTS

Within the Department

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 201</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 309</td>
<td>Measurement and Statistics</td>
<td>3.1-2</td>
</tr>
<tr>
<td>PSYC 415</td>
<td>History and Systems of Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

One of the following four courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 301</td>
<td>Personality</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 303</td>
<td>Introduction to Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 325</td>
<td>Child Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 334</td>
<td>Abnormal Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

One of the following four courses:

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<tr>
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<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 350</td>
<td>Developmental Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 370</td>
<td>Research in Personality</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 380</td>
<td>Psychopathology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 390</td>
<td>Social Psychology</td>
<td>3</td>
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Two of the following four courses:

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<tr>
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</thead>
<tbody>
<tr>
<td>PSYC 310</td>
<td>Sensation and Perception</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 312</td>
<td>Learning and Motivation</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 314</td>
<td>Brain and Behavior</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 340</td>
<td>Cognition</td>
<td>3</td>
</tr>
</tbody>
</table>

Two courses at or above the 400 level however, PSYC 466 and 468 may not be used to fulfill this requirement.

Three credits of any Psychology course
(except PSYC 301, 303, 325 and 334)

ELECTIVES

Electives

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF 124

* Superior figures indicate year or years in which the course is normally taken, i.e., 1 freshman year, 2 sophomore year, etc.
†Prerequisite: PSYC 201.
‡Prerequisite: PSYC 201 and PSYC 309 (Measurement and Statistics)
§Prerequisite: Students must have completed the 300 level course requirements.
\#Note the following restrictions:
If PSYC 350 is used for the major, PSYC 325 may not be used; If PSYC 370 is used for the major, PSYC 301 may not be used;
If PSYC 380 is used for the major, PSYC 334 may not be used; If PSYC 390 is used for the major, PSYC 303 may not be used.
If both courses in one of the above pairs are taken, only the lower numbered course will count toward the 30 credits required for the major. However, both courses in each pair may be counted toward the 124 credit minimum for the Bachelor of Arts degree.
REQUIREMENTS FOR A MINOR IN PSYCHOLOGY

A minor in psychology requires 18 credits including PSYC 201; PSYC 309; one course chosen from PSYC 301, 303, 325, or 334; one course chosen from PSYC 310, 312, 314, or 340; one course chosen from PSYC 350, 370, 380, or 390; AND any three credits in psychology (with the following restrictions):

- If PSYC 301 is taken, PSYC 370 may not be counted for the minor.
- If PSYC 303 is taken, PSYC 390 may not be counted for the minor.
- If PSYC 325 is taken, PSYC 350 may not be counted for the minor.
- If PSYC 334 is taken, PSYC 380 may not be counted for the minor.

Within the College

Five courses in related subjects chosen in consultation with the adviser, normally from among the following departments: Economics, Black American Studies, Criminal Justice, Geography, History, Philosophy, Political Science and International Relations, Psychology, and Statistics.

ELECTIVES

Electives

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF 124

SOCIOLOGY

Undergraduate courses in sociology acquaint students with the sociological point of view, a distinct way of looking at social phenomena. They contribute to students’ understanding of social behavior and the setting in which it occurs. Thus, they include the study of social relationships, groups, organizations and institutions, communities, and societies.

The major in sociology combines a liberal arts foundation with extensive interdisciplinary study. For those students who are interested, it complements this study with on-the-job experiences in professional organizations. These experiences are tailored to meet individual career interests in such areas as urban planning, health services, public administration, social work, and social services.

The undergraduate program in sociology, therefore, provides its majors with several options. In addition to pursuing a regular major in sociology, students may choose to specialize in any of six concentrations: 1) pregraduate school preparation, 2) social welfare, 3) applied urban studies, 4) health services, 5) law and society, and 6) data analysis. In addition, a student may earn a secondary teaching credential through the sociology education major. The concentrations, the sociology education major, and the regular major are described below.

DEGREE: BACHELOR OF ARTS

MAJOR: SOCIOLOGY

CURRICULUM

See page 82 for University and College requirements.

MAJOR REQUIREMENTS

Within the Department

SOCI 201 Introduction to Sociology
SOCI 301 Introduction of Sociological Research
SOCI 312 Theories of Society
Seven Sociology courses

No more than 12 credits at the 200 level. At least 6 credits must be at the 400 level or higher, but cannot be fulfilled with 400 level directed study courses (466).

Within the College

Statistics course
Four courses from Group C chosen with the approval of the student’s adviser.

ELECTIVES

Electives

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF 124
Within the College
Eleven additional credits of related work are required and may include the following:
- POSC 355 Urban Politics
- GEOR 325 Urban Geography
- HIST 459 U.S. Urban History
- POSC 452 Problems in Urban Politics
- ECON 393 Urban Economics
- CRJU 455 The Ecology of Crime

Other courses chosen with the approval of the adviser.

ELECTIVES

Electives
After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF 124

DEGREE: BACHELOR OF ARTS
MAJOR: SOCIOLOGY
CONCENTRATION: HEALTH SERVICE

CURRICULUM

See page 82 for University and College requirements.

MAJOR REQUIREMENTS

Within the Department
- SOCI 201 Introduction to Sociology
- SOCI 301 Introduction of Sociological Research
- SOCI 312 Theories of Society
- SOCI 294 Urban Communities
- SOCI 210 Population Problems

Four Sociology courses

No more than 12 credits at the 200 level. At least 6 credits must be at the 400 level or higher, but cannot be fulfilled with 400 level directed study courses (466).

- SOCI 402 Urban Studies Practicum and Seminar

This course is required but does not count as part of the thirty Sociology credits for the major.

Within the College
Eleven additional credits of related work are required and may include the following:
- POSC 355 Urban Politics
- GEOR 325 Urban Geography
- HIST 459 U.S. Urban History
- POSC 452 Problems in Urban Politics
- ECON 393 Urban Economics
- CRJU 455 The Ecology of Crime

Other courses chosen with the approval of the adviser.

ELECTIVES

Electives
After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF 124

DEGREE: BACHELOR OF ARTS
MAJOR: SOCIOLOGY
CONCENTRATION: APPLIED URBAN STUDIES

CURRICULUM

See page 82 for University and College requirements.

MAJOR REQUIREMENTS

Within the Department
- SOCI 201 Introduction to Sociology
- SOCI 301 Introduction of Sociological Research
- SOCI 312 Theories of Society
- SOCI 311 Hospitals

And five additional Sociology courses

(SOCI 341 and 348 recommended for those interested in medical social work)

No more than 12 credits at the 200 level. At least 6 credits must be at the 400 level or higher, but cannot be fulfilled with 400 level directed study courses (466).

- SOCI 410 Health Services Practicum and Seminar

This course is required but does not count as part of the thirty Sociology credits for the major.

Within the College
Eleven additional credits of related work are required and may include the following:
- POSC 355 Urban Politics
- GEOR 325 Urban Geography
- HIST 459 U.S. Urban History
- POSC 452 Problems in Urban Politics
- ECON 393 Urban Economics
- CRJU 455 The Ecology of Crime

Other courses chosen with the approval of the adviser.

ELECTIVES

Electives
After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF 124

*Superior figures indicate year or years in which the course is normally taken, i.e., 1st freshman year, 2nd sophomore year, etc.
DEGREE: BACHELOR OF ARTS
MAJOR: SOCIOLOGY
CONCENTRATION: LAW AND SOCIETY

CURRICULUM

See page 82 for University and College requirements.

MAJOR REQUIREMENTS

Within the Department

SOCI 201 Introduction to Sociology 3
SOCI 301 Introduction of Sociological Research 3
SOCI 312 Theories of Society 3
SOCI 345 Sociology of Law 3
SOCI 456 Lawyers and Society 3

Any five other courses in Sociology 15

Suggested courses for the study of family/gender include:
SOCI 202 Social Deviance 3
SOCI 303 Juvenile Delinquency 3
SOCI 307 Sociology of Sex Roles 3
SOCI 308 The Family 3
SOCI 330 Population, Law and Society 3

Suggested courses in the organization/work area:
SOCI 327 Sociology of Organizations 3
SOCI 330 Population, Law and Society 3
SOCI 355 Computers, Ethics and Society 3
SOCI 428 Corporate Crime 3
SOCI 450 Political Sociology 3

No more than 12 credits at the 200 level. At least 6 credits must
be at the 400 level or higher; but cannot be fulfilled with 400
level directed study courses (466).

SOCI 495 Law and Society Practicum and Seminar 4

This course is required but does not count as part of the
thirty Sociology credits for the major.

Within the College

Related Work

Twelve credits from the following courses are recommended: 12
CRJU 320 Introduction to Criminal Law 3
CRJU 347 The Jury 3
CRJU 357 Seminar in the Police 3
CRJU 425 Criminal Law and Social Policy 3
CRJU 467 Contemporary Debates 3
POSC 402 Civil Liberties I 3
POSC 406 Civil Liberties II 3
POSC 404 The Judicial Process 3
POSC 405 Constitutional Law 3
PHIL 201 Social and Political Philosophy 3
PHIL 446 Philosophy of Law 3
HIST 301 The Worker in American Life 3
HIST 309 U.S. Business and Political Economy 3

A second writing course in any department 3
A course in oral communication is suggested 3

ELECTIVES

Electives

After required courses are completed, sufficient elective credits
must be taken to meet the minimum credit requirement for the
degree.

CREDITS TO TOTAL A MINIMUM OF 124

DEGREE: BACHELOR OF ARTS
MAJOR: SOCIOLOGY
CONCENTRATION: DATA ANALYSIS

CURRICULUM

See page 82 for University and College requirements.

MAJOR REQUIREMENTS

Within the Department

SOCI 201 Introduction to Sociology 3
SOCI 301 Introduction of Sociological Research 3
SOCI 312 Theories of Society 3
SOCI 401 Advanced Sociological Methods 3
SOCI 411 Techniques of Demographic Analysis 3
SOCI 414 Data Analysis 3

Any five other courses in Sociology 15

No more than 12 credits at the 200 level. At least 6 credits must
be at the 400 level or higher; but cannot be fulfilled with 400
level directed study courses (466).

SOCI 412 Practicum 4

This course is required but does not count as part of the
thirty-three Sociology credits for the major.

Within the College

Related Work

Twelve credits from the following courses are recommended:
STAT 201 Introduction to Statistics I** 3
STAT 202 Introduction to Statistics II** 3

Nine additional credits chosen from the following:
CISC 100 Introduction to Digital Computer Programming 3
GEOG 250 Computer Methods in Geography 4
GEOG 470 Computer Cartography 4
HIST 268 Seminar: Nature and Verification of Historical Evidence 3
PHIL 320 Experience, Knowledge, Reality 3
PHIL 425 Ethical Issues in Scientific Research 3
ECON 422 Introduction to Econometrics 3
STAT 418 Sampling Methods 3
STAT 420 Data Analysis and Nonparametric Statistics 3

ELECTIVES

Electives

After required courses are completed, sufficient elective credits
must be taken to meet the minimum credit requirement for the
degree.

CREDITS TO TOTAL A MINIMUM OF 124

*Superior figures indicate year or years in which the course is normally taken, i.e., 1 freshman year, 2 sophomore year, etc.
**Required
No more than 12 credits at the 200 level. At least 6 credits must be at the 400 level or higher, but cannot be fulfilled with 400 level directed study courses (486).

**Within the College**

Twenty-four credits in the following social sciences with at least three credits in each department:

- Anthropology course
- Economics course
- Geography course
- History course
- Political Science course
- PSYC 201 General Psychology
- Six additional credits selected from the departments listed above

**Professional Studies**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDST 201 Education and Society</td>
<td>3</td>
</tr>
<tr>
<td>EDST 304 Educational Psychology - Social Aspects</td>
<td>3</td>
</tr>
<tr>
<td>EDST 305 Educational Psychology - Cognitive Aspects</td>
<td>3</td>
</tr>
<tr>
<td>EDST 420 Reading in the Content Areas</td>
<td>1-4</td>
</tr>
<tr>
<td>HIST 491 Planning a Course of Instruction</td>
<td>3-4</td>
</tr>
<tr>
<td>HIST 493 Seminar: Problems in Teaching History and...</td>
<td>3-4</td>
</tr>
<tr>
<td>Social Sciences</td>
<td></td>
</tr>
<tr>
<td>EDDV 400 Student Teaching</td>
<td>9-4</td>
</tr>
</tbody>
</table>

**CREDITS TO TOTAL A MINIMUM OF 124**

**Field Experience:** One important feature of the program is a field experience in the applied urban studies, social welfare, health services, law and society, and data analysis concentrations. Each field experience involves placement of students in various organizations and departments related to their area of interest, including city offices and agencies, hospitals and other health care organizations, human services and welfare agencies, and law offices and research bureaus. These field placement programs are offered during the winter session and involve four hours of pass/fail course credit. This credit is considered part of the student’s related studies requirement.

Over a five-week period students are placed in the field between 120 and 180 hours, depending upon the nature of the work and the need of the student. In addition, students in each field placement meet in a two-hour weekly seminar (for five weeks) to discuss and analyze their experiences.

**Advantages of the Program**

1. While all students will receive a B.A. degree in sociology, this program provides preprofessional training within selected areas of the student's choice.

2. The program offers future job-related experience with academic supervision and for academic credit.

3. It includes certification of these concentrations by the department, which may be beneficial in obtaining employment.

4. It offers increased flexibility for the student by allowing choices among various focused, directed concentrations.

**Requirements for a Minor in Sociology**

The minor in sociology requires SOCI 201 plus 15 credits in sociology, with at least 9 credits at or above the 300 level. SOCI 301 or 312 is required or an equivalent course in another social science discipline, such as PSYC 309, 405, ECON 422, 426, STAT 205, POSC 302, 434 or 435.

**Criminal Justice**

The Criminal Justice Program at the University of Delaware offers undergraduate students an opportunity to pursue studies leading to law school, graduate school, or a career in the administration of justice. The program is structured around a core of criminal justice courses on such topics as law enforcement, the judicial process, juvenile justice, corrections, and the criminal law. Since any criminal justice system does not exist in isolation but naturally reflects the structure, ideas, and concerns of the society in which it operates, the Criminal Justice Program draws from a wide variety of academic disciplines. Therefore, although administratively housed within the Department of Sociology and Criminal Justice, the Criminal Justice curriculum includes courses in political science, psychology, history, and at least one foreign language, as well as in sociology.

At the University of Delaware, a Bachelor of Arts degree in criminal justice is viewed as a social science/liberal arts degree. Students receive no "hands-on" training in self defense, fingerprint analysis, ballistics, or any other kind of vocational skill. The emphasis is placed on theory, research, and the analysis of substantive law. The curriculum also stresses the importance of representative courses in the arts and humanities, mathematics, and science. Consequently, graduating criminal justice majors will have achieved the skills and breadth of knowledge expected of well educated men and women in a complex and pluralistic society.

Students may become criminal justice majors in one of two ways. First, any incoming freshman or transfer student may choose criminal justice as a major. These students are expected to demonstrate both the ability and the commitment to perform well in all of their course work. Those who do not should meet with their adviser to discuss ways to improve their study skills and/or the possibility of selecting another major. Second, matriculated students who have already declared another major or who presently are undeclared may transfer into the Criminal Justice Program after they have completed a minimum of 30 credit hours if their overall cumulative average at the University of Delaware is at least 2.3.
DEGREE: BACHELOR OF ARTS  
MAJOR: CRIMINAL JUSTICE

CURRICULUM

See page 82 for University and College requirements.

MAJOR REQUIREMENTS

Within the Department

CRJU 110 Introduction to Criminal Justice .................. 3.1–2
CRJU 201 Problems of Law Enforcement .................. 3.1–2
CRJU 202 Problems of Criminal Justice .................. 3.1–2
CRJU 203 Problems of Corrections .................. 3.1–2
Criminal Justice courses at the 300 or 400 level .................. 18.3–4

Within the College

SOCI 201 Introduction to Sociology .................. 3.1–2
SOCI 301 Introduction to Sociological Research .................. 3.3–4
POSC 105 American Political Systems .................. 3.1–2
POSC 201 General Psychology .................. 3.1–2
One of the following four courses:

PSYC 301 Personality .................. 3.2–4
PSYC 303 Introduction to Social Psychology .................. 3.2–4
PSYC 325 Child Psychology .................. 3.2–4
PSYC 334 Abnormal Psychology .................. 3.2–4

One of the following three courses:

POSC 402 Civil Liberties I .................. 3.1–4
POSC 405 Constitutional Law of the United States .................. 3.1–4
POSC 406 Civil Liberties II .................. 3.1–4

ELECTIVES

Electives

After required courses are completed sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF .................. 124

DOUBLE MAJOR OR INTERDEPARTMENTAL MAJOR

Double Major: With the permission of the dean of the college and the department chair a student may elect to fulfill requirements for two majors such as criminal justice and English (for a career in journalism), criminal justice and chemistry (for a career in forensic science), criminal justice and political science (for a career in court administration), criminal justice and psychology (for a career in corrections), or criminal justice and sociology (for a career in related fields).

THEATRE

The B.A. in Theatre Production is designed for those students who are interested in learning about the production areas of the theatre, i.e., Costume Production, Stage Management and Technical Production, and who desire the opportunity to explore these production areas through the prescribed course work and laboratory experiences of a major. Students' practical experiences in the production areas described above will include participating in the production of plays of the Professional Theatre Training Program.

The Professional Theatre Training Program (PTTP) confers the Master of Fine Arts degree. Through its production offerings, the PTTP provides an extraordinary cultural resource to the student body by affording undergraduates the opportunity to see quality productions of the major plays and playwrights that comprise our dramatic heritage.

The PTTP also provides the University with a variety of general education courses in theatre designed to expand appreciation for, and future participation in, theatre. These courses are regularly taught by members of the nationally respected faculty of the PTTP.

The Theatre Department also offers a theatre minor designed to deepen the student's appreciation of the theatre as a liberal art. The courses are designed to give the student a foundation in the viewing of theatre, as well as the art and craft of the theatre. Students interested in performance opportunities should contact one of the amateur theatre groups on campus: E-52, Harrington Theatre Arts, or the Bacchus Theatre Players.

DEGREE: BACHELOR OF ARTS  
MAJOR: THEATRE PRODUCTION

CURRICULUM

See page 82 for University and College requirements.

MAJOR REQUIREMENTS

Within the Department

THEA 102 Introduction to Performance .................. 3.1
THEA 104 Introduction to Theatre .................. 3.1
THEA 200 Introduction to Theatre Production .................. 3.1–2, 3
THEA 202 Introduction to Theatre Design .................. 3.1–2, 3
THEA 203 Introduction to Costuming for the Stage .................. 3.1–2, 3
THEA 407 Theatre Practicum for Majors .................. 4.1

Twelve credits from the following:

(T Select three 4 credit courses with 0 credit LAB each)

THEA 300 Fundamentals of Scenery Construction .................. 4.2–3, 4
THEA 301 Fundamentals of Property Construction .................. 4.2–3, 4
THEA 302 Fundamentals of Stage Lighting .................. 4.2–3, 4
THEA 303 Fundamentals of Scene Painting .................. 4.2–3, 4
THEA 304 Fundamentals of Audio for the Theatre .................. 4.2–3, 4
THEA 305 Fundamentals of Costume Construction for the Stage .................. 4.2–3, 4
THEA 306 Fundamentals of Patternmaking for the Stage .................. 4.2–3, 4
THEA 307 Fundamentals of Draping for the Stage .................. 4.2–3, 4
THEA 308 Fundamentals of Costume Crafts .................. 4.2–3, 4
THEA 309 Fundamentals of Stage Management .................. 4.2–3, 4

Within the College

Six credits from the following:

ENGL 208 Introduction to Drama .................. 3.1–2, 3
ENGL 324 Shakespeare .................. 3.1–2, 3

or

Other courses as approved by adviser.

*Superior figures indicate year or years in which the course is normally taken, i.e., 1 freshman year, 2 sophomore year, etc.
ELECTIVES

Electives
After required courses are completed sufficient elective credits must be taken to meet the minimum credit requirement for the degree. Additional credits in the major may be taken, not to exceed a total of 45 credits in the major.

CREDITS TO TOTAL A MINIMUM OF 124

REQUIREMENTS FOR MINOR IN THEATRE

THEA 104 Introduction to Theatre 3
THEA 226 Fundamentals of Acting 3
Theatre Electives at the 200 level 6
Theatre Electives at the 300 level 6
TOTAL CREDITS 18

ELECTIVES FOR NON-MAJORS

Many Theatre courses are on the list of approved courses for fulfilling the general education requirements in the College of Arts and Science. The following Theatre courses fulfill group requirements:

Group A: 102, 104, 106, 200, 202, 203, 206, 410
Group B: 341, 342, 343, 344, 345, 346

In addition, the Theatre Department offers general electives in dance, acting, voice, speech, mime and production practicum.

SCHOOL OF LIFE AND HEALTH SCIENCES

The life and health sciences express the unity of the living world and the individual’s place in it. The life sciences are advancing rapidly with profound implications for future society in such areas as recombinant DNA technology, immunology and genetics. Medical technology and physical therapy represent the application of basic biological principles to the prevention and treatment of human disease and malfunction.

The curriculum of the school aims to make today’s developing concepts in the life and health sciences accessible to students and to create an environment in which faculty and students can make significant original contributions to these understandings.

Each undergraduate program in life sciences is designed to meet intellectual needs as well as to prepare students for subsequent professional or vocational training. Men and women interested in various fields of biology and related activities will find challenging and flexible undergraduate programs. Many interests call for graduate study or specialized professional training beyond four years of college work; these include human and veterinary medicine, dentistry, biology and medical research, genetics, marine biology and oceanography, physiology, and molecular biology. Undergraduate programs in life sciences aim to provide broad scope and some necessary specialization appropriate to further study.

Preprofessional students (medicine, physical therapy, dentistry, osteopathy, etc.) generally enroll as majors in the biological sciences. Special advisement for these students is available and encouraged.

In addition to a B.A. degree with a major in biological sciences or biological sciences education, an interdepartmental major between biology and psychology with an emphasis on neuroscience is also available. The Department of Biological Sciences also offers a B.S. degree with a concentration in biotechnology. Students may also pursue a nationally accredited B.S. degree program in medical technology. All programs are designed to prepare graduates for professional certification or licensure and to provide a basis for graduate study in these or related fields.

BIOLOGY

Courses at the 100 level are designed to serve students who do not choose to major in biological sciences. Most of these courses may be used to satisfy the Group D requirements of the College of Arts and Science.

The School of Life and Health Sciences offers both a major and a minor in biology. The requirements for these programs are as follows.

The following sequence of courses is recommended for the biological sciences major as well as premedical, prephysical therapy, predental, and preveterinary students. Most of these preprofessional students choose this major because of their interest in the life sciences.

DEGREE: BACHELOR OF ARTS

MAJOR: BIOLOGICAL SCIENCES

CURRICULUM

CREDITS

See page 82 for University and College requirements.

MAJOR REQUIREMENTS

Within the Department

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BISC 207 Introductory Biology I</td>
<td>4^1</td>
</tr>
<tr>
<td>BISC 208 Introductory Biology II</td>
<td>4^1</td>
</tr>
<tr>
<td>BISC 303 Genetic and Evolutionary Biology</td>
<td>4^3</td>
</tr>
</tbody>
</table>

At least two of the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BISC 301 Molecular Biology of the Cell</td>
<td>4^2.5</td>
</tr>
<tr>
<td>BISC 302 General Ecology</td>
<td>3^2.5</td>
</tr>
<tr>
<td>BISC 306 General Physiology</td>
<td>4^2.5</td>
</tr>
</tbody>
</table>

Biology electives at the 300 level or above (must include one 600-level course other than Independent Study)

Within the College

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 103 General Chemistry</td>
<td>4^1</td>
</tr>
<tr>
<td>CHEM 104 General Chemistry</td>
<td>4^1</td>
</tr>
</tbody>
</table>

^Superior figures indicate year or years in which the course is normally taken, i.e., 1^Freshman year, 2^Sophomore year, etc.
CHEM 321 Organic Chemistry ........................................ 4 5
CHEM 322 Organic Chemistry ........................................ 4 5
or
CHEM 213 Elementary Organic Chemistry ....................... 4
CHEM 214 Elementary Biochemistry .................................. 3
CHEM 216 Elementary Biochemistry Laboratory ................. 1
PHYS 201 General Physics ............................................ 4 3
PHYS 202 General Physics ............................................ 4 3
MATH 221 Calculus I .................................................. 3 2

ELECTIVES
Electives
After required courses are completed, sufficient elective credits
must be taken to meet the minimum credit requirement for
the degree.

CREDITS TO TOTAL A MINIMUM OF ................................ 124

BIOTECHNOLOGY
The Bachelor of Science degree in Biological Sciences with
a concentration in biotechnology is a four-year program
offered by the School of Life and Health Sciences. The pro-
gram emphasizes laboratory courses/experiences in vari-
ous aspects of molecular, cellular, and physical biosciences.
It is intended for students who hope to be employed in a
laboratory setting after graduation and for those who will
be continuing their education at the graduate level.

During the first two years at the University, students
interested in biotechnology generally take the same cours-
es as those pursuing a B.A. degree in biological sciences.
At any time during these two years, students can declare
interest in biotechnology (BBT); however, they are not
admitted into the program until the fall semester of the
third year. Students apply for admission in the spring of
the sophomore year. Admission is limited to 10 students
per class. A grade-point index (GPI) of 2.5 is required.

Eligibility for admission to the junior year of the BBT
program will be based on the following criteria:

1. Minimal cumulative index; first three semesters — 2.5
2. Minimal index in the sciences; first three semesters — 2.5
3. A grade of C or better in BISC 207, BISC 208, BISC
   301 and BISC 371 (or other bio course if BISC 371 is
   not taken).
4. Within the pool of eligible applicants, admission
   into the program will be determined by academic
   achievement, and priority will be given to full-time
   University sophomores with a stated interest in
   obtaining employment in biotechnology or in pur-
   suing a graduate degree in a related discipline.

The following courses are recommended. Some cours-
es are not available each year, so careful planning is
strongly suggested.

DEGREE: BACHELOR OF SCIENCE
MAJOR: BIOLOGICAL SCIENCES
CONCENTRATION: BIOTECHNOLOGY
CURRICULUM

UNIVERSITY REQUIREMENTS
ENGL 110 Critical Reading and Writing ............................ 3 1
Three credits in an approved course or courses stressing
multicultural, ethnic, and/or gender-related content.

COLLEGE REQUIREMENTS
Skill Requirements
Writing ††
A second writing course involving significant writing experience
including two papers with a combined minimum of 5,000 words
to be submitted for extended faculty critique of both composi-
tion and content. This course must be taken after completion of
62 credit hours. Appropriate writing courses are normally design-
ated in the semester’s Registration Booklet. (See list of courses
approved for second writing requirement, page 83.)

Foreign Language ..................................................... 0-12 14
Completion of the intermediate-level course (107 or 112) in a
given language. Students with four or more years of high school
work in a single foreign language may attempt to fulfill the require-
ment in that language by taking an exemption examination.

Mathematics:
MATH 114 College Mathematics and Statistics .................... 3 1
(designated for students who do not intend to continue the study
of mathematics)
or
MATH 115 Pre-Calculus .............................................. 3
(designated for students who intend to continue the study of
mathematics)

One of the following:
MATH 221 Calculus I .................................................. 3
MATH 241 Analytic Geometry and Calculus A ................. 4
or
Successful performance on the college proficiency exam.

Breadth Requirements††† (See page 84)
A total of twenty-one credits from Groups A, B and C is
required with a minimum of six credits in each group. The six
credits from each group could be from the same area.

Group A
Understanding and appreciation of the creative arts and
humanities.

Group B
The study of culture and institutions over time.

Group C
Empirically based study of human beings and their
environment.

MAJOR REQUIREMENTS
Within the Department
BISC 207 Introductory Biology I .................................... 4 1
BISC 208 Introductory Biology II ................................... 4 1
BISC 371 Introduction to Microbiology ............................ 4 2
BISC 301 Molecular Biology of the Cell ......................... 4 2
BISC 303 Genetic and Evolutionary Biology ..................... 4 3 4
BISC 305 Cell Biology .................................................. 4
BISC 604 Recombinant DNA Laboratory .......................... 4
BISC 653 Recent Advances in Molecular Biology ............... 2 3 4

* Superior figures indicate year or years in which the course is normally taken, i.e., 1 freshman year, 2 sophomore year, etc.
†††This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 26.
†A course may be applied toward both the major requirements and a breadth requirement, but credits are counted only once toward the total credits for graduation.
††A minimum grade of "C" is required.

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Two advanced lecture/laboratory combinations selected from the following three groups:

I
BISC 492 Human and Mammalian Cytogenetics ........................................... 3 1/4
BISC 493 Mammalian Cytogenetics Laboratory ........................................... 3 1/4

II
BISC 471/BISC 671 Immunobiology ................................................................. 3 3/4
BISC 601 Immunology ......................................................................................... 3 3/4

III
BISC 667 Informational Macromolecules Laboratory ....................................... 4 3/4

Two courses selected from the following:
BISC 467/BISC 667 Computer Applications in Biology .................................... 4 3/4
BISC 602 Molecular Biology of Animal Cells .................................................. 4 3/4
BISC 608 Genetic Toxicology ........................................................................... 3 3/4
BISC 617 Laboratory Techniques for Electron Microscopy ............................ 3 3/4
BISC 654 Biochemical Genetics ..................................................................... 3 3/4
BISC 658 Developmental Genetics .................................................................. 3 3/4
BISC 667 Plant Cell Biology ........................................................................... 3 3/4
BISC 659 Bacterial Physiology ...................................................................... 3 3/4
BISC 673 Topics in Immunogenetics ............................................................... 3 3/4
BISC 679 Virology ........................................................................................... 3 3/4
BISC 693 Human Genetics ............................................................................. 3 3/4
BISC 667 Genes Control: Antibody Genes, HIV-1 .......................................... 3 3/4

Within the College
CHEM 103 General Chemistry ......................................................................... 4 1/4
CHEM 104 General Chemistry ......................................................................... 4 1/4
CHEM 213 Elementary Organic Chemistry .................................................... 4 1/4
CHEM 214 Elementary Biochemistry ............................................................... 3 3/4
CHEM 216 Elementary Biochemistry Laboratory ............................................. 1 1/4
PHYS 201 General Physics ............................................................................... 4 1/4
PHYS 202 General Physics ............................................................................... 4 1/4
MATH 221 Calculus I ......................................................................................... 3 1/4
GEOL 105 General Geology ............................................................................ 4 1/4
Geology Elective ............................................................................................... 3 3/4

W1thin the College

ELECTIVES
Electives
After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree. BISC 444 is encouraged but not required.

CREDITS TO TOTAL A MINIMUM OF ............................................................... 124

DEGREE: BACHELOR OF ARTS
MAJOR: BIOLOGICAL SCIENCES EDUCATION

See page 82 for University and College requirements.

MAJOR REQUIREMENTS

Within the Department
BISC 207 Introductory Biology I .................................................................... 4 1/4
BISC 208 Introductory Biology II ................................................................... 4 1/4
BISC 301 Molecular Biology of the Cell ......................................................... 4 1/4
BISC 305 Genetic and Evolutionary Biology .................................................... 4 1/4
BISC 302 General Ecology ............................................................................ 3 3/4
BISC 306 General Physiology ....................................................................... 4 1/4

Biological electives at the 300 level or above (must include 13-14 credits
one 600-level course other than Independent Study)

Within the College

CHEM 103 General Chemistry ......................................................................... 4 1/4
CHEM 104 General Chemistry ......................................................................... 4 1/4
CHEM 213 Elementary Organic Chemistry .................................................... 4 1/4
CHEM 214 Elementary Biochemistry ............................................................... 3 1/4
CHEM 216 Elementary Biochemistry Laboratory ............................................. 1 1/4
PHYS 201 General Physics ............................................................................... 4 1/4
PHYS 202 General Physics ............................................................................... 4 1/4
MATH 221 Calculus I ......................................................................................... 3 1/4
GEOL 105 General Geology ............................................................................ 4 1/4
Geology Elective ............................................................................................... 3 3/4

Professional Studies
EDST 201 Education and Society ................................................................... 3 1/4
EDST 304 Educational Psychology - Social Aspects .................................... 3 1/4
EDST 305 Educational Psychology - Cognitive Aspects ............................... 3 1/4
EDSV 420 Reading in the Content Areas ........................................................ 1 1/4
SCEN 491 Teaching Science in Secondary Schools ....................................... 4 1/4
EDDV 400 Student Teaching ........................................................................... 9 1/4

CREDITS TO TOTAL A MINIMUM OF ............................................................... 124

A grade of C must be obtained in all biology courses that are used to satisfy the requirements for the degree. Within the school, an Honors degree and Honors courses are available for interested and qualified students. Many opportunities exist for research experience with a faculty member. There are also research opportunities in clinically related areas in conjunction with the Medical Center of Delaware. In addition, an opportunity for teaching experience exists.

During the freshman year, biological science majors for the B.A. degree ordinarily take courses in chemistry, English, foreign language, and mathematics. The minimal mathematics requirement is one semester of calculus.

Recommended electives include further work in computer science, mathematics, and the physical sciences. Students should consider their objectives and abilities and consult their advisers to select wisely from the variety of advanced courses and electives available.

Up to 4 credits of BISC 266, 366, 466, or 666 may be counted toward the 33 credits required for the major. Some 600-level courses in other departments may be counted toward the major.

Students not majoring in biological science who have some academic maturity in the sciences or engineering and an interest in biology are advised to elect BISC 207 or 208, perhaps followed by other core courses or other courses more appropriate to their professional interests.

Students planning to major in biology with the purpose of teaching science in secondary schools must identify themselves and plan their programs with the faculty adviser for secondary education as early in their academic careers as possible.

*Superior figures indicate year or years in which the course is normally taken, i.e., 1 freshman year, 2 sophomore year, etc.
REQUIREMENTS FOR A MINOR IN BIOLOGY

The required courses are BISC 207, 208; two courses from BISC 301, 302 (or 321), 303, 371, 306 (or 406, 416); CHEM 103, 104 (or 101, 102), and 213 (or 321, 325); plus the necessary prerequisites for any of these courses. Nursing majors may satisfy the chemistry requirement by taking CHEM 104, 105 and 106.

Since all of the BISC courses above apply to the major in biological sciences, as well as to the minor, students will retain all of these credits if they switch to the major during the course of their degree program, so long as a grade of C has been obtained in these courses.

Neuroscience

An interdepartmental major between Biological Sciences and Psychology is designed for students with an interest in the interdisciplinary field of neuroscience. This major provides preparation for professional programs in medicine, physical therapy, dentistry and related areas. The major also prepares students for graduate programs in neuroscience, biopsychology, neuropsychology, physiology, pharmacology and anatomy and for positions in pharmaceutical and biotechnology companies.

For this interdepartmental major students first learn the fundamentals of biology and psychology and then concentrate on courses that examine the structure and function of the nervous system and its relationship to behavior. Detailed instructions regarding an interdepartmental major are available from the Department of the Arts and Science Advisement Center and Dean’s Office.

Medical Education Program

The University participates in a cooperative medical education program with the Medical Center of Delaware and the Jefferson Medical College of Philadelphia, sponsored by the Delaware Institute for Medical Education and Research. Under the terms of this program, up to twenty students who are Delaware residents will be accepted for admission to Jefferson Medical College. A portion of the clinical training of these students takes place in the Medical Center of Delaware. Procedures for application to this program may be obtained from the office of the associate director of the School of Life and Health Sciences.

Cooperative Education Program

Through the cooperation of area businesses, industry, and government agencies, students may integrate their academic study with practical work experience. Especially beneficial to students wishing to join the work force after obtaining their bachelor’s degree, participation in the Co-op Program offers students an opportunity to explore abilities and career interests before graduation, to complement their formal education with opportunities for learning not available in the regular classroom, to apply theoretical academic knowledge to real work situations, and to obtain practical work experience prior to entering the job market, giving them a “jump” on the competition.

Co-op positions are available during any semester, including winter and summer sessions, for academic credit. Students register for BISC 444 (1-9 credit hours). Credits earned in this pass/fail course count toward graduation but not toward the 33 credit hours needed for the major in biological sciences. Placements vary from part to full time and may be salaried or on a volunteer basis.

Information about this program may be obtained from the Career Planning and Placement Office.

MEDICAL TECHNOLOGY

Medical Technology is clinical laboratory science related to the prevention, diagnosis and therapy of disease. The Medical Technology Program at the University of Delaware is accredited by the Committee on Allied Health Education of the American Medical Association in cooperation with the National Accrediting Agency for Clinical Laboratory Sciences. The four -year B.S. degree curriculum offers an undergraduate professional education designed to prepare students for career entry and/or graduate study in medical technology and related areas. Approximately two-thirds of all medical technologists work in hospital laboratories, while others are needed in pharmaceutical companies, industrial medical laboratories, public health agencies, private laboratories, health-related research laboratories, or college-level teaching. Due to the national shortage of certified medical technologists, numerous job opportunities are available with excellent starting salaries.

During the first two years at the University, students interested in medical technology should take courses in the basic sciences and liberal arts, including prerequisite courses in biology and chemistry. The professional and clinical courses in the third and fourth years include a final period of supervised clinical education in the Medical Center of Delaware and other affiliated institutions. One required Winter Session is included in the B.S. curriculum.

Freshmen or transfer students may be admitted to the University with a declared interest in medical technology. Students will be evaluated for admission to the Medical Technology major after completion of the prerequisite courses. Priority will be given to full-time University sophomores.

Class size is limited to 26 medical technology majors, and any interested student should talk with a Program faculty member as early as possible.

Eligibility for admission to the junior year of the Medical Technology Program will be based on the following criteria:

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1. Minimal cumulative index; first four semesters 2.0
2. Minimal index computed from specified courses in biological sciences and chemistry, including laboratories: BISC 207, 208, 371, 406-416, and CHEM 103, 104, 213, and 214-216. Grade-point index in these courses 2.0
3. Completion of at least 62 credits, including the courses listed above.
4. Within the pool of eligible students, admission to the major courses will be determined by academic achievement. All applicants will be evaluated by the Medical Technology Admissions Committee.

The following course sequence is recommended. These courses may be subject to change, so it is essential that students meet regularly with their faculty advisers.

Anna P. Ciulla, Director, Associate Professor. Office: 049 McKinly Laboratory. Telephone: (302) 831-2849

DEGREE: BACHELOR OF SCIENCE
MAJOR: MEDICAL TECHNOLOGY
CURRICULUM CREDITS*

UNIVERSITY REQUIREMENTS
ENGL 110 Critical Reading and Writing 31
Three credits in an approved course or courses stressing -4
multicultural, ethnic, and/or gender-related content#

COLLEGE REQUIREMENTS
Skill Requirements
Writing: 35,4
A second writing course involving significant writing experience including two papers with a combined minimum of 3,000 words to be submitted for extended faculty critique of both composition and content. This course must be taken after completion of 62 credit hours. Appropriate writing courses are normally designated in the semester’s Registration Booklet. (See list of courses approved for second writing requirement, page 85.)

Mathematics:
MATH 114 Elementary Mathematics and Statistics 31
(designated for students who do not intend to continue the study of mathematics)
or
MATH 115 Pre-Calculus 3
(designated for students who intend to continue the study of mathematics)
or
One of the following:
MATH 291 Calculus I 3
or
MATH 241 Analytic Geometry and Calculus A 4
or
Successful performance on the college proficiency exam.

Breadth Requirements† (See page 84)

Group A
Understanding and appreciation of the creative arts and humanities 6,1,2

Group B
The study of culture and institutions over time 6,1,2

Group C
Empirically based study of human beings and their environment

MAJOR REQUIREMENTS
Within the Department
MEDT 100 Introduction to Medical Technology 1
MEDT 372 Diagnostic Parasitology 2
MEDT 376 Clinical Virology and Immunology 2
MEDT 378 Clinical Laboratory Computer Applications 2
MEDT 400 Urinalysis and Body Fluids 3
MEDT 401 Clinical Physiological Chemistry I 4
MEDT 411 Clinical Physiological Chemistry I Laboratory 2
MEDT 404 Hematology I 4
MEDT 414 Hematology I Laboratory 1
MEDT 406 Medical Mycology 4
MEDT 416 Medical Mycology Laboratory 2
MEDT 418 Medical Technology Senior Seminar 1
MEDT 407 Diagnostic Microbiology 4
MEDT 419 Immunohematology Laboratory 1
MEDT 409 Immunohematology 3
MEDT 415 Hematology II Laboratory 1
MEDT 417 Hematology II 2
MEDT 421 Immunohematology II Laboratory 1
MEDT 413 Clinical Physiological Chemistry II Laboratory 2
MEDT 402 Medical Mycology 1
MEDT 418 Medical Technology Senior Seminar 1
MEDT 420 Immunohematology II 1
MEDT 420 Medical Microbiology 2
MEDT 470 Medical Technology Clinical Education 3
MEDT 471 Seminar: Medical Technology Laboratory 1
MEDT 403 Clinical Physiological Chemistry I 3
MEDT 473 Clinical Chemistry Practicum 3
MEDT 405 Hematology II 2
MEDT 475 Clinical Hematology 3
MEDT 477 Clinical Microbiology 3
MEDT 479 Clinical Immunohematology 3
MEDT 410 Principles of Medical Technology Education 1
MEDT 411 Clinical Physiological Chemistry I Laboratory 2
MEDT 472 Clinical Microbiology 4
MEDT 412 Medical Mycology Laboratory 1
MEDT 476 Clinical Immunohematology 4
MEDT 418 Medical Technology Senior Seminar 1
MEDT 414 Hematology I Laboratory 1
MEDT 416 Medical Microbiology 3
MEDT 417 Diagnostic Microbiology 4
MEDT 420 Immunohematology II 1
MEDT 421 Immunohematology II Laboratory 1
MEDT 470 Medical Technology Clinical Education 3
MEDT 471 Seminar: Medical Technology Laboratory 1
MEDT 407 Diagnostic Microbiology 4
MEDT 419 Immunohematology Laboratory 1
MEDT 409 Immunohematology 3
MEDT 415 Hematology II Laboratory 1
MEDT 417 Diagnostic Microbiology Laboratory 2
MEDT 420 Immunohematology II 1
MEDT 421 Immunohematology II Laboratory 1
MEDT 470 Medical Technology Clinical Education 3
MEDT 471 Seminar: Medical Technology Laboratory 1
MEDT 407 Diagnostic Microbiology 4
MEDT 419 Immunohematology Laboratory 1
MEDT 409 Immunohematology 3
MEDT 415 Hematology II Laboratory 1
MEDT 417 Diagnostic Microbiology Laboratory 2
MEDT 420 Immunohematology II 1
MEDT 421 Immunohematology II Laboratory 1
MEDT 470 Medical Technology Clinical Education 3
MEDT 471 Seminar: Medical Technology Laboratory 1

Related Work
BISC 207 Introductory Biology I 4
BISC 208 Introductory Biology II 4
BISC 406 Human Physiology 3
BISC 416 Human Anatomy and Physiology Laboratory 2
BISC 371 Introduction to Microbiology 4
BISC 471 Introductory Immunology 3
CHEM 103 General Chemistry 4
CHEM 104 General Chemistry 4
CHEM 213 Organic Chemistry 4
CHEM 214 Elementary Organic Chemistry 3
CHEM 216 Elementary Biochemistry Laboratory 2
CHEM 301 Organic Chemistry 4
CHEM 321 Organic Chemistry 4

ELECTIVES
Electives
After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF 130
During the clinical rotation period (winter and spring terms of the senior year), students should plan for the possibility of 1) added expense for transportation and uniforms and 2) living off-campus at the clinical site for a five-week rotation when the commuting distance is deemed excessive by program standards (the University subsidizes housing costs in these situations).

A minimal grade of C- is required in each MEDT course in the medical technology major.

MAJORS IN AREA STUDIES

Students who may wish a broader course of study than that offered by the departmental major have the option of fulfilling their concentration requirements through area studies. Three area programs leading to majors—Comparative Literature, International Relations and Latin American Studies—are described below.

COMPARATIVE LITERATURE

The aim of the program in comparative literature is to allow students to study literature in an international and intercultural relationship, across boundaries of nation and language. Comparative literature embraces the study of literary themes, forms, movements and relations, as well as the interrelations of literature and other disciplines. The program offers the student the opportunity, with the aid of an adviser, to construct a program reflecting individual areas of interest.

Students majoring or minoring in comparative literature must have a command of at least one foreign language at the advanced elective level. It is strongly recommended that majors pursue a second foreign language at least through the intermediate level. Students planning to go on to graduate work in comparative literature would be well advised to include work in a classical language in their program. Majors are expected to make use of their command of foreign languages in comparative literature courses.

In addition to the courses designed specifically for students specializing in comparative literature, the program offers a number of courses in cooperation with other departments (English, Foreign Languages and Literatures, Anthropology, Philosophy, etc.); these courses should be of interest to most students.

DEGREE: BACHELOR OF ARTS
MAJOR: COMPARATIVE LITERATURE

CURRICULUM

UNIVERSITY REQUIREMENTS
ENGL 110 Critical Reading and Writing ........................................ 3
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content.#

COLLEGE REQUIREMENTS
Skill Requirements
Writing: † † ................................................................. 3 3 4
A second writing course involving significant writing experience including two papers with a combined minimum of 3,000 words to be submitted for extended faculty critique of both composition and content. This course must be taken after completion of 62 credit hours. Appropriate writing courses are normally designated in the semester's Registration Booklet. (See list of courses approved for second writing requirement, page 83.)

Foreign Language ........................................................................ 0 1 2 3 4
Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Mathematics:
MATH 114 Elementary Mathematics and Statistics .......................... 3 3
(designed for students who do not intend to continue the study of mathematics)

or
MATH 115 Pre-Calculus .................................................................. 3
(designed for students who intend to continue the study of mathematics)

or
One of the following:
MATH 221 Calculus I .................................................................... 3
MATH 241 Analytic Geometry and Calculus A ................................. 4

or
Successful performance on the college proficiency exam.

Breadth Requirements† (See page 84)

Group A ......................................................................................... 12 3 4
Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.

Group B ......................................................................................... 12 3 4
The study of culture and institutions over time. Twelve credits representing at least two areas.

Group C ......................................................................................... 12 3 4
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.

Group D ......................................................................................... 13 3 4
The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory.

MAJOR REQUIREMENTS

Within the Department
CLMT 202 Biblical and Classical Literature .................................... 3 3 4
(ENGL 205 or 206 or CLMT 316 may be substituted with adviser's approval)
CLMT 207 Great Writers of the Western World: 1100-1700 ............... 3 3 4

*Superior figures indicate year or years in which the course is normally taken, i.e., † first year, ‡ sophomore year, etc.
#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 26.
†A course may be applied toward both the major requirements and a breadth requirement, but credits are counted only once toward the total credits for graduation.
‡A minimum grade of "C-" is required.
CLMT 208 Great Writers of the Western World: 1650-1950 3-4
CLMT 484 Literary Criticism 3
Comparative Literature courses or courses in related fields 6-14

approved by the adviser

Within the College
Nine credits in each of two national literatures studied in the original text with at least three credits at the 400 level.

ELECTIVES
Electives
After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF 124

REQUIREMENTS FOR THE MINOR IN COMPARATIVE LITERATURE

I. Core courses in comparative literature (6 credits)
Two of CLMT 202, 207, or 208

II. Foreign literature courses (6 credits)
Advanced elective-level courses studied in the original text.

III. Advanced English or Advanced CLMT course (5 credits)

IV. Approved related area course (3 credits)

INTERNATIONAL RELATIONS

This interdepartmental program of study includes courses in political science, economics, history, sociology, anthropology, and geography. The student follows a curriculum that is specifically oriented toward gaining an understanding of the various problems arising among nations.

Various career opportunities are open to students of this program, such as those with U.S. government departments, U.S. Foreign Service, international organizations, U.S. Information Agency, the intelligence community, international programs of a variety of research groups, academic positions, or international business.

Students changing their major to international relations must have completed POSC 240 with a grade of C or better and completed at least 12 additional hours of university courses. Students must have a minimum of a 2.3 average to change their major to international relations. Students transferring to the major from outside the University of Delaware will have their transcripts evaluated by the director on a case-by-case basis.

DEGREE: BACHELOR OF ARTS
MAJOR: INTERNATIONAL RELATIONS

CURRICULUM

See page 82 for University and College requirements.

MAJOR REQUIREMENTS

Within the Departments

Anthropology
Six credits chosen from the following courses: 6-14
ANTH 222 Technology and Culture 3
ANTH 225 Peasant Societies 3
ANTH 230 Peoples of the World 3
ANTH 231 Personality and Culture 3
ANTH 255 Applied Anthropology 3
ANTH 260 Sociocultural History of Africa 3
ANTH 261 Peoples and Cultures of the Middle East 3
ANTH 265 High Civilizations of the Americas 3
ANTH 269 Early Civilizations of the Old World 3
ANTH 325 Peoples of Europe 3
ANTH 327 Peoples of the Caribbean 3
ANTH 330 Development and Underdevelopment 3
ANTH 333 Peoples of Africa 3
ANTH 337 South American Indians 3
ANTH 338 Women in Cross-Cultural Perspective 3
ANTH 368 Anthropology of Slavery 3
ANTH 370 Culture of Food Production and Economic Development 3
ANTH 375 Peoples and Cultures of Modern Latin America 3
ANTH 377 Ecological Anthropology 3
ANTH 380 Peoples and Cultures of Mexico and Central America 3
ANTH 401 The Idea of Race 3
ANTH 473 Comparative Political Systems 3

Economics
ECON 151 Introduction to Microeconomics 3
ECON 152 Introduction to Macroeconomics 3
ECON 340 International Economic Relations 3
Three credits chosen from the following courses: 3-14
ECON 305 Capitalism and Socialism: Comparative Economic Systems 3
ECON 311 Economic Growth and Development Policy 3
ECON 318 Economic History of France 3
ECON 341 Environment of Multinational Corporations 3
ECON 368 Industrial Policy of France and the U.S 3
ECON 405 The Planned Economies 3
ECON 411 Economics of Growth and Development 3
ECON 445 International Monetary Economics 3

Geography
Three credits chosen from the following courses: 3-14
GEOG 102 Human Geography 3
GEOG 120 World Regional Geography 3
GEOG 203 Cultural Geography 3
GEOG 210 Economic Geography 3
GEOG 226 Geography of Latin America 3
GEOG 227 Historical Geography of Europe 3
GEOG 256 Conservation: Global Issues 3
GEOG 400 Women in International Development 3

History
Six credits chosen from the following courses: 6-14
HIST 101 Western Civilization to 1648 3
HIST 102 Western Civilization 1648 to the Present 3
HIST 134 History of Africa 3

*Superior figures indicate year or years in which the course is normally taken, i.e., 1 freshman year, 2 sophomore year, etc.
LATIN AMERICAN STUDIES • COLLEGE OF ARTS AND SCIENCE

HIST 135 Latin America to 1830 ........................................ 3
HIST 136 Latin America Since 1830 ................................. 3
HIST 137 East Asian Civilization: China ......................... 3
HIST 138 East Asian Civilization: Japan ...................... 3
HIST 207 The World in Our Time .................................... 3
HIST 208 Leaders of the Twentieth Century ..................... 3
HIST 209 War and Society to 1775 ............................... 3
HIST 210 War and Society Since 1775 ............................ 3
HIST 248 Africa Under Colonial Rule .............................. 3
HIST 264 The Jewish Holocaust 1933-1945 ....................... 3
HIST 285 The Atomic Age ............................................. 3
HIST 306 History of American Foreign Policy .................. 3
HIST 350 Peasants and Revolution in Africa .................... 3
HIST 351 History of Mexico ......................................... 3
HIST 352 Contemporary European Society ...................... 3
HIST 357 Russian History to 1801 .................................. 3
HIST 358 Russian History: 1801-1917 ............................. 3
HIST 359 Soviet Russia: 1917-Present ............................ 3
HIST 364 Modern Germany: 1870-1945 ............................ 3
HIST 375 Modern Ireland: 1834-Present ......................... 3
HIST 374 History of England to 1715 .............................. 3
HIST 375 History of England: 1715 to the Present ............. 3
HIST 376 English Legal and Constitutional History .......... 3
HIST 391 History of Modern China .................................. 3
HIST 392 History of Modern Japan .................................. 3
HIST 394 Africa Since 1960 ......................................... 3
HIST 395 Pan Africaism .............................................. 3
HIST 397 History of South Africa .................................... 3
HIST 430 Twentieth-Century Latin American Revolutions .... 3
HIST 440 Africa Under Colonial Rule .............................. 3
HIST 467 Race, Class, and Revolution in South Africa ....... 3
HIST 474 Studies in English History .............................. 3
HIST 475 Seminar in Modern European History ............... 3
HIST 477 Studies in Latin American History .................... 3
HIST 479 Studies in Asian History .................................. 3

Political Science
POS 240 Introduction to International Relations ............... 3

Twelve credits chosen from the following courses: ............. 12
POS 270 Comparative Politics ........................................ 3
POS 310 European Governments ..................................... 3
POS 311 Politics of Developing Nations .......................... 3
POS 312 East Asian Political Systems ............................ 3
POS 313 American Foreign Policy .................................... 3
POS 314 Making United States Foreign Policy ................... 3
POS 333 Communism, Fascism and Democracy .................. 3
POS 334 Liberalism and Conservatism ............................ 3
POS 341 Environment of Multinational Corporations .......... 3
POS 363 Model United Nations ....................................... 3
POS 372 East European Political Systems ....................... 3
POS 377 Arab-Israeli Politics ........................................ 3
POS 408 International Organization ............................... 3
POS 409 Contemporary Problems of World Politics .......... 3
POS 412 Foreign Policy of the Soviet Union ..................... 3
POS 414 Problems in American Foreign Policy .................. 3
POS 415 Force and World Politics .................................. 3
POS 416 Transnational Relations and World Politics .......... 3
POS 426 Latin American Political Systems ..................... 3
POS 427 Politics in China ............................................ 3
POS 428 Politics in Japan ............................................ 3
POS 430 Comparative Administration: China ..................... 3
POS 431 Latin American Politics: Countries ...................... 3
POS 432 Political Systems of the Soviet Union ................. 3
POS 433 African Political Systems ................................... 3
POS 441 Problems of Western European Politics by Country ... 3
POS 442 Problems of Western European Politics ............... 3
POS 443 China and the World ........................................ 3
POS 444 Seminar in World Politics .................................. 3
POS 445 Human Rights ................................................ 3
POS 448 Theories of International Relations ..................... 3
POS 450 Problems of Latin American Politics ................. 3
POS 463 International Institutions ................................... 3
POS 465 Model OAS ................................................... 3
POS 477 Politics of the Arab World .................................. 3
POS 484 International Law ............................................ 3
POS 640 International and Development Administration .... 3
POS 651 Communist Political Thought .............................. 3

Sociology
SOC 201 Introduction to Sociology .................................. 3

Three credits chosen from the following courses: .......... 3
SOC 210 Population Problems ......................................... 3
SOC 306 Personality and Social Systems .......................... 3
SOC 320 Personality and Politics .................................... 3
SOC 360 Sociology of Religion ....................................... 3
SOC 361 Race, Power and Social Conflict ........................ 3
SOC 380 Development and Modernization ...................... 3
SOC 460 Women in International Development ................. 3

Other
Three credits chosen from the following courses: ............. 3
Any course included in the previous listing ................. 3
Literature course in a foreign area .............................. 3
STAT 201 Introduction to Statistics I ............................ 3
PHIL 102 Introduction to Philosophy ............................ 3
PHIL 201 Social and Political Philosophy ....................... 3
PHIL 202 Contemporary Moral Problems ....................... 3
PHIL 204 World Religions ........................................... 3
PHIL 309 Indian Religion and Philosophy ....................... 3
PHIL 310 Chinese Religion and Philosophy ..................... 3
Course in a second foreign language ............................ 3

Electives
After required courses are completed sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF ................................ 124

LATIN AMERICAN STUDIES

The major in Latin American Studies is designed to give students a comprehensive picture of Latin American history, politics, geography, anthropology, language and literature. The program is interdisciplinary and allows certain freedom in individualizing the selection of courses to meet students' interests and needs.

Many career opportunities are open to students who major in Latin American Studies. Graduates of the program can work in governmental services and other fields in which it is important to work with Latin American topics. There is also employment in research and teaching, libraries, public relations, public administration, journalism and publishing. In addition, Latin American Studies graduates will have an unusually good background for advanced study in international business or international law.
COLLEGE OF ARTS AND SCIENCE • MINORS IN AREA STUDIES

DEGREE: BACHELOR OF ARTS
MAJOR: LATIN AMERICAN STUDIES

CURRICULUM CREDITS*

See page 82 for University and College requirements. Note: The Foreign Language College requirement must be fulfilled in Spanish. Completion of PORT 107 is also highly recommended.

MAJOR REQUIREMENTS

Within the College

Required courses:
ANTH 265 High Civilizations in the Americas ........................................ 3
ANTH 375 Peoples and Cultures of Modern Latin America .......................... 3
ANTH 380 Peoples and Cultures of Mexico and Central America .............. 3
GEOG 226 Geography of Latin America .................................................. 3
HIST 135 Latin America to 1830 .............................................................. 3
HIST 136 Latin America since 1830 ......................................................... 3
POSC 426 Latin American Political Systems ........................................... 3
SPAN 212 Latin American Civilization and Culture .................................. 3
SPAN 303 Survey of Latin American Literature I .................................... 3
or
SPAN 304 Survey of Latin American Literature II ................................... 3
and
One of the following seven courses: ......................................................... 3
ANTH 323 Prehistory of South America
ANTH 327 Peoples of the Caribbean
ANTH 335 South American Indians
ANTH 338 Arts and Crafts of Native Latin America
HIST 334 History of Mexico
HIST 450 Latin American Revolution
HIST 477 Studies in Latin American History

One of the following two courses: .............................................................. 3
POSC 431 Latin American Politics: Countries
POSC 450 Problems in Latin American Politics

One of the following four courses: ............................................................ 3
SPAN 203 Spanish Reading and Composition
SPAN 415 Latin American Literature in its Political Context
SPAN 430 Latin American Novel and Cinema
SPAN 443 Mexican Literature

Suggested Course:
ECON 311 Economic Growth and Development ........................................ 3
(Prerequisites: ECON 151, ECON 152)

ELECTIVES

Electives

After required courses are completed, sufficient elective credits must be taken, in consultation with the student's academic adviser, to meet the minimum credit requirement for the degree.

Study Abroad

Latin American Studies majors should plan to attend a semester or winter session at a Latin American site.

CREDITS TO TOTAL A MINIMUM OF .................................................. 124

MINORS IN AREA STUDIES

AFRICAN STUDIES

The African Studies Minor has been designed to provide an intellectually coherent program of study based upon regularly offered courses in the fields of African history and culture, as well as anthropology.

REQUIREMENTS FOR THE MINOR IN AFRICAN STUDIES

18 credit hours drawn from the list of courses below. 12 credit hours must be from courses that deal with Africa proper. (Students must consult with the program coordinator on making their selection of courses. It should be noted that not all courses are offered every semester.)

6 credits in Anthropology, selected from the following:
ANTH 360 Socio Cultural History of Africa ............................................. 3
ANTH 388 Peoples of Africa ..................................................................... 3
ANTH 388 Anthropology of Slavery ......................................................... 3
ANTH 455 Survey of African Art .............................................................. 3

6 credits in History, selected from the following:
HIST 134 History of Africa ..................................................................... 3
HIST 330 Peasants and Revolution in Africa** ......................................... 3
HIST 394 Africa Since 1960 ................................................................. 3
HIST 395 Pan Africanism ....................................................................... 3
HIST 397 History of South Africa** ......................................................... 3
HIST 440 Africa Under Colonial Rule ...................................................... 3

3 credits from Black American Studies, selected from the following:
BAMS/HIST 331 History of the Caribbean I ............................................ 3
BAMS/HIST 332 History of the Caribbean II ........................................... 3
BAMS 367 Africanism in America ........................................................... 3

3 credits from other areas, which may include:
POSC 453 African Political Systems ....................................................... 3

Any request for changes or exceptions to these requirements must be made in writing to Dr. W. Maloba, Program Coordinator, 316 Ewing (Ext. 2189).

BLACK AMERICAN STUDIES

Black American Studies focuses on the study of Black Americans and their ancestry. The program is designed to present a comprehensive study of the origins, conditions, and experiences of Black Americans using the perspectives and techniques of various disciplines in the humanities and social sciences. As a study of human beings, Black American Studies deals with human issues, seeking to relate specific problems to the major value systems in this country and the world. Integrated with other disciplines in all appropriate phases of education, Black American Studies has meaning for present life and is useful for

*Superior figures indicate year or years in which the course is normally taken, i.e., freshman year, sophomore year, etc.
**This course satisfies the College of Arts and Science second writing requirement.
future learning or coping situations. The program serves as a catalyst for multi-ethnic and cultural understanding.

Although a major in Black American Studies is not available, special arrangements within the Bachelor of Arts in Liberal Studies degree program are possible. A minor in Black American Studies is available for those students wishing to pursue related careers in this area.

Black American Studies is an interdisciplinary program with its basic content in the social sciences and humanities. The program involves regular course offerings that deal with historic, cultural, and social phenomena of people of African descent. Students from diverse disciplines utilize Black American Studies courses to fulfill general requirements as well as to supplement their majors. The interdisciplinary and multidisciplinary nature of the program allows flexibility for students seeking the relationships between their respective majors and Black American Studies.

REQUIREMENTS FOR A MINOR IN BLACK AMERICAN STUDIES

Students applying for the minor in Black American Studies must have completed at least one semester of full-time study at the University with a grade-point average of at least 2.1. The courses for the minor program are BAMS 110, 304, 306, and one BAMS elective at or above the 300 level with the approval of an advisor.

Alternative arrangements for a minor in Black American Studies are available but must be approved in advance by a program advisor and the director. Students may arrange alternative course selections, provided that at least 15 of the 18 credits toward the minor carry BAMS designations, that no more than 6 credits of the 18 differ from the basic program, and that at least 9 credits of the program are at or above the 300 level.

Advanced students who have shown the potential for doing research in a particular area may participate in independent study and special projects on an individual or group basis. Suggested prerequisites for advanced classes in Black American Studies include BAMS 110, 205 and 206.

EAST ASIAN STUDIES

This is an interdisciplinary program for students wishing to focus their interests on East Asia as an enhancement and complement to their undergraduate majors. Students will declare the minor in either East Asian Studies without Language or East Asian Studies with Language.

EAST ASIAN STUDIES WITHOUT LANGUAGE

Number of credits required: 18

A. Introductory Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTH 155</td>
<td>Asian Art</td>
</tr>
<tr>
<td>ARTH 161</td>
<td>Art in East and West</td>
</tr>
<tr>
<td>FLLT 367</td>
<td>Contemporary Japanese Society</td>
</tr>
<tr>
<td>HIST 333</td>
<td>The Age of Confucius</td>
</tr>
<tr>
<td>MUSC 206</td>
<td>Music of China, Korea, and Japan</td>
</tr>
<tr>
<td>PHIL 310</td>
<td>Chinese Religion and Philosophy</td>
</tr>
</tbody>
</table>

6 credits in two disciplines from the following courses in the humanities:

6 credits from the following courses in the social sciences:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 137</td>
<td>East Asian Civilization: China</td>
</tr>
<tr>
<td>HIST 138</td>
<td>East Asian Civilization: Japan</td>
</tr>
<tr>
<td>HIST 270</td>
<td>History of Modern Asia</td>
</tr>
<tr>
<td>HIST 2xx</td>
<td>History of Southeast Asia</td>
</tr>
<tr>
<td>POSC 312</td>
<td>East Asian Political Systems</td>
</tr>
</tbody>
</table>

B. Advanced Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 3xx</td>
<td>East Asian Economic Systems</td>
</tr>
<tr>
<td>HIST 367</td>
<td>London and Peking, 1600-1900</td>
</tr>
<tr>
<td>HIST 391</td>
<td>History of Modern China</td>
</tr>
<tr>
<td>HIST 392</td>
<td>History of Modern Japan</td>
</tr>
<tr>
<td>HIST 393</td>
<td>History of Modern Vietnam</td>
</tr>
<tr>
<td>HIST 367</td>
<td>China and the West</td>
</tr>
<tr>
<td>HIST 479</td>
<td>Studies in Asian History</td>
</tr>
<tr>
<td>LING 470</td>
<td>Structure of Chinese</td>
</tr>
<tr>
<td>LING 4xx</td>
<td>Structure of Japanese</td>
</tr>
<tr>
<td>POSC 427</td>
<td>Politics in China</td>
</tr>
<tr>
<td>POSC 428</td>
<td>Politics in Japan</td>
</tr>
<tr>
<td>POSC 443</td>
<td>China in the World</td>
</tr>
</tbody>
</table>

The minor in East Asian Studies with Language consists of the 18 credits of requirements for East Asian Studies without Language plus completion of either CHIN 107 or JAPN 107 or their equivalents in transfer credit or by successful performance on a proficiency examination. The number of credits required for this minor therefore ranges from 18-30, depending upon the students' language placement.

IRISH STUDIES

A student may minor in Irish Studies by earning 15 credits in recommended courses, all at or above the 300 level. Required courses include ENGL 351 and HIST 373. For further information, contact Professor Bonnie Scott at (302) 831-6230.
LATIN AMERICAN STUDIES

Purpose. This is an interdisciplinary program designed to provide graduates with an organized focus for their interests in Latin America. The program is designed to enhance, rather than substitute for, a student's disciplinary major.

Program Requirements. A minimum of 18 credits is required from the following courses, selected from at least four departments.

- HIST 135, 136, 334, 430, 477
- GEOG 226
- SPAN 212, 303, 304, 415, 430, 441, 443
- ANTH 265, 323, 327, 330, 337, 338, 375, 380
- POSC 426, 431, 450

Language Requirement. In addition to the 18-credit minimum, students must complete SPAN 107 or demonstrate equivalent proficiency on the placement test. Equivalent competence in Portuguese will be allowed. The study of both languages is strongly encouraged.

Study Abroad. Latin American Studies minors should plan to attend a semester or winter session at a Latin American site.

Substitutions may be made for the above specified courses, with permission from the Coordinator of the Latin American Studies Program, and only so long as the same disciplinary distribution is maintained.

INTERDISCIPLINARY PROGRAMS

THE CENTER FOR SCIENCE AND CULTURE

The Center for Science and Culture is an interdisciplinary teaching and research unit of the College of Arts and Science.

Ideas and methods of the humanities, the sciences, and social sciences are employed to study the social, philosophical, historical and cultural significance of science and technology.

The Center offers an interdisciplinary instructional program in the social, cultural, and humanistic aspects of the sciences and their applications. Open to the entire student body, the Center curriculum is primarily taught by faculty representing a wide range of the fields. This effort also instructs students of the humanities and social sciences concerning the nature and significance of the scientific professions. Group credit in the humanities and social sciences is available for most Center courses.

The Center is the academic home of the Medical Scholars Program, developed by the University of Delaware and Jefferson Medical College in Philadelphia to educate men and women to meet society's changing health care demands. This unique approach to medical studies unifies college, medical school, and residency years by integrating liberal arts, science, and professional studies across both institutions. Utilizing faculty and courses at the University of Delaware and Jefferson Medical College, the curriculum includes traditional studies in the life and health sciences, as well as courses in the humanities, ethics, social sciences, economics, political science, and health policy. Group discussion, problem-based instruction, hands-on science, computer and video disc technology are part of the program.

Seminars and lectures are also sponsored in areas of current interest in the fields represented by its faculty. The Center promotes advanced research on the interrelations of science, technology, and culture by University faculty. The Center disseminates research information and results through its publication series.

Two academic minors are also offered. The minor in Medical Humanities is an organized curriculum of study with an emphasis on the relationship between various humanistic inquiries and the practice of medicine. The minor in Science, Technology, and Society is a program of study in the various ways that science and technology interact with and impact modern society.

Further information may be obtained from the office of the director of the Center for Science and Culture.

REQUIREMENTS FOR A MINOR IN MEDICAL HUMANITIES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCC/PHIL 246</td>
<td>Philosophical Perspectives of Medicine</td>
<td>3</td>
</tr>
<tr>
<td>CSCC/ENGL 369</td>
<td>Literature and Medicine</td>
<td>3</td>
</tr>
<tr>
<td>CSCC/HIST 382</td>
<td>History of Western Medicine</td>
<td>3</td>
</tr>
<tr>
<td>CSCC 366</td>
<td>Independent Study in Medical Humanities</td>
<td>1</td>
</tr>
</tbody>
</table>

Two courses from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCC/WOMS 233</td>
<td>Women, Biology and Medicine</td>
</tr>
<tr>
<td>CSCC/PHIL 241</td>
<td>Ethical &amp; Moral Dimensions of Health Care</td>
</tr>
<tr>
<td>CSCC/SOCI/ANTH 242</td>
<td>Society and the Health Professions</td>
</tr>
<tr>
<td>CSCC/SOCI 243</td>
<td>Society, Politics, and Health Care</td>
</tr>
<tr>
<td>CSCC/ANTH 271</td>
<td>Introduction to Medical Anthropology</td>
</tr>
<tr>
<td>CSCC/SOCI 310</td>
<td>Sociology of Health Care</td>
</tr>
<tr>
<td>CSCC/SOCI 311</td>
<td>Hospitals</td>
</tr>
<tr>
<td>CSCC/ENGL 368</td>
<td>Literature and Science</td>
</tr>
<tr>
<td>CSCC/HIST 385</td>
<td>History of Biological Ideas</td>
</tr>
<tr>
<td>CSCC/PHIL 444</td>
<td>Medical Ethics</td>
</tr>
</tbody>
</table>

REQUIREMENTS FOR A MINOR IN SCIENCE, TECHNOLOGY, AND SOCIETY

Requirements for science majors: 16 credits, as outlined below. Non-science majors, in addition, are required to take a sequence of two courses in a single science – e.g., an introductory and an advanced biology course, or a two-semester course in chemistry.

Course Requirements:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCC/PHIL 206</td>
<td>Introduction to Science, Technology, and Society</td>
</tr>
<tr>
<td>CSCC 356</td>
<td>Individual Studies in Science, Technology, and Society</td>
</tr>
</tbody>
</table>
LEGAL STUDIES

The law is an essential topic in philosophic, social science, and public policy inquiry. Courses that are substantially concerned with law are available in a variety of disciplines including political science, sociology, philosophy, history, business, communication, economics, and psychology. This program, which allows students to minor in Legal Studies, provides students with the opportunity to explore the law from an interdisciplinary perspective within the framework of the liberal arts curriculum.

The program supplies coherence and guidance in the study of law in at least four ways. First, each Legal Studies minor is provided with an adviser who guides the student in constructing a coherent program. Second, the minor provides students with an opportunity to examine legal phenomena from a variety of discipline perspectives. Third, the program offers both a substantive introduction to law and an interdisciplinary introductory course in legal studies. Finally, it offers an interdisciplinary culmination by way of a senior seminar that will require a research paper.

This program is designed for any undergraduate student who is interested in examining the law from a variety of perspectives. Legal studies is not a "pre-law" program, and it does not offer para-legal training. It is, however, a suitable minor for those who plan to pursue professional training.

In addition to offering a minor in Legal Studies, the program offers faculty seminars, lectures, and films.

REQUIREMENTS FOR A MINOR IN LEGAL STUDIES

CREDITS
POSC 380 Introduction to Law .................................................................................. 3
LEST 301 Introduction to Legal Studies ....................................................................... 3
LEST 401 Senior Seminar ............................................................................................ 3

Three courses from the following list. At least two of these courses must be from outside the requirements of the student's major and outside his or her major department. These two courses must be chosen from two different departments.

Accounting
ACCT 350 Business Law ......................................................................................... 3
ACCT 351 Business Law ......................................................................................... 3
ACCT 352 Law and Social Issues in Business ............................................................ 3

Communication
COMM 365 Legal Issues of the Mass Media .............................................................. 3

Criminal Justice
CRJU 202 Problems of Criminal Judiciary ............................................................... 3
CRJU 203 Problems of Corrections .......................................................................... 3
CRJU 320 Introduction to Criminal Law .................................................................. 3
CRJU 346 Psychology and the Law (same as PSYC 346) ........................................ 3
CRJU 547 The Jury: Guilty or Not Guilty ................................................................. 3
CRJU 575 Criminal Procedure .................................................................................. 3
CRJU 425 Criminal Law and Social Policy .............................................................. 3
CRJU 428 Corporate Crime (same as SOCI 428) ..................................................... 3
CRJU 450 Prisoners and the Law .............................................................................. 3
CRJU 456 Lawyers and Society (same as SOCI 456) ............................................... 3

One 3-credit course in each of the following areas, plus an additional 3-credit course from any of these areas:

**History of Science and Technology:**
- HIST 280 Science and Civilization ........................................................................ 3
- HIST 389 American Technology .......................................................................... 3
- HIST 328 American Industrial Society from 1815 to Present ................................ 3
- HIST 383 History of Science and Medicine I ................................................................ 3
- HIST 384 History of Science and Medicine II ....................................................... 3
- CSCC/HIST 385 History of Biologic Ideas ............................................................. 3

**Philosophy of Science and Technology:**
- CSCC/PHIL 245 Ethical Issues in Scientific Research .......................................... 3
- CSCC/PHIL 250 Engineering Ethics ....................................................................... 3
- CSCC/PHIL 338 Topics in Philosophy and Gender ............................................... 3
- CSCC/SOCI 355 Computers, Ethics and Society ..................................................... 3
- CSCC/ENGL 368 Literature and Science ............................................................... 3

**Social and Cultural Dimensions of Science and Technology:**
- CHEM 100 Chemistry and the Human Environment ........................................... 3
- GEOG 203 Introduction to Cultural Geography .................................................... 3
- ANTH 222 Technology and Culture ....................................................................... 3
- CSCC/WOMS 233 Women, Biology and Medicine ............................................... 3
- WOMS/PHIL 338 Topics in Philosophy and Gender ............................................. 3
- CSCC/SOCI 355 Computers, Ethics and Society ..................................................... 3
- CSCC/ENGL 368 Literature and Science ............................................................... 3

Students wishing to complete a minor in Medical Humanities or Science, Technology, and Society are encouraged to enroll in the respective program as soon as possible. To register, go to the program office at the Center for Science and Culture, 28 W. Delaware Avenue, (302) 831-8194. Further information about any of the programs may be obtained from the Office of the Director of the Center for Science and Culture.

JEWISH STUDIES

The Jewish Studies developed alongside and within Western and non-Western civilization. The minor involves the study of the texts, histories, and culture of the Jewish people. As an academic discipline, Jewish Studies concentrates on its own inner continuities, as well as the ways it has affected, and been affected by, its host cultures.

REQUIREMENTS FOR THE MINOR IN JEWISH STUDIES

The interdisciplinary minor in Jewish Studies requires 15 credits of Jewish Studies courses (all of which are cross-listed with other departments, such as history or philosophy or English).

ENGL/PHIL 360 Humanities Colloquium: Introduction to Jewish Studies .................. 3
PHIL 208 Introduction to Jewish Philosophy ............................................................... 3

The remaining 9 credits may be distributed among the other Jewish Studies courses, including independent studies (per approval of the Program Director). Only 3 credits of Hebrew language can count towards the minor. For further information, contact Professor Sara R. Horowitz, Program Director, (302) 831-6731.
Economics
ECON 306 Public Choice (same as POSC 306) 3
ECON 360 Government and Business 3
ECON 408 Economics of Law 3
ECON 461 Industrial Organization and Antitrust 3
ECON 463 Economics of Regulation 3

History
HIST 309 U.S. Business and Political Economy 3
HIST 376 English Legal and Constitutional History 3

Philosophy
PHIL 202 Contemporary Moral Problems 3
PHIL 308 Justice and Equality 3
PHIL 446 Philosophy of Law 3

Political Science and International Relations
POSC 306 Public Choice (same as ECON 306) 3
POSC 380 Introduction to Law 3
POSC 402 Civil Liberties I t 3
POSC 404 Judicial Processes 3
POSC 405 Constitutional Law of the United States 3
POSC 406 Civil Liberties II 3
POSC 423 Congress and Public Policy 3
POSC 413-40 Problems in American Government: Gender, Sex and Law 3

Psychology
PSYC 346 Psychology and the Law (same as CRJU 346) 3
PSYC 347 The Jury: Guilty or Not Guilty (taken with CRJU 347) 3

Sociology
SOCI 330 Population, Law and Society 3
SOCI 345 Sociology of Law 3
SOCI 428 Corporate Crime (same as CRJU 428) 3
SOCI 456 Lawyers and Society (same as CRJU 456) 3

Women's Studies
WOMS 413 Gender, Sex, and American Law (same as POSC 413) 3

RELIGIOUS STUDIES
The Religious Studies Minor is described as “Interdisciplinary” because it involves work in three or more different departments. The general requirements include 15 credits from a list of approved courses. These must include PHIL 204 (World Religions) and at least two courses at the 300 level or higher in any of the three departments listed. For enrollment forms, course substitutions or exemptions, or a list of the approved courses, contact Alan Fox, Department of Philosophy, 831-2350, or email at AFOX@BRAHMS.UDEL.EDU.

TECHNOLOGY OF ARTISTIC AND HISTORIC OBJECTS
Art and historic objects are made of materials subject, as are all materials, to the processes of deterioration. These changes are both chemical and physical. The primary purpose of art conservation is to extend the life of our material heritage.

The art conservator is responsible for the care of objects. In order to do this job effectively, he or she must combine the skills of the artist, the art historian, and the chemist. The purpose of this interdisciplinary Bachelor of Arts degree program in the Technology of Artistic and Historic Objects is to prepare students who wish to pursue graduate training in art conservation for such advanced preprofessional study. Working closely with the program coordinator, the student elects a program of coordinated courses in art history, chemistry, and studio art. Since the University of Delaware is one of a very few universities in this country with a graduate program in art conservation, students benefit from this unique opportunity to take special courses in art materials and techniques and to intern with the conservation staff at the Winterthur Museum or other nearby conservators.

DEGREE: BACHELOR OF ARTS
MAJOR: TECHNOLOGY OF ARTISTIC AND HISTORIC OBJECTS

CURRICULUM
See page 82 for University and College requirements.

MAJOR REQUIREMENTS

Within the College

Art and Art Conservation:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 244</td>
<td>Photography I</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 250</td>
<td>Sculpture I</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 254</td>
<td>Ceramics I</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 260</td>
<td>Metals I</td>
<td>3.0</td>
</tr>
</tbody>
</table>

One of the following four courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 250</td>
<td>Sculpture I</td>
</tr>
<tr>
<td>ART 254</td>
<td>Ceramics I</td>
</tr>
<tr>
<td>ART 260</td>
<td>Metals I</td>
</tr>
</tbody>
</table>

Substitutions may be arranged with the permission of the faculty coordinator, provided that the required disciplinary distribution is maintained. For further information, consult Professor Daniel Callahan, program coordinator, Department of History, (302) 831-6501.

* Superior figures indicate year or years in which the course is normally taken, i.e., 1 freshmen year, 2 sophomore year, etc.

† A course that is usually filled by majors or by students fulfilling major requirements.
WOMEN’S STUDIES • COLLEGE OF ARTS AND SCIENCE

CREDITS*

DEGREE: BACHELOR OF ARTS
MAJOR: WOMEN’S STUDIES

CURRICULUM

MAJOR REQUIREMENTS

Within the College

Introductory Courses
WOMS 201 Introduction to Women’s Studies 3
WOMS/PHIL 216 Introduction to Feminist Theory 3

Distribution Requirements – Humanities
Six credits in Women’s Studies courses cross-listed with History and/or humanities departments chosen from the following list:
WOMS 205/PHIL 202 Contemporary Moral Problems† 3
WOMS/PHIL 210 Women and Religion 3
WOMS/ENGL 214 Literature and Gender 3
WOMS/EDST/HIST 290 History of Women and Education 3
WOMS/ARSC 293 Honors Short Course† 1
WOMS/HIST 300 Women in American History 3
WOMS/ENGL 318 Studies in Film† 3
WOMS/POSC 323 Introduction to Women and Politics 3
WOMS/FLIT 324 Topics: French Literature in Translation† 3
WOMS/FLIT 325 Topics: German Literature in Translation† 3
WOMS/FLIT 326 Topics: Hispanic Literature in Translation† 3

ELECTIVES

Electives
After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF 124

WOMEN’S STUDIES

The Women’s Studies Interdisciplinary Program is designed to foster in students a knowledge of the rich heritage, challenges, and concerns of women. In addition to being a unique field of study with its own philosophies, methodologies, and materials, both the major and the minor in Women’s Studies provide vehicles for reexamining the traditional scholarly disciplines in order to identify and correct misinformation and unexamined assumptions about “women’s place” in human history. In so doing, the lives of racial and ethnically diverse men and women are examined in new and more humanistic ways, enhancing an awareness of the interplay of gender, race, and class.

This program offers introductory core courses, upper-division courses, seminars, and colloquia. An internship is also available which provides students an opportunity to integrate what they have learned in the classroom with the practical competencies which can only be gained from actual experience. Both the courses and the internship introduce and analyze areas of scholarship and knowledge which have largely been excluded from conventional disciplines.

Women’s Studies prepares students for a broad range of careers requiring expertise in women’s roles and needs in both public and private spheres, provides valuable intellectual training in critical reasoning, and facilitates exploration of personal and career goals.

Students may enter the program at any time. No minimum grade point average is required to begin, but students must not be on probation at the time. To join the program, students need the permission of the director, who must also approve any waiver or substitution of requirements.

DEGREE: BACHELOR OF ARTS
MAJOR: WOMEN’S STUDIES

CURRICULUM

See page 82 for University and College requirements.

MAJOR REQUIREMENTS

Within the College

Introductory Courses
WOMS 201 Introduction to Women’s Studies 3
WOMS/PHIL 216 Introduction to Feminist Theory 3

Distribution Requirements – Humanities
Six credits in Women’s Studies courses cross-listed with History and/or humanities departments chosen from the following list:
WOMS 205/PHIL 202 Contemporary Moral Problems† 3
WOMS/PHIL 210 Women and Religion 3
WOMS/ENGL 214 Literature and Gender 3
WOMS/EDST/HIST 290 History of Women and Education 3
WOMS/ARSC 293 Honors Short Course† 1
WOMS/HIST 300 Women in American History 3
WOMS/ENGL 318 Studies in Film† 3
WOMS/POSC 323 Introduction to Women and Politics 3
WOMS/FLIT 324 Topics: French Literature in Translation† 3
WOMS/FLIT 325 Topics: German Literature in Translation† 3
WOMS/FLIT 326 Topics: Hispanic Literature in Translation† 3

*Superior figures indicate year or years in which the course is normally taken, i.e., †freshman year, ‡sophomore year, etc.
†Only those sections which are cross-listed with Women’s Studies.
WOMS/FLLT 330 Varying Authors, Themes, and Movements† 3
WOMS/PHIL 338 Philosophy and Gender 3
WOMS/ENGL 380 Women Writers 3
WOMS/ENGL 381 Women in Literature 3
WOMS/ENGL 382 Studies in Multicultural Literature in English† 3
WOMS/HIST 409 Varieties of Modern Feminism 3
WOMS/POSC 413 Problems in American Government† 3
WOMS/HIST 416 The American Family 1608-1900 3
WOMS/ENGL 465 Studies in Literature Genres, Types, and Movements † 3
WOMS/HIST 473 Studies in Early Modern European History† 3
WOMS/ENGL 480 Seminar† 3

Social Sciences
Six credits in Women’s Studies courses cross-listed with social science departments chosen from the following list:
WOMS/SOCI 206 Women and Work 3
WOMS/SOCI 211 Men, Conflict, and Social Change 3
WOMS/LING 222 Language and Gender 3
WOMS/SOCI 307 Sociology of Sex and Gender 3
WOMS/PSYC 333 Psychology of Women 3
WOMS/CRJU 350 Women and Criminal Justice 3
WOMS/ANTH 367 Women in Cross-cultural Perspective 3
WOMS/SOCI 415 Race, Class, and Gender 3
WOMS/IFST 430 Teaching Family Life 3
WOMS/SOCI/GEOG/IFST 460 Women in International Development 3
WOMS/SOCI 607 Sociology of Sex and Gender 3

Science-Related Courses
Three credits in WOMS science-related courses chosen from the following list:
WOMS/CSCC 233 Women, Biology, and Medicine 3
WOMS/ANTH 305 The Evolution of Human Sex Roles and Reproduction 3

Women’s Studies Elective Requirements
Nine additional credits in courses in Women’s Studies or cross-listed with Women’s Studies, selected from the following list:
WOMS 292 Introduction to International Women’s Studies 3
WOMS 294 Gender and Knowledge 3
WOMS 205 Women in the Arts and Humanities 3
WOMS 207 Women, Power, and Success 3
WOMS 212 Motherhood in Culture and Politics 3
WOMS 267 (topics vary) 1-3
WOMS 297 Research in Lesbian, Gay, and Bisexual Studies† 1
WOMS/BAMS/SOCI 298 Research in Race, Ethnicity, and Culture† 1
WOMS 299 Research on Women 1
WOMS 355 Women and Mental Health 3
WOMS 366 Independent Study 3
WOMS 367 (topics vary) 1-3
WOMS 389 Topics: Women and Health Issues 3
WOMS/ARSC 390 Honors Colloquium† 3
WOMS/ARSC 392 Honors Colloquium† 3
WOMS 466 Independent Studies 3
WOMS/PHED 484 Women in Sports 3
WOMS 498 Internship in Women’s Studies 3

ELECTIVES

Electives
After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF 124

REQUIREMENTS FOR A MINOR IN WOMEN’S STUDIES
A minimum of 18 credit hours is required, which must include the following: WOMS 201; at least one WOMS course satisfying the A&S General Education Group A or B requirement; no more than two experimental courses (x67); and an additional 6 credits in WOMS courses at or above the 300 level. A minimum grade of C is required in each course.

†Only those sections which are cross-listed with Women’s Studies
‡Course may be repeated as content varies.