



# COLLEGE OF ARTS AND SCIENCE

## • THE DEPARTMENTS

- Anthropology
- Art
- Art History
- Chemistry and Biochemistry
- Communication
- Computer and Information Sciences
- Economics
- English
- Foreign Languages and Literature
- Geography
- Geology
- History
- Journalism
- Linguistics
- Mathematical Sciences
- Military Science
- Music
- Philosophy
- Physics and Astronomy

- Political Science
- Psychology
- Sociology
- Theatre
- School of Life and Health Sciences

## • MAJORS IN AREA STUDIES

- American Studies
- Comparative Literature
- International Relations

## • MINORS IN AREA STUDIES

- Black American Studies
- Irish Studies
- Latin American Studies

## • INTERDISCIPLINARY PROGRAMS

- The Center for Science and Culture
- Technology of Artistic and Historic Objects
- Women's Studies

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 three major groupings: Arts and Humanities, Behavioral and Social Sciences, and Natural Sciences and Mathematics.

The arts and humanities deal with the development and refinement of systems of value, esthetic appreciation,

a comprehensive world view, historical perspective, and increased skill in communication, both verbal and non-verbal. 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 must be taken for credits 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. Requirements for the general education section of the degree are divided into skill requirements and breadth requirements, as follows:

### SKILL REQUIREMENTS

**Writing.** The requirements will consist of two courses: 1) ENGL 110 and 2) a second writing course. A minimum grade of C must be earned in both courses.

1) ENGL 110 will be taken by all students as freshmen, except by students who have otherwise demonstrated the skills taught in that course. All students must have satisfied this requirement by no later than the end of their sophomore year. A score of 650 on the English Composition Achievement Test of the SAT will be a satisfactory demonstration of basic writing skills.

2) A second writing course to be taken after completion of 62 credit hours. Courses fulfilling this requirement will involve a significant writing experience including two papers of moderate length that are to be submitted for extended faculty critique of both composition and content and are to be returned to the student.

## COURSES APPROVED FOR SECOND WRITING REQUIREMENT

To satisfy this requirement, a student must have completed a minimum of 62 credit hours. A minimum grade of "C" is required.

NOTE: Only the sections designated in the Registration Booklet as satisfying the Arts and Science Second Writing Course apply.

### *American Studies (AMST)*

- AMST 303 American Intellectual History (cross-listed with HIST 303)
- AMST 304 American Intellectual History (cross-listed with HIST 304)
- AMST 310 Community Studies
- AMST 328 American Industrial Society: 1815 to Present  
(cross-listed with HIST 328)
- AMST 343 Cultural Issues in American Literature  
(cross-listed with ENGL 343)
- AMST 480 Seminar (cross-listed with CMLT 480 & ENGL 480)

### *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 313 Art of the Northern Renaissance
- ARTH 370 History of Photography
- ARTH 401 Literature, Theory and Methods of Art History
- ARTH 405 Seminar in Ancient Art
- ARTH 407 Seminar in Italian Renaissance Art
- ARTH 409 Seminar in Baroque Art

### *Arts and Science (ARSC)*

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

### *Biology (BISC)*

- BISC 498 Topics in Biology
- BISC 603 Nucleoprotein Interactions

### *Black American Studies (BAMS)*

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

### *Center for Science and Culture (CSCC)*

- CSCC 355 Computers, Ethics and Society  
(cross-listed with CISC 355 & SOCI 355)
- CSCC 368 Literature and Science (cross-listed with ENGL 368)
- CSCC 385 History of Biological Ideas (cross-listed with HIST 385)
- CSCC 444 Medical Ethics (cross-listed with PHIL 444)

### *Chemistry (CHEM)*

- CHEM 610 History of Chemistry

### *Communication (COMM)*

- COMM 438 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 FLLT 311)
- CMLT 312 Twentieth-Century Literature II  
(cross-listed with FLLT 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 AMST 480 & ENGL 480)

**Computer and Information Sciences (CISC)**

CISC 355 Computers, Ethics and Society  
(cross-listed with CISC 355 & SOCI 355)

**Criminal Justice (CRJU)**

CRJU 428 Corporate Crime (cross-listed with SOCI 428)  
CRJU 456 Lawyers and Society (cross-listed with SOCI 456)

**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 343 Cultural Issues in American Literature  
(cross-listed with AMST 343)  
ENGL 368 Literature & Science (cross-listed with CISC 368)  
ENGL 409 Topics in Journalism  
ENGL 410 Technical Writing  
ENGL 480 Seminar (cross-listed with AMST 480 & CMLT 480)

**Foreign Languages and Literatures (FLLT)**

FLLT 311 Twentieth-Century Literature I (cross-listed with CMLT 311)  
FLLT 312 Twentieth-Century Literature II (cross-listed with CMLT 312)

**Geography (GEOG)**

GEOG 346 Urban Cultural Geography  
GEOG 445 Method and Theory in Geography

**History (HIST)**

HIST 250 Roots of Contemporary Culture  
HIST 268 History Seminar  
HIST 300 Women in American History (cross-listed with WOMS 300)  
HIST 302 The World in Our Time  
HIST 303 American Intellectual History (cross-listed with AMST 303)  
HIST 304 American Intellectual History (cross-listed with AMST 304)  
HIST 307 The U.S. in the Early National Period  
HIST 309 U.S. Business and Political Economics  
HIST 313 Twentieth-Century America  
HIST 314 Twentieth-Century America  
HIST 318 Colonial America  
HIST 319 Revolutionary America  
HIST 328 American Industrial Society: 1815 to Present  
(cross-listed with AMST 328)  
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  
HIST 373 Modern Ireland: 1534 to Present  
HIST 385 History of Biological Ideas (cross-listed with CISC 385)  
HIST 391 History of Modern China  
HIST 392 History of Modern Japan  
HIST 397 History of South Africa  
HIST 409 Varieties of Modern Feminism (cross-listed with WOMS 409)  
HIST 411 Seminar in American History  
HIST 416 The American Family 1608 to 1900  
HIST 430 Latin American Revolutions  
HIST 459 United States Urban History  
HIST 471 Studies in Medieval History  
HIST 473 Studies in Early Modern European History  
HIST 474 Studies in English History  
HIST 475 Seminar in Modern European History  
HIST 479 Studies in Asian History

**Music (MUSC)**

MUSC 311 Music History: 400 through 1600  
MUSC 312 Music History: 1600 through 1827  
MUSC 313 Music History: 1825 to the Present  
MUSC 345 History of Theatre: American Musical Theatre  
(cross-listed with THEA 345)

**Philosophy (PHIL)**

PHIL 444 Medical Ethics (cross-listed with CISC 444)  
PHIL 463 Ethical Theory

**Psychology (PSYC)**

PSYC 405 Advanced Social Psychology  
PSYC 415 History and Systems of Psychology  
PSYC 425 Topics in Child Psychology

**Sociology (SOCI)**

SOCI 305 Social Class and Inequality  
SOCI 355 Computers, Ethics and Society  
(cross-listed with CISC 355 & CISC 355)  
SOCI 415 Race, Class and Gender  
(cross-listed with BAMS 415 & WOMS 415)  
SOCI 428 Corporate Crime (cross-listed with CRJU 428)  
SOCI 456 Lawyers and Society (cross-listed with CRJU 456)

**Theatre (THEA)**

THEA 341 Theatre/Drama: Classic/Medieval  
(cross-listed with CMLT 341)  
THEA 342 Theatre/Drama: Renaissance to 1700  
(cross-listed with CMLT 342)  
THEA 343 Theatre/Drama: 1700 to 1900 (cross-listed with CMLT 343)  
THEA 344 Theatre/Drama: 1900 to Present  
(cross-listed with CMLT 344)  
THEA 345 History of Theatre: American Musical Theatre  
(cross-listed with MUSC 345)  
THEA 346 History of Theatre: The American Theatre  
THEA 410 Fundamentals of Dramaturgy

**University (UNIV)**

UNIV 490 Honors Tutorial: Humanities  
UNIV 491 Honors Tutorial: Natural/Social Science

**Women's Studies (WOMS)**

WOMS 300 Women in American History (cross-listed with HIST 300)  
WOMS 409 Varieties of Modern Feminism (cross-listed with HIST 409)  
WOMS 415 Race, Class and Gender  
(cross-listed with BAMS 415 & SOCI 415)

**Foreign Language.** Proficiency in a foreign language (ancient or modern) is required. There are two ways in which this requirement can be met:

- 1) Completion of the intermediate-level course (107 or 112) in a given language.
- 2) 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.

**Mathematical Sciences.** Students must demonstrate mathematical competence by one of the following methods:

- 1) Successful completion of MATH 114 Elementary Mathematics and Statistics (designed for students who do not intend to continue the study of mathematics); or,

- 2) Successful completion of MATH 115 Pre-Calculus (designed for students who intend to continue the study of mathematics); or,
- 3) Successful completion of any mathematics course above the 100 level except MATH 251 or MATH 252; or,
- 4) Successful performance on a proficiency test in mathematics administered by the Department of Mathematical Sciences through the Advisement Center of the College of Arts and Science.

The requirement in mathematical competence must be completed by the end of the sophomore year.

## BREADTH REQUIREMENTS

**GROUP A.** Analysis and appreciation of the creative arts and humanities.

Twelve credits of courses representing at least two departments or appropriate instructional units.

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

Twelve credits of courses representing at least two departments or appropriate instructional units.

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

Twelve credits of courses representing at least two departments or appropriate instructional units.

**GROUP D.** 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 graduation. 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.

## COURSES APPROVED FOR BREADTH REQUIREMENTS

### GROUP A

#### *American Studies (AMST)*

- AMST 101 Introduction to American Civilization I  
 AMST 102 Introduction to American Civilization II  
 AMST 314 Introduction to Folklore and Folklife  
                   (cross-listed with CMLT 314 and ENGL 314)  
 AMST 317 American Philosophy (cross-listed with PHIL 317)

#### *Anthropology (ANTH)*

- ANTH 205 Anthropology and Human Nature  
 ANTH 227 American Culture  
 ANTH 231 Personality and Culture  
 ANTH 251 Introduction to the Primitive Arts

- ANTH 252 Humanistic Anthropology  
 ANTH 338 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 History of Architecture

#### *Center for Science and Culture (CSCC)*

- CSCC 241 Ethical and Moral Dimensions of 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)

#### *Communication (COMM)*

- COMM 360 Oral Interpretation of Literature

#### *Comparative Literature (CMLT)*

- CMLT 202 Biblical and Classical Literature  
                   (cross-listed with FLLT 202 and ENGL 202)  
 CMLT 217 Introduction to Film (cross-listed with ENGL 217)  
 CMLT 218 Introduction to Drama (cross-listed with ENGL 208)  
 CMLT 219 Introduction to the Novel (cross-listed with ENGL 209)  
 CMLT 314 Introduction to Folklore and Folklife  
                   (cross-listed with AMST 314 and ENGL 314)  
 CMLT 316 Classical Mythology (cross-listed with FLLT 316)  
 CMLT 320 Varying Authors and Genres (cross-listed with FLLT 320)  
 CMLT 322 Topics: Classical Literature in Translation  
                   (cross-listed with FLLT 322)

#### *English (ENGL)*

- ENGL 200 Approaches to Literature  
 ENGL 202 Biblical and Classical Literature  
                   (cross-listed with FLLT 202 and CMLT 202)  
 ENGL 204 Great American Writers  
 ENGL 207 Introduction to Poetry  
 ENGL 208 Introduction to Drama (cross-listed with CMLT 218)  
 ENGL 209 Introduction to the Novel (cross-listed with CMLT 219)  
 ENGL 210 Short Story  
 ENGL 217 Introduction to Film (cross-listed with CMLT 217)  
 ENGL 314 Introduction to Folklore and Folklife  
                   (cross-listed with AMST 314 and CMLT 314)  
 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)  
 FLLT 322 Topics: Classical Literature in Translation  
                   (cross-listed with CMLT 322)  
 FLLT 324 Topics: French Literature in Translation  
 FLLT 325 Topics: German Literature in Translation  
 FLLT 326 Topics: Hispanic Literature in Translation  
 FLLT 327 Topics: Russian Literature in Translation

#### *Geography (GEOG)*

- GEOG 203 Introduction to Cultural Geography  
 GEOG 345 Cultural Geography  
 GEOG 346 Urban Cultural Geography



**German (GERM)**

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

**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  
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 and Moral Dimensions of 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 (cross-listed with AMST 317)

**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 202 Introduction to Theatre Design  
THEA 203 Introduction to Costuming for the Stage  
THEA 206 Introduction to Dance  
THEA 410 Fundamentals of Dramaturgy

**University (UNIV)**

- UNIV 490 Honors Tutorial: Humanities

**Women's Studies (WOMS)**

- 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 380 Women Writers (cross-listed with ENGL 380)

**GROUP B****American Studies (AMST)**

- AMST 303 American Intellectual History (cross-listed with HIST 303)  
AMST 304 American Intellectual History (cross-listed with HIST 304)  
AMST 344 Black American Literature I  
(cross-listed with BAMS 313 and ENGL 344)  
AMST 345 Black American Literature II (cross-listed with ENGL 345)

**Anthropology (ANTH)**

- ANTH 101 Introduction to Social and Cultural Anthropology  
ANTH 260 Sociocultural History of Africa  
ANTH 265 High Civilizations of the Americas  
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 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 211 Early Renaissance Art  
ARTH 212 High Renaissance and Mannerist Art  
ARTH 214 Baroque Art  
ARTH 215 Art of the Eighteenth Century  
ARTH 216 American Art  
ARTH 315 Modern Art I: Nineteenth Century  
ARTH 316 Modern Art II: Twentieth Century  
ARTH 317 Renaissance and Baroque Architecture: 1400-1750  
ARTH 380 Oriental Art

**Black American Studies (BAMS)**

- BAMS 304 History of Black America to the Civil War  
(cross-listed with HIST 325)  
BAMS 306 History of Black America Since the Civil War  
(cross-listed with HIST 326)  
BAMS 313 Black American Literature I  
(cross-listed with AMST 344 and ENGL 344)

**Center for Science and Culture (CSCC)**

- CSCC 382 History of Western Medicine (cross-listed with HIST 382)

**Comparative Literature (CMLT)**

- CMLT 207 Great Writers of the Western World I  
(cross-listed with ENGL 211)  
CMLT 208 Great Writers of the Western World II  
(cross-listed with ENGL 212)  
CMLT 317 Film History (cross-listed with ENGL 317)  
CMLT 321 Introduction to Medieval Literature  
(cross-listed with ENGL 321)  
CMLT 330 Varying Authors, Themes, and Movements  
(cross-listed with FLIT 330 and WOMS 330)  
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)

**Economics (ECON)**

- ECON 316 American Economic History

**English (ENGL)**

- ENGL 205 Great English Writers I  
ENGL 206 Great English Writers II  
ENGL 211 Great Writers of the Western World I  
(cross-listed with CMLT 207)  
ENGL 212 Great Writers of the Western World II  
(cross-listed with CMLT 208)  
ENGL 317 Film History (cross-listed with CMLT 317)  
ENGL 321 Introduction to Medieval Literature  
(cross-listed with CMLT 321)  
ENGL 339 Twentieth-Century British Literature  
ENGL 340 American Literature to the Civil War  
ENGL 341 American Literature: Civil War to World War II  
ENGL 344 Black American Literature I  
(cross-listed with AMST 344 and BAMS 313)  
ENGL 345 Black American Literature II (cross-listed with AMST 345)

**Foreign Languages and Literatures (FLIT)**

- FLIT 330 Varying Authors, Themes, and Movements  
(cross-listed with CMLT 330 and WOMS 330)  
FLIT 375 Topics: Russian and Soviet Culture

**French (FREN)**

- FREN 301 Introduction to French Literature: Prose  
(to be taught in French)
- FREN 302 Introduction to French Literature: Poetry and Theatre  
(to be taught in French)
- FREN 310 French Civilization I (to be taught in French)
- FREN 311 French Civilization II (to be taught in French)

**Geography (GEOG)**

- GEOG 225 Historical Geography of the United States

**German (GERM)**

- GERM 311 Introduction to German Literature I  
(to be taught in German)
- GERM 312 Introduction to German Literature II  
(to be taught in German)
- GERM 325 German Civilization and Culture (to be taught in German)

**History (HIST)**

- HIST 101 Western Civilization to 1648
- HIST 102 Western Civilization: 1648 to Present
- HIST 134 History of Africa
- HIST 135 Latin America to 1830
- HIST 136 Latin America Since 1830
- HIST 137 East Asian Civilization: China
- HIST 138 East Asian Civilization: Japan
- HIST 205 United States History
- HIST 206 United States History
- HIST 210 War and Society Since 1775
- HIST 280 Science and Civilization
- HIST 300 Women in American History (cross-listed with WOMS 300)
- HIST 303 American Intellectual History (cross-listed with AMST 303)
- HIST 304 American Intellectual History (cross-listed with AMST 304)
- HIST 306 History of American Foreign Policy
- HIST 315 Postwar America: The United States Since 1945
- HIST 318 Colonial America, 1580-1777
- HIST 319 Revolutionary America, 1760-1787
- HIST 325 History of Black America to the Civil War  
(cross-listed with BAMS 304)
- HIST 326 History of Black America Since the Civil War  
(cross-listed with BAMS 306)
- HIST 330 Peasants and Revolution in Africa
- HIST 340 Ancient Near East and Greece
- HIST 341 Ancient Rome
- HIST 344 Renaissance Europe
- HIST 345 Europe in the Reformation Era: 1517 to 1648
- HIST 355 Early Modern Intellectual History
- HIST 356 Modern European Intellectual History
- HIST 359 Soviet Russia: 1917 to the Present
- HIST 374 History of England to 1715
- HIST 375 History of England: 1715 to Present
- HIST 382 History of Western Medicine (cross-listed with CSCC 382)
- HIST 383 History of Science and Medicine I
- HIST 384 History of Science and Medicine II
- HIST 387 Technology in Western Civilization I
- HIST 388 Technology in Western Civilization II
- HIST 391 History of Modern China
- HIST 392 History of Modern Japan
- HIST 397 History of South Africa
- HIST 474 Studies in English History

**Italian (ITAL)**

- ITAL 301 Survey of Italian Literature (to be taught in Italian)
- ITAL 302 Survey of Italian Literature (to be taught in Italian)

**Music (MUSC)**

- MUSC 205 Music of the Non-Western World
- MUSC 207 History of Jazz
- MUSC 311 Music History: 400 through 1600
- MUSC 312 Music History: 1600 through 1827
- MUSC 313 Music History: 1825 to the Present
- MUSC 345 History of Theatre: American Musical Theatre  
(cross-listed with THEA 345)

**Philosophy (PHIL)**

- PHIL 301 Ancient Philosophy
- PHIL 302 Medieval Philosophy
- PHIL 303 Modern Philosophy
- PHIL 309 Indian Religion and Philosophy
- PHIL 310 Chinese Religion and Philosophy

**Political Science (POSC)**

- POSC 311 Politics of Developing Nations
- POSC 387 American Political Thought

**Russian (RUSS)**

- RUSS 310 Introduction to Russian Literature I  
(to be taught in Russian)
- POSC 312 Introduction to Russian Literature II  
(to be taught in Russian)
- POSC 325 Russian Civilization and Culture (to be taught in Russian)

**Spanish (SPAN)**

- SPAN 211 Spanish Civilization and Culture (to be taught in Spanish)
- SPAN 212 Latin American Civilization and Culture  
(to be taught in Spanish)
- SPAN 301 Survey of Spanish Literature (to be taught in Spanish)
- SPAN 302 Survey of Spanish Literature (to be taught in Spanish)
- SPAN 303 Survey of Spanish-American Literature  
(to be taught in Spanish)
- SPAN 304 Survey of Spanish-American Literature  
(to be taught in Spanish)

**Theatre (THEA)**

- THEA 341 Theatre/Drama: Classic/Medieval  
(cross-listed with CMLT 341)
- THEA 342 Theatre/Drama: Renaissance to 1700  
(cross-listed with CMLT 342)
- THEA 343 Theatre/Drama: 1700 to 1900 (cross-listed with CMLT 343)
- THEA 344 Theatre/Drama: 1900 to Present  
(cross-listed with CMLT 344)
- THEA 345 History of Theatre: American Musical Theatre  
(cross-listed with MUSC 345)
- THEA 346 History of Theatre: The American Theatre

**Women's Studies (WOMS)**

- 300 Women in American History (cross-listed with HIST 300)
- 330 Varying Authors, Themes, and Movements  
(cross-listed with CMLT 330 and FLLT 330)

**GROUP C****American Studies (AMST)**

- AMST 327 Early American Society (cross-listed with HIST 327)

**Anthropology (ANTH)**

- ANTH 103 Introduction to Prehistoric Archaeology  
(duplicate credit with ANTH 104 in Group D)
- ANTH 222 Technology and Culture
- ANTH 223 Society, Politics, and Health Care  
(cross-listed with CSCC 243 and SOCI 243)
- ANTH 225 Peasant Societies
- ANTH 229 Indians of North America
- ANTH 230 Peoples of the World
- ANTH 255 Applied Anthropology
- ANTH 259 Hunting Societies
- ANTH 271 Introduction to Medical Anthropology  
(cross-listed with CSCC 271)
- ANTH 320 Prehistory of North America
- ANTH 337 South American Indians
- ANTH 370 Culture of Food Production and Economic Development
- ANTH 377 Ecological Anthropology
- ANTH 380 Peoples and Cultures of Mexico and Central America

**Arts and Science (ARSC)**

- ARSC 127 Shaping of the Modern World

**Black American Studies (BAMS)**

- BAMS 110 Introduction to Black American Studies  
 BAMS 205 Contemporary Afro-American Issues  
 BAMS 212 Afro-Caribbean Life and Culture

**Center for Science and Culture (CSCC)**

- CSCC 243 Society, Politics, and Health Care  
 (cross-listed with SOCI 243 and ANTH 223)  
 CSCC 271 Introduction to Medical Anthropology  
 (cross-listed with ANTH 271)  
 CSCC 310 Sociology of Health Care (cross-listed with SOCI 310)  
 CSCC 311 Hospitals (cross-listed with SOCI 311)

**Communication (COMM)**

- COMM 200 Introduction to Human Communication Systems  
 COMM 245 Mass Communication and Culture  
 COMM 251 The Development of Verbal Communication  
 COMM 320 Analysis of Intercultural 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

**Economics (ECON)**

- ECON 151 Introduction to Microeconomics  
 ECON 152 Introduction to Macroeconomics  
 ECON 305 Capitalism and Socialism: Comparative Economic Systems  
 ECON 311 Economic Growth and Development Policy  
 ECON 332 Public Finance and Fiscal Policy  
 ECON 340 International Economic Relations  
 ECON 360 Government and Business  
 ECON 393 Urban Economics

**English (ENGL)**

- ENGL 390 Introduction to the English Language  
 (cross-listed with LING 390)

**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 Early American Society (cross-listed with AMST 327)

**Linguistics (LING)**

- LING 101 Introduction to Linguistics  
 LING 265 Studies: Language  
 LING 390 Introduction to the English Language  
 (cross-listed with ENGL 390)

**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 270 Comparative Politics

**Psychology (PSYC)**

- PSYC 201 General Psychology  
 PSYC 301 Personality  
 PSYC 303 Introduction to Social Psychology  
 PSYC 325 Child Psychology  
 PSYC 333 Psychology of Women (cross-listed with WOMS 333)

**Sociology (SOCI)**

- SOCI 201 Introduction to Sociology  
 SOCI 202 Social Deviance  
 SOCI 203 The Individual and Society  
 SOCI 204 Urban Communities  
 SOCI 209 Social Problems  
 SOCI 210 Population Problems  
 SOCI 211 Men, Conflict, and Social Change  
 (cross-listed with WOMS 211)  
 SOCI 243 Society, Politics, and Health Care  
 (cross-listed with CSCC 243 and ANTH 223)  
 SOCI 307 Sociology of Sex and Gender  
 (cross-listed with WOMS 307)  
 SOCI 308 The Family  
 SOCI 310 Sociology of Health Care (cross-listed with CSCC 310)  
 SOCI 311 Hospitals (cross-listed with CSCC 311)  
 SOCI 317 Women in American Society (cross-listed with WOMS 317)  
 SOCI 322 Crowds, Cults, and Revolutions  
 SOCI 345 Sociology of Law  
 SOCI 361 Race, Power, and Social Conflict  
 SOCI 362 Sociology of Mass Communication

**Women's Studies (WOMS)**

- WOMS 201 Introduction to Women's Studies  
 WOMS 211 Men, Conflict, and Social Change  
 (cross-listed with SOCI 211)  
 WOMS 307 Sociology of Sex and Gender (cross-listed with SOCI 307)  
 WOMS 317 Women in American Society (cross-listed with SOCI 317)  
 WOMS 333 Psychology of Women (cross-listed with PSYC 333)

**GROUP D****Anthropology (ANTH)**

- ANTH 102 Introduction to Biological Anthropology  
 (duplicate credit with ANTH 104)  
 ANTH 104 Introduction to Prehistoric Archaeology (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 152 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  
 BISC 314 Brain and Behavior (cross-listed with PSYC 314)

**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 305 Entomology Laboratory

**Geography (GEOG)**

- GEOG 101 Physical Geography  
GEOG 152 Climate and Life  
GEOG 206 Physical Geography: Topography—Soils  
GEOG 220 Meteorology  
GEOG 250 Computer Methods in Geography

**Geology (GEOL)**

- GEOL 105 General Geology (duplicate credit with GEOL 107)  
GEOG 106 General Geology (duplicate credit with GEOL 108)  
GEOG 107 General Geology I (duplicate credit with GEOL 105)  
GEOG 108 General Geology II (duplicate credit with GEOL 106)  
GEOG 110 Evolution and Extinction (duplicate credit with GEOL 144)  
GEOG 144 Evolution and Earth History  
(duplicate credit with GEOL 110)  
GEOG 233 The Ice Ages and Human Chronology  
GEOG 234 Earth Resources and Ecology  
GEOG 235 Geology of the Solar System

**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 (NTDT)**

- NTDT 200 Nutrition Concepts

**Philosophy (PHIL)**

- PHIL 205 Logic (PHIL 351 alternate.  
Duplicate credit if taken after PHIL 351)  
PHIL 351 Mathematical Logic (alternate to PHIL 205)

**Physics (PHYS)**

- PHYS 101 Introduction to Physics (duplicate credit with PHYS 104  
which is not a Group D, 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 133 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, 208)  
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)

**Plant Science (PLSC)**

- PLSC 101 Botany I

**Psychology (PSYC)**

- PSYC 314 Brain and Behavior (cross-listed with BISC 314)

**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)

A brochure describing further information regarding the specific courses that are applicable and a detailed description of the objectives of each group is available from the Dean's Office. Questions on the application of courses to group requirements may be directed to the Dean's Office.

**Major Options.** 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 required in all major courses.

Several departments, e.g., English and sociology have a number of internal options or specializations. To round out the departmental major, students may be required to take 15 credits of related work determined in consultation with a faculty adviser. Majors are offered in American studies, anthropology, art, art history, biochemistry, biological sciences, biotechnology, chemistry, classics, communication, comparative literature, computer and information sciences, criminal justice, economics, English, French, geography, geology, German, history, international relations, Latin, liberal studies, mathematics, medical technology, music, philosophy, physics, political science, psychology, Russian, sociology, Spanish, statistics, and technology of artistic and historic objects.

The faculty of the college have ruled that 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 of the programs listed above. 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. A minimum grade of *C* is necessary in all courses required for the double major.

**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 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 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.** For students whose interests lie in American Studies, Comparative Literature, or International Relations, majors exist that require 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.

**Minor.** In addition to one of the major programs described above, 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 required in all courses for the minor.

## 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 in biochemistry, biological sciences, chemistry, computer and information sciences, criminal justice, geology, geophysics, mathematics, medical technology, physics, statistics, or visual communication. 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.

The Bachelor of Science degree in medical technology is offered by the School of Life and Health Sciences, a unit of the College of Arts and Science. (The school also offers the Bachelor of Arts degree in biological sciences.) 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 a committee of the College Faculty Senate that 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.

### DEGREE: BACHELOR OF ARTS IN LIBERAL STUDIES MAJOR: LIBERAL STUDIES

CURRICULUM	CREDITS*
<b>UNIVERSITY REQUIREMENTS</b>	
ENGL 110 Critical Reading and Writing .....	3 <sup>1</sup>
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content.#	3 <sup>1-4</sup>
<b>COLLEGE REQUIREMENTS</b>	
<i>Skill Requirements</i>	
<i>Writing</i> .....	3 <sup>3,4</sup>
A writing course involving significant writing experience including two papers with a combined minimum of 3,000	

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

words to be submitted for extended faculty critique of both composition and content. This course must be taken in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Foreign Language* ..... 0-12<sup>1-4</sup>

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<sup>1</sup>

(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 80)

*Group A* ..... 12<sup>1-4</sup>

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

*Group B* ..... 12<sup>1-4</sup>

The study of culture and institutions over time. Twelve credits representing at least two areas.

*Group C* ..... 12<sup>1-4</sup>

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

*Group D* ..... 13<sup>1-4</sup>

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

Students pursue a sequence of courses chosen with the aid of their faculty adviser and approved by the College Faculty Senate Committee on Special Academic Programs.

Sequence of courses that are consistent with the student's educational goals as stated on the application to candidacy. Sixty credits must be at the 300 level or above. Student must devote at least 39 credits to the B.A.L.S. program courses over and above general education and skill requirements.

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

**NOTE:** Deadline for application to the major is the end of the first semester of the junior year or before the completion of 75 credits. The minimum grade average at the time of application is 2.25.

## 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.

## 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.

## 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 on Associate degrees may be found in the Undergraduate Admissions section.

## DEAN'S SCHOLAR PROGRAM

Each year the undergraduate colleges consider upon application a number of highly motivated students who have clear educational goals and the ability to achieve those goals and appoints them as Dean's Scholars. These students are freed of all college 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.

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

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.

## 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 freshmen 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 with expertise are available to advise students who plan to study dentistry, law, librarianship, medicine, social work, or veterinary medicine. Dean's Office personnel will be glad to direct students to appropriate faculty members.

## TEACHER EDUCATION PROGRAMS

The College of Arts and Science offers teacher education programs in twenty-one areas for students who wish to prepare themselves to be certified teachers in Delaware or in thirty-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 (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.

## 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 124, Wolf Hall) coordinates advisory services for all students preparing for admission to health-related professional schools.

## GENERAL

**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.** Courses 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.

**Cross-listed Courses.** The faculty of the college have ruled that 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.

## 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 Dean's Office, Room 127, Memorial Hall, 451-1281, 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

#### CREDITS\*

#### UNIVERSITY REQUIREMENTS

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

#### COLLEGE REQUIREMENTS

##### *Skill Requirements*

<i>Writing</i> .....	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

<i>Foreign Language</i> .....	0-12 <sup>1-4</sup>
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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 <sup>1</sup>
(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
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MATH 241 Analytic Geometry and Calculus A .....	4
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or

Successful performance on the college proficiency exam.

#### *Breadth Requirements*† (See page 80)

<i>Group A</i> .....	12 <sup>1-4</sup>
----------------------	-------------------

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

<i>Group B</i> .....	12 <sup>1-4</sup>
----------------------	-------------------

The study of culture and institutions over time. Twelve credits representing at least two areas.

<i>Group C</i> .....	12 <sup>1-4</sup>
----------------------	-------------------

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

<i>Group D</i> .....	13 <sup>1-4</sup>
----------------------	-------------------

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

Social and Cultural Anthropology courses .....	12 <sup>1-4</sup>
Biological Anthropology courses .....	6 <sup>1-4</sup>
Archaeological Anthropology courses .....	6 <sup>1-4</sup>
ANTH 486 Tutorial in Social and Cultural Anthropology .....	3 <sup>1-4</sup>
ANTH 487 Tutorial in Archaeology .....	3 <sup>1-4</sup>
or	
ANTH 488 Tutorial in Physical Anthropology .....	3
Anthropology course .....	3 <sup>1-4</sup>

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. It is recommended that students planning graduate study take at least one Readings in Anthropology course.

## 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., <sup>1</sup>freshman year, <sup>2</sup>sophomore year, etc.

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27

†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.



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

**CURRICULUM**

**CREDITS\***

**UNIVERSITY REQUIREMENTS**

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

**COLLEGE REQUIREMENTS**

*Skill Requirements*

Writing .....	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

<i>Foreign Language:</i> .....	0-12 <sup>1-4</sup>
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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 <sup>1</sup>
------------------------------------------------------	----------------

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

or

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

or

One of the following:

MATH 221 Calculus I .....	3
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MATH 241 Analytic Geometry and Calculus A .....	4
-------------------------------------------------	---

or

Successful performance on the college proficiency exam.

*Breadth Requirements† (See page 80)*

<i>Group A</i> .....	12 <sup>1-4</sup>
----------------------	-------------------

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

<i>Group B</i> .....	12 <sup>1-4</sup>
----------------------	-------------------

The study of culture and institutions over time. Twelve credits representing at least two areas.

<i>Group C</i> .....	12 <sup>1-4</sup>
----------------------	-------------------

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

<i>Group D</i> .....	13 <sup>1-4</sup>
----------------------	-------------------

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**

Social and Cultural Anthropology courses .....	12 <sup>1-4</sup>
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Biological Anthropology courses .....	6 <sup>1-4</sup>
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Archaeological Anthropology courses .....	6 <sup>1-4</sup>
-------------------------------------------	------------------

ANTH 486 Tutorial in Social and Cultural Anthropology .....	3 <sup>1-4</sup>
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ANTH 487 Tutorial in Archaeology .....	3 <sup>1-4</sup>
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or

ANTH 488 Tutorial in Physical Anthropology .....	3
Anthropology course .....	3 <sup>1-4</sup>

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. It is recommended that students planning graduate study take at least one Readings in Anthropology course.

**Within the College**

Economics course .....	3 <sup>1-4</sup>
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Geography course .....	3 <sup>1-4</sup>
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History course .....	3 <sup>1-4</sup>
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Political Science course .....	3 <sup>1-4</sup>
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Sociology course .....	3 <sup>1-4</sup>
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PSYC 201 General Psychology .....	3 <sup>1-4</sup>
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Six additional credits selected from the departments listed above .....	6 <sup>1-4</sup>
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**Professional Studies**

EDST 201 Education and Society .....	3 <sup>1-4</sup>
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EDST 304 Educational Psychology – Social Aspects .....	3 <sup>1-4</sup>
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EDST 305 Educational Psychology – Cognitive Aspects .....	3 <sup>1-4</sup>
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HIST 491 Planning a Course of Instruction .....	3 <sup>4</sup>
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HIST 493 Seminar: Problems in Teaching History and Social Sciences .....	3 <sup>4</sup>
--------------------------------------------------------------------------	----------------

EDST 420 Reading in the Content Areas .....	1 <sup>1-4</sup>
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EDDV 400 Student Teaching .....	9 <sup>4</sup>
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**CREDITS TO TOTAL A MINIMUM OF..... 124**

**Honors Program.** Honors majors must complete a minimum of 30 credits of approved courses, including 18 Honors credits. All Honors majors must complete the following satisfactorily:

- A minimum of 9 credits at the 200 level, including 3 Honors credits.
- A minimum of 15 credits in 300- and 400-level courses, including 9 Honors credits. At least one Honors Seminar (ANTH 499) should be taken. Six credits of special problems can be counted toward requirements for A and B.
- Completion in the junior and senior year of an Honors thesis based on independent research. The research and thesis are to be approved by the student's project adviser and a departmental Honors committee. The number of credits to be given will be 6, that is, the same amount now awarded for a thesis for a degree with distinction in a major field.

The department will strongly encourage Honors students to take special problem courses beyond the 30 credits required in anthropology. For University requirements for the Honors bachelor's degree, see the University Honors Program in the Special Programs section of this catalog.

**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:

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

- 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 additional information on interdepartmental majors.

### REQUIREMENTS FOR THE MINOR IN ANTHROPOLOGY

Students wishing to minor in anthropology must complete 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, metals, photography, illustration, visual communication (graphic design, advertising, and applied photography), or the traditional fine arts, i.e., painting and drawing, sculpture, printmaking (etching, lithography, serigraphy, block printing). The courses of study are designed to prepare the student for professional practice in the student's chosen area of specialization.

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 communication). The department offers two graduate degrees: Master of Arts (M.A.) and Master of Fine Arts (M.F.A.).

Admission to the B.S. in visual communication and B.F.A. are 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 been ranked by an independent rating service as number fourteen among all college and university art programs in the nation. 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

CREDITS\*

### UNIVERSITY REQUIREMENTS

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

### COLLEGE REQUIREMENTS

#### *Skill Requirements*

<i>Writing</i> .....	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

<i>Foreign Language</i> .....	0-12 <sup>1-4</sup>
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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 <sup>1</sup>
(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 80)

<i>Group A</i> .....	12 <sup>1-4</sup>
Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.	

<i>Group B</i> .....	12 <sup>1-4</sup>
The study of culture and institutions over time. Twelve credits representing at least two areas.	

<i>Group C</i> .....	12 <sup>1-4</sup>
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.	

<i>Group D</i> .....	13 <sup>1-4</sup>
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*‡

##### *Foundations*

ART 110 Foundation I Drawing .....	3 <sup>1</sup>
ART 111 Foundation I Design .....	3 <sup>1</sup>
ART 112 Foundation II Drawing .....	3 <sup>1</sup>

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

‡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.

One required course selected from 2-D study:	
ART 122 Introduction to Figurative Illustration	3 <sup>1</sup>
ART 140 Introduction to Printmaking	3 <sup>1</sup>
ART 234 Painting I	3 <sup>1</sup>
ART 244 Photography I	3 <sup>1</sup>
One required course selected from 3-D study:	
ART 250 Sculpture I	3 <sup>1</sup>
ART 254 Ceramics I	3 <sup>1</sup>
ART 260 Metals I	3 <sup>1</sup>
ART 170 Basic Design: Fibers/CAD	3 <sup>1</sup>
<i>Core**</i>	
Art courses	3 <sup>1-4</sup>
One course of 3-D Study selected from Sculpture, Ceramics, Fibers, or Metals.	
Art courses	3 <sup>1-4</sup>
One course of 2-D Study selected from Photography, Painting, Printmaking, Drawing or Illustration.	
<i>Area of Concentration</i>	
Art courses	9 <sup>1-4</sup>
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.	
Art electives	6 <sup>1-4</sup>
<b>Within the College</b>	
Art History courses	6 <sup>1-4</sup>
<b>ELECTIVES</b>	
<i>Electives</i>	
After required courses are completed sufficient elective credits must be taken to meet the minimum credit requirement for the degree.	
<b>CREDITS TO TOTAL A MINIMUM OF.....124</b>	

**DEGREE: BACHELOR OF SCIENCE**  
**MAJOR: VISUAL COMMUNICATION**

CURRICULUM	CREDITS*
<b>UNIVERSITY REQUIREMENTS</b>	
ENGL 110 Critical Reading and Writing	3 <sup>1</sup>
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #	3 <sup>1-4</sup>
<b>COLLEGE REQUIREMENTS</b>	
<i>Skill Requirements</i>	
<i>Writing:</i>	3 <sup>3,4</sup>
A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.	
<i>Mathematics:</i>	
MATH 114 Elementary Mathematics and Statistics	3 <sup>1</sup>
(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.	
<i>Breadth Requirements† (See page 80)</i>	
<i>Group A</i>	6 <sup>1-4</sup>
Understanding and appreciation of the creative arts and humanities. Six credits from an area other than Art or Art History.	
<i>Group B</i>	6 <sup>1-4</sup>
The study of culture and institutions over time.	
<i>Group C</i>	6 <sup>1-4</sup>
Empirically based study of human beings and their environment.	
<i>Group D</i>	7 <sup>1-4</sup>
The study of natural phenomena through experiment and analysis. Seven credits representing at least two areas including a minimum of one course with an associated laboratory.	

**MAJOR REQUIREMENTS**

ART 110 Foundation I Design	3 <sup>1</sup>
ART 111 Foundation I Drawing	3 <sup>1</sup>
ART 112 Foundation II Drawing	3 <sup>1</sup>
One required course selected from 2-D study:	
ART 122 Illustration I	3 <sup>1</sup>
ART 140 Introduction to Printmaking	3 <sup>1</sup>
ART 234 Painting I	3 <sup>1</sup>
ART 244 Photography I	3 <sup>1</sup>
One required course selected from 3-D study:	
ART 170 Basic Design: Fibers/CAD	3 <sup>1</sup>
ART 250 Sculpture I	3 <sup>1</sup>
ART 254 Ceramics I	3 <sup>1</sup>
ART 260 Metals I	3 <sup>1</sup>
Art electives (2)	6 <sup>1-4</sup>
ART 200 Visual Communications Process I	4 <sup>2</sup>
ART 201 Visual Communications Process II	4 <sup>2</sup>
ART 210 Photo Design	4 <sup>2</sup>
ART 302 Introduction to Graphic Design	3 <sup>3</sup>
ART 304 Introduction to Advertising Design	3 <sup>3</sup>
ART 310 Introduction to Applied Photography	3 <sup>3</sup>
ART 408 Practicum	3 <sup>4</sup>
Required for Visual Communications majors concentrating in graphic design:	
ART 303 Graphic Design	3 <sup>3</sup>
ART 305 Advertising Design	3 <sup>3</sup>
ART 402 Advanced Graphic Design I	6 <sup>4</sup>
ART 403 Advanced Graphic Design II	6 <sup>4</sup>
Required for Visual Communications majors concentrating in advertising design:	
ART 303 Graphic Design	3 <sup>3</sup>
ART 305 Advertising Design	3 <sup>3</sup>
ART 404 Advanced Advertising Design I	6 <sup>4</sup>
ART 405 Advanced Advertising Design II	6 <sup>4</sup>

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

\*\*Core courses must be taken in disciplines other than those experienced as part of the foundation requirements

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

Required for Visual Communications majors  
concentrating in applied photography:

Photography elective	3 <sup>3</sup>
ART 311 Applied Photography	3 <sup>3</sup>
ART 410 Advanced Applied Photography I	6 <sup>4</sup>
ART 411 Advanced Applied Photography II	6 <sup>4</sup>

### Within the College

#### Related Work

Art History courses	9 <sup>1-4</sup>
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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..... 127**

## DEGREE: BACHELOR OF FINE ARTS MAJOR: FINE ARTS

### CURRICULUM

CREDITS\*

### UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing	3 <sup>1</sup>
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #	3 <sup>1-4</sup>

### COLLEGE REQUIREMENTS

#### Skill Requirements

Writing	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

#### Mathematics:

MATH 114 Elementary Mathematics and Statistics (designed for students who do not intend to continue the study of mathematics)	3 <sup>1</sup>
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or

MATH 115 Pre-Calculus (designed for students who intend to continue the study of mathematics)	3
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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 80)

Group A	12 <sup>1-4</sup>
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Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.

Group B	12 <sup>1-4</sup>
---------	-------------------

The study of culture and institutions over time. Twelve credits representing at least two areas.

Group C	12 <sup>1-4</sup>
---------	-------------------

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

Group D	13 <sup>1-4</sup>
---------	-------------------

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

##### Foundations

ART 110 Foundation I Drawing	3 <sup>1</sup>
ART 111 Foundation I Design	3 <sup>1</sup>
ART 112 Foundation II Drawing	3 <sup>1</sup>

One required course selected from 2-D study:

ART 140 Introduction to Printmaking	3 <sup>1</sup>
ART 234 Painting I	3 <sup>1</sup>
ART 244 Photography I	3 <sup>1</sup>

One required course selected from 3-D study:

ART 250 Sculpture I	3 <sup>1</sup>
ART 254 Ceramics I	3 <sup>1</sup>
ART 260 Metals I	3 <sup>1</sup>
ART 170 Basic Design: Fibers/CAD	3 <sup>1</sup>

##### Core\*\*

Art course	3 <sup>1</sup>
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One course of 3-D Study selected from Sculpture, Ceramics, Fibers, or Metals.

Art course	3 <sup>1</sup>
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One course of 2-D Study selected from Photography, Painting, Printmaking, Drawing or Illustration.

ART Studio Major	18 <sup>1-4</sup>
ART Studio Minor	9 <sup>1-4</sup>
Art Department Electives	12 <sup>1-4</sup>
B.F.A. Senior Exhibition	0 <sup>4</sup>

#### Within the College

Art History courses	12 <sup>1-4</sup>
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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..... 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:

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

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

\*\*Core courses must be taken in disciplines other than those experienced as part of the foundation requirements

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

## ART HISTORY

Art history is primarily concerned with the historical development of ideas and institutions as expressed in the tangible language of art 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 general research and vocational objectives of the Winterthur Program in Early American Culture and the Department of Art Conservation. Visits to the nearby Winterthur Museum, which houses one of the largest and most comprehensive collections of early American arts, and to various other museums between New York and 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. Morris Library houses unique research materials, such as the Albert Pinkham Ryder Archive and a collection of rare books on Italian Futurism.

Art history majors holding the B.A. degree may enter 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 museum 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

#### CREDITS\*

#### UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing	3 <sup>1</sup>
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #	3 <sup>1-4</sup>

## COLLEGE REQUIREMENTS

### Skill Requirements

#### Writing..... 3<sup>3,4</sup>

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

#### Foreign Language..... 0-12<sup>1-4</sup>

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<sup>1</sup>

(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 80)

#### Group A ..... 12<sup>1-4</sup>

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

#### Group B ..... 12<sup>1-4</sup>

The study of culture and institutions over time. Twelve credits representing at least two areas.

#### Group C ..... 12<sup>1-4</sup>

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

#### Group D ..... 13<sup>1-4</sup>

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

#### ARTH 153 Introduction to Art History I ..... 3<sup>1</sup>

#### ARTH 154 Introduction to Art History II ..... 3<sup>1</sup>

#### Fifteen credits at the 200 level or above distributed as follows: ..... 15<sup>2-4</sup>

##### a. Ancient ..... 3<sup>2-4</sup>

##### b. Medieval (including Northern Renaissance) ..... 3<sup>2-4</sup>

##### c. Renaissance ..... 3<sup>2-4</sup>

##### d. Baroque or 18th Century ..... 3<sup>2-4</sup>

##### e. Modern ..... 3<sup>2-4</sup>

#### ARTH 401 Literature, Theory and Methods of Art History ..... 3<sup>3</sup>

#### Art History Seminar ..... 3<sup>3-4</sup>

#### Art History courses above 100-level ..... 6<sup>1-4</sup>

### Within the College

#### Fifteen credits of related work as follows: ..... 15<sup>1-4</sup>

#### ENGL 202 Biblical and Classical Literature ..... 3<sup>1-4</sup>

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

Any adviser-approved 200- or 300-level History course ..... 3<sup>1,4</sup>  
 Nine credits, with the adviser's approval, from appropriate courses in the following areas: American Studies, Anthropology, Studio Art, Education, English, History, Foreign Languages and Literatures (other than that used to satisfy the College's foreign language requirement), Music and Philosophy. A second History course, a Studio Art course, and a foreign language literature course are 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..... 124**

## REQUIREMENTS FOR THE MINOR IN ART HISTORY

The minor in art history requires 18 credits of course work, including at least three courses at or above the 300 level. (One 100-level course may be counted in the total of 18 credits.) Students must distribute their courses among at least three of the following key areas of art history: Ancient, Medieval, Renaissance, Baroque, Modern, and American.

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 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.

Chemists are working in research, product development, medicine, pollution control, sales, technical service, technical libraries, and industrial management. Graduate work or other specialized studies are necessary for certain types of work. 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.

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. There is an active chapter of the Student Affiliates of the American Chemical Society, which has technical and social functions during the year. 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.

### DEGREE: BACHELOR OF ARTS

#### MAJOR: CHEMISTRY

#### CURRICULUM

CREDITS\*

#### UNIVERSITY REQUIREMENTS

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

#### COLLEGE REQUIREMENTS

##### *Skill Requirements*

*Writing* ..... 3<sup>3,4</sup>

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Foreign Language* ..... 0-12<sup>1,4</sup>

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.

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

*Mathematics:*

MATH 114 Elementary Mathematics and Statistics ..... 3<sup>1</sup>  
(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 80)*

*Group A* ..... 12<sup>1-4</sup>

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

*Group B* ..... 12<sup>1-4</sup>

The study of culture and institutions over time. Twelve credits representing at least two areas.

*Group C* ..... 12<sup>1-4</sup>

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

*Group D* ..... 13<sup>1-4</sup>

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**

CHEM 103 General Chemistry ..... 4<sup>1</sup>

CHEM 104 General Chemistry ..... 4<sup>1</sup>

CHEM 220 Quantitative Analysis ..... 3<sup>2</sup>

CHEM 221 Quantitative Analysis Laboratory ..... 1<sup>2</sup>

or

CHEM 111 General Chemistry ..... 3

CHEM 112 General Chemistry ..... 3

CHEM 119 Quantitative Chemistry I ..... 2

CHEM 120 Quantitative Chemistry II ..... 3

CHEM 321 Organic Chemistry ..... 3<sup>2</sup>

CHEM 325 Organic Chemistry Laboratory ..... 1<sup>2</sup>

CHEM 322 Organic Chemistry ..... 3<sup>2</sup>

CHEM 326 Organic Chemistry Laboratory ..... 1<sup>2</sup>

or

CHEM 331 Organic Chemistry ..... 3

CHEM 333 Organic Chemistry Laboratory I ..... 2

CHEM 332 Organic Chemistry ..... 3

CHEM 334 Organic Chemistry Laboratory II ..... 2

CHEM 437 Instrumental Methods ..... 3<sup>3</sup>

CHEM 438 Instrumental Methods Laboratory ..... 1<sup>3</sup>

CHEM 418 Introductory Physical Chemistry ..... 3<sup>3</sup>

CHEM 419 Introductory Physical Chemistry ..... 3<sup>3</sup>

CHEM 445 Physical Chemistry Laboratory ..... 1<sup>3</sup>

or

CHEM 443 Physical Chemistry ..... 3

CHEM 444 Physical Chemistry ..... 3

CHEM 445 Physical Chemistry Laboratory ..... 1

One of the following eight courses:

CHEM 457 Inorganic Chemistry ..... 3<sup>3,4</sup>

CHEM 527 Introductory Biochemistry ..... 3<sup>3,4</sup>

CHEM 620 Analytical Spectroscopy ..... 3<sup>4</sup>

CHEM 621 Mass Spectrometry and Separations ..... 3<sup>4</sup>

CHEM 622 Electroanalytical Chemistry ..... 3<sup>4</sup>

CHEM 623 Advanced Chemical Analysis ..... 3<sup>4</sup>

CHEM 633 Advanced Organic Chemistry ..... 3<sup>4</sup>

CHEM 634 Advanced Organic Chemistry ..... 3<sup>4</sup>

**Within the College***Related Work**Mathematics*

MATH 221 Calculus I ..... 3<sup>1-4</sup>

or

MATH 241 Analytic Geometry and Calculus A (strongly preferred) ..... 4

*Physics*

PHYS 201 General Physics ..... 4<sup>1-4</sup>

PHYS 202 General Physics ..... 4<sup>1-4</sup>

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\***

**UNIVERSITY REQUIREMENTS**

ENGL 110 Critical Reading and Writing ..... 3<sup>1</sup>

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

**COLLEGE REQUIREMENTS***Skill Requirements*

*Writing* ..... 3<sup>3,4</sup>

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet

*Foreign Language* ..... 0-12<sup>1-4</sup>

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<sup>1</sup>  
(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

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

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 80)*Group A* ..... 12<sup>1-4</sup>

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

*Group B* ..... 12<sup>1-4</sup>

The study of culture and institutions over time. Twelve credits representing at least two areas.

*Group C* ..... 12<sup>1-4</sup>

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

*Group D* ..... 13<sup>1-4</sup>

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**

(30 credits)

CHEM 111	General Chemistry	3 <sup>1</sup>
CHEM 112	General Chemistry	3 <sup>1</sup>
CHEM 119	Quantitative Chemistry I	2 <sup>1</sup>
CHEM 120	Quantitative Chemistry II	3 <sup>1</sup>

or

CHEM 103	General Chemistry	4 <sup>1</sup>
CHEM 104	General Chemistry	4 <sup>1</sup>
CHEM 220	Quantitative Analysis	3 <sup>2,3</sup>
CHEM 221	Quantitative Analysis Laboratory	1 <sup>2,3</sup>
CHEM 213	Elementary Organic Chemistry	4 <sup>2,3</sup>

or

CHEM 321	Organic Chemistry	3
CHEM 322	Organic Chemistry	3
CHEM 325	Organic Chemistry Laboratory	1

or

CHEM 331	Organic Chemistry	3
CHEM 332	Organic Chemistry	3
CHEM 333	Organic Chemistry Laboratory I	2
CHEM 437	Instrumental Methods	3 <sup>3,4</sup>
CHEM 438	Instrumental Methods Laboratory	1 <sup>3,4</sup>
CHEM 418	Introductory Physical Chemistry	3 <sup>3,4</sup>
CHEM 445	Physical Chemistry Laboratory	1 <sup>3,4</sup>

or

CHEM 443	Physical Chemistry	3
CHEM 445	Physical Chemistry Laboratory	1

CHEM 214	Elementary Biochemistry	3 <sup>2,4</sup>
CHEM 216	Elementary Biochemistry Laboratory	1 <sup>2,4</sup>
Chemistry courses selected with consent of adviser		0-4 <sup>1-4</sup>

**Within the College***Related Work*

BISC 207	Introductory Biology I	4 <sup>1-4</sup>
GEOL 105	General Geology	4 <sup>1-4</sup>
MATH 221	Calculus I	3 <sup>1-4</sup>
MATH 222	Calculus II	3 <sup>1-4</sup>

or

MATH 241	Analytic Geometry and Calculus A	4
MATH 242	Analytic Geometry and Calculus B	4
PHYS 201	General Physics	4 <sup>1-4</sup>
or		
PHYS 207	General Physics	4
PHYS 202	General Physics	4 <sup>1-4</sup>
or		
PHYS 208	General Physics	4

**Professional Studies**

(22 credits)

EDST 201	Education and Society	3 <sup>1-4</sup>
EDST 304	Educational Psychology – Social Aspects	3 <sup>1-4</sup>
EDST 305	Educational Psychology – Cognitive Aspects	3 <sup>2-4</sup>
SCEN 491	Science Materials and Approaches	4 <sup>4</sup>
EDST 420	Reading in the Content Areas	1 <sup>1-4</sup>
EDDV 400	Student Teaching	9 <sup>4</sup>

**CREDITS TO TOTAL A MINIMUM OF..... 124****DEGREE: BACHELOR OF SCIENCE****MAJOR: CHEMISTRY****CURRICULUM****CREDITS\*****UNIVERSITY REQUIREMENTS**

ENGL 110	Critical Reading and Writing	3 <sup>1</sup>
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #		3 <sup>1-4</sup>

**COLLEGE REQUIREMENTS***Skill Requirements**Writing* ..... 3<sup>3,4</sup>

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Foreign Language* ..... 0-12<sup>1-4</sup>

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. (German recommended)

*Breadth Requirements*† (See page 80)A total of twenty-one credits from Groups A, B and C is ..... 21<sup>1-4</sup> 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.

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.



**MAJOR REQUIREMENTS****Within the Department**

CHEM 111	General Chemistry	3 <sup>1</sup>
CHEM 119	Quantitative Chemistry I	2 <sup>1</sup>
CHEM 112	General Chemistry	3 <sup>1</sup>
CHEM 120	Quantitative Chemistry II	3 <sup>1</sup>
CHEM 331	Organic Chemistry	3 <sup>2</sup>
CHEM 333	Organic Chemistry Laboratory I	2 <sup>2</sup>
CHEM 332	Organic Chemistry	3 <sup>2</sup>
CHEM 334	Organic Chemistry Majors Laboratory II	2 <sup>2</sup>
CHEM 443	Physical Chemistry	3 <sup>3</sup>
CHEM 445	Physical Chemistry Laboratory	1 <sup>3</sup>
CHEM 437	Instrumental Methods	3 <sup>3</sup>
CHEM 438	Instrumental Methods Laboratory	1 <sup>3</sup>
CHEM 527	Introductory Biochemistry	3 <sup>3</sup>
or		
CHEM 641	Biochemistry	3
CHEM 444	Physical Chemistry	3 <sup>3</sup>
CHEM 446	Physical Chemistry Laboratory	1 <sup>3</sup>
CHEM 457	Inorganic Chemistry	3 <sup>3</sup>
CHEM 458	Inorganic Chemistry Laboratory	1 <sup>3</sup>
CHEM 465	Seminar (two semesters)	2 <sup>4</sup>
	Advanced Chemistry course at 600 level or higher	3 <sup>3,4</sup>
	CHEM 468 Undergraduate Research (optional)	3 <sup>3,4</sup>

**Within the College***Related Work*

MATH 241	Analytic Geometry and Calculus A	4 <sup>1</sup>
MATH 242	Analytic Geometry and Calculus B	4 <sup>1</sup>
MATH 243	Analytic Geometry and Calculus C	4 <sup>2</sup>
MATH 302	Ordinary Differential Equations I (Recommended)	3 <sup>2</sup>
PHYS 207	General Physics	4 <sup>1</sup>
PHYS 208	General Physics	4 <sup>2</sup>
or		
PHYS 201	General Physics	4 <sup>2</sup>
PHYS 202	General Physics	4 <sup>2</sup>

**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.

**DEGREE: BACHELOR OF SCIENCE****MAJOR: BIOCHEMISTRY****CURRICULUM****CREDITS\*****UNIVERSITY REQUIREMENTS**

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

**COLLEGE REQUIREMENTS***Skill Requirements*

Writing:	3 <sup>3,4</sup>
A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Foreign Language*..... 0-12<sup>1-4</sup>

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 (German recommended)

*Breadth Requirements†* (See page 80)

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**

CHEM 111	General Chemistry	3 <sup>1F</sup>
CHEM 112	General Chemistry	3 <sup>1S</sup>
CHEM 119	Quantitative Chemistry I	2 <sup>1F</sup>
CHEM 120	Quantitative Chemistry II	3 <sup>1S</sup>
CHEM 331	Organic Chemistry	3 <sup>2F</sup>
CHEM 333	Organic Chemistry Laboratory I	2 <sup>2F</sup>
CHEM 332	Organic Chemistry	3 <sup>2S</sup>
CHEM 334	Organic Chemistry Majors Laboratory II	2 <sup>2S</sup>
CHEM 342	Introduction to Biochemistry	3 <sup>2S</sup>
CHEM 310	Computers in Chemistry (Recommended)	3 <sup>3</sup>
CHEM 418	Introductory Physical Chemistry	3 <sup>3F</sup>
or		
CHEM 443	Physical Chemistry	3 <sup>3F</sup>
CHEM 437	Instrumental Methods	3 <sup>3</sup>
CHEM 438	Instrumental Methods	1 <sup>3</sup>
CHEM 641	Biochemistry	3 <sup>3F</sup>
CHEM 419	Introductory Physical Chemistry	3 <sup>3S</sup>
or		
CHEM 444	Physical Chemistry	3 <sup>3S</sup>
CHEM 445	Physical Chemistry Laboratory	1 <sup>3S</sup>
CHEM 642	Biochemistry	3 <sup>3S</sup>
	Advanced Chemistry or Biochemistry course at 600 level	3 <sup>4</sup>
	Advanced Biochemistry courses at 600 level	6 <sup>4</sup>

or  
Biology courses selected from the following:..... 6-8<sup>4</sup>

BISC 301	Molecular Biology of the Cell (4)	
BISC 303	Genetic and Evolutionary Biology (4)	
BISC 601	Immunochimistry (4)	
BISC 604	Recombinant DNA Laboratory (4)	
BISC 654	Biochemical Genetics (3)	
BISC 679	Virology (3)	
BISC 698	Comparative Endocrinology (3)	
CHEM 465	Seminar (two semesters)	2 <sup>4</sup>
CHEM 468	Undergraduate Research	6 <sup>4</sup>
or		
	Biology laboratory courses selected from the following:	8 <sup>4</sup>
BISC 303	Genetic and Evolutionary Biology (4)	
BISC 306	General Physiology (4)	

\*Superior figures indicate semester (fall or spring) and/or years in which the course is normally taken, i.e., <sup>1F</sup>fall of freshman year, <sup>2S</sup>spring of sophomore year, etc.

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

BISC 371 Introduction to Microbiology (4)  
 BISC 601 Immunochemistry (4)

**Within the College***Related Work*

MATH 241	Analytic Geometry and Calculus A	4 <sup>1F</sup>
or		
MATH 221	Calculus I	3 <sup>1F</sup>
MATH 242	Analytic Geometry and Calculus B	4 <sup>1S</sup>
or		
MATH 222	Calculus II	3 <sup>1S</sup>
BISC 207	Introductory Biology I	4 <sup>1S</sup>
BISC 208	Introductory Biology II	4 <sup>2F</sup>
PHYS 201	General Physics	4 <sup>2F</sup>
PHYS 202	General Physics	4 <sup>2S</sup>

**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

Candidates for a B.S. in biochemistry must achieve a cumulative GPA of at least 2.00 for all chemistry courses taken.

**REQUIREMENTS FOR A MINOR IN CHEMISTRY**

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

*Credits*

CHEM 103, 104, (or 111,112,119) ..... 8

Any three of the following:

CHEM 220, 221 (or 437, 438) ..... 4

CHEM 321, 325 (or 331, 333) ..... 4-5

CHEM 457, 458 ..... 4

CHEM 418, 445 (or 443, 445) ..... 4

CHEM 527 or 641 ..... 3

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, closely related to the humanities and to the arts.

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****CREDITS\*****UNIVERSITY REQUIREMENTS**

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

**COLLEGE REQUIREMENTS***Skill Requirements*

*Writing* ..... 3<sup>3,4</sup>

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Foreign Language* ..... 0-12<sup>1-4</sup>

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<sup>1</sup>  
 (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 80)*

*Group A* ..... 12<sup>1-4</sup>

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

\*Superior figures indicate semester (fall or spring) and/or years in which the course is normally taken, i.e., <sup>1F</sup>fall of freshman year, <sup>2S</sup>spring of sophomore year, etc.

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

<i>Group B</i> .....	12 <sup>1-4</sup>
The study of culture and institutions over time. Twelve credits representing at least two areas.	
<i>Group C</i> .....	12 <sup>1-4</sup>
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.	
<i>Group D</i> .....	13 <sup>1-4</sup>
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

NOTE: All 4XX communication courses are limited to COMM majors.	
COMM 245 Mass Communication and Culture†	3 <sup>1S</sup>
COMM 256 Principles of Communication Theory†	3 <sup>1F</sup>
COMM 301 Introduction to Communication Inquiry†	3 <sup>2S</sup>
COMM 330 Communication and Social Behavior†	3 <sup>2F</sup>
COMM 350 Public Speaking	3 <sup>3,4</sup>
COMM 361 Interpersonal Communication	3 <sup>3F</sup>
COMM 417 Communication and the Management of Conflict	3 <sup>3S</sup>
COMM 455 Symbolism in Organizations	3 <sup>4S</sup>
COMM 456 Communication in Organizations	3 <sup>4F</sup>
One additional 400-level COMM course, not COMM 466 or COMM 464, outside your concentration.	3 <sup>3,4</sup>
Up to 6 COMM elective courses 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:	18 <sup>3,4</sup>

#### Interpersonal/Organizational Communication Electives

COMM 200 Introduction to Human Communication Systems	3
COMM 251 The Development of Verbal Communication	3
COMM 320 Analysis of Intercultural Communication	3
COMM 356 Small Group Communication	3
COMM 421 Intercultural Communication: Applications in International Contexts	3
COMM 438 Speech and Language in Human Behavior	3
COMM 440 Topics in Interpersonal and Organizational Communication	3
COMM 452 Communication, Power and Values	3
COMM 485 Analysis of Verbal Communication	3

#### Mass Communication Electives

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

COMM 325 Television Production	3
COMM 388 TV Production Practicum	3
COMM 418 Topics in Mass Communication	3
COMM 435 Advanced TV Production and Direction	3
COMM 454 Children and the Mass Media	3

#### Public Relations Electives

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

COMM 309 Introduction to Public Relations	3
COMM 311 Public Relations Communication Techniques	3
COMM 409 Public Relations	3
COMM 413 Public Relations Program Design	3

#### General Electives

COMM x66 Independent Study/Special Problems (366/466)	1-6
COMM 360 Oral Interpretation of Literature	3
COMM 464 Internship	1-6
COMM 490 Honors Reading in Communication	3
COMM 491 Honors Thesis	3
COMM x67 Experimental Courses (367/467)	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: COMMUNICATION

### CONCENTRATION: MASS COMMUNICATION

CURRICULUM CREDITS\*

## UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing	3 <sup>1</sup>
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #	3 <sup>1-4</sup>

## COLLEGE REQUIREMENTS

### Skill Requirements

Writing	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

### 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.

### Mathematics

MATH 114 Elementary Mathematics and Statistics (designed for students who do not intend to continue the study of mathematics)	3 <sup>1</sup>
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or

MATH 115 Pre-Calculus (designed for students who intend to continue the study of mathematics)	3
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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 80)

<i>Group A</i> .....	12 <sup>1-4</sup>
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Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.

<i>Group B</i> .....	12 <sup>1-4</sup>
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The study of culture and institutions over time. Twelve credits representing at least two areas.

<i>Group C</i> .....	12 <sup>1-4</sup>
----------------------	-------------------

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

\*Superior figures indicate semester (fall or spring) and/or years in which the course is normally taken, i.e., <sup>1F</sup>fall of freshman year, <sup>2S</sup>spring of sophomore year, etc.  
#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

‡Must be completed with a grade point average of 2.75 or better.

**Group D..... 13<sup>1-4</sup>**

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*

NOTE: All 4XX communication courses are limited to COMM majors.

COMM 245 Mass Communication and Culture†	3 <sup>1S</sup>
COMM 256 Principles of Communication Theory†	3 <sup>1F</sup>
COMM 301 Introduction to Communication Inquiry†	3 <sup>2S</sup>
COMM 330 Communication and Social Behavior†	3 <sup>2F</sup>
COMM 350 Public Speaking	3 <sup>3,4</sup>
COMM 365 Legal Issues of the Mass Media	3 <sup>3S</sup>
COMM 370 Theories of Mass Communication	3 <sup>3S</sup>
COMM 424 Media Message Analysis	3 <sup>3S</sup>
COMM 450 Mass Communication Effects	3 <sup>4F</sup>
One additional 400-level COMM course, not COMM 466 or COMM 464, outside your concentration.	3 <sup>3,4</sup>
Up to 6 COMM elective courses 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:	18 <sup>3,4</sup>

*Interpersonal/Organizational Communication Electives*

COMM 200 Introduction to Human Communication Systems	3
COMM 251 The Development of Verbal Communication	3
COMM 320 Analysis of Intercultural Communication	3
COMM 356 Small Group Communication	3
COMM 421 Intercultural Communication: Applications in International Contexts	3
COMM 438 Speech and Language in Human Behavior	3
COMM 440 Topics in Interpersonal and Organizational Communication	3
COMM 452 Communication, Power and Values	3
COMM 485 Analysis of Verbal Communication	3

*Mass Communication Electives*

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

COMM 325 Television Production	3
COMM 388 TV Production Practicum	3
COMM 418 Topics in Mass Communication	3
COMM 435 Advanced TV Production and Direction	3
COMM 454 Children and the Mass Media	3

*Public Relations Electives*

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

COMM 309 Introduction to Public Relations	3
COMM 311 Public Relations Communication Techniques	3
COMM 409 Public Relations	3
COMM 413 Public Relations Program Design	3

*General Electives*

COMM x66 Independent Study/Special Problems (366/466)	1-6
COMM 360 Oral Interpretation of Literature	3
COMM 464 Internship	1-6
COMM 490 Honors Reading in Communication	3
COMM 491 Honors Thesis	3
COMM x67 Experimental Courses (367/467)	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**

**COMPUTER AND INFORMATION SCIENCES**

As societies grow and become more industrialized, the problems to be solved grow in number and complexity. Some of the problems are scientific; their solution increases our understanding of the universe. Others are technological and are solved to permit knowledge of the world around us to be applied in the service of humankind; still others are organizational or sociological and deal with the interaction of people with each other and with their environment.

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. A limited number of students are admitted to these programs and a limited number of students may transfer from a different major. 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****CURRICULUM****CREDITS\*****UNIVERSITY REQUIREMENTS**

ENGL 110 Critical Reading and Writing	3 <sup>1</sup>
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #	3 <sup>1-4</sup>

**COLLEGE REQUIREMENTS***Skill Requirements*

Writing:	3 <sup>3,4</sup>
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A 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

\*Superior figures indicate semester (fall or spring) and/or years in which the course is normally taken, i.e., <sup>1F</sup>fall of freshman year, <sup>2S</sup>spring of sophomore year, etc.

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27

‡Must be completed with a grade point average of 2.75 or better.

composition and content. This course must be taken in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Foreign Language:* ..... 0-12<sup>1-4</sup>

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<sup>1</sup>  
(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 80)

*Group A* ..... 12<sup>1-4</sup>

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

*Group B* ..... 12<sup>1-4</sup>

The study of culture and institutions over time. Twelve credits representing at least two areas.

*Group C* ..... 12<sup>1-4</sup>

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

*Group D* ..... 13<sup>1-4</sup>

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

CISC 180 Introduction to Computer Science I ..... 3<sup>1</sup>

CISC 181 Introduction to Computer Science II ..... 3<sup>1</sup>

CISC 220 Data Structures ..... 3<sup>2</sup>

CISC 260 Machine Organization and Microcomputers ..... 3<sup>2</sup>

Eighteen credits of Computer Science numbered 301 or above, approved by the student's adviser. 18

### Within the College

MATH 210 Discrete Mathematics I ..... 3<sup>1</sup>

MATH 241 Analytic Geometry and Calculus A ..... 4<sup>1</sup>

MATH 315 Discrete Mathematics II ..... 3<sup>2</sup>

## 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: COMPUTER AND INFORMATION SCIENCES

### CURRICULUM

CREDITS\*

### UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing ..... 3<sup>1</sup>

Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content. # 3<sup>1-4</sup>

### COLLEGE REQUIREMENTS

#### Skill Requirements

*Writing:* ..... 3<sup>3,4</sup>

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Breadth Requirements†* (See page 80)

Six credits from each of the following groups ..... 18<sup>1-4</sup>

#### 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

CISC 180 Introduction to Computer Science I ..... 3<sup>1</sup>

CISC 181 Introduction to Computer Science II ..... 3<sup>1</sup>

CISC 220 Data Structures ..... 3<sup>2</sup>

CISC 260 Machine Organization and Microcomputers ..... 3<sup>2</sup>

CISC 310 Logic and Programming ..... 3<sup>3</sup>

CISC 320 Algorithms and Advanced Programming ..... 3<sup>3</sup>

CISC 360 Computer Architecture ..... 3<sup>3</sup>

CISC 361 Operating Systems ..... 3<sup>3</sup>

CISC 471 Compiler Design ..... 3<sup>4</sup>

*CISC Electives* ..... 9<sup>1-4</sup>

Nine credits of Computer Science numbered 301 or above, approved by the student's adviser.

*CISC Concentration* ..... 12<sup>1-4</sup>

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.

### Within the College

#### Related Work

MATH 210 Discrete Mathematics I ..... 3<sup>1</sup>

MATH 241 Analytic Geometry and Calculus A ..... 4<sup>1</sup>

MATH 315 Discrete Mathematics II ..... 3<sup>2</sup>

STAT 205 Statistical Methods ..... 4<sup>2</sup>

ENGL 312 Written Communications in Business ..... 3<sup>3</sup>

or

ENGL 410 Technical Writing ..... 3<sup>3</sup>

CSCC 355 Computers, Ethics and Society ..... 3<sup>3</sup>

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

One of the following sequences of laboratory science courses:

PHYS 207	General Physics	4 <sup>1-3</sup>
PHYS 208	General Physics	4 <sup>1-3</sup>
or		
CHEM 103	General Chemistry	4 <sup>1-3</sup>
CHEM 104	General Chemistry	4 <sup>1-3</sup>
or		
BISC 207	Introductory Biology I	4 <sup>1-3</sup>
BISC 208	Introductory Biology II	4 <sup>1-3</sup>
or		
GEOL 107	General Geology I	4 <sup>1-3</sup>
GEOL 108	General Geology II	4 <sup>1-3</sup>

#### Within the University

ELEG 202	Introduction to Digital Systems	4 <sup>2</sup>
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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

#### REQUIREMENTS FOR A MINOR IN COMPUTER SCIENCE

A minor in computer science consists of a total of 15 credits including CISC 180, 181, and 220. Six additional credits at the 200 level or above (excluding CISC 200 and CISC 300) should be chosen with the adviser's approval.

## ECONOMICS

Economics is a social science that analyzes the market and non-market production and allocation of goods and services. It concerns itself with all the problems associated with society's effort to prosper in a world possessing finite resources for the satisfaction of unlimited human desires.

The specific policy problems encountered in this study are varied, fascinating, and profoundly 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 potential solutions to, unemployment and inflation; (3) the problems and 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 the evaluation of government measures to regulate them; and (7) the advantages of, and problems associated with, international trade.

Economics is often confused with business administration. Economics and business administration courses both deal with the production and distribution of material 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 in these studies. Whereas, quite properly, the point of view of most business administration courses is that of the business firm and its well-being, the point of view of economics courses is that of society and society's economic well-being. Economics focuses on the question of how individuals in society can improve their material well-being and 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 below in addition to the concentration and related work requirements that apply to all economics majors.

A minor program in economics is also available.

Students majoring in economics will be advised by the faculty of the Department of Economics.

#### DEGREE: BACHELOR OF ARTS MAJOR: ECONOMICS

##### CURRICULUM

CREDITS\*

##### UNIVERSITY REQUIREMENTS

ENGL 110	Critical Reading and Writing	3 <sup>1</sup>
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #		3 <sup>1-4</sup>

##### COLLEGE REQUIREMENTS

###### Skill Requirements

Writing:	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

Foreign Language:	0-12 <sup>1,4</sup>
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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.

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

**Mathematics:**

MATH 114 or 170 Elementary Mathematics and Statistics ..... 3<sup>1</sup>  
(designed for students who do not intend to continue the study of mathematics)

or

MATH 115 or 171 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 80)

*Group A* ..... 12<sup>1-4</sup>

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

*Group B* ..... 12<sup>1-4</sup>

The study of culture and institutions over time. Twelve credits representing at least two areas.

*Group C* ..... 12<sup>1-4</sup>

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

*Group D* ..... 13<sup>1-4</sup>

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**

ECON 151 Introduction to Microeconomics ..... 3<sup>1</sup>

ECON 152 Introduction to Macroeconomics ..... 3<sup>1</sup>

ECON 302 Money, Credit and Banking ..... 3<sup>2-4</sup>

ECON 401 Intermediate Microeconomic Theory ..... 3<sup>2-4</sup>

ECON 402 Intermediate Macroeconomic Theory ..... 3<sup>1-4</sup>

Six Economics courses, three of which are at or above the 400 level ..... 18<sup>1-4</sup>

**Within the College**

STAT 201 Introduction to Statistics I ..... 3<sup>1-4</sup>

or

STAT 370 Introduction to Statistical Analysis I ..... 3

STAT 202 Introduction to Statistics II ..... 3<sup>1-4</sup>

or

STAT 371 Introduction to Statistical Analysis II ..... 3

Nine credits chosen from any 300-level or higher course in ..... 9<sup>1-4</sup>

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****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

Certain corresponding courses offered at different levels or difficulty will not be counted toward a degree if taken in reverse order of difficulty.

ty. These corresponding courses include ECON 311 and EC 411; ECON 332 and ECON 433; ECON 340 and ECON 443; ECON 360 and ECON 461 or ECON 463; and ECON 381 and ECON 483. In addition, students may take these courses in order of difficulty only by rare exception and approval from the department chair.

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.

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**DEGREE: BACHELOR OF ARTS  
MAJOR: ECONOMICS EDUCATION**
**CURRICULUM****CREDITS\*****UNIVERSITY REQUIREMENTS**

ENGL 110 Critical Reading and Writing ..... 3<sup>1</sup>

Three credits in an approved course or courses stressing ..... 3<sup>1-4</sup>  
multicultural, ethnic, and/or gender-related content #

**COLLEGE REQUIREMENTS***Skill Requirements*

*Writing* ..... 3<sup>3,4</sup>

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Foreign Language* ..... 0-12<sup>1-4</sup>

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 or 170 Elementary Mathematics and Statistics ..... 3<sup>1</sup>

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

or

MATH 115 or 171 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 80)

*Group A* ..... 12<sup>1-4</sup>

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

*Group B* ..... 12<sup>1-4</sup>

The study of culture and institutions over time. Twelve credits representing at least two areas.

*Group C* ..... 12<sup>1-4</sup>

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

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27

†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.

<i>Group D</i> .....	13 <sup>1-4</sup>
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**

ECON 151	Introduction to Microeconomics .....	3 <sup>1</sup>
ECON 152	Introduction to Macroeconomics .....	3 <sup>1</sup>
ECON 302	Money, Credit and Banking .....	3 <sup>1-4</sup>
ECON 300	Intermediate Microeconomic Theory .....	3 <sup>1-4</sup>
ECON 303	Intermediate Macroeconomic Theory .....	3 <sup>1-4</sup>
Six Economics courses, three of which are at or above the 400 level		18

**Within the College**

STAT 201	Introduction to Statistics I .....	3 <sup>1-4</sup>
or		
STAT 370	Introduction to Statistical Analysis I .....	3
STAT 202	Introduction to Statistics II .....	3 <sup>1-4</sup>
or		
STAT 371	Introduction to Statistical Analysis II .....	3
Eighteen credits in the following social sciences with at least three credits in each department: Anthropology, Geography, History, Political Science and International Relations.		18 <sup>1-4</sup>
PSYC 201	General Psychology .....	3 <sup>1-4</sup>

**Professional Studies**

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

**CREDITS TO TOTAL A MINIMUM OF** 124

**ENGLISH**

The study of English offers students the opportunity to acquire a broad education that will prepare them to adapt to a wide variety of careers as well as to develop critical literacy abilities. Competence in the use of one's language and familiarity with the now world wide literatures in English are part of the serious study of literature and social forms. Skill in language strengthens one's ability to communicate cogently, no matter what the career or profession chosen; knowledge of literature is a key part of a liberal education and the source of considerable pleasure for those who enjoy reading and writing.

Today, a major in English language and literature is expected of those students who plan to enter the professions of publishing, journalism, and the teaching of English. English majors are to be found in the foreign service, civil service, academic administration, politics, library science, business, law, medicine, and religion. The strength of such preparation may be observed in almost all fields of endeavor.

The English Department at the University is fortunate to have a faculty consisting of over fifty full-time individuals who have distinguished themselves in teaching, scholarship, and creative writing. The faculty includes literary critics, editors, members of editorial boards, consultants, reviewers for publishers and journals, poets, and fiction writers. 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. Although all literary periods and genres are well represented, the regular faculty is exceptionally strong in modernist and American literature, new cultural studies of literature, and creative writing.

The regular faculty is augmented by visiting distinguished professors such as Pulitzer Prize winner James Wright, novelist Angus Wilson, eminent Shakespearean Derek Traversi, and internationally known scholar and critic David Daiches. 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, scholarly journals edited in the department include *The Journal of Irish Literature*, *George Spelvin's Theatre Book*, and *The D.H. Lawrence Review*.

The department 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. Finally, the students give poetry and fiction readings, both with the faculty and by themselves.

The English Department has a widely varied undergraduate program. In the undergraduate literary and cultural 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 cin-



ema, 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 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 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

##### CREDITS\*

#### UNIVERSITY REQUIREMENTS

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

#### COLLEGE REQUIREMENTS

##### *Skill Requirements*

<i>Writing</i> .....	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet

<i>Foreign Language</i> .....	0-12 <sup>1-4</sup>
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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 <sup>1</sup>
(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 80)

<i>Group A</i> .....	12 <sup>1-4</sup>
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Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.

<i>Group B</i> .....	12 <sup>1-4</sup>
----------------------	-------------------

The study of culture and institutions over time. Twelve credits representing at least two areas.

<i>Group C</i> .....	12 <sup>1-4</sup>
----------------------	-------------------

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

<i>Group D</i> .....	13 <sup>1-4</sup>
----------------------	-------------------

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

ENGL 202 Biblical and Classical Literature .....	3 <sup>1-4</sup>
ENGL 205 Great English Writers I .....	3 <sup>1-4</sup>
ENGL 206 Great English Writers II .....	3 <sup>1-4</sup>
ENGL 324 Shakespeare .....	3 <sup>2-4</sup>

or

ENGL 424 Studies in Shakespeare .....	3 <sup>3,4</sup>
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ENGL 340 American Literature to the Civil War .....	3 <sup>1-4</sup>
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or

ENGL 341 American Literature: Civil War to World War II .....	3 <sup>2,3</sup>
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Twelve credits at the 300 level or above distributed as follows: 12<sup>1-4</sup>

- A course other than Shakespeare in Medieval or Renaissance literature.
- A course in literature between 1700 and 1900.
- A course in Modern literature.
- A course in cultural and theoretical studies.

English courses at or above the 300 level .....	6 <sup>1-4</sup>
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English courses at or above the 200 level .....	3 <sup>1-4</sup>
-------------------------------------------------	------------------

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.

**CREDITS TO TOTAL A MINIMUM OF 124**

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

**DEGREE: BACHELOR OF ARTS****MAJOR: ENGLISH****CONCENTRATION: BUSINESS/TECHNICAL WRITING****CURRICULUM****CREDITS\*****UNIVERSITY REQUIREMENTS**

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

**COLLEGE REQUIREMENTS***Skill Requirements*

<i>Writing:</i> .....	3 <sup>3,4</sup>
A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.	

<i>Foreign Language:</i> .....	0-12 <sup>1-4</sup>
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 <sup>1</sup>
(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 80)*

<i>Group A</i> .....	12 <sup>1-4</sup>
Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.	
<i>Group B</i> .....	12 <sup>1-4</sup>
The study of culture and institutions over time. Twelve credits representing at least two areas.	
<i>Group C</i> .....	12 <sup>1-4</sup>
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.	
<i>Group D</i> .....	13 <sup>1-4</sup>
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**

ENGL 202 Biblical and Classical Literature .....	3 <sup>1-4</sup>
ENGL 205 Great English Writers I .....	3 <sup>1-4</sup>
ENGL 206 Great English Writers II .....	3 <sup>1-4</sup>
ENGL 324 Shakespeare .....	3 <sup>2-4</sup>
or	

ENGL 424 Studies in Shakespeare .....	3 <sup>3,4</sup>
ENGL 340 American Literature to the Civil War .....	3 <sup>2-4</sup>
or	
ENGL 341 American Literature: Civil War to World War II .....	3 <sup>2,3</sup>
Nine credits at the 300 level or above distributed as follows: .....	9 <sup>1-4</sup>
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 <sup>2-4</sup>
ENGL 410 Technical Writing .....	3 <sup>2-4</sup>
ENGL 411 Rhetoric for Business and Technical Writers .....	3 <sup>1-4</sup>
ENGL 412 Business and Technical Publication .....	3 <sup>2-4</sup>
ENGL 464 Internship in Business/Technical Writing .....	3 <sup>2-4</sup>

*Optional:*

ENGL 414 Technical Editing .....	3 <sup>2-4</sup>
or	
ENGL 413 Topics in Technical Writing or one other EBT course .....	3 <sup>2-4</sup>

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.

**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: FILM****CURRICULUM****CREDITS\*****UNIVERSITY REQUIREMENTS**

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

**COLLEGE REQUIREMENTS***Skill Requirements*

<i>Writing:</i> .....	3 <sup>3,4</sup>
A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.	

<i>Foreign Language:</i> .....	0-12 <sup>1-4</sup>
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.	

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

*Mathematics:*

MATH 114 Elementary Mathematics and Statistics ..... 3<sup>1</sup>  
(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 80)

*Group A* ..... 12<sup>1-4</sup>

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

*Group B* ..... 12<sup>1-4</sup>

The study of culture and institutions over time. Twelve credits representing at least two areas.

*Group C* ..... 12<sup>1-4</sup>

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

*Group D* ..... 13<sup>1-4</sup>

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**

ENGL 202 Biblical and Classical Literature ..... 3<sup>1-4</sup>

ENGL 205 Great English Writers I ..... 3<sup>1-4</sup>

ENGL 206 Great English Writers II ..... 3<sup>1-4</sup>

ENGL 324 Shakespeare ..... 3<sup>1-4</sup>

or

ENGL 424 Studies in Shakespeare ..... 3<sup>3,4</sup>

ENGL 340 American Literature to the Civil War ..... 3<sup>1-4</sup>

or

ENGL 341 American Literature: Civil War to World War II ..... 3<sup>2,3</sup>

Nine credits at the 300 level or above distributed as follows: ..... 9<sup>1-4</sup>

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.

ENGL 217 Introduction to Film ..... 3<sup>1-4</sup>

At least nine credits chosen from among the following courses:

ENGL 317 Film History ..... 3<sup>1-4</sup>

ENGL 318 Studies in Film ..... 3<sup>1-4</sup>

(variable content, may be repeated once)

ENGL 417 Film Theory and Criticism ..... 3<sup>1-4</sup>

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****CREDITS\*****UNIVERSITY REQUIREMENTS**

ENGL 110 Critical Reading and Writing ..... 3<sup>1</sup>

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

**COLLEGE REQUIREMENTS***Skill Requirements*

*Writing* ..... 3<sup>3,4</sup>

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Foreign Language* ..... 0-12<sup>1-4</sup>

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<sup>1</sup>

(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 80)

*Group A* ..... 12<sup>1-4</sup>

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

*Group B* ..... 12<sup>1-4</sup>

The study of culture and institutions over time. Twelve credits representing at least two areas.

*Group C* ..... 12<sup>1-4</sup>

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

*Group D* ..... 13<sup>1-4</sup>

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

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

**MAJOR REQUIREMENTS****Within the Department**

ENGL 202	Biblical and Classical Literature	3 <sup>1-4</sup>
ENGL 205	Great English Writers I	3 <sup>1-4</sup>
ENGL 206	Great English Writers II	3 <sup>1-4</sup>
ENGL 324	Shakespeare	3 <sup>1-4</sup>
or		
ENGL 424	Studies in Shakespeare	3 <sup>3,4</sup>
ENGL 340	American Literature to the Civil War	3 <sup>1-4</sup>
or		
ENGL 341	American Literature: Civil War to World War II	3 <sup>2,3</sup>
Nine credits at the 300 level or above distributed as follows:		9 <sup>1-4</sup>
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 <sup>1-4</sup>
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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
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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

**DEGREE: BACHELOR OF ARTS****MAJOR: ENGLISH EDUCATION****CURRICULUM****CREDITS\*****UNIVERSITY REQUIREMENTS**

ENGL 110	Critical Reading and Writing	3 <sup>1</sup>
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #		3 <sup>1-4</sup>

**COLLEGE REQUIREMENTS***Skill Requirements*

Writing:	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Foreign Language* 0-12<sup>1-4</sup>

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 <sup>1</sup>
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(designed for students who do not intend to continue the study of mathematics)

or

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

or

One of the following:

MATH 221	Calculus I	3
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MATH 241	Analytic Geometry and Calculus A	4
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or

Successful performance on the college proficiency exam.

*Breadth Requirements†* (See page 80)

Group A	12 <sup>1-4</sup>
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Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.

Group B	12 <sup>1-4</sup>
---------	-------------------

The study of culture and institutions over time. Twelve credits representing at least two areas.

Group C	12 <sup>1-4</sup>
---------	-------------------

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

Group D	13 <sup>1-4</sup>
---------	-------------------

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†**

ENGL 202	Biblical and Classical Literature	3 <sup>1-4</sup>
ENGL 205	Great English Writers I	3 <sup>1-4</sup>
ENGL 206	Great English Writers II	3 <sup>1-4</sup>
ENGL 302	Advanced Composition	3 <sup>1-4</sup>
ENGL 324	Shakespeare	3 <sup>1-4</sup>
ENGL 340	American Literature to the Civil War	3 <sup>1-4</sup>
ENGL 341	American Literature: Civil War to World War II	3 <sup>1-4</sup>
ENGL 390	Introduction to the English Language	3 <sup>1-4</sup>

Three English courses at the 300 level or above distributed as follows:

British literature before 1900	3
20th-century British, American or Comparative literature	3
Literary Theory and Criticism	3

**Within the College**

COMM 360	Oral Interpretation of Literature	3 <sup>1-4</sup>
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One of the following six courses:

ENGL 494	History of the English Language	3
LING 490	Linguistic Theory	3
LING 491	Semantics I	3
LING 495	Modern English Grammars	3

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

LING 497	Sociolinguistics of English in the Inner City.....	3
LING 498	Teaching English as a Second Language.....	3

**Professional Studies**

EDST 201	Education and Society.....	3 <sup>1-4</sup>
EDST 304	Educational Psychology – Social Aspects.....	3 <sup>1-4</sup>
EDST 305	Educational Psychology – Cognitive Aspects .....	3 <sup>1-4</sup>
EDDV 403	Adolescent Literature.....	3
ENGL 384	Teaching English in Secondary School.....	3 <sup>1-4</sup>
ENGL 481	Seminar in Teaching English.....	3 <sup>4</sup>
ENGL 688	Teaching Composition.....	3 <sup>4</sup>
EDDV 400	Student Teaching.....	9 <sup>4</sup>

**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 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); an Honor thesis; and a comprehensive examination in the senior year.

**FOREIGN LANGUAGES AND LITERATURES**

*Modern.* Improved means of international communication place great demands on young people. Almost all spheres of human activity—from business to politics to humanistic studies—have developed international aspects critical to their functioning. To be fully prepared to meet the increasing competition that comes from abroad in all these areas, we must be able to understand other people's patterns of thought and action. The surest way to achieve this understanding is by learning how to speak other languages. Monolingualism is an obvious disadvantage in a world that is becoming increasingly multilingual.

To prepare our 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 our elementary/intermediate courses are team taught, and we offer special programs for students at this level who want to continue their language/culture study abroad. A high-tech language learning center is expected to replace the language learning laboratory during the 1991-92 academic year.

The study of other languages has always been an important component of higher education. Many disciplines call for some degree of fluency in one or more foreign languages as a requirement for an advanced degree. These disciplines are found in the social and physical sciences as well as in the humanities. The significance of foreign language study is recognized in a number of nonacademic professions as well. Knowledge of a language other than English puts the specialist in international business at a distinct advantage in dealing with persons from other countries. In government work, the Foreign Service of the State Department lists positions that stipulate specific foreign language skills. Translators and interpreters are employed by the courts, advertising agencies, banks, broadcasting networks, and international publishing houses.

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 fragmentation of society has produced an array of specialists who contribute in turn to that fragmentation; the study of the classics speaks to the need for coherence. 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 one for effective action in any profession. 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.

The teaching of the classics will, of course, be the goal of some who select this major, whether they look to secondary education or to graduate school. However, that application by no means exhausts the possibilities. Students who intend to enter the field of law, theology, or medicine will find it appropriate, and it is no less a desirable choice as a major or a field of concentration for future writers, businessmen, and public servants. The program will commend itself to all who observe that a civilization, like a tree, draws its strength from its roots.

**PLACEMENT AND DUPLICATE CREDIT**

Students intending to enroll in a foreign language course will be placed according to the number of years of previ-

ous 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.

## 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: FOREIGN LANGUAGES AND LITERATURES CONCENTRATION: CLASSICS

##### CURRICULUM

##### CREDITS\*

### UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing	3 <sup>1</sup>
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #	3 <sup>1-4</sup>

### COLLEGE REQUIREMENTS

#### *Skill Requirements*

<i>Writing:</i>	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

<i>Foreign Language:</i>	0-12 <sup>1-4</sup>
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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 <sup>1</sup>
(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 80)

<i>Group A</i>	12 <sup>1-4</sup>
Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.	

<i>Group B</i>	12 <sup>1-4</sup>
The study of culture and institutions over time. Twelve credits representing at least two areas.	

<i>Group C</i>	12 <sup>1-4</sup>
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.	

<i>Group D</i>	13 <sup>1-4</sup>
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

ARSC 360 Humanities Colloquium	3 <sup>1-4</sup>
GREK 101 Elementary Greek	3 <sup>1-4</sup>
GREK 102 Elementary Greek	3 <sup>1-4</sup>
Twelve credits in Greek and Latin above the 100 level with six credits at or above the 300 level, and at least three credits in each language.	12 <sup>1-4</sup>
FLIT 316 Classical Mythology	3 <sup>1-4</sup>
FLIT 322 Topics: Classical Literature in Translation	6 <sup>1-4</sup>

### Within the College

Six credits from 200-, 300-, or 400-level courses (including courses in translation) in Foreign Languages and Literatures, Comparative Literature, Linguistics, or other departments, selected in consultation with the adviser.	6 <sup>1-4</sup>
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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 ARTS

### MAJOR: HISTORY/CLASSICS

For the complete curriculum, see Department of History. The major requirements follow.

## MAJOR REQUIREMENTS

### Within the Department of History

HIST 101 Western Civilization to 1648	3 <sup>1-4</sup>
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\*Superior figures indicate year or years in which the course is normally taken, i.e., <sup>1</sup>freshman year, <sup>2</sup>sophomore year, etc.

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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

HIST 102 Western Civilization: 1648 to the Present .....	3 <sup>1-4</sup>
Five 300-level courses, at least two of which must deal with countries that use the chosen foreign language .....	15 <sup>1-4</sup>
History seminar at the 400-level or above .....	3 <sup>1-4</sup>
(excluding HIST 491 and 493 and Independent Study)	

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

Civilization: Two classical civilization (or culture) courses: e.g., FLLT 202 (Biblical and Classical Literature) and FLLT 316 (Mythology) .....	6 <sup>1-4</sup>
Literature: Either 12 credits of Latin at the 200 level or above (with at least 3 hours at the 300 level or above) or GREK 213 and GREK 214 .....	12 <sup>1-4</sup>
6 credits of Latin at the 200 level or above .....	6 <sup>1-4</sup>

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

CURRICULUM	CREDITS*
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**UNIVERSITY REQUIREMENTS**

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

**COLLEGE REQUIREMENTS***Skill Requirements*

Writing .....	3 <sup>3,4</sup>
---------------	------------------

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

<i>Foreign Language</i> .....	0-12 <sup>1-4</sup>
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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 <sup>1</sup>
(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 80)

<i>Group A</i> .....	12 <sup>1-4</sup>
----------------------	-------------------

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

<i>Group B</i> .....	12 <sup>1-4</sup>
----------------------	-------------------

The study of culture and institutions over time. Twelve credits representing at least two areas.

<i>Group C</i> .....	12 <sup>1-4</sup>
----------------------	-------------------

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

<i>Group D</i> .....	13 <sup>1-4</sup>
----------------------	-------------------

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**

ARSC 360 Humanities Colloquium .....	3
GREK 101 Elementary Greek I .....	3
GREK 102 Elementary Greek II .....	3

Twelve credits in Greek and Latin at or above the 100 level with six credits at or above the 300 level, and at least 3 credits in each language.

FLLT 316 Classical Mythology .....	3
FLLT 322 Topics: Classical Literature in Translation .....	6

**Professional Studies**

EDST 201 Education and Society .....	3
EDST 304 Educational Psychology – Social Aspects .....	3
EDST 305 Educational Psychology – Cognitive Aspects .....	3
LING 421 Methods of Teaching Foreign Language .....	3
LING 422 Language Syllabus Design .....	3
LING 424 Second Language Testing .....	3
EDDV 400 Student Teaching .....	6-9

**ELECTIVES***Electives*

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

<b>CREDITS TO TOTAL A MINIMUM OF</b> .....	<b>124</b>
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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), students should see their adviser or the associate chair of the department.

CURRICULUM	CREDITS*
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**UNIVERSITY REQUIREMENTS**

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

**COLLEGE REQUIREMENTS***Skill Requirements*

Writing .....	3 <sup>3,4</sup>
---------------	------------------

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

*Foreign Language:* ..... 0-12<sup>1-4</sup>  
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<sup>1</sup>  
(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 80)

*Group A* ..... 12<sup>1-4</sup>  
Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.

*Group B* ..... 12<sup>1-4</sup>  
The study of culture and institutions over time. Twelve credits representing at least two areas.

*Group C* ..... 12<sup>1-4</sup>  
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.

*Group D* ..... 13<sup>1-4</sup>  
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

Twelve credits in FREN electives at the 200 level and above. .... 12<sup>1-4</sup>  
Twelve credits in FREN literature at the 300 or 400 level ..... 12<sup>1-4</sup>  
(at least six credits must be at the 400 level)

### Within the College

A total of twelve to fifteen credits at the 200 level or above, ..... 12-15<sup>1-4</sup>  
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: HISTORY/FRENCH

For the complete curriculum, see Department of History. The major requirements follow.

## MAJOR REQUIREMENTS

### Within the Department of History

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

### Within the Department of Foreign Languages and Literatures

Civilization: FREN 310 (French Civilization), or FREN 311 (French Civilization) or FREN 312 (Contemporary France) ..... 3<sup>1-4</sup>  
Literature: FREN 301 (Introduction to French Literature: Prose) and FREN 302 (Introduction to French Literature: Poetry and Theatre) ..... 6<sup>1-4</sup>  
400-level literature course ..... 3<sup>1-4</sup>  
Two courses at the 200, 300, or 400 level ..... 6<sup>1-4</sup>

## DEGREE: BACHELOR OF ARTS MAJOR: FRENCH EDUCATION

### CURRICULUM

CREDITS\*

### UNIVERSITY REQUIREMENTS

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

## COLLEGE REQUIREMENTS

### Skill Requirements

*Writing:* ..... 3<sup>3,4</sup>

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Foreign Language:* ..... 0-12<sup>1-4</sup>

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<sup>1</sup>  
(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.

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.



*Breadth Requirements†* (See page 80)

<i>Group A</i> .....	12 <sup>1-4</sup>
Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.	
<i>Group B</i> .....	12 <sup>1-4</sup>
The study of culture and institutions over time. Twelve credits representing at least two areas.	
<i>Group C</i> .....	12 <sup>1-4</sup>
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.	
<i>Group D</i> .....	13 <sup>1-4</sup>
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**

FREN 201	French Reading & Composition: Short Story	3 <sup>1-4</sup>
OR		
FREN 202	French Reading & Composition: Theatre	3 <sup>1-4</sup>
FREN 301	French Literature: Poetry & Theatre	3 <sup>1-4</sup>
FREN 302	French Literature: Prose	3 <sup>1-4</sup>
FREN 304	French Phonetics	3 <sup>1-4</sup>
One of the following courses:		
FREN 303	Intensive French Composition	3 <sup>1-4</sup>
FREN 306	Practical Oral/Written Expression	3 <sup>1-4</sup>
FREN 305	Advanced French Conversation	3 <sup>1-4</sup>
Two of the following courses:		
FREN 308	Contemporary France II	3 <sup>1-4</sup>
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 <sup>1-4</sup>

**Professional Studies**

EDST 201	Education and Society	3
EDST 304	Educational Psychology – Social Aspects	3
EDST 305	Educational Psychology – Cognitive Aspects	3
LING 421	Methods of Teaching Foreign Language	3
LING 422	Language Syllabus Design	3
LING 424	Second Language Testing	3
EDDV 400	Student Teaching	6-9

**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: GERMAN STUDIES**

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

**CURRICULUM****CREDITS\*****UNIVERSITY REQUIREMENTS**

ENGL 110	Critical Reading and Writing	3 <sup>1</sup>
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #		3 <sup>1-4</sup>

**COLLEGE REQUIREMENTS***Skill Requirements*

<i>Writing:</i> .....	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet

*Foreign Language:* 0-12<sup>1-4</sup>

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 <sup>1</sup>
(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 80)

<i>Group A</i> .....	12 <sup>1-4</sup>
Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.	
<i>Group B</i> .....	12 <sup>1-4</sup>
The study of culture and institutions over time. Twelve credits representing at least two areas	
<i>Group C</i> .....	12 <sup>1-4</sup>
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.	
<i>Group D</i> .....	13 <sup>1-4</sup>
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.	

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27

†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.

**MAJOR REQUIREMENTS****Within the Department**

Twelve credits in GERM electives at the 200 level and above .....	12 <sup>1-4</sup>
Twelve credits in GERM literature at the 300 or 400 level .....	12 <sup>1-4</sup>
(at least six credits must be at the 400 level)	

**Within the College**

A total of twelve to fifteen credits at the 200 level or above, .....	12-15 <sup>1-4</sup>
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.

<b>CREDITS TO TOTAL A MINIMUM OF</b> .....	<b>124</b>
--------------------------------------------	------------

**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: HISTORY/GERMAN**

For the complete curriculum, see Department of History. The major requirements follow.

**MAJOR REQUIREMENTS****Within the Department of History**

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

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

Civilization: GERM 325 (German Civilization and Culture) .....	3 <sup>1-4</sup>
Literature: GERM 311 (Introduction to German Literature I) and GERM 312 (Introduction to German Literature II) .....	6 <sup>1-4</sup>
400-level literature course .....	3 <sup>1-4</sup>
Two courses at the 200, 300, or 400 level .....	6 <sup>1-4</sup>

**DEGREE: BACHELOR OF ARTS****MAJOR: GERMAN EDUCATION****CURRICULUM****CREDITS\*****UNIVERSITY REQUIREMENTS**

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

**COLLEGE REQUIREMENTS***Skill Requirements*

<i>Writing:</i> .....	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

<i>Foreign Language:</i> .....	0-12 <sup>1-4</sup>
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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 <sup>1</sup>
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(designed for students who do not intend to continue the study of mathematics)

or

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

or

One of the following:

MATH 221 Calculus I .....	3
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MATH 241 Analytic Geometry and Calculus A .....	4
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or

Successful performance on the college proficiency exam.

*Breadth Requirements†* (See page 80)

<i>Group A</i> .....	12 <sup>1-4</sup>
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Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.

<i>Group B</i> .....	12 <sup>1-4</sup>
----------------------	-------------------

The study of culture and institutions over time. Twelve credits representing at least two areas.

<i>Group C</i> .....	12 <sup>1-4</sup>
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Empirically based study of human beings and their environment. Twelve credits representing at least two areas.

<i>Group D</i> .....	13 <sup>1-4</sup>
----------------------	-------------------

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**

GERM 203 German Grammar Review .....	3
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or

GERM 205 German Conversation .....	3
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GERM 211 German Reading and Composition: Short Fiction .....	3
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or

GERM 212 German Reading and Composition: Drama .....	3
------------------------------------------------------	---

GERM 305 German Conversation and Composition .....	3
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or

GERM 306 Practical Oral/Written Expression .....	3
--------------------------------------------------	---

GERM 311 Introduction to German Literature I .....	3
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and

GERM 312 Introduction to German Literature II .....	3
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GERM 308 Contemporary Germany II .....	3
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or

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

GERM 325	German Civilization and Culture	3
GERM 340	Focus on Genre: German Drama, Prose or Poetry	3
or		
GERM 355	Special Topics	3
One of the following courses:		
GERM 404	History of the German Language	3
GERM 406	Advanced German Language	3
LING 460	The Structure of German	3
Six credits in GERM 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
LING 421	Methods of Teaching Foreign Language	3 <sup>4</sup>
LING 422	Language Syllabus Design	3 <sup>4</sup>
LING 424	Second Language Testing	3 <sup>4</sup>
EDDV 400	Student Teaching	6-9 <sup>4</sup>

**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 (area studies, period studies), students should see their adviser or the associate chair of the department.

**CURRICULUM** CREDITS\*

**UNIVERSITY REQUIREMENTS**

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

**COLLEGE REQUIREMENTS***Skill Requirements*

*Writing:* 3<sup>3,4</sup>

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Foreign Language:* 0-12<sup>1-4</sup>

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 <sup>1</sup>
(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 80)

*Group A:* 12<sup>1-4</sup>

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

*Group B:* 12<sup>1-4</sup>

The study of culture and institutions over time. Twelve credits representing at least two areas.

*Group C:* 12<sup>1-4</sup>

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

*Group D:* 13<sup>1-4</sup>

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**

Twelve credits in ITAL electives at the 200 level and above. 12<sup>1-4</sup>

Twelve credits in ITAL literature at the 300 or 400 level 12<sup>1-4</sup>  
(at least six credits must be at the 400 level)

**Within the College**

A total of twelve to fifteen credits at the 200 level or above, 12-15<sup>1-4</sup>  
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 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.

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

**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\***

**UNIVERSITY REQUIREMENTS**

ENGL 110 Critical Reading and Writing	3 <sup>1</sup>
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #	3 <sup>1-4</sup>

**COLLEGE REQUIREMENTS**

*Skill Requirements*

<i>Writing:</i>	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

<i>Foreign Language:</i>	0-12 <sup>1-4</sup>
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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 <sup>1</sup>
(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 80)

<i>Group A:</i>	12 <sup>1-4</sup>
-----------------	-------------------

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

<i>Group B:</i>	12 <sup>1-4</sup>
-----------------	-------------------

The study of culture and institutions over time. Twelve credits representing at least two areas.

<i>Group C:</i>	12 <sup>1-4</sup>
-----------------	-------------------

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

<i>Group D:</i>	13 <sup>1-4</sup>
-----------------	-------------------

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**

Twelve credits in LATIN electives at the 200 level and above.	12 <sup>1-4</sup>
---------------------------------------------------------------	-------------------

Twelve credits in LATIN literature at the 300 or 400 level	12 <sup>1-4</sup>
(at least six credits must be at the 400 level)	

**Within the College**

A total of twelve to fifteen credits at the 200 level or above,	12-15 <sup>1-4</sup>
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 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: LATIN EDUCATION**

**CURRICULUM** **CREDITS\***

**UNIVERSITY REQUIREMENTS**

ENGL 110 Critical Reading and Writing	3 <sup>1</sup>
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #	3 <sup>1-4</sup>

**COLLEGE REQUIREMENTS**

*Skill Requirements*

<i>Writing:</i>	3 <sup>3,4</sup>
-----------------	------------------

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

<i>Foreign Language:</i>	0-12 <sup>1-4</sup>
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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 <sup>1</sup>
(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.

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

*Breadth Requirements†* (See page 80)

<i>Group A</i> .....	12 <sup>1-4</sup>
Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.	
<i>Group B</i> .....	12 <sup>1-4</sup>
The study of culture and institutions over time. Twelve credits representing at least two areas.	
<i>Group C</i> .....	12 <sup>1-4</sup>
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.	
<i>Group D</i> .....	13 <sup>1-4</sup>
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**

LAIN 2xx .....	6
LAIN 321 Latin Prose Composition.....	1
and	
LAIN 322 Latin Prose Composition.....	1
LAIN 3xx .....	9
LAIN 4xx .....	9
LAIN 421 Advanced Latin Prose Composition.....	2
and	
LAIN 422 Advanced Latin Prose Composition.....	2
LAIN 431 History of Latin Literature.....	2
and	
LAIN 432 History of Latin Literature.....	2
LAIN 4xx .....	9

**Professional Studies**

EDST 201 Education and Society.....	3
EDST 304 Educational Psychology – Social Aspects.....	3
EDST 305 Educational Psychology – Cognitive Aspects.....	3
LING 421 Methods of Teaching Foreign Language.....	3
LING 422 Language Syllabus Design.....	3
LING 424 Second Language Testing.....	3
EDDV 400 Student Teaching.....	6-9

**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: RUSSIAN STUDIES**

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

**CURRICULUM**

CREDITS\*

**UNIVERSITY REQUIREMENTS**

ENGL 110 Critical Reading and Writing.....	3 <sup>1</sup>
--------------------------------------------	----------------

Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #	3 <sup>1-4</sup>
-----------------------------------------------------------------------------------------------------------------	------------------

**COLLEGE REQUIREMENTS***Skill Requirements*

<i>Writing</i> .....	3 <sup>3,4</sup>
----------------------	------------------

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

<i>Foreign Language</i> .....	0-12 <sup>1-4</sup>
-------------------------------	---------------------

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 <sup>1</sup>
(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
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MATH 241 Analytic Geometry and Calculus A.....	4
------------------------------------------------	---

or

Successful performance on the college proficiency exam.

*Breadth Requirements†* (See page 80)

<i>Group A</i> .....	12 <sup>1-4</sup>
Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.	
<i>Group B</i> .....	12 <sup>1-4</sup>
The study of culture and institutions over time. Twelve credits representing at least two areas.	
<i>Group C</i> .....	12 <sup>1-4</sup>
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.	
<i>Group D</i> .....	13 <sup>1-4</sup>
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**

Twelve credits in RUSS electives at the 200 level and above.....	12
Twelve credits in RUSS literature at the 300 or 400 level.....	12
(at least six credits must be at the 400 level)	
FLLT 327 Topics: Russian Literature in Translation.....	3
FLLT 375 Topics: Russian and Soviet Culture in Translation.....	3

**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.	9
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\*Superior figures indicate year or years in which the course is normally taken, i.e., <sup>1</sup>freshman year, <sup>2</sup>sophomore year, etc.

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

**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: HISTORY/RUSSIAN**

For the complete curriculum, see Department of History. The major requirements follow.

**MAJOR REQUIREMENTS****Within the Department of History**

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

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

Civilization: RUSS 311 (History of Russian Culture)	3 <sup>1-4</sup>
Literature: RUSS 321 (Russian Poets of 18th and 19th Century) and RUSS 322 (Russian Prose of 18th and 19th Century)	6 <sup>1-4</sup>
400-level literature course	3 <sup>1-4</sup>
Two courses at the 200, 300, or 400 level	6 <sup>1-4</sup>

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

CURRICULUM	CREDITS*
<b>UNIVERSITY REQUIREMENTS</b>	
ENGL 110 Critical Reading and Writing	3 <sup>1</sup>
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content.#	3 <sup>1-4</sup>

**COLLEGE REQUIREMENTS***Skill Requirements*

Writing:	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

Foreign Language: Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school	0-12 <sup>1-4</sup>
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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 (designed for students who do not intend to continue the study of mathematics)	3 <sup>1</sup>
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or

MATH 115 Pre-Calculus (designed for students who intend to continue the study of mathematics)	3
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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 80)

Group A	12 <sup>1-4</sup>
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Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.

Group B	12 <sup>1-4</sup>
---------	-------------------

The study of culture and institutions over time. Twelve credits representing at least two areas.

Group C	12 <sup>1-4</sup>
---------	-------------------

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

Group D	13 <sup>1-4</sup>
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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**

One of the following courses:

RUSS 203 Russian Grammar Review	3
RUSS 205 Russian Conversation	3
RUSS 206 Practical Oral/Written Expression	3
RUSS 211 Russian Reading and Composition	3
RUSS 305 Russian Conversation and Composition	3

Two of the following courses:

RUSS 310 Introduction to Russian Literature I	3
RUSS 312 Introduction to Russian Literature II	3
RUSS 325 Russian Civilization and Culture	3

RUSS 401 Advanced Russian Grammar and Composition	3
Six credits in RUSS literature at the 400 level	6

Related Work:

FLLT 327 Topics: Russian Literature in Translation	3
FLLT 375 Topics: Russian and Soviet Culture in Translation	3

**Professional Studies**

EDST 201 Education and Society	3
EDST 304 Educational Psychology – Social Aspects	3
EDST 305 Educational Psychology – Cognitive Aspects	3
LING 421 Methods of Teaching Foreign Language	3
LING 422 Language Syllabus Design	3
LING 424 Second Language Testing	3
EDDV 400 Student Teaching	6-9

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

**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: SPANISH STUDIES**

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

**CURRICULUM****CREDITS\*****UNIVERSITY REQUIREMENTS**

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

**COLLEGE REQUIREMENTS***Skill Requirements*

*Writing:* ..... 3<sup>3,4</sup>

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Foreign Language:* ..... 0-12<sup>1-4</sup>

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<sup>1</sup>  
(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 80)*

*Group A:* ..... 12<sup>1-4</sup>

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

*Group B:* ..... 12<sup>1-4</sup>

The study of culture and institutions over time. Twelve credits representing at least two areas.

*Group C:* ..... 12<sup>1-4</sup>

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

*Group D:* ..... 13<sup>1-4</sup>

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**

Twelve credits in SPAN electives at the 200 level and above ..... 12<sup>1-4</sup>

Twelve credits in SPAN literature at the 300 or 400 level ..... 12<sup>1-4</sup>  
(at least six credits must be at the 400 level)

**Within the College**

A total of twelve to fifteen credits at the 200 level or above, ..... 12-15<sup>1-4</sup>  
chosen with prior approval of the adviser and according to option requirements, from the following areas: Spanish, 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: HISTORY/SPANISH**

For the complete curriculum, see Department of History. The major requirements follow.

**MAJOR REQUIREMENTS****Within the Department of History**

HIST 101 Western Civilization to 1648 ..... 3<sup>1-4</sup>

HIST 102 Western Civilization: 1648 to the Present ..... 3<sup>1-4</sup>

Five 300-level courses, at least two of which must deal with countries that use the chosen foreign language ..... 15<sup>1-4</sup>

History seminar at the 400 level or above ..... 3<sup>1-4</sup>  
(excluding HIST 491 and 493 and Independent Study)

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

Civilization: SPAN 211 (Spanish Civilization and Culture) or SPAN 212 (Latin American Civilization and Culture) ..... 3<sup>1-4</sup>

Literature: SPAN 301 (Survey of Spanish Literature) and SPAN 302 (Survey of Spanish Literature) ..... 6<sup>1-4</sup>

or SPAN 303 (Survey of Spanish-American Literature) and SPAN 304 (Survey of Spanish-American Literature) ..... 6<sup>1-4</sup>

400-level literature course ..... 3<sup>1-4</sup>

Two courses at the 200, 300, or 400 level ..... 6<sup>1-4</sup>

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

**DEGREE: BACHELOR OF ARTS  
MAJOR: SPANISH EDUCATION****CURRICULUM** CREDITS\***UNIVERSITY REQUIREMENTS**

ENGL 110 Critical Reading and Writing	3 <sup>1</sup>
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #	3 <sup>1-4</sup>

**COLLEGE REQUIREMENTS***Skill Requirements*

<i>Writing:</i>	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

<i>Foreign Language:</i>	0-12 <sup>1-4</sup>
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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 (designed for students who do not intend to continue the study of mathematics)	3 <sup>1</sup>
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or

MATH 115 Pre-Calculus (designed for students who intend to continue the study of mathematics)	3
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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 80)

<i>Group A:</i>	12 <sup>1-4</sup>
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Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.

<i>Group B:</i>	12 <sup>1-4</sup>
-----------------	-------------------

The study of culture and institutions over time. Twelve credits representing at least two areas.

<i>Group C:</i>	12 <sup>1-4</sup>
-----------------	-------------------

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

<i>Group D:</i>	13 <sup>1-4</sup>
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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**

SPAN 203 Spanish Reading and Composition	3
or	
SPAN 204 Spanish Composition and Grammar	3
One of the following courses:	
SPAN 211 Spanish Civilization and Culture	3

SPAN 212 Latin American Civilization and Culture	3
SPAN 308 Contemporary Spain II	3

Any three of the following four literature survey courses:

SPAN 301 Survey of Spanish Literature	3
SPAN 302 Survey of Spanish Literature	3
SPAN 303 Survey of Spanish-American Literature	3
SPAN 304 Survey of Spanish-American Literature	3
SPAN 305 Oral Communication	3

or

SPAN 306 Practical Oral/Written Expression	3
SPAN 314 Spanish Phonetics and Phonology	3

One of the following courses:

SPAN 401 Advanced Spanish Grammar	3
SPAN 403 History of the Spanish Language	3
SPAN 406 Advanced Spanish Language	3
LING 431 Applied Spanish Linguistics	3

Six credits in SPAN literature at the 400 level	6
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**Professional Studies**

EDST 201 Education and Society	3
EDST 304 Educational Psychology – Social Aspects	3
EDST 305 Educational Psychology – Cognitive Aspects	3
LING 421 Methods of Teaching Foreign Language	3
LING 422 Language Syllabus Design	3
LING 424 Second Language Testing	3
EDDV 400 Student Teaching	6-9

**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: THREE LANGUAGES****CURRICULUM** CREDITS\***UNIVERSITY REQUIREMENTS**

ENGL 110 Critical Reading and Writing	3 <sup>1</sup>
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #	3 <sup>1-4</sup>

**COLLEGE REQUIREMENTS***Skill Requirements*

<i>Writing:</i>	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

<i>Foreign Language:</i>	0-12 <sup>1-4</sup>
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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.

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27

†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.



**Mathematics:**

MATH 114 Elementary Mathematics and Statistics ..... 3<sup>1</sup>  
(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 80)

*Group A* ..... 12<sup>1-4</sup>

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

*Group B* ..... 12<sup>1-4</sup>

The study of culture and institutions over time. Twelve credits representing at least two areas.

*Group C* ..... 12<sup>1-4</sup>

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

*Group D* ..... 13<sup>1-4</sup>

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***First Language*

Six first-language elective credits at the 200 level and above ..... 6<sup>1-4</sup>

Nine credits in literature at the 300 and 400 level ..... 9<sup>1-4</sup>  
(at least three credits at each level)

Three additional credits at the 400 level ..... 3<sup>1-4</sup>

*Second Language*

Six second-language elective credits at the 200 level and above ..... 6<sup>1-4</sup>

Nine credits in literature at the 300 and 400 level ..... 9<sup>1-4</sup>  
(at least three credits at each level)

Three additional credits at the 400 level ..... 3<sup>1-4</sup>

*Third Language*

Nine to eleven credits of language courses (at least three credits at or above the 200 level for Western language) ..... 9-11<sup>1-4</sup>

*Related Work*

Three credits in Linguistics at the 200, 300, or 400 level ..... 3<sup>1-4</sup>

Three credits from 200-, 300-, or 400-level courses ..... 3<sup>1-4</sup>  
(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\*****UNIVERSITY REQUIREMENTS**

ENGL 110 Critical Reading and Writing ..... 3<sup>1</sup>

Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content # ..... 3<sup>1-4</sup>

**COLLEGE REQUIREMENTS***Skill Requirements*

*Writing* ..... 3<sup>3,4</sup>

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Foreign Language* ..... 0-12<sup>1-4</sup>

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<sup>1</sup>

(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 80)

*Group A* ..... 12<sup>1-4</sup>

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

*Group B* ..... 12<sup>1-4</sup>

The study of culture and institutions over time. Twelve credits representing at least two areas.

*Group C* ..... 12<sup>1-4</sup>

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

*Group D* ..... 13<sup>1-4</sup>

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***First Language*

Six first-language elective credits at the 200 level and above ..... 6<sup>1-4</sup>

Nine credits in literature at the 300 or 400 level ..... 9<sup>1-4</sup>  
(at least three credits at each level)

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

Three additional credits at the 400 level .....	3 <sup>1-4</sup>
<i>Second Language</i>	
Six to eight credits of language courses (two courses) .....	6-8 <sup>1-4</sup>
Six credits at the 200 level and above .....	6 <sup>1-4</sup>
<i>Third Language</i>	
Nine to eleven credits of language courses (at least three credits at or above the 200 level for Western language) .....	9-11 <sup>1-4</sup>
<i>Fourth Language</i>	
Six to eight credits of language courses .....	6-8 <sup>1-4</sup>
(at or above the intermediate level for Western language).	
<i>Related Work</i>	
Three credits in Linguistics at the 200, 300, or 400 level .....	3 <sup>1-4</sup>
Three credits of courses in Foreign Languages and .....	3 <sup>1-4</sup>
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

## 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, Caen, Bayreuth, or Granada.

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.

## 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

**Language Houses:** Foreign language students who wish to practice their linguistic skills in an informal setting may

elect to live in one of the foreign language houses (French, German, Spanish). In addition to providing an opportunity for daily conversation in the foreign language, these residences regularly sponsor relevant cultural events. A native speaker is always in residence. Foreign language majors are strongly encouraged to live at least one year in the appropriate language house.

**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.

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.

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

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

## 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 two Italian 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., in Italian art history, history, linguistics, etc.).

**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.

**CLASSICS:** 18 credits including 12 credits in Latin and/or Greek at or above the 200 level and 6 credits in FLLT courses, with one course at or above the 300 level.

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

## GEOGRAPHY

Geographers investigate processes that explain the location of human and natural phenomena, as well as the interactions between people and their physical world. At the University of Delaware, geographic research includes modeling of the impact of climate on health and 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. Geography students are consequently finding employment opportunities in those parts of the public and private sectors that are concerned with the relationship between human activities and the environment. Computer, cartographic and other skills gained by geography students are also in demand on the job market. Geography majors are well prepared to pursue graduate studies in landscape architecture, urban planning, resource management-oriented programs and climatology.

Students who major in geography may, if they choose, specialize in a number of options. The department has an excellent program in climatology with an active research effort undertaken through its Center for Climatic Research. Other areas of study include biogeography, conservation, cartography, cultural-historical geography, urban geography and geomorphology. 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.

### DEGREE: BACHELOR OF ARTS MAJOR: GEOGRAPHY

#### CURRICULUM CREDITS\*

#### UNIVERSITY REQUIREMENTS

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

#### COLLEGE REQUIREMENTS

##### Skill Requirements

Writing	3 <sup>3,4</sup>
A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet

*Foreign Language:* ..... 0-12<sup>1,4</sup>  
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:* ..... 3<sup>1</sup>  
MATH 114 Elementary Mathematics and Statistics ..... 3<sup>1</sup>  
(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 80)

*Group A:* ..... 12<sup>1,4</sup>  
Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.

*Group B:* ..... 12<sup>1,4</sup>  
The study of culture and institutions over time. Twelve credits representing at least two areas.

*Group C:* ..... 12<sup>1,4</sup>  
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.

*Group D:* ..... 13<sup>1,2</sup>  
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

Six credits selected from the following courses:

✓ GEOG 101 Physical Geography	3 <sup>1,4</sup>
✓ 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
GEOG 257 Paleoclimatology	3

Six credits selected from the following courses:

✓ GEOG 102 Human Geography	3 <sup>1,4</sup>
✓ 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
GEOG 240 Environment and Behavior	3

Three credits selected from the following courses:

GEOG 250 Computer Methods in Geography	4 <sup>1,4</sup>
GEOG 270 Map Communication and Design	3

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

GEOG 272 Air Photo Interpretation and Photogrammetry .....	3
Nine credits selected from geography courses .....	9 <sup>3,4</sup>
at the 300 or 400 level (GEOG 445 strongly recommended).	
Six credits selected from geography courses .....	6 <sup>1,4</sup>
at the 200, 300, or 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

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

**CURRICULUM****CREDITS\*****UNIVERSITY REQUIREMENTS**

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

**COLLEGE REQUIREMENTS***Skill Requirements*

Writing: .....	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

Foreign Language: .....	0-12 <sup>1,4</sup>
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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 <sup>1</sup>
(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 80)

Group A .....	12 <sup>1,4</sup>
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Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.

Group B .....	12 <sup>1,4</sup>
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The study of culture and institutions over time. Twelve credits representing at least two areas.

Group C .....	12 <sup>1,4</sup>
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.	

Group D .....	13 <sup>1,4</sup>
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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**

Six credits selected from the following courses:

GEOG 101 Physical Geography .....	3 <sup>1,4</sup>
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
GEOG 257 Paleoclimatology .....	3

Six credits selected from the following courses:

GEOG 102 Human Geography .....	3 <sup>1,4</sup>
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
GEOG 240 Environment and Behavior .....	3

Three credits selected from the following courses:

GEOG 250 Computer Methods in Geography .....	4 <sup>1,4</sup>
GEOG 270 Map Communication and Design .....	3
GEOG 272 Air Photo Interpretation and Photogrammetry .....	3

Nine credits selected from geography courses .....	9 <sup>1,4</sup>
at the 300 or 400 level (GEOG 445 strongly recommended).	

Six credits selected from geography courses .....	6 <sup>1,4</sup>
at the 200, 300, or 400 level.	

**Within the College**

Twenty-four credits in the following social sciences with at .....	24 <sup>1,4</sup>
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 <sup>1,4</sup>
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Six additional credits selected from the departments listed above. ....	6 <sup>1,4</sup>
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**Professional Studies**

EDST 201 Education and Society .....	3 <sup>1,4</sup>
EDST 304 Educational Psychology – Social Aspects .....	3 <sup>1,4</sup>
EDST 305 Educational Psychology – Cognitive Aspects .....	3 <sup>1,4</sup>
HIST 491 Planning a Course of Instruction .....	3 <sup>4</sup>
HIST 493 Seminar: Problems in Teaching History .....	3 <sup>4</sup>
and Social Sciences	
EDST 420 Reading in the Content Area .....	1 <sup>1,4</sup>
EDDV 400 Student Teaching .....	9 <sup>4</sup>

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

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

## 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 Science area, one course from the Human-Cultural 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 Science, Human-Cultural, 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, 345, 346

GROUP B: GEOG 225, 227

GROUP C: GEOG 102, 120, 210, 230, 235, 240, 320

GROUP D: GEOG 101, 152, 206, 220, 250

A detailed brochure describing the geography program and requirements is available upon request from the department office.

## 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. The study of the earth is challenging and varied, and includes specialties as different as paleontology and geophysics. For example, geologists at the University of Delaware are studying some unusual topics, such as the coastline changes of Greece since Bronze Age times and the possible association between large impacts and other earth events, as well as more typical geological topics, such as the chemistry, structural geology, and development of the ancient rocks of northern Delaware, and the history of sea-level change over the last few hundred thousand years.

Geology is vital to the discovery and recovery of earth resources including metals, building materials, and petroleum and other fuels. Geologists also deal with land use, environmental planning, earthquake prediction, and the understanding of hazards such as landslides, floods, and other natural disasters.

Students can enjoy close association with faculty engaged in active field and laboratory research. Advanced undergraduate students are encouraged to undertake research under the supervision of the faculty. The laboratory-classroom building is accessible to all students in research-oriented upper class courses and is equipped for research in mineralogy-petrology, micropaleontology, geochemistry, paleontology, stratigraphy, sedimentary petrology, geophysics, paleomagnetism, and structural geology.

The Department has close ties with the Delaware Geological Survey and with the College of Marine Studies.

The Department of Geology offers Bachelor of Arts degrees in geology, in geology with a concentration in paleobiology, and in earth science education. In addition, the Department offers Bachelor of Science degrees in geology and in geophysics (jointly with the Physics Department), and a minor in geology.

## DEGREE: BACHELOR OF ARTS

### MAJOR: GEOLOGY

NOTE: The curriculum for this program is being revised beginning fall semester 1992. See the department chair for details.

### CURRICULUM

CREDITS\*

### UNIVERSITY REQUIREMENTS

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

### COLLEGE REQUIREMENTS

#### *Skill Requirements*

<i>Writing:</i> .....	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

*Foreign Language*..... 0-12<sup>1-2</sup>  
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<sup>1</sup>  
(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 80)**

*Group A* ..... 12<sup>1-4</sup>  
Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.

*Group B* ..... 12<sup>1-4</sup>  
The study of culture and institutions over time. Twelve credits representing at least two areas.

*Group C* ..... 12<sup>1-4</sup>  
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.

*Group D* ..... 13<sup>1-4</sup>  
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**

GEOL 107 General Geology I ..... 4<sup>1</sup>  
GEOL 108 General Geology II ..... 4<sup>1</sup>  
GEOL 203 Mineralogy and Crystallography ..... 4<sup>2</sup>  
GEOL 204 Properties of Rocks and Minerals ..... 4<sup>2</sup>  
GEOL 301 Systematic and Evolutionary Paleontology ..... 4<sup>3</sup>  
GEOL 303 Sedimentology ..... 3<sup>3</sup>  
GEOL 304 Stratigraphy ..... 3<sup>3</sup>  
GEOL 305 Structural Geology ..... 4<sup>4</sup>  
GEOL 433 Geowriting ..... 3<sup>3,4</sup>

(This course is intended to fulfill the Arts and Science requirement for a second writing course.)

GEOL 432 Recent Sedimentary Environments ..... 3<sup>4</sup>

**Within the College**

Chemistry courses (CHEM 103-104) ..... 8<sup>2</sup>  
Physics courses (PHYS 201-202) ..... 8<sup>3</sup>  
Mathematics courses through college-level trigonometry ..... 3-4<sup>1</sup>

**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**

NOTE: The curriculum for this program is being revised beginning fall semester 1992. See the department chair for details.

**CURRICULUM****CREDITS\*****UNIVERSITY REQUIREMENTS**

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

**COLLEGE REQUIREMENTS***Skill Requirements*

*Writing* ..... 3<sup>3,4</sup>

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Foreign Language*..... 0-12<sup>1-2</sup>

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<sup>1</sup>  
(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 80)**

*Group A* ..... 12<sup>1-4</sup>  
Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.

*Group B* ..... 12<sup>1-4</sup>  
The study of culture and institutions over time. Twelve credits representing at least two areas.

*Group C* ..... 12<sup>1-4</sup>  
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.

*Group D* ..... 13<sup>1-4</sup>  
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**

GEOL 107 General Geology I ..... 4<sup>1</sup>  
GEOL 108 General Geology II ..... 4<sup>1</sup>

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

GEOL 203	Mineralogy and Crystallography	4 <sup>2</sup>
GEOL 204	Properties of Rocks and Minerals	4 <sup>2</sup>
GEOL 301	Systematic and Evolutionary Paleontology	4 <sup>3</sup>
GEOL 303	Sedimentology	3 <sup>3</sup>
GEOL 304	Stratigraphy	3 <sup>3</sup>
GEOL 305	Structural Geology	4 <sup>4</sup>
GEOL 433	Geowriting	3 <sup>3,4</sup>
(This course is intended to fulfill the Arts and Science requirement for a second writing course.)		
GEOL 460	Field Geology in the Western States	6 <sup>3,4</sup>
GEOL 466	Independent Study	3 <sup>4</sup>

**Within the College**

BISC 207	Introductory Biology I	4 <sup>1</sup>
BISC 208	Introductory Biology II	4 <sup>1</sup>
BISC 302	General Ecology	3 <sup>3</sup>
BISC 324	Invertebrate Zoology	4 <sup>4</sup>
BISC 442	Vertebrate Morphology (recommended)	3
BISC 495	Evolution	3 <sup>4</sup>
STAT 201	Introduction to Statistics I	3 <sup>4</sup>
STAT 202	Introduction to Statistics II	3 <sup>4</sup>
CHEM 103	General Chemistry	4 <sup>2</sup>
CHEM 104	General Chemistry	4 <sup>2</sup>
Physics courses (PHYS 201-202)		8 <sup>3</sup>
Mathematics courses through college-level trigonometry		3-4 <sup>1</sup>

**ELECTIVES**

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

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

**DEGREE: BACHELOR OF SCIENCE****MAJOR: GEOLOGY**

NOTE: The curriculum for this program is being revised beginning fall semester 1992. See the department chair for details.

**CURRICULUM** **CREDITS\***

**UNIVERSITY REQUIREMENTS**

ENGL 110	Critical Reading and Writing	3 <sup>1</sup>
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #		3 <sup>1-4</sup>

**COLLEGE REQUIREMENTS***Skill Requirements*

Writing	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet. (See GEOL 433.)

*Foreign Language:* ..... 0-12<sup>1-4</sup>

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 80)

Thirty credits are required with a minimum of nine credits ..... 30<sup>1-4</sup> in each of the following groups:

*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 Department**

A total of 48 credits in geology as follows:

GEOL 107	General Geology I	4 <sup>1</sup>
GEOL 108	General Geology II	4 <sup>1</sup>
GEOL 203	Mineralogy and Crystallography	4 <sup>2</sup>
GEOL 204	Properties of Rocks and Minerals	4 <sup>2</sup>
GEOL 301	Systematic and Evolutionary Paleontology	4 <sup>3</sup>
GEOL 303	Sedimentology	3 <sup>3</sup>
GEOL 304	Stratigraphy	3 <sup>3</sup>
GEOL 305	Structural Geology	4 <sup>3,4</sup>
GEOL 407	Igneous and Metamorphic Petrology	4 <sup>4</sup>
GEOL 433	Geowriting	3 <sup>3,4</sup>

(This course is intended to fulfill the Arts and Science requirement for a second writing course.)

Six credits from the following:

GEOL 460	Field Geology in the Western States	3-6 <sup>3,4</sup>
or		
GEOL 432	Recent Sedimentary Environments	3 <sup>3,4</sup>
Geology courses (400 level)		5 <sup>3,4</sup>

**Within the College***Related Work*

MATH 241	Analytic Geometry and Calculus A	4 <sup>1</sup>
MATH 242	Analytic Geometry and Calculus B	4 <sup>1</sup>
CHEM 103	General Chemistry	4 <sup>2</sup>
CHEM 104	General Chemistry	4 <sup>2</sup>
PHYS 201	General Physics	4 <sup>3</sup>
PHYS 202	General Physics	4 <sup>3</sup>

Eight credits from the departments: ..... 8<sup>2,4</sup>

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 FOR THE MINOR IN GEOLOGY**

NOTE: The minor in Geology is being revised beginning fall semester 1992. See the department chair for details.

The minor consists of at least 18 credit hours in geology. The requirements are as follows:

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27

†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.

GEOL 107/108 (8 credits); at least two of the following: GEOL 203, 204, 301, 303, 304, and 401; any 400-level course or courses may be used to obtain the remaining 18 credits.

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

NOTE: The curriculum for this program is being revised beginning fall semester 1992. See the department chair for details.

**CURRICULUM** **CREDITS\***

**UNIVERSITY REQUIREMENTS**

ENGL 110 Critical Reading and Writing	3 <sup>1</sup>
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content <sup>#</sup>	3 <sup>1-4</sup>

**COLLEGE REQUIREMENTS**

*Skill Requirements*

Writing	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

<i>Foreign Language</i>	0-12 <sup>1-2</sup>
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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 (designed for students who do not intend to continue the study of mathematics)	3 <sup>1</sup>
-------------------------------------------------------------------------------------------------------------------------------	----------------

or

MATH 115 Pre-Calculus (designed for students who intend to continue the study of mathematics)	3
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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 80)*

<i>Group A</i>	12 <sup>1-4</sup>
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Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.

<i>Group B</i>	12 <sup>1-4</sup>
----------------	-------------------

The study of culture and institutions over time. Twelve credits representing at least two areas.

<i>Group C</i>	12 <sup>1-4</sup>
----------------	-------------------

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

<i>Group D</i>	13 <sup>1-4</sup>
----------------	-------------------

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. (This requirement is satisfied by the completion of the interdisciplinary major courses.)

**MAJOR REQUIREMENTS**

**Within the Department**

GEOL 105 General Geology I	4 <sup>1</sup>
GEOL 106 General Geology II	4 <sup>1</sup>
or	
GEOL 107 General Geology I	4
GEOL 108 General Geology II	4
GEOL 204 Properties of Rocks and Minerals	4 <sup>2</sup>
GEOL 302 Stratigraphic and Sedimentary Geology	4 <sup>3</sup>
GEOL 432 Recent Sedimentary Environments	3 <sup>4</sup>
GEOG 101 Physical Geography	3 <sup>1-4</sup>
GEOG 220 Meteorology	3 <sup>1-4</sup>
GEOG 235 Conservation of Natural Resources	3 <sup>1-4</sup>
GEOG 343 Climatic Geomorphology	3 <sup>1-4</sup>
or	
GEOG 255 Applied Climatology	3

**Within the College**

PHYS 133 Introduction to Astronomy	4 <sup>1,2</sup>
PHYS 201 General Physics	4 <sup>1,2</sup>
PHYS 202 General Physics	4 <sup>1,2</sup>
CHEM 103 General Chemistry	4 <sup>1,2</sup>
BISC 195 Biological Evolution	3 <sup>1-4</sup>
MATH 221 Calculus I	3 <sup>1,2</sup>

**External to the College**

MAST 200 Introduction to Marine Studies	3 <sup>1-4</sup>
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**Professional Studies**

EDST 201 Education and Society	3 <sup>1-4</sup>
EDST 304 Educational Psychology – Social Aspects	3 <sup>1-4</sup>
EDST 305 Educational Psychology – Cognitive Aspects	3 <sup>1-4</sup>
SCEN 491 Science Materials and Approaches	3 <sup>4</sup>
EDST 420 Reading in the Content Area	1 <sup>1-4</sup>
EDDV 400 Student Teaching	9 <sup>4</sup>

**CREDITS TO TOTAL A MINIMUM OF 124**

In view of the close relationship between geology and other disciplines, interdepartmental and double majors are encouraged. In addition, various interdisciplinary programs within the field of geology are also possible. These programs require careful planning and should be done in conjunction with the student's adviser and the department chair. Examples of such programs include paleobiology, geochemistry, geophysics (see below). Students interested in any of these programs should contact the Geology Department for information about specific course recommendations.

In recognition of the close relationship of geology to many academic disciplines and the many applications of geology to problems of the environment and the recovery of the earth's resources, the Department of Geology

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

<sup>#</sup>This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

<sup>†</sup>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.



offers courses in varied aspects of geology for nonmajors. These include the basic courses, GEOL 105 and 106 as well as specialty courses such as GEOL 233, 234, 235, 243, and 245. These courses fulfill the GROUP D requirements for the College of Arts and Science.

### BACHELOR OF SCIENCE DEGREE IN GEOPHYSICS

In addition to the B.A. and B.S. degrees in geology, the Geology Department, in cooperation with the Physics Department, offers a B.S. degree in geophysics. Recognizing the specialization of geophysics as a discipline on its own, and because of the need to better coordinate the completion of many courses in two disciplines, a separate degree program with a special curriculum has been formed. The requirements for the geophysics degree and the special curriculum are:

#### DEGREE: BACHELOR OF SCIENCE MAJOR: GEOPHYSICS

**Note:** The curriculum for this program is being revised beginning fall semester 1992. See Professor John Madsen or Professor Sue McGearry for details.

#### CURRICULUM CREDITS\*

##### UNIVERSITY REQUIREMENTS

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

##### COLLEGE REQUIREMENTS

###### *Skill Requirements*

<i>Writing</i> .....	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet. (See GEOL 433)

###### *Breadth Requirements*† (See page 80)

A total of eighteen credits from Groups A, B and C is 18<sup>1-4</sup> 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 <sup>1</sup>
GEOL 108 General Geology II .....	4 <sup>1</sup>

GEOL 204 Properties of Rocks and Minerals .....	4 <sup>3</sup>
GEOL 303 Sedimentology .....	3 <sup>3</sup>
GEOL 304 Stratigraphy .....	3 <sup>3</sup>
GEOL 305 Structural Geology .....	4 <sup>3</sup>
GEOL 433 Geowriting .....	3 <sup>3,4</sup>

(This course is intended to fulfill the Arts and Science requirement for a second writing course.)

GEOL 453 Elementary Geophysics I .....	3 <sup>4</sup>
GEOL 454 Elementary Geophysics II .....	3 <sup>4</sup>

Five credits from the following:

GEOL 460 Field Geology in the Western States .....	3-6
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or

GEOL 432 Recent Sedimentary Environments .....	3
PHYS 207 General Physics .....	4 <sup>1</sup>
PHYS 208 General Physics .....	4 <sup>2</sup>
PHYS 209 General Physics .....	3 <sup>2</sup>
PHYS 419 Analytical Mechanics .....	3 <sup>3</sup>
PHYS 620 Analytical Mechanics .....	3 <sup>3</sup>

Two of the following six courses:

PHYS 313 Physical Optics .....	4 <sup>4</sup>
PHYS 616 Kinetic Theory and Thermodynamics .....	3
PHYS 621 Introduction to Modern Physics .....	3
PHYS 622 Introduction to Modern Physics .....	3
PHYS 631 Acoustics .....	3
MECH 305 Fluid Mechanics .....	3

##### Within the College

###### *Related Work*

CISC 105 General Computer Science .....	3 <sup>3</sup>
MATH 241 Analytic Geometry and Calculus A .....	4 <sup>1</sup>
MATH 242 Analytic Geometry and Calculus B .....	4 <sup>1</sup>
MATH 243 Analytic Geometry and Calculus C .....	4 <sup>2</sup>
MATH 302 Ordinary Differential Equations I .....	3 <sup>2</sup>
CHEM 103 General Chemistry .....	4 <sup>2</sup>
CHEM 104 General Chemistry .....	4 <sup>2</sup>

CREDITS TO TOTAL A MINIMUM OF 127

## HISTORY

There is a history in all our lives. Those having little sense of their personal past can rarely appreciate what they are, let alone develop a vision of their future. The same holds true for our community and nation, and for the whole of humanity. Only our ignorance of history can condemn us to repeating our mistakes. To thrive in the present, and to advance to a sensible future, we must first seek out the meaning of our past.

Those who know history as merely names and dates do not know history. In its focus on people and their experiences, the practice of history is a literary art. In its attempt to make sense of this experience, it is often as analytical as any discipline in the social sciences. Indeed, many social sciences are rooted in or influenced by history.

Combining literary art and critical analysis, the study of history enables us to analyze complex situations and to

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

present our findings clearly and effectively. These intellectual and literary skills can be easily transferred to other disciplines and to real life situations. History majors are able to build outstanding careers in government, business, publishing and journalism, just as they are well prepared for graduate work in law, business, public administration, and teaching. Above all, these skills are essential for an educated person to function in today's world.

Delaware has long been known for its excellence in 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. Course offerings in African, East Asian, Latin American, and women history are outstanding.

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. Finally, together with the Department of English, the History Department administers a History/Journalism major.

The above programs are made possible by a faculty of high caliber. All professors of the department are dedicated to undergraduate teaching and research.

#### DEGREE: BACHELOR OF ARTS

#### MAJOR: HISTORY

#### CURRICULUM

CREDITS\*

#### UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing	3 <sup>1</sup>
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #	3 <sup>1-4</sup>

#### COLLEGE REQUIREMENTS

##### *Skill Requirements*

<i>Writing</i>	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

<i>Foreign Language</i>	0-12 <sup>1-2</sup>
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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 (designed for students who do not intend to continue the study of mathematics)	3 <sup>1</sup>
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or

MATH 115 Pre-Calculus (designed for students who intend to continue the study of mathematics)	3
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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 80)

<i>Group A</i>	12 <sup>1-4</sup>
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Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.

<i>Group B</i>	12 <sup>1-4</sup>
----------------	-------------------

The study of culture and institutions over time. Twelve credits representing at least two areas.

<i>Group C</i>	12 <sup>1-4</sup>
----------------	-------------------

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

<i>Group D</i>	13 <sup>1-4</sup>
----------------	-------------------

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**

HIST 101 Western Civilization to 1648	3 <sup>1-4</sup>
HIST 102 Western Civilization: 1648 to the Present	3 <sup>1-4</sup>
HIST 268 Seminar	3 <sup>1-4</sup>
History course on the history of Asia, Africa, Latin America, or the Ancient World	3 <sup>1-4</sup>
History courses at or above the 300 level	12 <sup>1-4</sup>
History seminar at the 400 level or above (excluding HIST 491 and 493 and Independent Study)	3 <sup>1-4</sup>
History course	3 <sup>1-4</sup>

#### 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 ARTS

#### MAJOR: HISTORY

#### CONCENTRATION: AMERICAN HISTORY

#### CURRICULUM

CREDITS\*

#### UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing	3 <sup>1</sup>
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #	3 <sup>1-4</sup>

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

**COLLEGE REQUIREMENTS***Skill Requirements*

*Writing:* ..... 3<sup>3,4</sup>

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Foreign Language:* ..... 0-12<sup>1-2</sup>

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<sup>1</sup>

(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 80)

*Group A:* ..... 12<sup>1-4</sup>

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

*Group B:* ..... 12<sup>1-4</sup>

The study of culture and institutions over time. Twelve credits representing at least two areas.

*Group C:* ..... 12<sup>1-4</sup>

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

*Group D:* ..... 13<sup>1-4</sup>

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**

HIST 101 Western Civilization to 1648 ..... 3<sup>1-4</sup>

HIST 102 Western Civilization: 1648 to the Present ..... 3<sup>1-4</sup>

HIST 268 Seminar ..... 3<sup>1-4</sup>

History course on the history of Asia, Africa, Latin America, or the Ancient World ..... 3<sup>1-4</sup>

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<sup>1-4</sup>

History seminar at the 400 level or above ..... 3<sup>1-4</sup>  
(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: EUROPEAN HISTORY****CURRICULUM**

**CREDITS\***

**UNIVERSITY REQUIREMENTS**

ENGL 110 Critical Reading and Writing ..... 3<sup>1</sup>

Three credits in an approved course or courses stressing ..... 3<sup>1-4</sup>  
multicultural, ethnic, and/or gender-related content.#

**COLLEGE REQUIREMENTS***Skill Requirements*

*Writing:* ..... 3<sup>3,4</sup>

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Foreign Language:* ..... 0-12<sup>1-2</sup>

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<sup>1</sup>

(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 80)

*Group A:* ..... 12<sup>1-4</sup>

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

*Group B:* ..... 12<sup>1-4</sup>

The study of culture and institutions over time. Twelve credits representing at least two areas.

*Group C:* ..... 12<sup>1-4</sup>

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

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

*Group D* ..... 13<sup>1-4</sup>  
 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

HIST 101 Western Civilization to 1648 ..... 3<sup>1-4</sup>  
 HIST 102 Western Civilization: 1648 to the Present ..... 3<sup>1-4</sup>  
 HIST 268 Seminar ..... 3<sup>1-4</sup>  
 History course on the history of Asia, Africa, Latin America, or the Ancient World ..... 3<sup>1-4</sup>  
 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<sup>1-4</sup>  
 History seminar at the 400 level or above ..... 3<sup>1-4</sup>  
 (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\*

### UNIVERSITY REQUIREMENTS

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

### COLLEGE REQUIREMENTS

#### Skill Requirements

*Writing* ..... 3<sup>3,4</sup>

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Foreign Language* ..... 0-12<sup>1-2</sup>

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<sup>1</sup>  
 (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 80)

*Group A* ..... 12<sup>1-4</sup>

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

*Group B* ..... 12<sup>1-4</sup>

The study of culture and institutions over time. Twelve credits representing at least two areas.

*Group C* ..... 12<sup>1-4</sup>

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

*Group D* ..... 13<sup>1-4</sup>

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

HIST 101 Western Civilization to 1648 ..... 3<sup>1-4</sup>

HIST 102 Western Civilization: 1648 to the Present ..... 3<sup>1-4</sup>

HIST 268 Seminar ..... 3<sup>1-4</sup>

History course on the history of Asia, Africa, Latin America, or the Ancient World ..... 3<sup>1-4</sup>

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<sup>1-4</sup>

History seminar at the 400 level or above ..... 3<sup>1-4</sup>  
 (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\*

### UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing ..... 3<sup>1</sup>

Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content.# ..... 3<sup>1-4</sup>

### COLLEGE REQUIREMENTS

#### Skill Requirements

*Writing* ..... 3<sup>3,4</sup>

A 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

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

composition and content. This course must be taken in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Foreign Language:* ..... 0-12<sup>1-2</sup>

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<sup>1</sup>

(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 80)

*Group A* ..... 12<sup>1-4</sup>

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

*Group B* ..... 12<sup>1-4</sup>

The study of culture and institutions over time. Twelve credits representing at least two areas.

*Group C* ..... 12<sup>1-4</sup>

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

*Group D* ..... 13<sup>1-4</sup>

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**

HIST 101 Western Civilization to 1648 ..... 3<sup>1-4</sup>

HIST 102 Western Civilization: 1648 to the Present ..... 3<sup>1-4</sup>

HIST 268 Seminar ..... 3<sup>1-4</sup>

History course on the history of Asia, Africa, Latin America, or the Ancient World ..... 3<sup>1-4</sup>

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<sup>1-4</sup>

History seminar at the 400 level or above ..... 3<sup>1-4</sup>

(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**

**CURRICULUM**

**CREDITS\***

**UNIVERSITY REQUIREMENTS**

ENGL 110 Critical Reading and Writing ..... 3<sup>1</sup>

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

**COLLEGE REQUIREMENTS**

*Skill Requirements*

*Writing:* ..... 3<sup>3,4</sup>

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Foreign Language:* ..... 0-12<sup>1-2</sup>

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<sup>1</sup>

(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 80)

*Group A* ..... 12<sup>1-4</sup>

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

*Group B* ..... 12<sup>1-4</sup>

The study of culture and institutions over time. Twelve credits representing at least two areas.

*Group C* ..... 12<sup>1-4</sup>

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

*Group D* ..... 13<sup>1-4</sup>

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**

HIST 101 Western Civilization to 1648 ..... 3<sup>1-4</sup>

HIST 102 Western Civilization: 1648 to the Present ..... 3<sup>1-4</sup>

HIST 268 Seminar ..... 3<sup>1-4</sup>

History course on the history of Asia, Africa, Latin America, or the Ancient World ..... 3<sup>1-4</sup>

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

History courses at or above the 300 level .....	12 <sup>1-4</sup>
History seminar at the 400 level or above .....	3 <sup>1-4</sup>
(excluding HIST 491 and 493 and Independent Study)	
History course .....	3 <sup>1-4</sup>

**Within the College**

Twenty-four credits in the following social sciences with at least three credits in each department .....	24 <sup>1-4</sup>
Anthropology course .....	3
Economics course .....	3
Geography course .....	3
Political Science course .....	3
Sociology course .....	3
PSYC 201 General Psychology .....	3 <sup>1-4</sup>
Six additional credits selected from the departments listed .....	6 <sup>1-4</sup>

**Professional Studies**

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

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

**DEGREE: BACHELOR OF ARTS  
MAJOR: HISTORY/CLASSICS****CURRICULUM**

CREDITS\*

**UNIVERSITY REQUIREMENTS**

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

**COLLEGE REQUIREMENTS***Skill Requirements*

Writing: .....	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

Foreign Language: .....	0-12 <sup>1-2</sup>
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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 <sup>1</sup>
(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 80)

Group A .....	12 <sup>1-4</sup>
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Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.

Group B .....	12 <sup>1-4</sup>
---------------	-------------------

The study of culture and institutions over time. Twelve credits representing at least two areas

Group C .....	12 <sup>1-4</sup>
---------------	-------------------

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

Group D .....	13 <sup>1-4</sup>
---------------	-------------------

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 of History**

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

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

Civilization: Two classical civilization (or culture) courses:

e.g., FLLT 202 (Biblical and Classical Literature) and FLLT 316 (Mythology) .....	6 <sup>1-4</sup>
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Literature: Either 12 credits of Latin at the 200-level or above (with at least 3 hours at the 300 level or above)

or GREK 213 and GREK 214 .....	12 <sup>1-4</sup>
6 credits of Latin at the 200 level or above .....	6 <sup>1-4</sup>

**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/FRENCH****CURRICULUM**

CREDITS\*

**UNIVERSITY REQUIREMENTS**

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

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

**COLLEGE REQUIREMENTS***Skill Requirements*

*Writing:* ..... 3<sup>3,4</sup>

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Foreign Language:* ..... 0-12<sup>1-2</sup>

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<sup>1</sup>  
(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 80)

*Group A* ..... 12<sup>1-4</sup>

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

*Group B* ..... 12<sup>1-4</sup>

The study of culture and institutions over time. Twelve credits representing at least two areas.

*Group C* ..... 12<sup>1-4</sup>

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

*Group D* ..... 13<sup>1-4</sup>

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 of History**

HIST 101 Western Civilization to 1648 ..... 3<sup>1-4</sup>

HIST 102 Western Civilization: 1648 to the Present ..... 3<sup>1-4</sup>

Five 300-level courses, at least two of which must deal with countries that use the chosen foreign language ..... 15<sup>1-4</sup>

History seminar at the 400 level or above ..... 3<sup>1-4</sup>  
(excluding HIST 491 and 493 and Independent Study)

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

Civilization: FREN 310 (French Civilization), or FREN 311 (French Civilization) or FREN 312 (Contemporary France) ..... 3<sup>1-4</sup>

Literature: FREN 301 (Introduction to French Literature: Prose) and FREN 302 (Introduction to French Literature: Poetry and Theatre) ..... 6<sup>1-4</sup>

400-level literature course ..... 3<sup>1-4</sup>

Two courses at the 200, 300, or 400 level ..... 6<sup>1-4</sup>

**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/GERMAN****CURRICULUM**

**CREDITS\***

**UNIVERSITY REQUIREMENTS**

ENGL 110 Critical Reading and Writing ..... 3<sup>1</sup>

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

**COLLEGE REQUIREMENTS***Skill Requirements*

*Writing:* ..... 3<sup>3,4</sup>

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Foreign Language:* ..... 0-12<sup>1-2</sup>

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<sup>1</sup>  
(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 80)

*Group A* ..... 12<sup>1-4</sup>

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

*Group B* ..... 12<sup>1-4</sup>

The study of culture and institutions over time. Twelve credits representing at least two areas.

*Group C* ..... 12<sup>1-4</sup>

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

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

<i>Group D</i> .....	13 <sup>1-4</sup>
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 of History**

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

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

Civilization: GERM 325 (German Civilization and Culture) .....	3 <sup>1-4</sup>
Literature: GERM 311 (Introduction to German Literature I) .....	6 <sup>1-4</sup>
and GERM 312 (Introduction to German Literature II) .....	3 <sup>1-4</sup>
400-level literature course .....	3 <sup>1-4</sup>
Two courses at the 200, 300, or 400 level .....	6 <sup>1-4</sup>

**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/RUSSIAN**

CURRICULUM ..... CREDITS\*

**UNIVERSITY REQUIREMENTS**

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

**COLLEGE REQUIREMENTS***Skill Requirements*

<i>Writing:</i> .....	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

<i>Foreign Language:</i> .....	0-12 <sup>1-2</sup>
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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 <sup>1</sup>
(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 80)

<i>Group A</i> .....	12 <sup>1-4</sup>
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Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas

<i>Group B</i> .....	12 <sup>1-4</sup>
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The study of culture and institutions over time. Twelve credits representing at least two areas.

<i>Group C</i> .....	12 <sup>1-4</sup>
----------------------	-------------------

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

<i>Group D</i> .....	13 <sup>1-4</sup>
----------------------	-------------------

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 of History**

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

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

Civilization: RUSS 311 (History of Russian Culture) .....	3 <sup>1-4</sup>
Literature: RUSS 321 (Russian Poets of 18th and 19th Century) .....	6 <sup>1-4</sup>
and RUSS 322 (Russian Prose of 18th and 19th Century) .....	3 <sup>1-4</sup>
400-level literature course .....	3 <sup>1-4</sup>
Two courses at the 200, 300, or 400 level .....	6 <sup>1-4</sup>

**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/SPANISH**

CURRICULUM ..... CREDITS\*

**UNIVERSITY REQUIREMENTS**

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

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.



**COLLEGE REQUIREMENTS***Skill Requirements*

*Writing:* ..... 3<sup>3,4</sup>

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Foreign Language:* ..... 0-12<sup>1-2</sup>

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<sup>1</sup>

(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 80)

*Group A:* ..... 12<sup>1-4</sup>

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

*Group B:* ..... 12<sup>1-4</sup>

The study of culture and institutions over time. Twelve credits representing at least two areas.

*Group C:* ..... 12<sup>1-4</sup>

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

*Group D:* ..... 13<sup>1-4</sup>

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 of History**

HIST 101 Western Civilization to 1648 ..... 3<sup>1-4</sup>

HIST 102 Western Civilization: 1648 to the Present ..... 3<sup>1-4</sup>

Five 300-level courses, at least two of which must deal with countries that use the chosen foreign language ..... 15<sup>1-4</sup>

History seminar at the 400 level or above ..... 3<sup>1-4</sup>  
(excluding HIST 491 and 493 and Independent Study)

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

Civilization: SPAN 211 (Spanish Civilization and Culture) or  
SPAN 212 (Latin American Civilization and Culture) ..... 3<sup>1-4</sup>

Literature: SPAN 301 (Survey of Spanish Literature) and  
SPAN 302 (Survey of Spanish Literature) ..... 6<sup>1-4</sup>

or

SPAN 303 (Survey of Spanish-American Literature) and  
SPAN 304 (Survey of Spanish-American Literature) ..... 6<sup>1-4</sup>

400-level literature course ..... 3<sup>1-4</sup>

Two courses at the 200, 300, or 400 level ..... 6<sup>1-4</sup>

**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****CREDITS\*****UNIVERSITY REQUIREMENTS**

ENGL 110 Critical Reading and Writing ..... 3<sup>1</sup>

Three credits in an approved course or courses stressing  
multicultural, ethnic, and/or gender-related content # ..... 3<sup>1-4</sup>

**COLLEGE REQUIREMENTS***Skill Requirements*

*Writing:* ..... 3<sup>3,4</sup>

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Foreign Language:* ..... 0-12<sup>1-2</sup>

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<sup>1</sup>

(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 80)

*Group A:* ..... 12<sup>1-4</sup>

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

*Group B:* ..... 12<sup>1-4</sup>

The study of culture and institutions over time. Twelve credits representing at least two areas.

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

*Group C* ..... 12<sup>1-4</sup>  
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.

*Group D* ..... 13<sup>1-4</sup>  
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

HIST 101 Western Civilization to 1648 ..... 3<sup>1-4</sup>  
HIST 102 Western Civilization: 1648 to the Present ..... 3<sup>1-4</sup>  
HIST 268 Seminar ..... 3<sup>1-4</sup>  
History course on the history of Asia, Africa, Latin America, or the Ancient World ..... 3<sup>1-4</sup>  
History courses at or above the 300 level ..... 12<sup>1-4</sup>  
History seminar at the 400 level or above ..... 3<sup>1-4</sup>  
(excluding HIST 491 and 493 and Independent Study)  
History course ..... 3<sup>1-4</sup>

### Within the College

ENGL 307 New Writing and Editing ..... 3<sup>1-4</sup>  
Nine credits chosen from the following courses: ..... 9<sup>1-4</sup>  
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 Internship ..... 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

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.

## 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.

## JOURNALISM

The journalism program is centered in the Department of English but reaches beyond it. There is no separate journalism major, but there are concentrations in journalism for English, history and political science majors. The journalism courses—up to 15 credits not including internships—may also be used as the organizing principle for a Bachelor of Arts in Liberal Studies degree or an Interdepartmental Major. The courses are primarily practice oriented and are aimed at preparing the interested student to be well qualified for a position in some phase of reporting, writing, or editing for newspapers, magazines, radio, or television. For details, see English in this catalog.

## 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. Introduction to Linguistics (LING 101), Studies: Language (LING 265), and Introduction to the English Language (LING 390) can be used to fulfill Group C of the 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 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.

## CONFERENCE INTERPRETATION PROGRAM

Within the Department of Linguistics, the Conference Interpretation Program offers training in both simultaneous and consecutive interpretation. The Delaware program is one of only four in existence in the United States.

Students receive classroom and laboratory training, and travel to international organizations, hear numerous guest speakers, and gain valuable practical interpretation experience by working as escorts and simultaneous inter-

preters for University-sponsored and community lectures and activities.

The program's working languages are English, French, and Spanish. Candidates must have a good working knowledge of English *and* either French or Spanish in order to be considered for admission.

**Admission.** To gain admission to the Conference Interpretation Program, candidates must pass a two-part Screening Examination. The examination is administered during the spring semester (in April and May) directly preceding the course sequence beginning the following fall. It is also administered in August and early September for fall admission. (Note: The Conference Interpretation Program begins in the fall only. No new students are admitted for the spring semester.)

**Course Requirements.** The Conference Interpretation Program consists of a core, 12-credit, 2-semester sequence. Students must register for 6 credit hours per semester. The required courses are:

LING 426 Theory and Techniques of Interpretation I (3 credits)

LING 427 Interpretation Practicum I (3 credits)

LING 428 Theory and Techniques of Interpretation II (3 credits)

LING 429 Interpretation Practicum II (3 credits)

Students must concurrently register for LING 426 and 427 during the fall semester and for LING 428 and 429 during the spring semester. A grade of *B* in both LING 426 and 427 is required in order to be eligible to continue the program in the spring semester.

**Certificate Examinations.** At the completion of the core program in May, students have the opportunity to take certificate examinations. These examinations are offered in both simultaneous and consecutive interpretation in all of the students' language combinations. Students earn credits for the courses taken whether or not they pass the certificate examinations.

## MATHEMATICAL SCIENCES

No other scientific field has such wide applicability in human affairs as the mathematical sciences. The mathematical sciences are more than a complex set of tools. Mathematics is an intellectual discipline, a structured way of thinking, a universal language. A humanist should endeavor to appreciate the cultural essence of mathematics just as a scientist should be able to enjoy literature and music. Statistics is frequently used in the planning and

execution of problem-solving procedures. 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 physical 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.

### DEGREE: BACHELOR OF ARTS MAJOR: MATHEMATICAL SCIENCES

#### CURRICULUM

CREDITS\*

#### UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing	3 <sup>1</sup>
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #	3 <sup>1-4</sup>

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

**COLLEGE REQUIREMENTS***Skill Requirements*

*Writing* ..... 3<sup>3,4</sup>

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Foreign Language* ..... 0-12<sup>1-2</sup>

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 80)

*Group A* ..... 12<sup>1-4</sup>

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

*Group B* ..... 12<sup>1-4</sup>

The study of culture and institutions over time. Twelve credits representing at least two areas.

*Group C* ..... 12<sup>1-4</sup>

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

*Group D* ..... 13<sup>1-4</sup>

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**

MATH 210 Discrete Mathematics I ..... 3<sup>1</sup>

MATH 242 Analytic Geometry and Calculus B\*\* ..... 4<sup>1</sup>

MATH 243 Analytic Geometry and Calculus C ..... 4<sup>2</sup>

MATH 349 Elements of Linear Systems ..... 3<sup>2</sup>

MATH 302 Ordinary Differential Equations ..... 3<sup>2</sup>

MATH 303 Differential Equations Computing Lab ..... 1<sup>2</sup>

MATH 503 Advanced Calculus for Applications ..... 3<sup>3,4</sup>

or

MATH 508 Introduction to Complex Variables and Applications ..... 3

MATH 389 Graph Theory ..... 3<sup>3,4</sup>

or

MATH 529 Linear Programming: Methods and Applications ..... 3

STAT 370 Introduction to Statistical Analysis I ..... 3<sup>3</sup>

STAT 371 Introduction to Statistical Analysis II ..... 3<sup>3</sup>

Twelve credits of mathematics and/or statistics at the 300 ..... 12<sup>3,4</sup>

level or above. MATH 601 and 602 are not applicable.

**Within the College**

CISC 105 General Computer Science ..... 3<sup>1,2</sup>

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<sup>3,4</sup>

or

Suitable equivalent

**Within the University**

Area of application outside the department must be ..... 15<sup>1-4</sup>  
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

**DEGREE: BACHELOR OF SCIENCE****MAJOR: MATHEMATICAL SCIENCES****CONCENTRATION: MATHEMATICS OF COMPUTATION****CURRICULUM****CREDITS\*****UNIVERSITY REQUIREMENTS**

ENGL 110 Critical Reading and Writing ..... 3<sup>1</sup>

Three credits in an approved course or courses stressing ..... 3<sup>1-4</sup>  
multicultural, ethnic, and/or gender-related content #

**COLLEGE REQUIREMENTS***Skill Requirements*

*Writing* ..... 3<sup>3,4</sup>

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Foreign Language* ..... 0-12<sup>1-4</sup>

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 80)

A total of twenty-one credits from Groups A, B and C is ..... 30<sup>1-4</sup>  
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<sup>1</sup>

MATH 242 Analytic Geometry and Calculus B\*\* ..... 4<sup>1</sup>

MATH 243 Analytic Geometry and Calculus C ..... 4<sup>2</sup>

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

†This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

‡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.

MATH 260	Concepts of Analysis	3 <sup>2</sup>
MATH 349	Elements of Linear Systems	3
MATH 302	Ordinary Differential Equations	3 <sup>2</sup>
MATH 303	Differential Equations Computing Lab	1 <sup>2</sup>
MATH 315	Discrete Mathematics II	3 <sup>2</sup>
MATH 389	Graph Theory	3 <sup>2,3</sup>
MATH 426	Introduction to Numerical Analysis and Algorithmic Computation	3 <sup>3,4</sup>
MATH 450	Abstract Algebra	3-4 <sup>3,4</sup>
MATH 503	Advanced Calculus for Applications	3 <sup>3,4</sup>
or		
MATH 601	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 <sup>3,4</sup>
MATH 529	Linear Programming: Methods and Applications	3 <sup>3,4</sup>
STAT 370	Introduction to Statistical Analysis I	3 <sup>3</sup>
STAT 371	Introduction to Statistical Analysis II	3 <sup>3</sup>

### Within the College

#### Related Work

CISC 180	Introduction to Computer Science I	3 <sup>1,2</sup>
and		
CISC 181	Introduction to Computer Science II	3
CISC 220	Data Structures	3 <sup>3,4</sup>
CISC 411	Algorithmic and Numerical Solution of Differential Equations	3 <sup>3,4</sup>
CISC 627	Simulation of Discrete Systems	3 <sup>3,4</sup>
ENGL 312	Written Communications in Business	3 <sup>3,4</sup>
	Two-semester sequence of laboratory science	8 <sup>1,2</sup>

### 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: MATHEMATICS OF MANAGEMENT SCIENCES AND OPERATION RESEARCH

CURRICULUM	CREDITS*
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### UNIVERSITY REQUIREMENTS

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

### COLLEGE REQUIREMENTS

#### Skill Requirements

Writing	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Foreign Language:* 0-12<sup>1,4</sup>  
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 80)

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 <sup>1</sup>
MATH 242	Analytic Geometry and Calculus B**	4 <sup>1</sup>
MATH 243	Analytic Geometry and Calculus C	4 <sup>2</sup>
MATH 260	Concepts of Analysis	3 <sup>2</sup>
MATH 349	Elements of Linear Systems	3 <sup>2</sup>
MATH 302	Ordinary Differential Equations	3 <sup>2</sup>
MATH 303	Differential Equations Computing Lab	1 <sup>2</sup>
MATH 389	Graph Theory	3 <sup>2,3</sup>
MATH 426	Introduction to Numerical Analysis and Algorithmic Computation	3 <sup>3,4</sup>
MATH 450	Abstract Algebra	3-4 <sup>3,4</sup>
MATH 508	Introduction to Complex Variables and Application	3 <sup>3,4</sup>
MATH 529	Linear Programming: Methods and Applications	3 <sup>3,4</sup>
MATH 601	Advanced Calculus – Introduction to Analysis I	3 <sup>3,4</sup>
MATH 602	Advanced Calculus – Introduction to Analysis II	3 <sup>3,4</sup>
MATH 672	Vector Spaces	3 <sup>3,4</sup>
STAT 370	Introduction to Statistical Analysis I	3 <sup>3</sup>
STAT 371	Introduction to Statistical Analysis II	3 <sup>3</sup>
	Nine credits from the following:	9 <sup>3,4</sup>
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 <sup>1,2</sup>
PHYS 208	General Physics	4 <sup>1,2</sup>
CISC 105	General Computer Science	3 <sup>1,2</sup>
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 <sup>3,4</sup>

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

**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: PHYSICAL MATHEMATICS****CURRICULUM****CREDITS\*****UNIVERSITY REQUIREMENTS**

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

**COLLEGE REQUIREMENTS***Skill Requirements*

*Writing* ..... 3<sup>3,4</sup>

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Foreign Language* ..... 0-12<sup>1,4</sup>

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 80)

A total of twenty-one credits from Groups A, B and C is ..... 21<sup>1,4</sup>  
 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<sup>1</sup>  
 MATH 242 Analytic Geometry and Calculus B\*\* ..... 4<sup>1</sup>  
 MATH 243 Analytic Geometry and Calculus C ..... 4<sup>2</sup>  
 MATH 260 Concepts of Analysis ..... 3<sup>2</sup>  
 MATH 349 Elements of Linear Systems ..... 3<sup>2</sup>  
 MATH 302 Ordinary Differential Equations ..... 3<sup>2</sup>  
 MATH 303 Differential Equations Computing Lab ..... 1<sup>2</sup>

MATH 426 Introduction to Numerical Analysis and Algorithmic Computation ..... 3<sup>3,4</sup>  
 MATH 450 Abstract Algebra ..... 3-4<sup>3,4</sup>  
 MATH 601 Advanced Calculus – Introduction to Analysis I ..... 3<sup>3,4</sup>  
 MATH 602 Advanced Calculus – Introduction to Analysis II ..... 3<sup>3,4</sup>  
 MATH 508 Introduction to Complex Variables and Application ..... 3<sup>3,4</sup>  
 MATH 672 Vector Spaces ..... 3<sup>3,4</sup>  
 MATH 609 Intermediate Ordinary Differential Equations and ..... 3<sup>3,4</sup>  
 MATH 610 Introduction to Partial Differential Equations with Applications ..... 3<sup>3,4</sup>  
 or  
 MATH 616 Introduction to Applied Mathematics I ..... 3  
 and  
 MATH 617 Introduction to Applied Mathematics II ..... 3<sup>3,4</sup>  
 STAT 370 Introduction to Statistical Analysis I ..... 3<sup>3</sup>  
 STAT 371 Introduction to Statistical Analysis II ..... 3<sup>3</sup>

*Related Work*

PHYS 207 General Physics ..... 4<sup>1,2</sup>  
 PHYS 208 General Physics ..... 4<sup>1,2</sup>  
 PHYS 209 General Physics ..... 3<sup>2,3</sup>  
 PHYS 419 Analytical Mechanics ..... 3<sup>3,4</sup>  
 PHYS 620 Analytical Mechanics ..... 3<sup>3,4</sup>  
 CISC 105 General Computer Science ..... 3<sup>1,2</sup>  
 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<sup>3,4</sup>

**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: STATISTICS****CURRICULUM****CREDITS\*****UNIVERSITY REQUIREMENTS**

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

**COLLEGE REQUIREMENTS***Skill Requirements*

*Writing* ..... 3<sup>3,4</sup>

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

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

†This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

‡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.

*Foreign Language*..... 0-12<sup>1-4</sup>  
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 80)  
A total of twenty-one credits from Groups A, B and C is..... 21<sup>1-4</sup>  
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 <sup>1</sup>
MATH 242	Analytic Geometry and Calculus B**	4 <sup>1</sup>
MATH 243	Analytic Geometry and Calculus C	4 <sup>2</sup>
MATH 260	Concepts of Analysis	3 <sup>2</sup>
MATH 349	Elements of Linear Systems	3 <sup>2</sup>
MATH 302	Ordinary Differential Equations	3 <sup>2</sup>
MATH 303	Differential Equations Computing Lab	1 <sup>2</sup>
MATH 426	Introduction to Numerical Analysis and Algorithmic Computation	3 <sup>3,4</sup>
MATH 503	Advanced Calculus for Applications	3 <sup>3,4</sup>
or		
MATH 601	Advanced Calculus – Introduction to Analysis I	3
and		
MATH 602	Advanced Calculus – Introduction to Analysis II	3
STAT 205	Statistical Methods	4 <sup>1</sup>
STAT 370	Introduction to Statistical Analysis	3 <sup>2</sup>
STAT 371	Introduction to Statistical Analysis II	3 <sup>2</sup>
STAT 418	Sampling Methods	3 <sup>3,4</sup>
STAT 420	Data Analysis and Nonparametric Statistics	3 <sup>3,4</sup>
STAT 611	Regression Analysis	3 <sup>3,4</sup>
STAT 615	Design and Analysis of Experiments	3 <sup>3,4</sup>
Three credits from the following:		
STAT 616	Design and Analysis of Experiments II	3 <sup>4</sup>
STAT 617	Multivariate Methods	3 <sup>4</sup>
STAT 618	Sampling Techniques	3 <sup>4</sup>

#### Within the College

##### Related Work

CISC 105	General Computer Science	3 <sup>1,2</sup>
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 <sup>3,4</sup>
Two-semester sequence of laboratory science		8 <sup>1,2</sup>

*Area of application*..... 15<sup>1-4</sup>  
This program requires a fifteen-credit area of application outside 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 <sup>1</sup>
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #		3 <sup>1-4</sup>

#### COLLEGE REQUIREMENTS

##### Skill Requirements

*Writing*..... 3<sup>3,4</sup>

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Foreign Language*..... 0-12<sup>1-2</sup>

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 performance on a proficiency test in that language. French, Russian or German is recommended.

*Breadth Requirements*† (See page 80)

*Group A*..... 12<sup>1-4</sup>

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

*Group B*..... 9<sup>1-4</sup>

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

*Group C*..... 9<sup>1-4</sup>

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

*Group D*..... 13<sup>1-4</sup>

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

MATH 210	Discrete Mathematics I	3 <sup>1</sup>
MATH 242	Analytic Geometry and Calculus B**	4 <sup>1</sup>
MATH 243	Analytic Geometry and Calculus C	4 <sup>2</sup>
MATH 260	Concepts of Analysis	3 <sup>2,3</sup>
MATH 302	Ordinary Differential Equations	3 <sup>2</sup>

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

†This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

‡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

MATH 303	Differential Equations Computing Lab	1 <sup>2</sup>
MATH 349	Elements of Linear Systems	3 <sup>2</sup>
MATH 450	Abstract Algebra	3 <sup>4,3</sup>
MATH 518	Mathematical Models and Applications	3 <sup>3,4</sup>
MATH 540	Fundamentals of Geometry	3 <sup>3</sup>
STAT 370	Introduction to Statistical Analysis I	3 <sup>3</sup>
STAT 371	Introduction to Statistical Analysis II	3 <sup>3</sup>

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

MATH 503	Advanced Calculus for Applications	3 <sup>1,4</sup>
MATH 508	Introduction to Complex Variables and Application	3 <sup>1,4</sup>

#### Within the College

CISC 105	General Computer Science	3 <sup>1,2</sup>
or		
CISC 106	General Computer Science for Engineering	3
or		
CISC 180	Introduction to Computer Science	3
PHYS 207	General Physics	4 <sup>1,2</sup>
ENGL 312	Written Communications in Business	3 <sup>3,4</sup>

#### Professional Studies

EDST 201	Education and Society	3 <sup>1,4</sup>
EDST 304	Educational Psychology – Social Aspects	3 <sup>1,4</sup>
EDST 305	Educational Psychology – Cognitive Aspects	3 <sup>1,4</sup>
MATH 379	Problem Solving Strategies	1 <sup>4</sup>
MATH 380	Approaches to Teaching Mathematics	3 <sup>4</sup>
MATH 381	Practicum in Secondary Mathematics	1 <sup>2</sup>
EDST 420	Reading in the Content Areas	1 <sup>1,4</sup>
EDDV 400	Student Teaching	9 <sup>4</sup>

#### ELECTIVES

##### Electives

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

**CREDITS TO TOTAL A MINIMUM OF 124**

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.

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.

#### 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 302 (MATH 341 is not considered above MATH 302 since they are corresponding courses from different tracks). 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, MATH 380, MATH 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 only to freshmen and sophomores. A military obligation is incurred only if the student contracts for a commission during the last two years and receives pay.

**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 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. Obligations: Up to four years of active duty (full-time employment), or eight years of part-time employment (one weekend per month and an annual two-week encampment) in the National Guard or Reserve Components, upon receipt of a commission.

**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. Obligation: Two to four years of active duty or eight years of part-time employment (as above) upon receipt of commission. A limited number of scholarships are available to qualified students who desire a commission in the Army Reserve or National Guard.

**Academic 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.

## 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. 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, 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*.

During the academic year, there are many opportunities for students to participate in and attend musical events, including concerts, recitals and opera workshop productions. Over the years many significant musicians have been guests of the department: John Browning, Aaron Copland, John Corigliano, Norman Dello Joio, Eugene Fodor, Dizzy Gillespie, Howard Hanson, Lou Harrison, Karol Husa, Vincent Persichetti, Gunther Schuller, Gian Carlo Menotti, Robert Ward, and Joan Tower.

The faculty of the department include many accomplished performers who are recognized throughout North America and Europe for their artistry. In addition, many faculty have gained prominence through musical composition and scholarly publication. The department is a leader in the development of computer-based instruction in music and video-disc technology.

**DEGREE: BACHELOR OF ARTS****MAJOR: MUSIC****CURRICULUM** **CREDITS\*****UNIVERSITY REQUIREMENTS**

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

**COLLEGE REQUIREMENTS***Skill Requirements*

<i>Writing:</i>	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

<i>Foreign Language:</i>	0-12 <sup>1-4</sup>
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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 (designed for students who do not intend to continue the study of mathematics)	3 <sup>1</sup>
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or

MATH 115 Pre-Calculus (designed for students who intend to continue the study of mathematics)	3
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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 80)

<i>Group A</i>	12 <sup>1-4</sup>
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Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas. (This requirement is partially satisfied by MUSC 195 and 196.)

<i>Group B</i>	12 <sup>1-4</sup>
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The study of culture and institutions over time. Twelve credits representing at least two areas. (This requirement is partially satisfied by MUSC 311, 312, and 313. HIST 101 and 102 are recommended.)

<i>Group C</i>	12 <sup>1-4</sup>
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Empirically based study of human beings and their environment. Twelve credits representing at least two areas.

<i>Group D</i>	13 <sup>1-4</sup>
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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‡***Applied Music*

MUSC 100 Recital Attendance (four semesters required)	0 <sup>1,2</sup>
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MUSC 161 Private Study	2 <sup>1-3</sup>
MUSC 162 Private Study	2 <sup>1-3</sup>
MUSC 261 Private Study	2 <sup>2-4</sup>
MUSC 262 Private Study	2 <sup>2-4</sup>

*Theory*

MUSC 185 Ear Training and Sight Singing I	2 <sup>1-3</sup>
MUSC 186 Ear Training and Sight Singing II	2 <sup>1-3</sup>
MUSC 285 Advanced Ear Training and Sight Singing I	2 <sup>2-4</sup>
MUSC 286 Advanced Ear Training and Sight Singing II	2 <sup>2-4</sup>
MUSC 195 Harmony I	3 <sup>1-3</sup>
MUSC 196 Harmony II	3 <sup>1-3</sup>
MUSC 295 Advanced Harmony I	3 <sup>2-4</sup>
MUSC 296 Advanced Harmony II	3 <sup>2-4</sup>

*Ensemble*

Four credits of large ensembles. (Students must be enrolled in a large ensemble during three of the semesters in which they are enrolled in Applied Music.)	4 <sup>1-4</sup>
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*Literature*

MUSC 111 Introduction to Music History	3 <sup>2,3</sup>
MUSC 311 Music History: 1450-1750	3 <sup>2,3</sup>
MUSC 312 Music History: 1715-1825	3 <sup>3,4</sup>
MUSC 313 Music History: 1825 to the Present	3 <sup>3,4</sup>

*Music Elective*

(excludes private study)	1 <sup>1-4</sup>
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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****CONCENTRATION: INSTRUMENTAL****CURRICULUM** **CREDITS\*****UNIVERSITY REQUIREMENTS**

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

**COLLEGE REQUIREMENTS***Skill Requirements*

<i>Writing:</i>	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Mathematics:*

MATH 114 Elementary Mathematics and Statistics (designed for students who do not intend to continue the study of mathematics)	3 <sup>1</sup>
or	

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

‡Four semesters of recital attendance are required. No more than forty-five credits of music courses may count toward the degree.

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	
English literature course (200 level – Group A or B) .....	3 <sup>1-4</sup>
HIST 101 Western Civilization to 1648 .....	3 <sup>1-4</sup>
HIST 102 Western Civilization: 1648 to the Present .....	3 <sup>1-4</sup>
FLLT Languages courses .....	8 <sup>1-4</sup>
<i>Breadth Requirements</i> † (See page 80)	
<i>Group A</i> .....	6 <sup>1-4</sup>
Understanding and appreciation of the creative arts and humanities. (This requirement is satisfied by MUSC 195 and 196.)	
<i>Group B</i> .....	15 <sup>1-4</sup>
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.)	
<i>Group C</i> .....	9 <sup>1-4</sup>
Empirically based study of human beings and their environment. Nine credits representing at least two areas.	
<i>Group D</i> .....	5 <sup>1-4</sup>
The study of natural phenomena through experiment and analysis.	

## MAJOR REQUIREMENTS

### Within the Department

#### Applied Music

MUSC 100 Recital Attendance (six semesters required) .....	0 <sup>1-3</sup>
MUSC 161 Private Study .....	4 <sup>1</sup>
MUSC 162 Private Study .....	4 <sup>1</sup>
MUSC 261 Private Study .....	4 <sup>2</sup>
MUSC 262 Private Study .....	4 <sup>2</sup>
MUSC 361 Private Study .....	4 <sup>3</sup>
MUSC 362 Private Study .....	4 <sup>3</sup>
MUSC 461 Private Study .....	4 <sup>4</sup>
MUSC 462 Private Study .....	4 <sup>4</sup>
MUSC 175 Class Piano: Elementary I .....	1 <sup>1-4</sup>
MUSC 176 Class Piano: Elementary II .....	1 <sup>1-4</sup>
MUSC 301 Junior Recital .....	0 <sup>3,4</sup>
MUSC 401 Senior Recital .....	0 <sup>4</sup>

#### Theory

MUSC 185 Ear Training and Sight Singing I .....	2 <sup>1,2</sup>
MUSC 186 Ear Training and Sight Singing II .....	2 <sup>1,2</sup>
MUSC 285 Advanced Ear Training and Sight Singing I .....	2 <sup>2,3</sup>
MUSC 286 Advanced Ear Training and Sight Singing II .....	2 <sup>2,3</sup>
MUSC 195 Harmony I .....	3 <sup>1,2</sup>
MUSC 196 Harmony II .....	3 <sup>1,2</sup>
MUSC 295 Advanced Harmony I .....	3 <sup>2,3</sup>
MUSC 296 Advanced Harmony II .....	3 <sup>2,3</sup>
MUSC Theory courses .....	4-6 <sup>1-4</sup>

#### Ensemble

Twelve credits selected from the following: .....	12 <sup>1-4</sup>
MUSC 115 Band, MUSC 116 Jazz Ensemble, MUSC 117 University Orchestra, and MUSC 321 Ensemble.	
(All Ensembles may be repeated.)	

Guitarists must complete the following:

MUSC 321 Ensemble: Guitar .....	8 <sup>1-4</sup>
MUSC 109, 115, 116, 117 or 118 .....	2 <sup>1,2</sup>

#### Literature

MUSC 111 Introduction to Music History .....	3 <sup>2,3</sup>
MUSC 311 Music History: 1450-1750 .....	3 <sup>2,3</sup>
MUSC 312 Music History: 1715-1825 .....	3 <sup>3,4</sup>
MUSC 313 Music History: 1825 to the Present .....	3 <sup>3,4</sup>
Music Elective .....	3 <sup>1-4</sup>

#### Music Electives

Excludes private study on primary instrument .....	7-9 <sup>1-4</sup>
May include two credits of ensemble.	

**CREDITS TO TOTAL A MINIMUM OF 129**

## DEGREE: BACHELOR OF MUSIC MAJOR: APPLIED MUSIC CONCENTRATION: PIANO/ORGAN

### CURRICULUM

CREDITS\*

### UNIVERSITY REQUIREMENTS

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

### COLLEGE REQUIREMENTS

#### Skill Requirements

<i>Writing</i> .....	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

#### Mathematics:

MATH 114 Elementary Mathematics and Statistics .....	3 <sup>1</sup>
(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.

English literature course (200 level – Group A or B) .....	3 <sup>1-4</sup>
HIST 101 Western Civilization to 1648 .....	3 <sup>1-4</sup>
HIST 102 Western Civilization: 1648 to the Present .....	3 <sup>1-4</sup>
FLLT Languages courses .....	8 <sup>1-4</sup>

#### Breadth Requirements† (See page 80)

<i>Group A</i> .....	6 <sup>1-4</sup>
Understanding and appreciation of the creative arts and humanities. (This requirement is satisfied by MUSC 195 and 196.)	

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

<i>Group B</i> .....	15 <sup>1-4</sup>
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.)	
<i>Group C</i> .....	9 <sup>1-4</sup>
Empirically based study of human beings and their environment. Nine credits representing at least two areas.	
<i>Group D</i> .....	5 <sup>1-4</sup>
The study of natural phenomena through experiment and analysis.	

**MAJOR REQUIREMENTS****Within the Department***Applied Music*

MUSC 100	Recital Attendance (six semesters required)	0 <sup>1-3</sup>
MUSC 161	Private Study	4 <sup>1</sup>
MUSC 162	Private Study	4 <sup>1</sup>
MUSC 261	Private Study	4 <sup>2</sup>
MUSC 262	Private Study	4 <sup>2</sup>
MUSC 361	Private Study	4 <sup>3</sup>
MUSC 362	Private Study	4 <sup>3</sup>
MUSC 461	Private Study	4 <sup>4</sup>
MUSC 462	Private Study	4 <sup>4</sup>
MUSC 301	Junior Recital	0 <sup>3,4</sup>
MUSC 401	Senior Recital	0 <sup>4</sup>
MUSC 193	Sight Reading at the Keyboard I	1 <sup>1,2</sup>
MUSC 194	Sight Reading at the Keyboard II	1 <sup>1,2</sup>

*Theory*

MUSC 185	Ear Training and Sight Singing I	2 <sup>1,2</sup>
MUSC 186	Ear Training and Sight Singing II	2 <sup>1,2</sup>
MUSC 285	Advanced Ear Training and Sight Singing I	2 <sup>2,3</sup>
MUSC 286	Advanced Ear Training and Sight Singing II	2 <sup>2,3</sup>
MUSC 195	Harmony I	3 <sup>1,2</sup>
MUSC 196	Harmony II	3 <sup>1,2</sup>
MUSC 295	Advanced Harmony I	3 <sup>2,3</sup>
MUSC 296	Advanced Harmony II	3 <sup>2,3</sup>
MUSC 393	Keyboard Harmony	2 <sup>3,4</sup>
MUSC 394	Keyboard Harmony	2 <sup>3,4</sup>
MUSC	Theory courses	4-6 <sup>1-4</sup>

*Ensemble*

MUSC 321	Ensemble	2 <sup>1-4</sup>
MUSC 241	Accompanying Chamber Music: Piano	1 <sup>1-4</sup>
MUSC 242	Accompanying Chamber Music: Piano	1 <sup>1-4</sup>
MUSC 341	Accompanying Chamber Music: Piano	1 <sup>1-4</sup>
MUSC 342	Accompanying Chamber Music: Piano	1 <sup>1-4</sup>
MUSC 441	Accompanying Chamber Music: Piano	1 <sup>1-4</sup>
MUSC 442	Accompanying Chamber Music: Piano	1 <sup>1-4</sup>

*Literature*

MUSC 111	Introduction to Music History	3 <sup>2,3</sup>
MUSC 311	Music History: 1450-1750	3 <sup>2,3</sup>
MUSC 312	Music History: 1715-1825	3 <sup>3,4</sup>
MUSC 313	Music History 1825 to the Present	3 <sup>3,4</sup>
MUSC 363	Keyboard Literature I†	3 <sup>3,4</sup>
MUSC 364	Keyboard Literature II†	3 <sup>3,4</sup>
MUSC	Music Literature course	3 <sup>1-4</sup>

*Music Electives*

Excludes private study on primary instrument	8 <sup>1-4</sup>
May include two credits of ensemble.	

**CREDITS TO TOTAL A MINIMUM OF 136****DEGREE: BACHELOR OF MUSIC****MAJOR: APPLIED MUSIC****CONCENTRATION: VOICE****CURRICULUM****CREDITS\*****UNIVERSITY REQUIREMENTS**

ENGL 110	Critical Reading and Writing	3 <sup>1</sup>
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #		3 <sup>1-4</sup>

**COLLEGE REQUIREMENTS***Skill Requirements*

<i>Writing</i> .....	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Mathematics:*

MATH 114	Elementary Mathematics and Statistics	3 <sup>1</sup>
(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.

HIST 102	Western Civilization: 1648 to the Present	3 <sup>1-4</sup>
Languages courses (French, German and Italian)		24 <sup>1-4</sup>
THEA 226	Acting I	3 <sup>1-4</sup>

*Breadth Requirements† (See page 80)*

<i>Group A</i> .....	6 <sup>1-4</sup>
Understanding and appreciation of the creative arts and humanities. (This requirement is satisfied by MUSC 195 and 196.)	

<i>Group B</i> .....	12 <sup>1-4</sup>
The study of culture and institutions over time. Twelve credits representing at least two areas. (This requirement is partially satisfied by MUSC 311, 312, 313 and HIST 102.)	

<i>Group C</i> .....	6 <sup>1-4</sup>
Empirically based study of human beings and their environment. Six credits representing at least two areas.	

<i>Group D</i> .....	3 <sup>1-4</sup>
The study of natural phenomena through experiment and analysis.	

**MAJOR REQUIREMENTS****Within the Department***Applied Music*

MUSC 100	Recital Attendance (six semesters required)	0 <sup>1-3</sup>
MUSC 161	Private Study	4 <sup>1</sup>
MUSC 162	Private Study	4 <sup>1</sup>
MUSC 261	Private Study	4 <sup>2</sup>

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

‡Organ Majors may substitute MUSC 335, MUED 336, or MUSC 328.

MUSC 262	Private Study	4 <sup>2</sup>
MUSC 361	Private Study	4 <sup>3</sup>
MUSC 362	Private Study	4 <sup>3</sup>
MUSC 461	Private Study	4 <sup>4</sup>
MUSC 462	Private Study	4 <sup>4</sup>
MUSC 175	Class Piano: Elementary I	1 1,2
MUSC 176	Class Piano: Elementary II	1 1,2
MUSC 275	Class Piano: Intermediate I	1 2,3
MUSC 276	Class Piano: Intermediate II	1 2,3
MUSC 301	Junior Recital	0 <sup>3</sup>
MUSC 401	Senior Recital	0 <sup>4</sup>

*Theory*

MUSC 185	Ear Training and Sight Singing I	2 1,2
MUSC 186	Ear Training and Sight Singing II	2 1,2
MUSC 285	Advanced Ear Training and Sight Singing I	2 2,3
MUSC 286	Advanced Ear Training and Sight Singing II	2 2,3
MUSC 195	Harmony I	3 1,2
MUSC 196	Harmony II	3 1,2
MUSC 295	Advanced Harmony I	3 2,3
MUSC 296	Advanced Harmony II	3 2,3

*Ensemble*

MUSC 109	Choral Union	8 1-4
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*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

*Related Music Studies*

MUSC 171	Diction: English	1 1
MUSC 172	Diction: Italian	1 1
MUSC 271	Diction: German	1 2
MUSC 272	Diction: French	1 2
MUSC 365	Vocal Coaching I	1 3
MUSC 465	Vocal Coaching II	1 4
MUSC 489	Opera Workshop	1 1,4

*Music Electives*

Twelve credits from the following: (including four credits from MUSC 327, 427 and/or 428)		12 1-4
MUSC 314	Opera History	3
MUSC 327	German Lieder	2
MUSC 335	Basic Conducting	2
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 489	Opera Workshop (up to 3 credits allowed)	1
MUSC 495	Analysis for Performance	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 140**

**DEGREE: BACHELOR OF MUSIC**  
**MAJOR: MUSIC EDUCATION**  
**CONCENTRATION: INSTRUMENTAL**

**CURRICULUM****CREDITS\*****UNIVERSITY REQUIREMENTS**

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

**COLLEGE REQUIREMENTS***Skill Requirements*

<i>Writing</i>	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Mathematics:*

MATH 114	Elementary Mathematics and Statistics	3 <sup>1</sup>
(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 80)

Art or Art History course, may be from Group A or B	3 1-4
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<i>Group A</i>	9 1-4
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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.)

<i>Group B</i>	9 1-4
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The study of culture and institutions over time. (MUSC 311, 312, and 313 count toward completion of this requirement.)

<i>Group C</i>	9 1-4
----------------	-------

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

<i>Group D</i>	4 1-4
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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 1-3
MUSC 161	Private Study	2 <sup>1</sup>
MUSC 162	Private Study	2 <sup>1</sup>
MUSC 261	Private Study	2 <sup>2</sup>
MUSC 262	Private Study	2 <sup>2</sup>
MUSC 361	Private Study	2 <sup>3</sup>
MUSC 362	Private Study	2 <sup>3</sup>
MUSC 461	Private Study	2 <sup>4</sup>

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

MUSC 175	Class Piano: Elementary I	1 <sup>1-3</sup>
MUSC 176	Class Piano: Elementary II	1 <sup>1-4</sup>
MUSC 174	Class Voice: Beginning	1 <sup>1-3</sup>
MUSC 301	Junior Recital	0 <sup>3,4</sup>

*Theory*

MUSC 185	Ear Training and Sight Singing I	2 <sup>1,2</sup>
MUSC 186	Ear Training and Sight Singing II	2 <sup>1,2</sup>
MUSC 285	Advanced Ear Training and Sight Singing I	2 <sup>2,3</sup>
MUSC 286	Advanced Ear Training and Sight Singing II	2 <sup>2,3</sup>
MUSC 195	Harmony I	3 <sup>1,2</sup>
MUSC 196	Harmony II	3 <sup>1,2</sup>
MUSC 295	Advanced Harmony I	3 <sup>2,3</sup>
MUSC 296	Advanced Harmony II	3 <sup>2,3</sup>
MUSC 331	Orchestration	2 <sup>3,4</sup>

*Ensemble*

MUSC 115	Band	7 <sup>1-4</sup>
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*Literature*

MUSC 111	Introduction to Music History	3 <sup>2,3</sup>
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Six credits to be selected from the following:

MUSC 311	Music History: 1450-1750	3 <sup>2,3</sup>
MUSC 312	Music History: 1715-1825	3 <sup>3,4</sup>
MUSC 313	Music History: 1825 to the Present	3 <sup>3,4</sup>

*Secondary Instruments*

MUSC 214	Stringed Instruments Class	1 <sup>1-3</sup>
MUSC 215	High Brass Instruments Class	1 <sup>1-3</sup>
MUSC 216	Low Brass Instruments Class	1 <sup>1-3</sup>
MUSC 217	Woodwind Instruments Class I	1 <sup>1-4</sup>
MUSC 218	Woodwind Instruments Class II	1 <sup>1-3</sup>
MUSC 219	Percussion Instruments	1 <sup>1-3</sup>

*Music Methods*

MUSC 335	Basic Conducting	2 <sup>3</sup>
MUED 279	Practicum in Music Education	3 <sup>2</sup>
MUED 337	Instrumental Conducting	2 <sup>3,4</sup>
MUED 379	Music in the Elementary and Junior High (or Middle) School	3 <sup>3</sup>
MUED 479	Secondary Music Materials and Approaches	3 <sup>4</sup>

*Music Electives*

Six music electives excluding ensemble and private study on primary instrument	6 <sup>1-4</sup>
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**Professional Studies***Education*

EDST 201	Education and Society	3 <sup>1-4</sup>
EDST 304	Educational Psychology – Social Aspects	3 <sup>1-4</sup>
EDST 305	Educational Psychology – Cognitive Aspects	3 <sup>3-4</sup>
EDDV 400	Student Teaching	9 <sup>4</sup>

**CREDITS TO TOTAL A MINIMUM OF 123**

**DEGREE: BACHELOR OF MUSIC**  
**MAJOR: MUSIC EDUCATION—GENERAL/CHORAL**  
**CONCENTRATION: KEYBOARD**

**CURRICULUM****CREDITS\*****UNIVERSITY REQUIREMENTS**

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

**COLLEGE REQUIREMENTS***Skill Requirements**Writing* 3<sup>3,4</sup>

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Mathematics:*

MATH 114 Elementary Mathematics and Statistics 3<sup>1</sup>  
 (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 80)Art or Art History course, may be from Group A or B 3<sup>1-4</sup>*Group A* 9<sup>1-4</sup>

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* 9<sup>1-4</sup>

The study of culture and institutions over time. (MUSC 311, 312, and 313 count toward completion of this requirement.)

*Group C* 9<sup>1-4</sup>

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

*Group D* 4<sup>1-4</sup>

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 <sup>1-3</sup>
MUSC 161	Private Study	2 <sup>1</sup>
MUSC 162	Private Study	2 <sup>1</sup>
MUSC 261	Private Study	2 <sup>2</sup>
MUSC 262	Private Study	2 <sup>2</sup>
MUSC 361	Private Study	2 <sup>3</sup>
MUSC 362	Private Study	2 <sup>3</sup>
MUSC 461	Private Study	2 <sup>4</sup>
MUSC 174	Class Voice: Beginning	1 <sup>1-4</sup>
MUSC 274	Class Voice: Advanced	1 <sup>1-4</sup>
MUSC 480	Vocal Pedagogy	3 <sup>3,4</sup>
MUSC 171	Diction: English	1 <sup>1</sup>
MUSC 172	Diction: Italian	1 <sup>1</sup>
MUSC 271	Diction: German	1 <sup>2</sup>
MUSC 272	Diction: French	1 <sup>2</sup>
MUSC 301	Junior Recital	0 <sup>3,4</sup>

*Theory*MUSC 185 Ear Training and Sight Singing I 2<sup>1,2</sup>\*Superior figures indicate year or years in which the course is normally taken, i.e., <sup>1</sup>freshman year, <sup>2</sup>sophomore year, etc.

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

MUSC 186	Ear Training and Sight Singing II	2 <sup>1,2</sup>
MUSC 285	Advanced Ear Training and Sight Singing I	2 <sup>2,3</sup>
MUSC 286	Advanced Ear Training and Sight Singing II	2 <sup>2,3</sup>
MUSC 195	Harmony I	3 <sup>1,2</sup>
MUSC 196	Harmony II	3 <sup>1,2</sup>
MUSC 295	Advanced Harmony I	3 <sup>2,3</sup>
MUSC 296	Advanced Harmony II	3 <sup>2,3</sup>
MUSC 397	Contemporary Harmony	3 <sup>3,4</sup>

*Ensemble*

MUSC 109	Choral Union	7 <sup>1-4</sup>
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*Literature*

MUSC 111	Introduction to Music History	3 <sup>2,3</sup>
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Six credits to be selected from:

MUSC 311	Music History: 1450-1750	3 <sup>2,3</sup>
MUSC 312	Music History: 1715-1825	3 <sup>3,4</sup>
MUSC 313	Music History: 1825 to the Present	3 <sup>3,4</sup>

MUSC 328	Choral Literature	3 <sup>3,4</sup>
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*Secondary Instruments*

MUSC 214	Stringed Instruments Class	1 <sup>1-4</sup>
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MUSC 215	High Brass Instruments Class	1 <sup>1-4</sup>
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or

MUSC 217	Woodwind Instruments Class I	1
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*Music Methods*

MUSC 335	Basic Conducting	2 <sup>3</sup>
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MUED 279	Practicum in Music Education	3 <sup>2</sup>
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MUED 336	Choral Conducting	2 <sup>3,4</sup>
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MUED 379	Music in the Elementary and Junior High (or Middle) School	3 <sup>3,4</sup>
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MUED 479	Secondary Music Materials and Approaches	3 <sup>3,4</sup>
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*Music Electives*

Three credits of music electives excluding ensemble and private study on primary instrument. (MUSC 407 recommended)	3 <sup>1-4</sup>
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**Professional Studies***Education*

EDST 201	Education and Society	3 <sup>1-4</sup>
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EDST 304	Educational Psychology – Social Aspects	3 <sup>1-4</sup>
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EDST 305	Educational Psychology – Cognitive Aspects	3 <sup>3,4</sup>
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EDDV 400	Student Teaching	9 <sup>4</sup>
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**CREDITS TO TOTAL A MINIMUM OF 126****DEGREE: BACHELOR OF MUSIC****MAJOR: MUSIC EDUCATION—GENERAL/CHORAL  
CONCENTRATION: VOICE****CURRICULUM****CREDITS\*****UNIVERSITY REQUIREMENTS**

ENGL 110	Critical Reading and Writing	3 <sup>1</sup>
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Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #	3 <sup>1-4</sup>
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**COLLEGE REQUIREMENTS***Skill Requirements*

Writing	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Mathematics*

MATH 114	Elementary Mathematics and Statistics	3 <sup>1</sup>
(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
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MATH 241	Analytic Geometry and Calculus A	4
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or

Successful performance on the college proficiency exam.

*Breadth Requirements†* (See page 80)

Art or Art History course, may be from Group A or B	3 <sup>1-4</sup>
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Group A	9 <sup>1-4</sup>
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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	9 <sup>1-4</sup>
---------	------------------

The study of culture and institutions over time. (MUSC 311, 312, and 313 count toward completion of this requirement.)

Group C	9 <sup>1-4</sup>
---------	------------------

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

Group D	4 <sup>1-4</sup>
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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 <sup>1-3</sup>
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MUSC 161	Private Study	2 <sup>1</sup>
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MUSC 162	Private Study	2 <sup>1</sup>
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MUSC 261	Private Study	2 <sup>2</sup>
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MUSC 262	Private Study	2 <sup>2</sup>
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MUSC 361	Private Study	2 <sup>3</sup>
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MUSC 362	Private Study	2 <sup>3</sup>
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MUSC 461	Private Study	2 <sup>4</sup>
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MUSC 175	Class Piano: Elementary I	1 <sup>2</sup>
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MUSC 176	Class Piano: Elementary II	1 <sup>2,3</sup>
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MUSC 275	Class Piano: Intermediate I	1 <sup>2,3</sup>
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MUSC 276	Class Piano: Intermediate II	1 <sup>3,4</sup>
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MUSC 171	Diction: English	1 <sup>1</sup>
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MUSC 172	Diction: Italian	1 <sup>1</sup>
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MUSC 271	Diction: German	1 <sup>2</sup>
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MUSC 272	Diction: French	1 <sup>2</sup>
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MUSC 480	Vocal Pedagogy	3 <sup>1-4</sup>
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MUSC 301	Junior Recital	0 <sup>3,4</sup>
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*Theory*

MUSC 185	Ear Training and Sight Singing I	2 <sup>1,2</sup>
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MUSC 186	Ear Training and Sight Singing II	2 <sup>1,2</sup>
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MUSC 285	Advanced Ear Training and Sight Singing I	2 <sup>2,3</sup>
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MUSC 286	Advanced Ear Training and Sight Singing II	2 <sup>2,3</sup>
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MUSC 195	Harmony I	3 <sup>1,2</sup>
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\*Superior figures indicate year or years in which the course is normally taken, i.e., <sup>1</sup>freshman year, <sup>2</sup>sophomore year, etc.

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

MUSC 196	Harmony II	3 <sup>1,2</sup>
MUSC 295	Advanced Harmony I	3 <sup>2,3</sup>
MUSC 296	Advanced Harmony II	3 <sup>2,3</sup>
MUSC 397	Contemporary Harmony	3 <sup>3,4</sup>
<i>Ensemble</i>		
MUSC 109	Choral Union	7 <sup>1-4</sup>
<i>Literature</i>		
MUSC 111	Introduction to Music History	3 <sup>2,3</sup>
Six credits to be selected from:		
MUSC 311	Music History: 1450-1750	3 <sup>2,3</sup>
MUSC 312	Music History: 1715-1825	3 <sup>3,4</sup>
MUSC 313	Music History: 1825 to the Present	3 <sup>3,4</sup>
MUSC 328	Choral Literature	3 <sup>3</sup>
<i>Secondary Instruments</i>		
MUSC 214	Stringed Instruments Class	1 <sup>1-4</sup>
MUSC 215	High Brass Instruments Class	1 <sup>1-4</sup>
or		
MUSC 217	Woodwind Instruments Class I	1 <sup>1-4</sup>
<i>Music Methods</i>		
MUSC 335	Basic Conducting	2 <sup>3</sup>
MUED 279	Practicum in Music Education	3 <sup>2</sup>
MUED 336	Choral Conducting	2 <sup>3,4</sup>
MUED 379	Music in the Elementary and Junior High (or Middle) School	3 <sup>3</sup>
MUED 479	Secondary Music Materials and Approaches	3 <sup>4</sup>
<i>Music Electives</i>		
Three credits of music electives excluding ensemble and private study on primary instrument. (MUSC 407 recommended)		3 <sup>1-4</sup>
<b>Professional Studies</b>		
<i>Education</i>		
EDST 201	Education and Society	3 <sup>2-4</sup>
EDST 304	Educational Psychology – Social Aspects	3 <sup>3-4</sup>
EDST 305	Educational Psychology – Cognitive Aspects	3 <sup>3-4</sup>
EDDV 400	Student Teaching	9 <sup>4</sup>
<b>CREDITS TO TOTAL A MINIMUM OF</b>		<b>128</b>

**DEGREE: BACHELOR OF MUSIC**  
**MAJOR: THEORY AND COMPOSITION**  
**CONCENTRATION: THEORY OR COMPOSITION**

**CURRICULUM** **CREDITS\***

**UNIVERSITY REQUIREMENTS**

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

**COLLEGE REQUIREMENTS**

*Skill Requirements*

Writing:	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Mathematics*

MATH 114	Elementary Mathematics and Statistics (designed for students who do not intend to continue the study of mathematics)	3 <sup>1</sup>
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or

MATH 115	Pre-Calculus (designed for students who intend to continue the study of mathematics)	3
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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 or Italian		12 <sup>1-4</sup>
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HIST 101	Western Civilization to 1648	3 <sup>1-4</sup>
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HIST 102	Western Civilization 1648 to the Present	3 <sup>1-4</sup>
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*Breadth Requirements† (See page 80)*

Two 200-level English literature courses selected from Group A or B		6 <sup>1-4</sup>
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*Group A* 6<sup>1-4</sup>

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

*Group B* 15<sup>1-4</sup>

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* 9<sup>1-4</sup>

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

*Group D* 9<sup>1-4</sup>

The study of natural phenomena through experiment and analysis. Nine credits in at least two areas. Must include one course with an associated laboratory.

**MAJOR REQUIREMENTS**

**Within the Department**

*Applied Music*

MUSC 100	Recital Attendance (six semesters required)	0 <sup>1-3</sup>
MUSC 175	Class Piano: Elementary I	1 <sup>1,2</sup>
MUSC 176	Class Piano: Elementary II	1 <sup>1,2</sup>
MUSC 275	Class Piano: Intermediate I	1 <sup>2,3</sup>
MUSC 276	Class Piano: Intermediate II	1 <sup>2,3</sup>

*Secondary Instruments and Conducting*

MUSC 214	Stringed Instruments Class	1 <sup>1-4</sup>
MUSC 215	High Brass Instruments Class	1 <sup>1-4</sup>
MUSC 217	Woodwind Instruments Class I	1 <sup>1-4</sup>
MUSC 219	Percussion Instruments	1 <sup>1-4</sup>
MUSC 335	Basic Conducting	2 <sup>1-4</sup>

*Theory*

MUSC 185	Ear Training and Sight Singing I	2 <sup>1,2</sup>
MUSC 186	Ear Training and Sight Singing II	2 <sup>1,2</sup>
MUSC 285	Advanced Ear Training and Sight Singing I	2 <sup>2,3</sup>
MUSC 286	Advanced Ear Training and Sight Singing II	2 <sup>2,3</sup>
MUSC 195	Harmony I	3 <sup>1,2</sup>
MUSC 196	Harmony II	3 <sup>1,2</sup>
MUSC 295	Advanced Harmony I	3 <sup>2,3</sup>
MUSC 296	Advanced Harmony II	3 <sup>2,3</sup>

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.



MUSC 287	Computing in Music	3 <sup>1-4</sup>
MUSC 331	Orchestration	2 <sup>3,4</sup>
MUSC 385	Electronic Music I	3 <sup>1,4</sup>
MUSC 392	Contrapuntal Writing	2 <sup>3,4</sup>
MUSC 393	Keyboard Harmony I	2 <sup>3,4</sup>
MUSC 394	Keyboard Harmony II	2 <sup>3,4</sup>
MUSC 395	Form Analysis	3 <sup>3,4</sup>
MUSC 397	Contemporary Harmony	3 <sup>3,4</sup>

*Theory Majors*

MUSC 485	Pedagogy of Theory	3 <sup>4</sup>
MUSC 420	Advanced Composition	3 <sup>4</sup>
MUSC 420	Advanced Composition	3 <sup>4</sup>
or		
MUSC Theory	literature or applied music elective	3 <sup>4</sup>
MUSC 421	Special Projects in Music Theory	3 <sup>4</sup>

*Composition Majors*

MUSC 485	Pedagogy of Theory	3 <sup>4</sup>
MUSC 420	Advanced Composition	3 <sup>3,4</sup>
MUSC 420	Advanced Composition	3 <sup>4</sup>
MUSC 420	Advanced Composition	3 <sup>4</sup>

*Literature*

MUSC 111	Introduction to Music History	3 <sup>2,3</sup>
MUSC 311	Music History: 1450-1750	3 <sup>2,3</sup>
MUSC 312	Music History: 1715-1825	3 <sup>3,4</sup>
MUSC 313	Music History: 1825 to the Present	3 <sup>3,4</sup>
MUSC 407	Twentieth-Century Music	3 <sup>3,4</sup>

*Ensemble*

A variety of ensembles are recommended, including Chamber ensembles.		4 <sup>1-4</sup>
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**CREDITS TO TOTAL A MINIMUM OF** 129

**REQUIREMENTS FOR A MINOR IN MUSIC**

A minimum grade of C is required in each course for music minors.

**MUSIC MINOR: APPLIED MUSIC**

The Applied Music minor is for nonmusic majors with some musical background who wish to continue their musical training on a more formal basis. 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:

	<i>Credits</i>
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.)	
<b>Total Credits</b>	<b>21</b>
(For Keyboard minors 20)	

\*Not required of persons minoring in applied keyboard.

\*\*Lessons will be 1/2 hour per week and will include a repertoire class.

†Ensemble and private study must be taken concurrently. See Ensemble Policy in the Department of Music *Student Handbook*.

§A minimum grade of C is required in each course.

**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:

	<i>Credits</i>
Jazz Styles/Tech. MUSC 181 and 281	4
Ensemble MUSC 116 (four semesters), MUSC 321	5
Jazz Improvisation MUSC 293 and 294	6
Harmony and History MUSC 197 and 207	6
<b>Total Credits§</b>	<b>21</b>

**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:

	<i>Credits</i>
MUSC 185 Ear Training and Sight Singing I	2
MUSC 195 Harmony I	3
MUSC 111 Introduction to Music History	3
MUSC 311 Music History: 1450-1750	3
or	
MUSC 312 Music History: 1715-1825	
or	
MUSC 313 Music History: 1825 to Present	
MUSC Ensemble	2
MUSC History/Literature Elective (MUSC 101 and 102 do not fulfill this requirement. Any other music history course will do.)	3
MUSC Theory Elective (MUSC 186, 196, 197, 287, 385)	2-3
<b>Total Credits</b>	<b>18-19</b>

**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**

**CREDITS\***

**UNIVERSITY REQUIREMENTS**

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

**COLLEGE REQUIREMENTS**

*Skill Requirements*

<i>Writing:</i>	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

<i>Foreign Language:</i>	0-12 <sup>1,4</sup>
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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 (designed for students who do not intend to continue the study of mathematics)	3 <sup>1</sup>
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or

MATH 115 Pre-Calculus (designed for students who intend to continue the study of mathematics)	3
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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 80)*

<i>Group A</i>	12 <sup>1,4</sup>
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Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.

<i>Group B</i>	12 <sup>1,4</sup>
----------------	-------------------

The study of culture and institutions over time. Twelve credits representing at least two areas.

<i>Group C</i>	12 <sup>1,4</sup>
----------------	-------------------

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

<i>Group D</i>	13 <sup>1,4</sup>
----------------	-------------------

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**

PHIL 105 Clear Thinking	3
or	
PHIL 205 Logic	3
PHIL 203 Ethics	3
PHIL 301 Ancient Philosophy	3
PHIL 303 Modern Philosophy	3
PHIL 465 Philosophical Topics	3

Fifteen additional Philosophy credits at least six of which must be at the 300 level or above. Must include one of the following:

PHIL 302 Medieval Philosophy	3
PHIL 304 Nineteenth Century Philosophy	3
PHIL 305 Twentieth Century Philosophy	3
PHIL 317 American Philosophy	3
PHIL 320 Experience, Knowledge and Reality	3

**Within the College**

Six of the hours in the student's program must consist of 6<sup>1,4</sup> 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. The Philosophy Department is also the home for the Center for the Study of Values, a focus of special conferences, research, and teaching activities.

**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

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27

†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.

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. Through the stimulation of this research activity the challenges and satisfactions of a career in physics are made evident to all students in the department.

## DEGREE: BACHELOR OF ARTS MAJOR: PHYSICS

### CURRICULUM CREDITS\*

#### UNIVERSITY REQUIREMENTS

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

#### COLLEGE REQUIREMENTS

##### *Skill Requirements*

<i>Writing</i>	3 <sup>3,4</sup>
----------------	------------------

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

<i>Foreign Language</i> †	0-12 <sup>1-4</sup>
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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 (designed for students who do not intend to continue the study of mathematics)	3 <sup>1</sup>
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or

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

One of the following:

MATH 221 Calculus I	3
MATH 241 Analytic Geometry and Calculus A	4

(Satisfies the Math Skills requirement and is strongly recommended as the first math course for physics majors, unless the placement exam suggests differently.)

or

Successful performance on the college proficiency exam.

##### *Breadth Requirements* ‡ (See page 80)

<i>Group A</i>	12 <sup>1-4</sup>
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Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.

<i>Group B</i>	12 <sup>1-4</sup>
----------------	-------------------

The study of culture and institutions over time. Twelve credits representing at least two areas

<i>Group C</i>	12 <sup>1-4</sup>
----------------	-------------------

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

<i>Group D</i>	13 <sup>1-4</sup>
----------------	-------------------

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. (PHYS 207, 208 and CHEM 103, 104 are strongly recommended to satisfy this group requirement.)

#### MAJOR REQUIREMENTS

##### *Within the Departments*

PHYS 207 General Physics (strongly recommended)	4 <sup>1</sup>
or	
PHYS 201 General Physics	4
PHYS 208 General Physics (strongly recommended)	4 <sup>1,2</sup>
or	
PHYS 202 General Physics	4
Twenty-two credits in Physics, of which fifteen must be at the 300 level or higher.	22 <sup>2-4</sup>

##### *Within the College*

MATH 241 Analytic Geometry and Calculus A (recommended)	4 <sup>1</sup>
MATH 242 Analytic Geometry and Calculus B	4 <sup>1,2</sup>
MATH 243 Analytic Geometry and Calculus C	4 <sup>2</sup>
or	
MATH 221 Calculus I	3
MATH 222 Calculus II	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
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## DEGREE: BACHELOR OF SCIENCE MAJOR: PHYSICS

### CURRICULUM CREDITS\*

#### UNIVERSITY REQUIREMENTS

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

#### COLLEGE REQUIREMENTS

##### *Skill Requirements*

<i>Writing</i>	3 <sup>3,4</sup>
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A writing course involving significant writing experience including two papers with a combined minimum of 3,000

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

‡German, Russian, or French is suggested for the foreign language requirements.

§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.

words to be submitted for extended faculty critique of both composition and content. This course must be taken in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

**Foreign Language:** ..... 0-12<sup>1,4</sup>  
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 80)

A total of twenty-one credits from Groups A, B and C is ..... 21<sup>1,4</sup>  
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 <sup>1</sup>
PHYS 208	General Physics.....	4 <sup>2</sup>
PHYS 209	General Physics.....	3 <sup>2</sup>
PHYS 313	Physical Optics.....	4 <sup>2</sup>
PHYS 419	Analytical Mechanics.....	3 <sup>3</sup>
PHYS 603	Electricity and Magnetism.....	3 <sup>4</sup>
PHYS 604	Electricity and Magnetism.....	3 <sup>4</sup>
PHYS 616	Kinetic Theory and Thermodynamics.....	3 <sup>3,4</sup>
PHYS 617	Atomic and Nuclear Physics Laboratory.....	1 <sup>3,4</sup>
PHYS 618	Atomic and Nuclear Physics Laboratory.....	1 <sup>3,4</sup>
PHYS 620	Analytical Mechanics.....	3 <sup>3</sup>
PHYS 621	Introduction to Modern Physics.....	3 <sup>3,4</sup>
PHYS 622	Introduction to Modern Physics.....	3 <sup>3,4</sup>
PHYS 645	Electronics for Scientists.....	3 <sup>3</sup>
PHYS 646	Instrumentation for Scientists.....	3 <sup>3</sup>

### Within the College

#### Mathematics:

MATH 241	Analytic Geometry and Calculus A.....	4 <sup>1</sup>
MATH 242	Analytic Geometry and Calculus B.....	4 <sup>1,2</sup>
MATH 243	Analytic Geometry and Calculus C.....	4 <sup>3</sup>
MATH 302	Ordinary Differential Equations.....	3 <sup>2</sup>
MATH 503	Advanced Calculus for Applications.....	3 <sup>3</sup>

One of the following four courses:

MATH 349	Elements of Linear Systems.....	3
MATH 508	Introduction to Complex Variables and Application.....	3 <sup>3,4</sup>
MATH 514	Topics in Advanced Mathematics for Engineers.....	3
MATH 521	Fourier Series and Orthogonal Polynomials.....	3

#### Natural Science

CHEM 103	General Chemistry.....	4 <sup>1,3</sup>
CHEM 104	General Chemistry.....	4 <sup>1,3</sup>

## 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

### CURRICULUM

CREDITS\*

### UNIVERSITY REQUIREMENTS

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

### COLLEGE REQUIREMENTS

#### Skill Requirements

Writing:		3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

**Foreign Language:** ..... 0-12<sup>1,4</sup>

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 80)

A total of twenty-one credits from Groups A, B and C is ..... 21<sup>1,4</sup>  
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 <sup>1</sup>
PHYS 208	General Physics.....	4 <sup>1,2</sup>
PHYS 209	General Physics.....	3 <sup>2</sup>

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

PHYS 313	Physical Optics	4 <sup>2</sup>
PHYS 419	Analytical Mechanics	3 <sup>3</sup>
PHYS 620	Analytical Mechanics	3 <sup>3</sup>
PHYS 603	Electricity and Magnetism and	3 <sup>4</sup>
PHYS 604	Electricity and Magnetism	3 <sup>4</sup>
or		
PHYS 645	Electronics for Scientists	3 <sup>3</sup>
PHYS 646	Instrumentation for Scientists	3 <sup>3</sup>
PHYS 621	Introduction to Modern Physics	3 <sup>4</sup>
PHYS 622	Introduction to Modern Physics	3 <sup>4</sup>
PHYS 616	Kinetic Theory and Thermodynamics	3 <sup>4</sup>
PHYS 133	Introduction to Astronomy	4 <sup>1,2</sup>
PHYS 134	Introduction to Astronomy	4 <sup>1,2</sup>
PHYS 449	Introduction to Research	3 <sup>3,4</sup>
Six credits of Astronomy courses above the 200 level.		6 <sup>1-4</sup>
Two credits of Physics or Mathematics electives above the 200 level.		2 <sup>1-4</sup>

**Within the College***Mathematics:*

MATH 241	Analytic Geometry and Calculus A	4 <sup>1</sup>
MATH 242	Analytic Geometry and Calculus B	4 <sup>1,2</sup>
MATH 243	Analytic Geometry and Calculus C	4 <sup>2</sup>
MATH 302	Ordinary Differential Equations	3 <sup>2</sup>
MATH 503	Advanced Calculus for Applications	3 <sup>2,3</sup>

**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****CURRICULUM****CREDITS\*****UNIVERSITY REQUIREMENTS**

ENGL 110	Critical Reading and Writing	3 <sup>1</sup>
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #		3 <sup>1-4</sup>

**COLLEGE REQUIREMENTS***Skill Requirements*

Writing:	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

Foreign Language	0-12 <sup>1-4</sup>
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 80)

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§**

PHYS 207	General Physics	4 <sup>1</sup>
PHYS 208	General Physics	4 <sup>2</sup>
PHYS 209	General Physics	3 <sup>2</sup>
PHYS 419	Analytical Mechanics	3 <sup>3</sup>
PHYS 620	Analytical Mechanics	3 <sup>3</sup>
PHYS 603	Electricity and Magnetism	3 <sup>3,4</sup>
PHYS 645	Electronics for Scientists	3 <sup>3</sup>
PHYS 646	Instrumentation for Scientists	3 <sup>3</sup>
PHYS 621	Introduction to Modern Physics	3 <sup>3,4</sup>
PHYS 622	Introduction to Modern Physics	3 <sup>3,4</sup>
PHYS 616	Kinetic Theory and Thermodynamics	3 <sup>3,4</sup>

**Within the College***Mathematics:*

MATH 241	Analytic Geometry and Calculus A	4 <sup>1</sup>
MATH 242	Analytic Geometry and Calculus B	4 <sup>1</sup>
MATH 243	Analytic Geometry and Calculus C	4 <sup>2</sup>
MATH 302	Ordinary Differential Equations	3 <sup>2</sup>
MATH 503	Advanced Calculus for Applications	3 <sup>3,4</sup>

*Natural Science*

CHEM 103	General Chemistry	4 <sup>1</sup>
CHEM 104	General Chemistry	4 <sup>1</sup>
CHEM 321	Organic Chemistry	3 <sup>2,4</sup>
CHEM 322	Organic Chemistry	3 <sup>2,4</sup>
CHEM 325	Organic Chemistry Laboratory	1 <sup>2,4</sup>
CHEM 326	Organic Chemistry Laboratory	1 <sup>2,4</sup>
CHEM 457	Inorganic Chemistry	3 <sup>2,4</sup>

**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

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

**DEGREE: BACHELOR OF SCIENCE**  
**MAJOR: PHYSICS**  
**CONCENTRATION: APPLIED PHYSICS**

## CURRICULUM

CREDITS\*

## UNIVERSITY REQUIREMENTS

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

## COLLEGE REQUIREMENTS

*Skill Requirement*

<i>Writing:</i> .....	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Breadth Requirements†* (See page 80)

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.	21 <sup>1-4</sup>
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*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 <sup>1</sup>
PHYS 208 General Physics .....	4 <sup>1</sup>
PHYS 209 General Physics .....	3 <sup>2</sup>
PHYS 313 Physical Optics .....	4 <sup>2</sup>
PHYS 419 Analytical Mechanics .....	3 <sup>3</sup>
PHYS 645 Electronics for Scientists .....	3 <sup>3</sup>
PHYS 646 Instrumentation for Scientists .....	3 <sup>3</sup>
PHYS 621 Introduction to Modern Physics .....	3 <sup>3,4</sup>
PHYS 622 Introduction to Modern Physics .....	3 <sup>3,4</sup>
PHYS 616 Kinetic Theory and Thermodynamics .....	3 <sup>3,4</sup>
PHYS 627 Advanced Laboratory Techniques .....	3 <sup>3,4</sup>
PHYS 617 Atomic and Nuclear Physics Laboratory .....	1 <sup>3</sup>
PHYS 618 Atomic and Nuclear Physics Laboratory .....	1 <sup>4</sup>

## Within the College

*Mathematics:*

MATH 241 Analytic Geometry and Calculus A .....	4 <sup>1</sup>
MATH 242 Analytic Geometry and Calculus B .....	4 <sup>1</sup>
MATH 243 Analytic Geometry and Calculus C .....	4 <sup>2</sup>
MATH 302 Ordinary Differential Equations .....	3 <sup>2,3</sup>
One of the following five courses:	
MATH 349 Elements of Linear Systems .....	3 <sup>2</sup>

MATH 503 Advanced Calculus for Applications .....	3 <sup>2</sup>
MATH 508 Introduction to Complex Variables and Applications .....	3 <sup>2</sup>
MATH 514 Topics in Advanced Mathematics for Engineers .....	3 <sup>2</sup>
MATH 521 Fourier Series and Orthogonal Polynomials .....	3 <sup>2</sup>

*Natural Science*

CHEM 103 General Chemistry .....	4 <sup>1-3</sup>
CHEM 104 General Chemistry .....	4 <sup>1-3</sup>

*Computer Science*

CISC 105 General Computer Science .....	3 <sup>1,2</sup>
CISC 300 Introduction to Scientific Computation .....	3 <sup>1,2</sup>

## External to the College

ELEG 205 Linear Circuit Theory I .....	4 <sup>2</sup>
ELEG 309 Electronic Circuit Analysis I .....	4 <sup>2,3</sup>
Six additional credits of technical engineering or computer science courses	6 <sup>3,4</sup>

## 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 ARTS**  
**MAJOR: PHYSICS EDUCATION**

## CURRICULUM

CREDITS\*

## UNIVERSITY REQUIREMENTS

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

## COLLEGE REQUIREMENTS

*Skill Requirements*

<i>Writing:</i> .....	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Foreign Language:* 0-12<sup>1-4</sup>

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 <sup>1</sup>
(designed for students who do not intend to continue the study of mathematics)	
or	

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

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
(Satisfies the Math Skills requirement and is strongly recommended as the first math course for physics majors, unless the placement exam suggests differently)	
or	
Successful performance on the college proficiency exam.	
<i>Breadth Requirements†</i> (See page 80)	
<i>Group A</i> .....	12 <sup>1-4</sup>
Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.	
<i>Group B</i> .....	12 <sup>1-4</sup>
The study of culture and institutions over time. Twelve credits representing at least two areas.	
<i>Group C</i> .....	12 <sup>1-4</sup>
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.	
<i>Group D</i> .....	13 <sup>2-4</sup>
The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas or appropriate instructional units and including a minimum of one course with an associated laboratory. (This requirement is satisfied by PHYS 207, 208 and CHEM 103, 104)	

## MAJOR REQUIREMENTS

### Within the Department

PHYS 207 General Physics .....	4 <sup>1</sup>
PHYS 208 General Physics .....	4 <sup>1,2</sup>
PHYS 209 General Physics .....	3 <sup>2</sup>
Nineteen credits, fifteen of which must be at the 300 level or higher.	19 <sup>1-4</sup>

### Within the College

MATH 241 Analytic Geometry and Calculus A .....	4 <sup>1</sup>
MATH 242 Analytic Geometry and Calculus B .....	4 <sup>1</sup>
MATH 243 Analytic Geometry and Calculus C .....	4 <sup>2</sup>
CHEM 103 General Chemistry .....	4 <sup>1,2</sup>
CHEM 104 General Chemistry .....	4 <sup>1,2</sup>

### Professional Studies

EDST 201 Education and Society .....	3 <sup>1-4</sup>
EDST 304 Educational Psychology – Social Aspects .....	3 <sup>1-4</sup>
EDST 305 Educational Psychology – Cognitive Aspects .....	3 <sup>1-4</sup>
SCEN 491 Teaching Science in Secondary Schools .....	4 <sup>4</sup>
EDST 420 Reading in the Content Areas .....	1 <sup>1-4</sup>
EDDV 400 Student Teaching .....	9 <sup>4</sup>

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

## BACHELOR OF SCIENCE (GEOPHYSICS) CURRICULUM

In addition to the B.A. and B.S. degrees in physics, and the varied options available within them, the Physics and Astronomy Department, in cooperation with the Geology Department, offers a B.S. degree in geophysics. This degree provides a well-balanced introduction to those

areas of physics and geology relevant to the geophysical study of the earth and planets, their structure and behavior. The requirements of the B.S. program in geophysics and a course sequence are outlined in the Geology section of this catalog.

## 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, or professional study or service; and to stimulate the qualified student's interest in graduate study in political science.

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.

## DEGREE: BACHELOR OF ARTS MAJOR: POLITICAL SCIENCE

### CURRICULUM

CREDITS\*

### UNIVERSITY REQUIREMENTS

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

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

**COLLEGE REQUIREMENTS***Skill Requirements*

*Writing* ..... 3<sup>3,4</sup>

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Foreign Language* ..... 0-12<sup>1-4</sup>

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<sup>1</sup>

(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 80)

*Group A* ..... 12<sup>1-4</sup>

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

*Group B* ..... 12<sup>1-4</sup>

The study of culture and institutions over time. Twelve credits representing at least two areas.

*Group C* ..... 12<sup>1-4</sup>

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

*Group D* ..... 13<sup>1-4</sup>

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.

**Within the Department**

POSC 105 The American Political System ..... 3<sup>1-4</sup>

Eighteen credits distributed as follows: ..... 18<sup>1-4</sup>

Nine credits from courses at the 400 level; nine credits from courses at the 300 or 400 level.

POSC 302 Research Methods (Recommended) ..... 3

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 ..... 9<sup>1-4</sup>

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: POLITICAL SCIENCE EDUCATION**

**CURRICULUM****CREDITS\*****UNIVERSITY REQUIREMENTS**

ENGL 110 Critical Reading and Writing ..... 3<sup>1</sup>

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

**COLLEGE REQUIREMENTS***Skill Requirements*

*Writing* ..... 3<sup>3,4</sup>

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Foreign Language* ..... 0-12<sup>1-4</sup>

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<sup>1</sup>

(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 80)

*Group A* ..... 12<sup>1-4</sup>

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

*Group B* ..... 12<sup>1-4</sup>

The study of culture and institutions over time. Twelve credits representing at least two areas.

*Group C* ..... 12<sup>1-4</sup>

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

*Group D* ..... 13<sup>1-4</sup>

The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.



two areas including a minimum of one course with an associated laboratory

#### Within the Department

POSC 105 The American Political System ..... 3<sup>1-4</sup>

Eighteen credits distributed as follows: ..... 18<sup>1-4</sup>

Nine credits from courses at the 400 level; nine credits from courses at the 300 or 400 level.

POSC 302 Research Methods (Recommended) ..... 3

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 ..... 9<sup>1-4</sup>

No more than three courses at the 200 level can be counted toward the thirty credits required for completion of the major.

#### Within the College

Twenty-four credits in the following social sciences with at least three credits in each department ..... 24<sup>1-4</sup>

Anthropology course ..... 3

Economics course ..... 3

Geography course ..... 3

History course ..... 3

Sociology course ..... 3

PSYC 201 General Psychology ..... 3<sup>1-4</sup>

Six additional credits selected from the departments listed above ..... 6<sup>1-4</sup>

#### Professional Studies

EDST 201 Education and Society ..... 3<sup>1-4</sup>

EDST 304 Educational Psychology – Social Aspects ..... 3<sup>1-4</sup>

EDST 305 Educational Psychology – Cognitive Aspects ..... 3<sup>1-4</sup>

HIST 491 Planning a Course of Instruction ..... 3<sup>4</sup>

HIST 493 Seminar: Problems in Teaching History and Social Sciences ..... 4<sup>4</sup>

EDST 420 Reading in the Content Areas ..... 1<sup>1-4</sup>

EDDV 400 Student Teaching ..... 9<sup>4</sup>

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

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.

#### REQUIREMENTS FOR A MINOR IN POLITICAL SCIENCE

The required 15 credits for a minor are distributed as follows:

*Lower-division courses:* POSC 105.

*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. Campus facilities available to students include laboratories for the study of cognitive, learning, perceptual, physiological, and social processes and for the investigation of clinically interesting phenomena. Computers available for modeling psychological processes and for data analysis include terminals tied to the Computing Center and several minicomputers in the department's laboratories. Additional facilities in nearby institutions are used for the attainment of research and teaching objectives.

#### DEGREE: BACHELOR OF ARTS MAJOR: PSYCHOLOGY

##### CURRICULUM

CREDITS\*

##### UNIVERSITY REQUIREMENTS

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

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

**COLLEGE REQUIREMENTS***Skill Requirements*

*Writing:* ..... 3<sup>3,4</sup>

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Foreign Language:* ..... 0-12<sup>1,4</sup>

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<sup>1</sup>

(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 80)

*Group A* ..... 12<sup>1,4</sup>

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

*Group B* ..... 12<sup>1,4</sup>

The study of culture and institutions over time. Twelve credits representing at least two areas.

*Group C* ..... 12<sup>1,4</sup>

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

*Group D* ..... 13<sup>1,4</sup>

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**

✓ PSYC 201 General Psychology ..... 3<sup>1,2</sup>

✓ PSYC 309 Measurement and Statistics ..... 3<sup>2,3</sup>

✓ PSYC 415 History and Systems of Psychology ..... 3<sup>4</sup>

Two of the following three courses:

✓ PSYC 301 Personality ..... 3<sup>1,4</sup>

✓ PSYC 303 Introduction to Social Psychology ..... 3

✓ PSYC 325 Child Psychology ..... 3

Two of the following four courses:

✓ PSYC 310 Sensation and Perception ..... 3<sup>2,4</sup>

✓ PSYC 312 Learning and Motivation ..... 3

✓ PSYC 314 Brain and Behavior ..... 3

✓ PSYC 340 Cognition ..... 3

Nine credits of content electives. At least two courses must

be at or above the 400 level; however, PSYC 366, 466, 468 and 365 may not be used to fulfill this requirement.

3<sup>1</sup> Three credits of any Psychology course ..... 3<sup>1,4</sup>

**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: PSYCHOLOGY EDUCATION****CURRICULUM**

**CREDITS\***

**UNIVERSITY REQUIREMENTS**

ENGL 110 Critical Reading and Writing ..... 3<sup>1</sup>

Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content # ..... 3<sup>1,4</sup>

**COLLEGE REQUIREMENTS***Skill Requirements*

*Writing:* ..... 3<sup>3,4</sup>

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Foreign Language:* ..... 0-12<sup>1,4</sup>

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<sup>1</sup>

(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 80)

*Group A* ..... 12<sup>1,4</sup>

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

*Group B* ..... 12<sup>1,4</sup>

The study of culture and institutions over time. Twelve credits representing at least two areas

*Group C* ..... 12<sup>1,4</sup>

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

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

*Group D* ..... 13<sup>1,4</sup>  
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

PSYC 201	General Psychology	3 <sup>1,2</sup>
PSYC 309	Measurement and Statistics	3 <sup>2,3</sup>
PSYC 415	History and Systems of Psychology	3 <sup>4</sup>
Two of the following three courses:		
PSYC 301	Personality	3 <sup>1,4</sup>
PSYC 303	Introduction to Social Psychology	3
PSYC 325	Child Psychology	3
Two of the following four courses:		
PSYC 310	Sensation and Perception	3 <sup>2,4</sup>
PSYC 312	Learning and Motivation	3
PSYC 314	Brain and Behavior	3
PSYC 340	Cognition	3
Nine credits of content electives. At least two courses must be at or above the 400 level; however, PSYC 366, 466, 468 and 365 may not be used to fulfill this requirement.		
Three credits of any Psychology course		3

### Within the College

Anthropology course	3 <sup>1,4</sup>
Economics course	3 <sup>1,4</sup>
Geography course	3 <sup>1,4</sup>
History course	3 <sup>1,4</sup>
Political Science course	3 <sup>1,4</sup>
Sociology course	3 <sup>1,4</sup>

### Professional Studies

EDST 201	Education and Society	3 <sup>1,4</sup>
EDST 304	Educational Psychology – Social Aspects	3 <sup>1,4</sup>
EDST 305	Educational Psychology – Cognitive Aspects	3 <sup>1,4</sup>
HIST 491	Planning a Course of Instruction	3 <sup>4</sup>
HIST 493	Seminar: Problems in Teaching History and Social Sciences	3 <sup>4</sup>
EDST 420	Reading in the Content Areas	1 <sup>1,4</sup>
EDDV 400	Student Teaching	9 <sup>4</sup>

## 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

Students in the University Honors Program may major in psychology. In addition to the general requirements for a major, specific requirements for those in the Honors Program may be obtained from the department or the Honors Program office.

## REQUIREMENTS FOR A MINOR IN PSYCHOLOGY

A minor in psychology requires 18 credits including PSYC 201; 301, 303, or 325; 310, 312, 314 or 340; and three psychology electives with the restriction that only one elective can be Special Problems, Research, or Field Placement.

## 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.

Careers available to students with undergraduate degrees have changed dramatically in the past decade. Some occupations have become glutted with qualified applicants, while others are expanding rapidly and need new, competent professionals. Currently, many sociology students see expanding opportunities 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) pre-graduate 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 school 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

CREDITS\*

### UNIVERSITY REQUIREMENTS

ENGL 110	Critical Reading and Writing	3 <sup>1</sup>
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #		3 <sup>1,4</sup>

### COLLEGE REQUIREMENTS

#### Skill Requirements

*Writing:* ..... 3<sup>3,4</sup>

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Foreign Language:* ..... 0-12<sup>1,4</sup>

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.

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

**Mathematics:**

MATH 114 or MATH 170 Elementary Mathematics and Statistics ... 3<sup>1</sup>  
(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

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 80)

*Group A* ..... 12<sup>1-4</sup>

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

*Group B* ..... 12<sup>1-4</sup>

The study of culture and institutions over time. Twelve credits representing at least two areas.

*Group C* ..... 12<sup>1-4</sup>

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

*Group D* ..... 13<sup>1-4</sup>

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**

SOCI 201 Introduction to Sociology ..... 3<sup>1-4</sup>

SOCI 301 Introduction of Sociological Research ..... 3<sup>1-4</sup>

SOCI 312 Theories of Society ..... 3<sup>1-4</sup>

Seven Sociology courses ..... 21<sup>1-4</sup>

No more than 12 credits at the 200 level. At least 6 credits must be at the 400 level or higher.

**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 ..... 15<sup>1-4</sup>

**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: PREGRADUATE WORK****CURRICULUM**

**CREDITS\***

**UNIVERSITY REQUIREMENTS**

ENGL 110 Critical Reading and Writing ..... 3<sup>1</sup>

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

**COLLEGE REQUIREMENTS***Skill Requirements*

*Writing:* ..... 3<sup>3,4</sup>

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Foreign Language:* ..... 0-12<sup>1-4</sup>

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 or MATH 170 Elementary Mathematics and Statistics ... 3<sup>1</sup>

(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

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 80)

*Group A* ..... 12<sup>1-4</sup>

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

*Group B* ..... 12<sup>1-4</sup>

The study of culture and institutions over time. Twelve credits representing at least two areas.

*Group C* ..... 12<sup>1-4</sup>

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

*Group D* ..... 13<sup>1-4</sup>

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**

SOCI 201 Introduction to Sociology ..... 3<sup>1-4</sup>

SOCI 301 Introduction of Sociological Research ..... 3<sup>1-4</sup>

SOCI 312 Theories of Society ..... 3<sup>1-4</sup>

Two Sociology courses at the 600 level ..... 6<sup>1-4</sup>

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

SOCI 605 Data Collection .....	3 <sup>1-4</sup>
or	
SOCI 612 Development of Sociological Theory .....	3
Any four additional Sociology courses .....	12 <sup>1-4</sup>
No more than 12 credits at the 200 level. At least 6 credits must be at the 400 level or higher.	

#### Within the College

Statistics course .....	3 <sup>1-4</sup>
Four courses from Group C chosen with the approval of the student's adviser .....	12 <sup>1-4</sup>

#### 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: SOCIAL WELFARE

CURRICULUM CREDITS\*

#### UNIVERSITY REQUIREMENTS

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

#### COLLEGE REQUIREMENTS

##### Skill Requirements

Writing: .....	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

Foreign Language: .....	0-12 <sup>1-4</sup>
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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 or MATH 170 Elementary Mathematics and Statistics .....	3 <sup>1</sup>
(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	
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 80)

Group A .....	12 <sup>1-4</sup>
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Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.

Group B .....	12 <sup>1-4</sup>
---------------	-------------------

The study of culture and institutions over time. Twelve credits representing at least two areas.

Group C .....	12 <sup>1-4</sup>
---------------	-------------------

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

Group D .....	13 <sup>1-4</sup>
---------------	-------------------

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

SOCI 201 Introduction to Sociology .....	3 <sup>1-4</sup>
SOCI 301 Introduction of Sociological Research .....	3 <sup>1-4</sup>
SOCI 312 Theories of Society .....	3 <sup>1-4</sup>
SOCI 341 Welfare and Society .....	3 <sup>1-4</sup>
SOCI 348 Theories of Social Work Practice .....	3 <sup>1-4</sup>

Any five courses in Sociology, the following are recommended 15<sup>1-4</sup>

SOCI 202 Social Deviance .....	3
SOCI 204 Urban Communities .....	3
SOCI 303 Juvenile Delinquency .....	3
SOCI 304 Criminology .....	3
SOCI 305 Social Class and Inequality .....	3
SOCI 308 The Family .....	3
SOCI 346 Sociology of Aging .....	3
SOCI 361 Race, Power and Social Conflict .....	3
SOCI 448 Community Based Treatment .....	3

No more than 12 credits at the 200 level. At least 6 credits must be at the 400 level or higher.

SOCI 441 Social Welfare Practicum and Seminar .....	4 <sup>1-4</sup>
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This course is required but does not count as one of the thirty Sociology credits for the major.

##### Within the College

PSYC 411 Politics and Poverty .....	3 <sup>1-4</sup>
PSYC 301 Personality .....	3 <sup>1-4</sup>
PSYC 322 Psychology of Adjustment .....	3 <sup>1-4</sup>
PSYC 325 Child Psychology .....	3 <sup>1-4</sup>
PSYC 334 Abnormal Psychology .....	3 <sup>1-4</sup>
EDDV 374 Experimental Education .....	3
IFST 235 Survey in Child and Family Services .....	3

or  
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., <sup>1</sup>freshman year, <sup>2</sup>sophomore year, etc.

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

**DEGREE: BACHELOR OF ARTS****MAJOR: SOCIOLOGY****CONCENTRATION: APPLIED URBAN STUDIES****CURRICULUM****CREDITS\*****UNIVERSITY REQUIREMENTS**

ENGL 110 Critical Reading and Writing	3 <sup>1</sup>
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #	3 <sup>1-4</sup>

**COLLEGE REQUIREMENTS***Skill Requirements*

Writing	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

Foreign Language	0-12 <sup>1-4</sup>
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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 or MATH 170 Elementary Mathematics and Statistics (designed for students who do not intend to continue the study of mathematics)	3 <sup>1</sup>
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or

MATH 115 or MATH 171 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 80)*

Group A	12 <sup>1-4</sup>
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Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.

Group B	12 <sup>1-4</sup>
---------	-------------------

The study of culture and institutions over time. Twelve credits representing at least two areas.

Group C	12 <sup>1-4</sup>
---------	-------------------

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

Group D	13 <sup>1-4</sup>
---------	-------------------

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**

SOCI 201 Introduction to Sociology	3 <sup>1-4</sup>
SOCI 301 Introduction of Sociological Research	3 <sup>1-4</sup>
SOCI 312 Theories of Society	3 <sup>1-4</sup>
SOCI 204 Urban Communities	3 <sup>1-4</sup>

SOCI 210 Population Problems	3 <sup>1-4</sup>
Four Sociology courses	12 <sup>1-4</sup>
No more than 12 credits at the 200 level. At least 6 credits must be at the 400 level or higher.	

SOCI 402 Urban Studies Practicum and Seminar	4 <sup>1-4</sup>
This course is required but does not count as one of the thirty Sociology credits for the major.	

**Within the College**

POSC 355 Urban Politics	3 <sup>1-4</sup>
Four courses selected from the following:	12 <sup>1-4</sup>
GEOG 325 Urban Geography	3
POSC 355 Urban Politics	3
HIST 459 U.S. Urban History	3
POSC 452 Problems in Urban Politics	3
ECON 393 Urban Economics	3
ARTH 324 Modern Architecture	3
CRJU 455 The Ecology of Crime	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: HEALTH SERVICE****CURRICULUM****CREDITS\*****UNIVERSITY REQUIREMENTS**

ENGL 110 Critical Reading and Writing	3 <sup>1</sup>
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #	3 <sup>1-4</sup>

**COLLEGE REQUIREMENTS***Skill Requirements*

Writing	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

Foreign Language	0-12 <sup>1-4</sup>
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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 or MATH 170 Elementary Mathematics and Statistics (designed for students who do not intend to continue the study of mathematics)	3 <sup>1</sup>
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or

MATH 115 or MATH 171 Pre-Calculus (designed for students who intend to continue the study of mathematics)	3
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or

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

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 80)

<i>Group A</i> .....	12 <sup>1-4</sup>
Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.	
<i>Group B</i> .....	12 <sup>1-4</sup>
The study of culture and institutions over time. Twelve credits representing at least two areas.	
<i>Group C</i> .....	12 <sup>1-4</sup>
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.	
<i>Group D</i> .....	13 <sup>1-4</sup>
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

SOCI 201 Introduction to Sociology.....	3 <sup>1-4</sup>
SOCI 301 Introduction of Sociological Research.....	3 <sup>1-4</sup>
SOCI 312 Theories of Society.....	3 <sup>1-4</sup>
SOCI 310 Sociology of Health Care.....	3 <sup>1-4</sup>
SOCI 311 Hospitals.....	3 <sup>1-4</sup>
And five additional Sociology courses.....	15 <sup>1-4</sup>

(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.

SOCI 410 Health Services Practicum and Seminar.....	4 <sup>1-4</sup>
This course is required but does not count as one of the thirty Sociology credits for the major.	

### Within the College

#### *Related Work*

Eleven additional credits of related work are required and will be selected in consultation with the student's adviser. Departments offering courses filling the needs of health concentration students include Anthropology, Business Administration, Center for Science and Culture, Economics, Individual and Family Studies, Philosophy, Psychology, and Women's Studies	11 <sup>1-4</sup>
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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 ARTS MAJOR: SOCIOLOGY CONCENTRATION: LAW AND SOCIETY

### CURRICULUM

CREDITS\*

## UNIVERSITY REQUIREMENTS

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

## COLLEGE REQUIREMENTS

#### *Skill Requirements*

<i>Writing:</i> .....	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

<i>Foreign Language</i> .....	0-12 <sup>1-4</sup>
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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 or MATH 170 Elementary Mathematics and Statistics.....	3 <sup>1</sup>
(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

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 80)

<i>Group A</i> .....	12 <sup>1-4</sup>
Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.	
<i>Group B</i> .....	12 <sup>1-4</sup>
The study of culture and institutions over time. Twelve credits representing at least two areas.	
<i>Group C</i> .....	12 <sup>1-4</sup>
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.	
<i>Group D</i> .....	13 <sup>1-4</sup>
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

SOCI 201 Introduction to Sociology.....	3 <sup>1-4</sup>
SOCI 301 Introduction of Sociological Research.....	3 <sup>1-4</sup>
SOCI 312 Theories of Society.....	3 <sup>1-4</sup>

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

SOCI 345	Sociology of Law	3 <sup>1-4</sup>
SOCI 456	Lawyers and Society	3 <sup>1-4</sup>
Any five other courses in Sociology		15 <sup>1-4</sup>
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 may be counted toward the major. At least 6 credits must be at the 400 level or higher.

SOCI 495	Law and Society Practicum and Seminar	4 <sup>1-4</sup>
This course is required but does not count as one of the thirty Sociology credits for the major.		

### Within the College

#### Related Work

Twelve credits from the following courses are recommended:		12 <sup>1-4</sup>
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	Introduction to Political and Legal Philosophy	3
PHIL 446	Philosophy of Law	3
HIST 301	The Worker in American Life	3
HIST 309	American Business, Government and Society	3

A second writing course in any department		3 <sup>1-4</sup>
A course in oral communication is suggested		3 <sup>1-4</sup>

### 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 ARTS

#### MAJOR: SOCIOLOGY

#### CONCENTRATION: DATA ANALYSIS

#### CURRICULUM

#### CREDITS\*

### UNIVERSITY REQUIREMENTS

ENGL 110	Critical Reading and Writing	3 <sup>1</sup>
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #		3 <sup>1-4</sup>

### COLLEGE REQUIREMENTS

#### Skill Requirements

Writing:	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

Foreign Language:	0-12 <sup>1-4</sup>
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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 or MATH 170	Elementary Mathematics and Statistics	3 <sup>1</sup>
(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

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 80)

Group A	Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.	12 <sup>1-4</sup>
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Group B	The study of culture and institutions over time. Twelve credits representing at least two areas.	12 <sup>1-4</sup>
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Group C	Empirically based study of human beings and their environment. Twelve credits representing at least two areas.	12 <sup>1-4</sup>
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Group D	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.	13 <sup>1-4</sup>
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### MAJOR REQUIREMENTS

#### Within the Department

SOCI 201	Introduction to Sociology	3 <sup>1-4</sup>
SOCI 301	Introduction of Sociological Research	3 <sup>1-4</sup>
SOCI 312	Theories of Society	3 <sup>1-4</sup>
SOCI 401	Advanced Sociological Methods	3 <sup>1-4</sup>
SOCI 411	Techniques of Demographic Analysis	3 <sup>1-4</sup>
SOCI 414	Data Analysis	3 <sup>1-4</sup>

Any five other courses in Sociology		15 <sup>1-4</sup>
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No more than 12 credits at the 200 level may be counted toward the major. At least 6 credits must be at the 400 level or higher.

SOCI 412	Practicum	4
This course is required but does not count as one of the thirty Sociology credits for the major.		

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27

†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



# Within the College

## Related Work

STAT 201**	Introduction to Statistics I	3
STAT 202**	Introduction to Statistics II	3
CISC 100	Introduction to Digital Computer Programming	3
GEOG 250	Computer Methods in Geography	3
GEOG 470	Computer Cartography	3
HIST 268	Seminar: Nature and Verification of Historical Evidence	3
PHIL 320	Experience, Knowledge, Reality	3
PHIL 244	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

## DEGREE: BACHELOR OF ARTS MAJOR: SOCIOLOGY EDUCATION

CURRICULUM CREDITS\*

### UNIVERSITY REQUIREMENTS

ENGL 110	Critical Reading and Writing	3 <sup>1</sup>
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #		3 <sup>1-4</sup>

### COLLEGE REQUIREMENTS

#### Skill Requirements

Writing	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

Foreign Language	0-12 <sup>1-4</sup>
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 or MATH 170	Elementary Mathematics and Statistics (designed for students who do not intend to continue the study of mathematics)	3 <sup>1</sup>
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or

MATH 115 or MATH 171	Pre-Calculus (designed for students who intend to continue the study of mathematics)	3
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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 80)

Group A	12 <sup>1-4</sup>
Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.	

Group B	12 <sup>1-4</sup>
The study of culture and institutions over time. Twelve credits representing at least two areas.	

Group C	12 <sup>1-4</sup>
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.	

Group D	13 <sup>1-4</sup>
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

SOCI 201	Introduction to Sociology	3 <sup>1-4</sup>
SOCI 301	Introduction of Sociological Research	3 <sup>1-4</sup>
SOCI 312	Theories of Society	3 <sup>1-4</sup>
Seven Sociology Courses		21 <sup>1-4</sup>

No more than 12 credits at the 200 level. At least 6 credits must be at the 400 level or higher.

### Within the College

Twenty-four credits in the following social sciences with at least three credits in each department	24 <sup>1-4</sup>
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Anthropology course	3
Economics course	3
Geography course	3
History course	3
Political Science course	3

PSYC 201	General Psychology	3 <sup>1-4</sup>
Six additional credits selected from the departments listed above		6 <sup>1-4</sup>

### Professional Studies

EDST 201	Education and Society	3 <sup>1-4</sup>
EDST 304	Educational Psychology – Social Aspects	3 <sup>1-4</sup>
EDST 305	Educational Psychology – Cognitive Aspects	3 <sup>1-4</sup>
HIST 491	Planning a Course of Instruction	3 <sup>4</sup>
HIST 493	Seminar: Problems in Teaching History and Social Sciences	3 <sup>4</sup>
EDDV 3xx	Upper Level Reading Instruction	1 <sup>1-4</sup>
EDDV 400	Student Teaching	9 <sup>4</sup>

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

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

\*\*Required

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 major program within the Department of Sociology 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 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, the Criminal Justice curriculum includes required courses from related social and behavioral sciences.

Criminal justice majors may elect to pursue either a Bachelor of Science or a Bachelor of Arts degree. The highly structured Bachelor of Science degree is considered to be the more career-oriented degree. The Bachelor of Arts degree permits the student to have a more flexible and less specialized curriculum than required by the Bachelor of Science degree. The Bachelor of Arts degree is especially recommended for students considering the possibility of postgraduate professional or academic training and for students who wish to obtain a double major or interdepartmental major within the University.

An integral component of both the Bachelor of Science and Bachelor of Arts degrees is the field experience, a directed practicum with a criminal justice agency. In the field experience, students are provided with the opportunity to work on a firsthand basis in actual agency situations. Each field experience also includes a weekly seminar directed by a faculty member and designed to help students integrate the field experience with their classroom learning. Students who are already employed in the criminal justice system are encouraged to discuss with the faculty how the program of study might be adapted to fit their individual needs and contribute to their career goals.

#### **DEGREE: BACHELOR OF ARTS MAJOR: CRIMINAL JUSTICE**

##### **CURRICULUM**

**CREDITS\***

##### **UNIVERSITY REQUIREMENTS**

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

##### **COLLEGE REQUIREMENTS**

###### *Skill Requirements*

<i>Writing</i> .....	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

<i>Foreign Language</i> .....	0-12 <sup>1-4</sup>
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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 or MATH 170 Elementary Mathematics and Statistics .....	3 <sup>1</sup>
(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

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

Any mathematics course (MATH) at or above the 200 level **except** MATH 251 and MATH 252 (Math for Elementary School I and II) or  
Successful performance on the college proficiency exam.

*Breadth Requirements†* (See page 80)

*Group A* ..... 12<sup>1-4</sup>

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

*Group B* ..... 12<sup>1-4</sup>

The study of culture and institutions over time. Twelve credits representing at least two areas.

*Group D* ..... 13<sup>1-4</sup>

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

CRJU 110 Introduction to Criminal Justice ..... 3<sup>1-4</sup>

CRJU 201 Problems of Law Enforcement ..... 3<sup>1-4</sup>

CRJU 202 Problems of Criminal Judiciary ..... 3<sup>1-4</sup>

CRJU 203 Problems of Corrections ..... 3<sup>1-4</sup>

Criminal Justice courses at the 300 or 400 level ..... 18<sup>1-4</sup>

### Within the College

SOCI 201 Introduction to Sociology ..... 3<sup>1-4</sup>

SOCI 301 Introduction of Sociological Research ..... 3<sup>1-4</sup>

SOCI 304 Criminology ..... 3<sup>1-4</sup>

POSC 105 American Political Systems ..... 3<sup>1-4</sup>

PSYC 201 General Psychology ..... 3<sup>1-4</sup>

PSYC 303 Introduction to Social Psychology ..... 3<sup>1-4</sup>

One of the following three courses:

POSC 402 Civil Liberties I ..... 3<sup>1-4</sup>

POSC 405 Constitutional Law of the United States ..... 3<sup>1-4</sup>

POSC 406 Civil Liberties II ..... 3<sup>1-4</sup>

## ELECTIVES

### Electives

After required courses are completed sufficient elective credits must be taken to meet the minimum credit requirement for the degree. (No more than two elective courses may be taken in Criminal Justice.)

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

## DEGREE: BACHELOR OF SCIENCE

### MAJOR: CRIMINAL JUSTICE

#### CURRICULUM

CREDITS\*

### UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing ..... 3<sup>1</sup>

Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content # ..... 3<sup>1-4</sup>

## COLLEGE REQUIREMENTS

### Skill Requirements

*Writing* ..... 3<sup>3-4</sup>

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

### Mathematics:

MATH 114 or MATH 170 Elementary Mathematics and Statistics ..... 3<sup>1</sup>  
(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

Any mathematics course (MATH) at or above the 200 level **except** MATH 251 and MATH 252 (Math for Elementary School I and II)

or

Successful performance on the college proficiency exam.

*Breadth Requirements†* (See page 80)

*Group A* ..... 12<sup>1-4</sup>

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

*Group B* ..... 12<sup>1-4</sup>

The study of culture and institutions over time. Twelve credits representing at least two areas.

*Group D* ..... 13<sup>1-4</sup>

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

CRJU 110 Introduction to Criminal Justice ..... 3<sup>1-4</sup>

CRJU 201 Problems of Law Enforcement ..... 3<sup>1-4</sup>

CRJU 202 Problems of Criminal Judiciary ..... 3<sup>1-4</sup>

CRJU 203 Problems of Corrections ..... 3<sup>1-4</sup>

Criminal Justice courses at the 300 or 400 level ..... 18<sup>1-4</sup>

### Within the College

#### Related Work

#### Sociology

SOCI 201 Introduction to Sociology ..... 3<sup>1-4</sup>

SOCI 301 Introduction of Sociological Research ..... 3<sup>1-4</sup>

SOCI 304 Criminology ..... 3<sup>1-4</sup>

SOCI 345 Sociology of Law ..... 3<sup>1-4</sup>

#### Psychology

PSYC 201 General Psychology ..... 3<sup>1-4</sup>

PSYC 303 Introduction to Social Psychology ..... 3<sup>1-4</sup>

#### Political Science

POSC 105 The American Political System ..... 3<sup>1-4</sup>

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27

†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.

Two of the following three courses:

POSC 402	Civil Liberties I	3-4
POSC 405	Constitutional Law of the United States	3-4
POSC 406	Civil Liberties II	3-4

#### History

HIST 205	United States History	3-4
HIST 206	United States History	3-4

#### Methods and Statistics

STAT 201	Introduction to Statistics I	3-4
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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

### 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 Professional Theatre Training Program (PTTP) confers the Master of Fine Arts degree. The department does not offer an undergraduate degree program.

The PTTP is an important resource to the academic community not unlike the library in its contribution to campus life. 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 PTTP is currently developing a theatre minor that will afford University undergraduates an opportunity for more focused study. Students interested in acquiring a strong background in theatre history and literature, as well as a working knowledge of the production process, should contact the program directly for details. Students interested in performance and/or production opportunities, should contact one of the amateur theatre groups on campus: E-52, Harrington Theatre Arts, or the Bacchus Theatre Players.

## 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, a B.S. degree with a concentration in biotechnology is available. 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\***

**UNIVERSITY REQUIREMENTS**

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

**COLLEGE REQUIREMENTS**

*Skill Requirements*

<i>Writing:</i> .....	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

<i>Foreign Language:</i> .....	0-12 <sup>1,4</sup>
--------------------------------	---------------------

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 <sup>1</sup>
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(designed for students who do not intend to continue the study of mathematics)

or

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

or

One of the following:

MATH 221 Calculus I .....	3
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MATH 241 Analytic Geometry and Calculus A .....	4
-------------------------------------------------	---

or

Successful performance on the college proficiency exam.

*Breadth Requirements†* (See page 80)

<i>Group A</i> .....	12 <sup>1,4</sup>
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Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.

<i>Group B</i> .....	12 <sup>1,4</sup>
----------------------	-------------------

The study of culture and institutions over time. Twelve credits representing at least two areas.

<i>Group C</i> .....	12 <sup>1,4</sup>
----------------------	-------------------

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

<i>Group D</i> .....	13 <sup>1,4</sup>
----------------------	-------------------

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**

BISC 207 Introductory Biology I .....	4 <sup>1</sup>
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BISC 208 Introductory Biology II .....	4 <sup>1</sup>
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BISC 303 Genetic and Evolutionary Biology .....	4 <sup>3</sup>
-------------------------------------------------	----------------

At least two of the following courses:

BISC 301 Molecular Biology of the Cell .....	4 <sup>2,3</sup>
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BISC 302 General Ecology .....	3 <sup>2,3</sup>
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BISC 306 General Physiology .....	4 <sup>2,3</sup>
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Biology electives at the 300 level or above (must include one 600-level course other than Independent Study) 13-14<sup>2,4</sup>

**Within the College**

CHEM 103 General Chemistry .....	4 <sup>1</sup>
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CHEM 104 General Chemistry .....	4 <sup>1</sup>
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CHEM 321 Organic Chemistry .....	3 <sup>2</sup>
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CHEM 325 Organic Chemistry Laboratory .....	1 <sup>2</sup>
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CHEM 322 Organic Chemistry .....	3 <sup>2</sup>
----------------------------------	----------------

CHEM 326 Organic Chemistry Laboratory .....	1 <sup>2</sup>
---------------------------------------------	----------------

or

CHEM 213 Elementary Organic Chemistry .....	4
---------------------------------------------	---

CHEM 214 Elementary Biochemistry .....	3
----------------------------------------	---

CHEM 216 Elementary Biochemistry Laboratory .....	1
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PHYS 201 General Physics .....	4 <sup>3</sup>
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PHYS 202 General Physics .....	4 <sup>3</sup>
--------------------------------	----------------

MATH 221 Calculus I .....	3 <sup>2</sup>
---------------------------	----------------

**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 program emphasizes laboratory courses/experiences in various 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 courses 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).

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

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 pursuing a graduate degree in a related discipline.

The following courses are recommended. Some courses are not available each year, so careful planning is strongly suggested.

**DEGREE: BACHELOR OF SCIENCE**  
**MAJOR: BIOLOGICAL SCIENCES**  
**CONCENTRATION: BIOTECHNOLOGY**

**CURRICULUM** **CREDITS\***

**UNIVERSITY REQUIREMENTS**

ENGL 110 Critical Reading and Writing	3 <sup>1</sup>
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #	3 <sup>1-4</sup>

**COLLEGE REQUIREMENTS**

*Skill Requirements*

<i>Writing:</i>	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

<i>Foreign Language:</i>	0-12 <sup>1-4</sup>
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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 <sup>1</sup>
------------------------------------------------	----------------

(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 80)

A total of twenty-one credits from Groups A, B, and C	21 <sup>1-4</sup>
is required with six credits in each group. The six credits from each group could be from the same department.	

*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**

Introductory Courses:

BISC 207	Introductory Biology I	4 <sup>1</sup>
BISC 208	Introductory Biology II	4 <sup>1</sup>
BISC 371	Introduction to Microbiology	4 <sup>2</sup>
BISC 301	Molecular Biology of the Cell	4 <sup>2</sup>
BISC 303	Genetic and Evolutionary Biology	4 <sup>3</sup>
BISC 305	Cell Biology	4 <sup>3,4</sup>

Advanced lecture/laboratory combinations:

I

BISC 492	Human and Mammalian Cytogenetics	3 <sup>3,4</sup>
BISC 493	Mammalian Cytogenetics Laboratory	3 <sup>3,4</sup>

II

BISC 471/BISC 671	Immunobiology	3 <sup>3,4</sup>
BISC 601	Immunochemistry	3 <sup>3,4</sup>

III

BISC 604	Recombinant DNA Laboratory	4 <sup>4</sup>
BISC 653	Recent Advances in Molecular Biology	2 <sup>3,4</sup>

Two courses selected from the following:

BISC 467/BISC 667	Computer Applications in Biology	4 <sup>3,4</sup>
BISC 602	Molecular Biology of Animal Cells	3 <sup>3,4</sup>
BISC 608	Genetic Toxicology	3 <sup>3,4</sup>
BISC 617	Laboratory Techniques for Electron Microscopy	3 <sup>3,4</sup>
BISC 654	Biochemical Genetics	3 <sup>3,4</sup>
BISC 658	Developmental Genetics	3 <sup>3,4</sup>
BISC 667	Plant Cell Biology	3 <sup>3,4</sup>
BISC 650	Bacterial Physiology	3 <sup>3,4</sup>
BISC 673	Topics in Immunogenetics	3 <sup>3,4</sup>
BISC 679	Virology	3 <sup>3,4</sup>
BISC 693	Human Genetics	3 <sup>3,4</sup>
BISC 667	Gene Control: Antibody Genes, HIV-1	3 <sup>3,4</sup>

**Within the College**

CHEM 103	General Chemistry	4 <sup>1</sup>
CHEM 104	General Chemistry	4 <sup>1</sup>
CHEM 321	Organic Chemistry	3 <sup>2</sup>
CHEM 322	Organic Chemistry	3 <sup>2</sup>
CHEM 325	Organic Chemistry Laboratory	1 <sup>2</sup>
CHEM 326	Organic Chemistry Laboratory	1 <sup>2</sup>
CHEM 527	Introductory Biochemistry	3 <sup>3,4</sup>
or		
CHEM 641 and CHEM 642	Biochemistry	6
PHYS 201	General Physics	4 <sup>3</sup>
PHYS 202	General Physics	4 <sup>3</sup>
MATH 221	Calculus I	3 <sup>1</sup>

**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**

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

**DEGREE: BACHELOR OF ARTS**  
**MAJOR: BIOLOGICAL SCIENCES EDUCATION**

## CURRICULUM

## CREDITS\*

**UNIVERSITY REQUIREMENTS**

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

**COLLEGE REQUIREMENTS***Skill Requirements*

Writing .....	3 <sup>3,4</sup>
---------------	------------------

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

Foreign Language .....	0-12 <sup>1-4</sup>
------------------------	---------------------

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 <sup>1</sup>
(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 80)

Group A .....	12 <sup>1-4</sup>
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Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.

Group B .....	12 <sup>1-4</sup>
---------------	-------------------

The study of culture and institutions over time. Twelve credits representing at least two areas.

Group C .....	12 <sup>1-4</sup>
---------------	-------------------

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

Group D .....	13 <sup>1-4</sup>
---------------	-------------------

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**

BISC 207 Introductory Biology I .....	4 <sup>1-4</sup>
BISC 208 Introductory Biology II .....	4 <sup>1-4</sup>
BISC 301 Molecular Biology of the Cell .....	4 <sup>1-4</sup>
BISC 303 Genetic and Evolutionary Biology .....	4 <sup>1-4</sup>
BISC 302 General Ecology .....	3 <sup>1-4</sup>

or

BISC 306 General Physiology .....	4 <sup>1-4</sup>
Biology courses (must include one 600-level course other than in Independent Study) .....	13-14 <sup>1-4</sup>

**Within the College**

CHEM 103 General Chemistry .....	4 <sup>1-4</sup>
CHEM 104 General Chemistry .....	4 <sup>1-4</sup>
CHEM 213 Elementary Organic Chemistry .....	4 <sup>1-4</sup>
or	
CHEM 321 Organic Chemistry .....	3
and	
CHEM 325 Organic Chemistry Laboratory .....	1
CHEM 214 Elementary Biochemistry .....	3 <sup>1-4</sup>
and	
CHEM 216 Elementary Biochemistry Laboratory .....	1 <sup>1-4</sup>
PHYS 201 General Physics .....	4 <sup>1-4</sup>
PHYS 202 General Physics .....	4 <sup>1-4</sup>
MATH 221 Calculus I .....	3 <sup>1-4</sup>
GEOL 105 General Geology .....	4 <sup>1-4</sup>
Geology Elective .....	3-4 <sup>1-4</sup>

**Professional Studies**

EDST 201 Education and Society .....	3 <sup>1-4</sup>
EDST 304 Educational Psychology – Social Aspects .....	3 <sup>1-4</sup>
EDST 305 Educational Psychology – Cognitive Aspects .....	3 <sup>1-4</sup>
EDST 420 Reading in the Content Areas .....	1 <sup>1-4</sup>
SCEN 491 Science Materials and Approaches .....	3 <sup>4</sup>
EDDV 400 Student Teaching .....	9 <sup>4</sup>

**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.

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

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.

### ***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.

### **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.

### ***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***

The Medical Technology Program at the University of Delaware is accredited by the Committee on Allied Health Education and Accreditation 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. Others are employed in pharmaceutical companies, industrial medical laboratories, public health agencies, private laboratories, health-related research laboratories, or college-level teaching.

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 year 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 Program 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:

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: 117 Wolf Hall  
Telephone: (302) 451-2849



**DEGREE: BACHELOR OF SCIENCE**  
**MAJOR: MEDICAL TECHNOLOGY**

## CURRICULUM

## CREDITS\*

## UNIVERSITY REQUIREMENTS

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

## COLLEGE REQUIREMENTS

*Skill Requirements*

<i>Writing:</i> .....	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Mathematics:*

MATH 114 Elementary Mathematics and Statistics .....	3 <sup>1</sup>
(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 80)

<i>Group A</i> .....	6 <sup>1,2</sup>
----------------------	------------------

Understanding and appreciation of the creative arts and humanities.

<i>Group B</i> .....	6 <sup>1,2</sup>
----------------------	------------------

The study of culture and institutions over time.

<i>Group C</i> .....	6 <sup>1,2</sup>
----------------------	------------------

Empirically based study of human beings and their environment.

## MAJOR REQUIREMENTS

## Within the Department

MEDT 100 Introduction to Medical Technology .....	1 <sup>1</sup>
MEDI 372 Diagnostic Parasitology .....	2 <sup>3</sup>
MEDT 376 Clinical Virology and Immunology .....	2 <sup>3</sup>
MEDT 378 Clinical Laboratory Computer Applications .....	2 <sup>3</sup>
MEDT 400 Urinalysis and Body Fluids .....	3 <sup>3</sup>
MEDT 401 Clinical Physiological Chemistry I .....	4 <sup>3</sup>
MEDT 411 Clinical Physiological Chemistry I Laboratory .....	2 <sup>3</sup>
MEDT 404 Hematology I .....	2 <sup>3</sup>
MEDT 414 Hematology I Laboratory .....	1 <sup>3</sup>
MEDT 406 Medical Microbiology .....	3 <sup>3</sup>
MEDT 416 Medical Microbiology Laboratory .....	2 <sup>3</sup>
MEDT 410 Principles of Medical Technology Education .....	1 <sup>3</sup>
MEDI 402 Medical Mycology .....	1 <sup>4</sup>
MEDT 412 Medical Mycology Laboratory .....	1 <sup>4</sup>
MEDI 403 Clinical Physiological Chemistry II .....	3 <sup>4</sup>
MEDT 413 Clinical Physiological Chemistry II Laboratory .....	2 <sup>4</sup>
MEDT 418 Medical Technology Senior Seminar .....	1 <sup>4</sup>

MEDT 405 Hematology II .....	2 <sup>4</sup>
MEDI 415 Hematology II Laboratory .....	2 <sup>4</sup>
MEDT 409 Immunohematology .....	1 <sup>3</sup>
MEDI 419 Immunohematology Laboratory .....	1 <sup>3</sup>
MEDT 407 Diagnostic Microbiology .....	2 <sup>4</sup>
MEDI 417 Diagnostic Microbiology Laboratory .....	2 <sup>4</sup>
MEDI 420 Immunohematology II .....	1 <sup>4</sup>
MEDT 421 Immunohematology II Laboratory .....	1 <sup>4</sup>
MEDI 470 Medical Technology Clinical Education .....	3 <sup>4</sup>
MEDI 471 Seminar: Medical Technology Laboratory .....	1 <sup>4</sup>
Management	
MEDT 473 Clinical Chemistry Practicum .....	3 <sup>4</sup>
MEDI 475 Clinical Hematology .....	3 <sup>4</sup>
MEDT 477 Clinical Microbiology .....	3 <sup>4</sup>
MEDI 479 Clinical Immunohematology .....	3 <sup>4</sup>

## Within the College

*Related Work*

BISC 207 Introductory Biology I .....	4 <sup>1</sup>
BISC 208 Introductory Biology II .....	4 <sup>1</sup>
BISC 406 Human Physiology .....	3 <sup>2</sup>
BISC 416 Human Anatomy and Physiology Laboratory .....	1 <sup>2</sup>
BISC 371 Introduction to Microbiology .....	4 <sup>2</sup>
BISC 471 Introductory Immunology .....	3 <sup>3</sup>
CHEM 103 General Chemistry .....	4 <sup>1</sup>
CHEM 104 General Chemistry .....	4 <sup>1</sup>
CHEM 213 Elementary Organic Chemistry .....	4 <sup>2</sup>
CHEM 214 Elementary Biochemistry .....	3 <sup>2</sup>
CHEM 216 Elementary Biochemistry Laboratory .....	1 <sup>2</sup>
or	
CHEM 321 Organic Chemistry .....	3
CHEM 322 Organic Chemistry .....	3
CHEM 325 Organic Chemistry Laboratory .....	1
CHEM 326 Organic Chemistry Laboratory .....	1

## 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.

*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

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

(e.g., biological sciences). Students receive academic advice by staff members in the advisement office in the School of Life and Health Sciences. They receive career counseling from faculty in the Physical Therapy Program. Upon graduation, 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.

## 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—American Studies, Comparative Literature, and International Relations—are described below.

## AMERICAN STUDIES

The goal of the program in American studies is to enlarge the student's understanding of American culture and life. The program, interdisciplinary in nature, offers students the opportunity to organize an integrated program of courses in American subjects appropriate to both their intellectual interests and vocational objectives. Under the direction of an adviser, students may cross departmental lines freely in planning their programs. They are encouraged to ask questions not ordinarily raised within the structure of traditional departments and to study American culture through original, primary sources. Students in the program are offered the opportunity to utilize the unique resources for the study of Americana in the Newark area and around Delaware. Students often take summer internships at local museums and historic sites.

Many careers are open to students who major in American studies. Graduates of the program work in government service and other fields in which it is important to communicate a sense of American culture.

Opportunities for men and women who can grasp and synthesize cultural patterns are available in research and teaching, library and museum work, public relations, journalism, editing and publishing. Prelaw students, as well as those contemplating careers in social service, busi-

ness, and public administration, find value in such a program. Whatever vocation they finally select, graduating majors believe that, as citizens, they benefit greatly from their knowledge of our country's history and institutions.

### DEGREE: BACHELOR OF ARTS MAJOR: AMERICAN STUDIES

#### CURRICULUM

#### CREDITS\*

#### UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing	3 <sup>1</sup>
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #	3 <sup>1-4</sup>

#### COLLEGE REQUIREMENTS

##### *Skill Requirements*

<i>Writing</i>	3 <sup>3,4</sup>
----------------	------------------

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

<i>Foreign Language</i>	0-12 <sup>1-4</sup>
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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 <sup>1</sup>
------------------------------------------------	----------------

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

or

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

or

One of the following:

MATH 221 Calculus I	3
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MATH 241 Analytic Geometry and Calculus A	4
-------------------------------------------	---

or

Successful performance on the college proficiency exam.

##### *Breadth Requirements† (See page 80)*

<i>Group A</i>	12 <sup>1-4</sup>
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Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.

<i>Group B</i>	12 <sup>1-4</sup>
----------------	-------------------

The study of culture and institutions over time. Twelve credits representing at least two areas.

<i>Group C</i>	12 <sup>1-4</sup>
----------------	-------------------

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

<i>Group D</i>	13 <sup>1-4</sup>
----------------	-------------------

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.

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

**MAJOR REQUIREMENTS****Within the Department**

AMST 101 Introduction to American Civilization I .....	3 <sup>1-4</sup>
AMST 102 Introduction to American Civilization II .....	3 <sup>1-4</sup>
Three American Studies courses. At least six credits must be at or above the 300 level .....	9 <sup>1-4</sup>

**Within the College†**

Two English courses .....	6 <sup>1-4</sup>
Two History courses .....	6 <sup>1-4</sup>
Two American-oriented social science courses .....	6 <sup>1-4</sup>
One course in Art History, Music, or Theatre .....	3 <sup>1-4</sup>
At least twelve credits must be at or above the 300 level and come from a list of approved courses.	

**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

With proper planning an additional major may be taken concurrently with the American Studies program.

**REQUIREMENTS FOR A MINOR IN AMERICAN STUDIES**

A minor in American Studies requires a minimum of 15 credits, including AMST 101 and 102, and three American Studies courses at least two of which must be at or above the 300 level.

**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****CREDITS\*****UNIVERSITY REQUIREMENTS**

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

**COLLEGE REQUIREMENTS***Skill Requirements*

*Writing:* ..... 3<sup>3-4</sup>

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Foreign Language:* ..... 0-12<sup>1-4</sup>

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<sup>1</sup>  
(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 80)*

*Group A:* ..... 12<sup>1-4</sup>

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

*Group B:* ..... 12<sup>1-4</sup>

The study of culture and institutions over time. Twelve credits representing at least two areas.

*Group C:* ..... 12<sup>1-4</sup>

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

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

‡All courses outside American Studies must be from the approved list (available in the department office) or be approved in advance by the director.

*Group D* ..... 13<sup>1,4</sup>  
 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<sup>1,4</sup>  
 (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<sup>1,4</sup>  
 CLMT 208 Great Writers of the Western World: 1650-1950 ..... 3<sup>1,4</sup>  
 CLMT 484 Literary Criticism ..... 3<sup>4</sup>  
 Comparative Literature courses or courses in related fields ..... 6<sup>1,4</sup>  
 approved by the adviser.

### Within the College

Nine credits in each of two national literatures studied in ..... 18<sup>1,4</sup>  
 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 (3 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, 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

#### CREDITS\*

### UNIVERSITY REQUIREMENTS

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

### COLLEGE REQUIREMENTS

#### Skill Requirements

*Writing:* ..... 3<sup>3,4</sup>

A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

*Foreign Language:* ..... 0-12<sup>1,4</sup>

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<sup>1</sup>  
 (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 80)

*Group A* ..... 12<sup>1,4</sup>

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

*Group B* ..... 12<sup>1,4</sup>

The study of culture and institutions over time. Twelve credits representing at least two areas.

*Group C* ..... 12<sup>1,4</sup>

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

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

†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.

*Group D* ..... 13<sup>1-4</sup>  
 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 Departments

#### *Anthropology*

Six credits chosen from the following courses:	6 <sup>1-4</sup>
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 245 The Novel as Ethnography	3
ANTH 255 Applied Anthropology	3
ANTH 260 Sociocultural History of Africa	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 331 Anthropology in Film	3
ANTH 333 Peoples of Africa	3
ANTH 337 South American Indians	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 363 Women in Cross Cultural Perspective	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 <sup>1-4</sup>
ECON 305 Capitalism and Socialism: Comparative Economic Systems	3
ECON 311 Economic Growth and Development Policy	3
ECON 341 Environment of Multinational Corporations	3
ECON 405 The Planned Economies	3
ECON 411 Economics of Growth and Development	3
ECON 443 International Monetary Economics	3

#### *Geography*

Three credits chosen from the following courses:	3 <sup>1-4</sup>
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 236 Conservation: Global Issues	3
GEOG 460 Women in International Development	3

#### *History*

Six credits chosen from the following courses:	6 <sup>1-4</sup>
HIST 101 Western Civilization to 1648	3
HIST 102 Western Civilization 1648 to the Present	3
HIST 134 History of Africa	3
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 249 History of South Africa	3
HIST 264 The Jewish Holocaust 1933-1945	3
HIST 267 Pan Africanism	3
HIST 285 The Atomic Age	3
HIST 306 History of American Foreign Policy	3
HIST 330 Peasants and Revolution in Africa	3
HIST 334 History of Mexico	3
HIST 351 Europe in Crisis: 1919-1945	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 367 Africa Since 1960	3
HIST 373 Modern Ireland: 1534-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 430 Twentieth-Century Latin American Revolutions	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*

POSC 240 Introduction to International Relations	3 <sup>1-4</sup>
Twelve credits chosen from the following courses:	12 <sup>1-4</sup>
POSC 270 Comparative Politics	3
POSC 310 European Governments	3
POSC 311 Politics of Developing Nations	3
POSC 313 American Foreign Policy	3
POSC 314 Making United States Foreign Policy	3
POSC 333 Communism, Fascism and Democracy	3
POSC 334 Liberalism and Conservatism	3
POSC 365 Model United Nations	3
POSC 372 East European Political Systems	3
POSC 377 Arab-Israeli Politics	3
POSC 408 International Organization	3
POSC 409 Contemporary Problems of World Politics	3
POSC 412 Foreign Policy of the Soviet Union	3
POSC 414 Problems in American Foreign Policy	3
POSC 415 Force and World Politics	3
POSC 416 Transnational Relations and World Politics	3
POSC 426 Latin American Political Systems	3
POSC 429 East Asian Political Systems	3
POSC 430 Comparative Administration	3
POSC 431 Latin American Politics: Countries	3
POSC 432 Political Systems of the Soviet Union	3
POSC 433 African Political Systems	3
POSC 442 Problems of Western European Politics	3
POSC 443 Foreign Policy of China	3
POSC 444 Seminar in World Politics	3
POSC 450 Problems of Latin American Politics	3
POSC 477 Politics of the Arab World	3
POSC 651 Communist Political Thought	3

#### *Sociology*

SOCI 201 Introduction to Sociology	3 <sup>1-4</sup>
Three credits chosen from the following courses:	3 <sup>1-4</sup>
SOCI 210 Population Problems	3
SOCI 306 Personality and Social Systems	3
SOCI 320 Personality and Politics	3
SOCI 350 Political Sociology	3
SOCI 360 Sociology of Religion	3
SOCI 361 Race, Power and Social Conflict	3
SOCI 380 Development and Modernization	3
SOCI 460 Women in International Development	3

*Other*

Three credits chosen from the following courses:	3 <sup>1-4</sup>
Any course included in the previous listing	3
Literature course in a foreign area	3
STAT 201 Introduction to Statistics I	3
PHIL 102 Basic Problems of Philosophy	3
PHIL 201 Introduction to Political and Legal Philosophy	3
PHIL 202 Contemporary Moral Problems	3
PHIL 204 Religions of Mankind	3
PHIL 309 Indian Religion and Philosophy	3
PHIL 310 Chinese Religion and Philosophy	3
COMM 320 Analysis of Intercultural Communication	3
Course in a second foreign language	3
ARSC 127 Shaping of the Modern World	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

## MINORS IN AREA STUDIES

### 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 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 adviser.

Alternative arrangements for a minor in Black American Studies are available but must be approved in advance by a program adviser 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.

### 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) 451-6230.

### 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 team-taught by faculty representing a wide range of the humanities, the social sciences, and the sciences. Courses provide a unique vehicle to inform students in various sciences about the social and cultural dimensions of their 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.

Two academic minors are 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.

Seminars and lectures are also sponsored in areas of current interest in the fields represented by its faculty. It 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.

Further information may be obtained from the office of the director of the Center for Science and Culture.

## 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 adviser, 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

#### CREDITS\*

#### UNIVERSITY REQUIREMENTS

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

#### COLLEGE REQUIREMENTS

##### *Skill Requirements*

<i>Writing</i> .....	3 <sup>3,4</sup>
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A 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 in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

<i>Foreign Language</i> .....	0-12 <sup>1-4</sup>
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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.

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

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27

*Mathematics:*

MATH 114 Elementary Mathematics and Statistics ..... 3<sup>1</sup>  
(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*<sup>†</sup> (See page 80)

*Group A* ..... 12<sup>1-4</sup>

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

*Group B* ..... 12<sup>1-4</sup>

The study of culture and institutions over time. Twelve credits representing at least two areas.

*Group C* ..... 12<sup>1-4</sup>

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

*Group D* ..... 13<sup>1-4</sup>

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 College***Art and Art Conservation:*

ART 244 Photography I ..... 3<sup>1-4</sup>

One of the following four courses:

ART 250 Sculpture I ..... 3<sup>1-4</sup>

ART 254 Ceramics I ..... 3<sup>1-4</sup>

ART 260 Metals I ..... 3<sup>1-4</sup>

ART 273 On Loom Weaving I ..... 3<sup>1-4</sup>

ARTC 685 Color Mixing and Matching ..... 3<sup>1-4</sup>

ARTC 682 Studio Materials and Techniques of Drawing in the West ..... 3

ARTC 688 Studio Materials and Techniques of Painting I ..... 3

or

ARTC 689 Studio Materials and Techniques of Painting II ..... 3<sup>1-4</sup>

ARTC 690 Studio in the Materials and Techniques of Printmaking I ..... 3<sup>1-4</sup>

ARTC 466 Conservation Internship at Winterthur ..... 6

*Art History*

Twenty-four credits in Art History as follows: ..... 24<sup>1-4</sup>

ARTH 208 Greek and Roman Art ..... 3

or

ARTH 207 Origins of Art ..... 3

ARTH 210 Art of the Middle Ages ..... 3

ARTH 212 High Renaissance and Mannerist Art ..... 3

or

ARTH 211 Early Renaissance Art ..... 3

ARTH 214 Baroque Art ..... 3

ARTH 216 American Art ..... 3

or

ARTH 380 Oriental Art ..... 3

ARTH 315 Modern Art I: Nineteenth Century ..... 3

ARTH 316 Modern Art II: Twentieth Century ..... 3

ARTH 401 Literature, Theory and Methods of Art History ..... 3

*Chemistry*

Twenty to twenty-three credits in Chemistry as follows: ..... 20-23<sup>1-4</sup>

CHEM 103 General Chemistry ..... 4

CHEM 104 General Chemistry ..... 4

or

CHEM 111 General Chemistry ..... 3

CHEM 112 General Chemistry ..... 3

or

CHEM 119 Quantitative Chemistry I ..... 2

CHEM 120 Quantitative Chemistry II ..... 3

CHEM 220 Quantitative Analysis ..... 3

CHEM 221 Quantitative Analysis Laboratory ..... 1

CHEM 321 Organic Chemistry ..... 3

CHEM 325 Organic Chemistry Laboratory ..... 1

CHEM 322 Organic Chemistry ..... 3

CHEM 326 Organic Chemistry Laboratory ..... 1

**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**

This program is designed to foster in students a knowledge of the rich heritage, challenges, and problems of women. In addition to being a unique field with its own philosophy, methodology, and materials, Women's Studies provides the impetus toward reexamining each of the traditional scholarly disciplines to identify and correct misinformation and unexamined assumptions about "women's place" in human history. In so doing, men's lives have also been looked at in new and more humanistic ways, thus enhancing an awareness of the interplay of gender, race, and class.

The Women's Studies program offers several introductory core courses, upper-division courses in a variety of disciplines, seminars, and colloquia. There is also an internship that gives students the chance to integrate what they have learned in the Women's Studies classroom with the practical competencies that can only be gained from actual experience in work settings. Both the courses and internship explain and expand exciting areas of scholarship and knowledge that have largely been excluded from the traditional disciplines.

The program offers both a minor and, through the Liberal Studies degree program, an individually designed major. For B.A.L.S.-Women's Studies major requirements, students should see the B.A.L.S. requirements and make

<sup>†</sup>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.



an appointment with the director of Women's Studies to discuss the Women's Studies content within these requirements. Both the major and the minor can benefit students by helping to clarify personal and career goals; preparing them for specific careers that require expertise in women's roles and needs; and providing valuable intellectual training.

### 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 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.

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.

### 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

CURRICULUM	CREDITS
POSC 380 Introduction to Law (offered in 1991-92)	3
LEST 301 Introduction to Legal Studies (offered in 1992-93)	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.	9
<i>Accounting</i>	
ACCT 350 Business Law	3
ACCT 351 Business Law	3
ACCT 352 Law and Social Issues in Business	3
<i>Communication</i>	
COMM 365 Legal Issues of the Mass Media	3
<i>Criminal Justice</i>	
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 347 The Jury: Guilty or Not Guilty	3
CRJU 375 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
<i>Economics</i>	
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
<i>History</i>	
HIST 309 Business, Government and Society	3
HIST 376 English Legal and Constitutional History	3
<i>Philosophy</i>	
PHIL 202 Contemporary Moral Problems	3
PHIL 308 Justice and Equality	3
PHIL 446 Philosophy of Law	3
<i>Political Science and International Relations</i>	
POSC 306 Public Choice (same as ECON 306)	3
POSC 380 Introduction to Law	3
POSC 402† Civil Liberties I	3
POSC 404 Judicial Processes	3
POSC 405† Constitutional Law of the United States	3
POSC 423 Congress and Public Policy	3
POSC 413-40 Problems in American Government: Gender, Sex and Law	3

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

†This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 27.

‡A course that is usually filled by majors or by students fulfilling major requirements.

*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
LEST 401	Senior Seminar (offered 1992-93)	3

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†A course that is usually filled by majors or by students fulfilling major requirements.