



# 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, E 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) E 110 and 2) a second writing course. A minimum grade of C must be earned in both courses.

- 1) E 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 (AMS)*

- AMS 303 American Intellectual History (cross-listed with H 303)
- AMS 304 American Intellectual History (cross-listed with H 304)
- AMS 310 Community Studies
- AMS 328 American Industrial Society 1815 to Present (cross-listed with H 328)
- AMS 343 Cultural Issues in American Literature (cross-listed with E 343)
- AMS 480 Seminar (cross-listed with CL 480 and E 480)

#### *Anthropology (ANT)*

- ANT 486 Tutorial in Social and Cultural Anthropology
- ANT 487 Tutorial in Archaeology
- ANT 488 Tutorial in Physical Anthropology

#### *Art History (ARH)*

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

#### *Arts & Science (AS)*

- AS 316 Honors: Peer Tutoring/Advanced Composition (cross-listed with E 316)

#### *Biology (B)*

- B 498 Topics in Biology
- B 603 Nucleoprotein Interactions

#### *Black American Studies (BAS)*

- BAS 415 Race, Class and Gender (cross-listed with SOC 415 and WS 415)

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

- CSC 355 Computers, Ethics and Society (cross-listed with CIS 355 and SOC 355)
- CSC 368 Literature and Science (cross-listed with E 368)
- CSC 385 History of Biological Ideas (cross-listed with H 385)
- CSC 444 Medical Ethics (cross-listed with PHL 444)

#### *Chemistry (C)*

- C 610 History of Chemistry

#### *Communication (COM)*

- COM 438 Speech and Language in Human Behavior
- COM 452 Communication, Power and Values
- COM 485 Analysis of Verbal Communication

#### *Comparative Literature (CL)*

- CL 311 Twentieth-Century Literature I (cross-listed with FLL 311)
- CL 312 Twentieth-Century Literature II (cross-listed with FLL 312)
- CL 341 Theatre/Drama: Classical/Medieval (cross-listed with THE 341)
- CL 342 Theatre/Drama: Renaissance to 1700 (cross-listed with THE 342)
- CL 343 Theatre/Drama: 1700 to 1900 (cross-listed with THE 343)
- CL 344 Theatre/Drama: 1900 to Present (cross-listed with THE 344)
- CL 480 Seminar (cross-listed with AMS 480 and E 480)

#### *Computer & Information Sciences (CIS)*

- CIS 355 Computers, Ethics and Society (cross-listed with CSC 355 and SOC 355)

#### *Criminal Justice (CJ)*

- CJ 428 Corporate Crime (cross-listed with SOC 428)
- CJ 456 Lawyers and Society (cross-listed with SOC 456)

#### *English (E)*

- E 200 Approaches to Literature
- E 301 Problems in Composition



- E 302 Advanced Composition  
 E 307 News Editing and Writing  
 E 309 Feature and Magazine Writing  
 E 312 Written Communications in Business  
 E 316 Honors: Peer Tutoring/Advanced Composition  
 (cross-listed with AS 316)  
 E 343 Cultural Issues in American Literature  
 (cross-listed with AMS 343)  
 E 368 Literature and Science (cross-listed with CSC 368)  
 E 409 Topics in Journalism  
 E 410 Technical Writing  
 E 480 Seminar (cross-listed with AMS 480 and CL 480)

#### *Foreign Languages & Literatures (FLL)*

- FLL 311 Twentieth-Century Literature I (cross-listed with CL 311)  
 FLL 312 Twentieth-Century Literature II (cross-listed with CL 312)

#### *Geography (G)*

- G 346 Urban Cultural Geography  
 G 445 Method and Theory in Geography

#### *Geology (GEO)*

- GEO 433 Geowriting

#### *History (H)*

- H 250 Roots of Contemporary Culture  
 H 268 History Seminar  
 H 300 Women in American History (cross-listed with WS 300)  
 H 302 The World in Our Time  
 H 303 American Intellectual History (cross-listed with AMS 303)  
 H 304 American Intellectual History (cross-listed with AMS 304)  
 H 307 The U.S. in the Early National Period  
 H 309 U.S. Business and Political Economics  
 H 313 Twentieth-Century America  
 H 314 Twentieth-Century America  
 H 328 American Industrial Society: 1815 to Present  
 (cross-listed with AMS 328)  
 H 334 History of Mexico  
 H 341 Ancient Rome  
 H 344 Renaissance Europe  
 H 345 Europe in the Reformation Era: 1517 to 1648  
 H 346 Age of Louis XIV  
 H 347 The French Revolution and Napoleon  
 H 355 Early Modern Intellectual History  
 H 356 Modern European Intellectual History  
 H 361 European Business History: 1850 to Present  
 H 364 Modern Germany: 1870 to 1945  
 H 373 Modern Ireland: 1534 to Present  
 H 385 History of Biological Ideas (cross-listed with CSC 385)  
 H 391 History of Modern China  
 H 392 History of Modern Japan  
 H 409 Varieties of Modern Feminism (cross-listed with WS 409)  
 H 411 Seminar in American History  
 H 416 The American Family 1608 to 1900  
 H 430 Latin American Revolutions  
 H 459 United States Urban History  
 H 471 Studies in Medieval History  
 H 473 Studies in Early Modern European History  
 H 474 Studies in English History  
 H 475 Seminar in Modern European History  
 H 479 Studies in Asian History

#### *Music (MU)*

- MU 312 Music History: 1600 through 1827  
 MU 313 Music History: 1825 to the Present

#### *Philosophy (PHL)*

- PHL 444 Medical Ethics (cross-listed with CSC 444)  
 PHL 463 Ethical Theory

#### *Psychology (PSY)*

- PSY 405 Advanced Social Psychology  
 PSY 415 History and Systems of Psychology  
 PSY 425 Topics in Child Psychology  
 PSY 455 Psychology of Love Relationships

#### *Sociology (SOC)*

- SOC 305 Social Class and Inequality  
 SOC 355 Computers, Ethics and Society  
 (cross-linked with CIS 355 and CSC 355)  
 SOC 415 Race, Class and Gender  
 (cross-listed with BAS 415 and WS 415)  
 SOC 428 Corporate Crime (cross-listed with CJ 428)  
 SOC 456 Lawyers and Society (cross-listed with CJ 456)

#### *Theatre (THE)*

- THE 341 Theatre/Drama: Classical/Medieval  
 (cross-listed with CL 341)  
 THE 342 Theatre/Drama: Renaissance to 1700  
 (cross-listed with CL 342)  
 THE 343 Theatre/Drama: 1700 to 1900 (cross-listed with CL 343)  
 THE 344 Theatre/Drama: 1900 to Present (cross-listed with CL 344)

#### *University (U)*

- U 490 Honors Tutorial: Humanities  
 U 491 Honors Tutorial: Natural/Social Science

#### *Women's Studies (WS)*

- WS 300 Women in American History (cross-listed with H 300)  
 WS 409 Varieties of Modern Feminism (cross-listed with H 409)  
 WS 415 Race, Class and Gender  
 (cross-listed with BAS 415 and SOC 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; or
- 2) Satisfactory performance on a proficiency test in the language of the student's choice. (To schedule this test, contact the Department of Foreign Languages and Literatures.) Students whose native language is not English are required to demonstrate oral competency and literacy in their native or other language. (To schedule this demonstration, contact the Department of Foreign Languages and Literatures.)

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

- 1) Successful completion of M 114 Elementary Mathematics and Statistics (designed for students who do not intend to continue the study of mathematics); or,
- 2) Successful completion of M 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 M 251 or M 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 (AMS)*

- AMS 101 Introduction to American Civilization I
- AMS 102 Introduction to American Civilization II
- AMS 314 Introduction to Folklore and Folklife  
(cross-listed with CL 314 and E 314)
- AMS 317 American Philosophy (cross-listed with PHL 317)

#### *Anthropology (ANT)*

- ANT 205 Anthropology and Human Nature
- ANT 227 American Culture
- ANT 231 Personality and Culture
- ANT 251 Introduction to the Primitive Arts
- ANT 252 Humanistic Anthropology
- ANT 338 Arts and Crafts of Native South America
- ANT 360 Humanities Colloquium

#### *Art History (ARH)*

- ARH 150 Monuments and Methods in the History of Art
- ARH 151 Myth, Religion and Art
- ARH 152 Design and Expression in the Visual Arts
- ARH 161 Art in East and West
- ARH 162 History of Architecture

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

- CSC 241 Ethical and Moral Dimensions of Health Care  
(cross-listed with PHL 241)
- CSC 245 Ethical Issues in Scientific Research  
(cross-listed with PHL 245)
- CSC 368 Literature and Science (cross-listed with E 368)
- CSC 369 Literature and Medicine (cross-listed with E 369)

#### *Communication (COM)*

- COM 360 Oral Interpretation of Literature

#### *Comparative Literature (CL)*

- CL 202 Biblical and Classical Literature  
(cross-listed with FLL 202 and E 202)
- CL 217 Introduction to Film (cross-listed with E 217)
- CL 218 Introduction to Drama (cross-listed with E 208)
- CL 219 Introduction to the Novel (cross-listed with E 209)
- CL 314 Introduction to Folklore and Folklife  
(cross-listed with AMS 314 and E 314)
- CL 316 Classical Mythology (cross-listed with FLL 316)
- CL 320 Varying Authors and Genres (cross-listed with FLL 220)
- CL 322 Topics: Classical Literature in Translation  
(cross-listed with FLL 222)

#### *English (ENG)*

- E 200 Approaches to Literature
- E 202 Biblical and Classical Literature  
(cross-listed with FLL 202 and CL 202)
- E 204 Great American Writers
- E 207 Introduction to Poetry
- E 208 Introduction to Drama (cross-listed with CL 218)
- E 209 Introduction to the Novel (cross-listed with CL 219)
- E 210 Short Story
- E 217 Introduction to Film (cross-listed with CL 217)
- E 314 Introduction to Folklore and Folklife  
(cross-listed with AMS 314 and CL 314)
- E 315 Ballad and Folksong
- E 324 Shakespeare
- E 327 English Bible
- E 368 Literature and Science (cross-listed with CSC 368)
- E 369 Literature and Medicine (cross-listed with CSC 369)
- E 380 Women Writers (cross-listed with WS 380)

#### *Foreign Languages and Literatures (FLL)*

- FLL 202 Biblical and Classical Literature  
(cross-listed with CL 202 and E 202)
- FLL 316 Classical Mythology (cross-listed with CL 316)
- FLL 320 Varying Authors and Genres (cross-listed with CL 220)
- FLL 322 Topics: Classical Literature in Translation  
(cross-listed with CL 222)
- FLL 324 Topics: French Literature in Translation
- FLL 325 Topics: German Literature in Translation
- FLL 326 Topics: Hispanic Literature in Translation
- FLL 327 Topics: Russian Literature in Translation

#### *Geography (G)*

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

#### *German (GER)*

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

#### *Music (MUS)*

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

*Philosophy (PHL)*

- PHL 100 Philosophies of Life  
 PHL 101 Great Western Philosophers  
 PHL 102 Introduction to Philosophy  
 PHL 201 Social and Political Philosophy  
 PHL 202 Contemporary Moral Problems  
 PHL 204 World Religions  
 PHL 210 Women and Religion (cross-listed with WS 210)  
 PHL 216 Introduction to Feminist Theory (cross-listed with WS 216)  
 PHL 241 Ethical and Moral Dimensions of Health Care  
 (cross-listed with CSC 241)  
 PHL 244 Philosophy of Art  
 PHL 245 Ethical Issues in Scientific Research (cross-listed with CSC 245)  
 PHL 317 American Philosophy (cross-listed with AMS 317)

*Political Science (PSC)*

- PSC 285 Currents in Political Theory  
 PSC 333 Communism, Fascism and Democracy

*Theatre (THE)*

- THE 102 Introduction to Performance  
 THE 104 Introduction to Theatre and Drama

*University (U)*

- U 490 Honors Tutorial: Humanities

*Women's Studies (WS)*

- WS 204 Gender and Knowledge  
 WS 205 Women in the Arts and Humanities  
 WS 210 Women and Religion (cross-listed with PHL 210)  
 WS 216 Introduction to Feminist Theory (cross-listed with PHL 216)  
 WS 380 Women Writers (cross-listed with E 380)

## GROUP B

*American Studies (AMS)*

- AMS 303 American Intellectual History (cross-listed with H 303)  
 AMS 304 American Intellectual History (cross-listed with H 304)  
 AMS 344 Black American Literature I  
 (cross-listed with BAS 313 and E 344)  
 AMS 345 Black American Literature II (cross-listed with E 345)

*Anthropology (ANT)*

- ANT 101 Introduction to Social and Cultural Anthropology  
 ANT 260 Sociocultural History of Africa  
 ANT 265 High Civilizations of the Americas  
 ANT 323 Prehistory of South America  
 ANT 375 Peoples and Cultures of Modern Latin America

*Art History (ARH)*

- ARH 153 Introduction to Art History I  
 ARH 154 Introduction to Art History II  
 ARH 207 Origins of Art  
 ARH 208 Greek and Roman Art  
 ARH 209 Early Medieval Art A.D. 200-1000  
 ARH 210 Later Medieval Art 1000 to 1400  
 ARH 211 Early Renaissance Art  
 ARH 212 High Renaissance and Mannerist Art  
 ARH 214 Baroque Art  
 ARH 215 Art of the Eighteenth Century  
 ARH 216 American Art  
 ARH 315 Modern Art I: Nineteenth Century  
 ARH 316 Modern Art II: Twentieth Century  
 ARH 317 European Architecture: 1400 to 1750  
 ARH 380 Oriental Art

*Black American Studies (BAS)*

- BAS 304 History of Black America to the Civil War  
 (cross-listed with H 325)  
 BAS 306 History of Black America Since the Civil War  
 (cross-listed with H 326)  
 BAS 313 Black American Literature I  
 (cross-listed with AMS 344 and E 344)

*Center for Science and Culture (CSC)*

- CSC 382 History of Western Medicine (cross-listed with H 382)

*Comparative Literature (CL)*

- CL 207 Great Writers of the Western World I (cross-listed with E 211)  
 CL 208 Great Writers of the Western World II (cross-listed with E 212)  
 CL 317 Film History (cross-listed with E 317)  
 CL 321 Introduction to Medieval Literature (cross-listed with E 321)  
 CL 330 Varying Authors, Themes and Movements  
 (cross-listed with FLL 330 and WS 330)  
 CL 341 Theatre/Drama: Classical/Medieval (cross-listed with THE 341)  
 CL 342 Theatre/Drama: Renaissance to 1700  
 (cross-listed with THE 342)  
 CL 343 Theatre/Drama: 1700 to 1900 (cross-listed with THE 343)  
 CL 344 Theatre/Drama: 1900 to Present (cross-listed with THE 344)

*Economics (EC)*

- EC 316 American Economic History

*English (ENG)*

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

*Foreign Languages and Literatures (FLL)*

- FLL 330 Varying Authors, Themes and Movements  
 (cross-listed with CL 330 and WS 330)  
 FLL 375 Topics: Russian and Soviet Culture

*French (FR)*

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

*Geography (G)*

- G 225 Historical Geography of the United States

*German (GER)*

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

*History (H)*

- H 101 Western Civilization to 1648  
 H 102 Western Civilization: 1648 to Present  
 H 135 Latin America to 1830  
 H 136 Latin America Since 1830  
 H 137 East Asian Civilization: China  
 H 138 East Asian Civilization: Japan  
 H 205 United States History  
 H 206 United States History  
 H 210 War and Society Since 1775  
 H 280 Science and Civilization  
 H 300 Women in American History (cross-listed with WS 300)  
 H 303 American Intellectual History (cross-listed with AMS 303)  
 H 304 American Intellectual History (cross-listed with AMS 304)  
 H 306 History of American Foreign Policy  
 H 315 Postwar America: The United States Since 1945  
 H 325 History of Black America to the Civil War  
 (cross-listed with BAS 304)

- H 326 History of Black America Since the Civil War  
(cross-listed with BAS 306)  
H 340 Ancient Near East and Greece  
H 341 Ancient Rome  
H 344 Renaissance Europe  
H 345 Europe in the Reformation Era: 1517 to 1648  
H 355 Early Modern Intellectual History  
H 356 Modern European Intellectual History  
H 359 Soviet Russia: 1917 to Present  
H 374 History of England to 1715  
H 375 History of England: 1715 to Present  
H 382 History of Western Medicine (cross-listed with CSC 382)  
H 383 History of Science and Medicine I  
H 384 History of Science and Medicine II  
H 387 Technology in Western Civilization I  
H 388 Technology in Western Civilization II  
H 391 History of Modern China  
H 392 History of Modern Japan  
H 474 Studies in English History

*Italian (IT)*

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

*Music (MU)*

- MU 205 Music of the Non-Western World  
MU 207 History of Jazz  
MU 311 Music History to 1600  
MU 312 Music History: 1600 to 1827  
MU 313 Music History: 1825 to Present

*Philosophy (PHL)*

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

*Political Science (PSC)*

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

*Russian (RU)*

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

*Spanish (SP)*

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

*Theatre (THE)*

- THE 341 Theatre/Drama: Classical/Medieval  
(cross-listed with CL 341)  
THE 342 Theatre/Drama: Renaissance to 1700 (cross-listed with CL 342)  
THE 343 Theatre/Drama: 1700 to 1900 (cross-listed with CL 343)  
THE 344 Theatre/Drama: 1900 to Present (cross-listed with CL 344)

*Women's Studies (WS)*

- WS 300 Women in American History (cross-listed with H 300)  
WS 330 Varying Authors, Themes, and Movements  
(cross-listed with CL 330 and FLL 330)

## GROUP C

*American Studies (AMS)*

- AMS 327 Early American Society (cross-listed with H 327)

*Anthropology (ANT)*

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

*Arts and Science (AS)*

- AS 127 Shaping of the Modern World

*Black American Studies (BAS)*

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

*Center for Science and Culture (CSC)*

- CSC 243 Society, Politics and Health Care  
(cross-listed with SOC 243 and ANT 223)  
CSC 310 Sociology of Health Care (cross-listed with SOC 310)

*Communication (COM)*

- COM 200 Introduction to Human Communication Systems  
COM 245 Mass Communication and Culture  
COM 251 The Development of Verbal Communication  
COM 320 Analysis of Intercultural Communication  
COM 330 Communication and Social Behavior

*Criminal Justice (CJ)*

- CJ 110 Introduction to Criminal Justice  
CJ 120 Illicit Drug Use in America  
CJ 201 Problems of Law Enforcement  
CJ 202 Problems of Criminal Judiciary  
CJ 203 Problems of Corrections

*Economics (EC)*

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

*English (ENG)*

- E 390 Introduction to the English Language  
(cross-listed with LIN 390)

*Geography (G)*

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

*History (H)*

- H 327 Early American Society (cross-listed with AMS 327)

*Linguistics (LIN)*

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

*Political Science (PSC)*

- PSC 105 The American Political System  
 PSC 106 Introduction to Political Science: Issues  
 PSC 220 Introduction to Public Policy  
 PSC 240 Introduction to International Relations  
 PSC 270 Comparative Politics

*Psychology (PSY)*

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

*Sociology (SOC)*

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

*Women's Studies (WS)*

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

**GROUP D***Anthropology (ANT)*

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

*Biological Sciences (B)*

- B 103 General Biology (Both B 103 and B 207 cannot be used to fulfill Group D. Duplicate credit if taken after B 207.)  
 B 113 General Biology Laboratory  
 B 104 Neurobiology of the Brain  
 B 105 Human Heredity and Development  
 B 115 Human Heredity and Development Laboratory  
 B 106 Elementary Human Physiology  
 B 116 Elementary Human Physiology Laboratory  
 B 107 Elementary Evolutionary Ecology  
 B 117 Elementary Evolutionary Ecology Laboratory  
 B 108 Molecular Bases of Human Disease  
 B 110 Viruses, Genes and Cancer  
 B 152 Biology of Human Sexuality  
 B 171 Microbiology in Modern Society  
 B 179 Viruses and Human Disease  
 B 195 Biological Evolution  
 B 207 Introductory Biology I  
 (Both B 103 and B 207 cannot be used to fulfill Group D.)  
 B 208 Introductory Biology II  
 B 314 Brain and Behavior (cross-listed with PSY 314)

*Chemistry (C)*

- C 100 Chemistry and the Human Environment  
 C 101 General Chemistry (duplicate credit with C 103, 105, 111)

- C 102 General Chemistry (duplicate credit with C 104, 112)  
 C 103 General Chemistry (duplicate credit with C 101, 105, 111)  
 C 104 General Chemistry (duplicate credit with C 102, 112)  
 C 105 General Chemistry (duplicate credit with C 101, 103, 111)  
 C 111 General Chemistry (duplicate credit with C 101, 103, 105)  
 C 112 General Chemistry (duplicate credit with C 102, 104)

*Computer and Information Sciences (CIS)*

- CIS 105 General Computer Science  
 CIS 200 Introduction to Information Processing (CIS 300 alternate)  
 CIS 300 Introduction to Scientific Computation (alternate to CIS 200)

*Geography (G)*

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

*Geology (GEO)*

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

*Mathematical Sciences (M)*

- M 210 Discrete Mathematics I  
 M 221 Calculus I (duplicate credit with M 241)  
 M 230 Finite Mathematics with Applications  
 M 241 Analytic Geometry and Calculus A  
 (duplicate credit with M 221)

*Philosophy (PHL)*

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

*Physics (PS)*

- PS 101 Introduction to Physics (duplicate credit with PS 104,  
 which is not in Group D, PS 201, 207, and SC 101)  
 PS 102 Introduction to Physics (duplicate credit with PS 202, 208)  
 PS 133 Introduction to Astronomy  
 PS 134 Introduction to Astronomy  
 Concepts of the Universe  
 (duplicate credit if taken after PS 133 or 134)  
 PS 145 Quasars, Black Holes and the Universe  
 PS 201 General Physics (duplicate credit with PS 101, 104,  
 which is not in Group D, PS 207 and SC 101)  
 PS 202 General Physics (duplicate credit with PS 102, 208)  
 PS 207 General Physics (duplicate credit with PS 101, 104,  
 which is not in Group D, PS 201 and SC 101)  
 PS 208 General Physics (duplicate credit with PS 102, 202)

*Psychology (PSY)*

- PSY 314 Brain and Behavior (cross-listed with B 314)

*Science (SC)*

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

*Statistics (ST)*

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

**AGRICULTURE:***Entomology (ENT)*

- ENT 201 Wildlife Conservation and Ecology  
 ENT 205 Elements of Entomology  
 ENT 305 Entomology Laboratory



*Plant Science (PLS)*

PLS 101 Botany I

**HUMAN RESOURCES:***Nutrition and Dietetics (ND)*

ND 200 Nutrition Concepts

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, while heavily involving materials from two departments, 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\*

##### UNIVERSITY REQUIREMENTS

E 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.

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

###### *Mathematics:*

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

or

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

or

One of the following:

M 221 Calculus I ..... 3

M 241 Analytic Geometry and Calculus A ..... 4

or

Successful performance on the college proficiency exam.

###### *Breadth Requirements†* (See page 74)

*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.

\*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 24.

†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.

## 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 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).

Consult the index on page 189 to determine the names of program coordinators.

## 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 PE 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: M 221 and M 241, M 222 and M 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

E 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 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.

\*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 24.



**Mathematics:**

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

or

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

or

One of the following:

M 221 Calculus I ..... 3

M 241 Analytic Geometry and Calculus A ..... 4

or

Successful performance on the college proficiency exam.

*Breadth Requirements*† (See page 74)

*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**

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>

ANT 486 Tutorial in Social and Cultural Anthropology ..... 3<sup>1-4</sup>

ANT 487 Tutorial in Archaeology ..... 3<sup>1-4</sup>

or

ANT 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

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

E 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 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.

*Mathematics:*

M 114 Elementary Mathematics and Statistics ..... 3<sup>1</sup>

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

or

M 115 Pre-Calculus ..... 3

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

or

One of the following:

M 221 Calculus I ..... 3

M 241 Analytic Geometry and Calculus A ..... 4

or

Successful performance on the college proficiency exam.

*Breadth Requirements*† (See page 74)

*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**

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>

ANT 486 Tutorial in Social and Cultural Anthropology ..... 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 24.

†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.



ANT 487 Tutorial in Archaeology.....	3 <sup>1-4</sup>
or	
ANT 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>
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>
PSY 201 General Psychology.....	3 <sup>1-4</sup>
Six additional credits selected from the departments listed above.....	6 <sup>1-4</sup>

#### Professional Studies

EDS 201 Education and Society.....	3 <sup>1-4</sup>
EDS 301 Psychological Foundations of Education.....	3 <sup>1-4</sup>
EDS 302 Educational Psychology.....	3 <sup>1-4</sup>
H 491 Planning a Course of Instruction.....	3 <sup>4</sup>
H 493 Seminar: Problems in Teaching History and.....	3 <sup>4</sup>
Social Sciences	
EDS 420 Reading in the Content Areas.....	1 <sup>1-4</sup>
EDD 400 Student Teaching.....	9 <sup>4</sup>

**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 (ANT 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 page 32.

#### 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), 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 Arts 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 12 credits of studio courses. A limited number of students are admitted to the programs.

The proximity of the University to major cultural centers of the northeastern United States makes it possible for students to visit art galleries and museums and have first-hand experience of important works in all forms of the visual arts.

#### DEGREE: BACHELOR OF ARTS MAJOR: ART

##### CURRICULUM

CREDITS\*

#### UNIVERSITY REQUIREMENTS

E 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 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.

##### Mathematics

M 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 24.

M 115 Pre-Calculus .....	3
(designed for students who intend to continue the study of mathematics)	
or	
One of the following:	
M 221 Calculus I .....	3
M 241 Analytic Geometry and Calculus A .....	4
or	
Successful performance on the college proficiency exam.	
<i>Breadth Requirements†</i> (See page 74)	
<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>
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>

*Core\*\**

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.	

*Area of Concentration*

Art courses .....	9 <sup>1-4</sup>
Nine credits beyond those that might have been taken as part of core requirements. Six of these must be at or above the 300 level.	
Art electives .....	6 <sup>1-4</sup>

**Within the College**

Art History courses .....	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 SCIENCE  
MAJOR: VISUAL COMMUNICATION****CURRICULUM****CREDITS****UNIVERSITY REQUIREMENTS**

E 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:*

M 114 Elementary Mathematics and Statistics .....	3 <sup>1</sup>
(designed for students who do not intend to continue the study of mathematics)	
or	
M 115 Pre-Calculus .....	3
(designed for students who intend to continue the study of mathematics)	
or	

## One of the following:

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

Successful performance on the college proficiency exam.

*Breadth Requirements†* (See page 74)

<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.	

\*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 24.

†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.

**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>
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..... 128**

**DEGREE: BACHELOR OF FINE ARTS****MAJOR: FINE ARTS**

CURRICULUM	CREDITS*
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**UNIVERSITY REQUIREMENTS**

E 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 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.

*Mathematics:*

M 114 Elementary Mathematics and Statistics	3 <sup>1</sup>
---	----------------

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

or

M 115 Pre-Calculus	3
--------------------	---

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

or

One of the following:

M 221 Calculus I	3
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M 241 Analytic Geometry and Calculus A	4
--	---

or

Successful performance on the college proficiency exam.

*Breadth Requirements† (See page 74)*

<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 Departments***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 24.

†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 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>
<i>Core**</i>	
Art course	3 <sup>1</sup>
One course of 3-D Study selected from Sculpture, Ceramics, Fibers, or Metals	
Art course	3 <sup>1</sup>
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>
<b>Within the College</b>	
Art History courses	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** ..... 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 education, art history or art criticism course. ....3 credits

**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 page 175 for a description of the program. 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**

E 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.

\*\*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 24.

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 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.

*Mathematics*

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

or

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

or

One of the following:

M 221 Calculus I ..... 3

M 241 Analytic Geometry and Calculus A ..... 4

or

Successful performance on the college proficiency exam.

*Breadth Requirements†* (See page 74)

*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

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

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

ARH 207 Origins of Art ..... 3<sup>1-4</sup>

or

ARH 208 Greek and Roman Art ..... 3<sup>1-4</sup>

ARH 209 Early Medieval Art, A.D. 200-1000 ..... 3<sup>1-4</sup>

or

ARH 210 Later Medieval Art, A.D. 1000-1400 ..... 3<sup>1-4</sup>

ARH 211 Early Renaissance Art ..... 3<sup>1-4</sup>

or

ARH 212 High Renaissance and Mannerist Art ..... 3<sup>1-4</sup>

ARH 214 Baroque Art ..... 3<sup>1-4</sup>

or

ARH 215 Art of the Eighteenth Century ..... 3<sup>1-4</sup>

ARH 315 Modern Art I: Nineteenth Century ..... 3<sup>1-4</sup>

ARH 316 Modern Art II: Twentieth Century ..... 3<sup>1-4</sup>

ARH 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 ..... 3<sup>1-4</sup>

NOTE: Students choose from twelve courses that cover all of the following five areas: Ancient, Medieval (includes Northern Renaissance), Renaissance, Baroque and Eighteenth Century, Modern.

### Within the College

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

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

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, page 147)

## BIOLOGICAL SCIENCES

(See School of Life and Health Sciences, page 165)

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

†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.



## 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 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

E 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 stu-	

dent'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 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.

###### Mathematics:

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

or

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

or

One of the following:

M 221 Calculus I 3

M 241 Analytic Geometry and Calculus A 4

or

Successful performance on the college proficiency exam.

###### Breadth Requirements† (See page 74)

###### 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

C 103	General Chemistry	4 <sup>1</sup>
C 104	General Chemistry	4 <sup>1</sup>
C 220	Quantitative Analysis	3 <sup>2</sup>
C 221	Quantitative Analysis Laboratory	1 <sup>2</sup>
or		
C 111	General Chemistry	3
C 112	General Chemistry	3
C 119	Quantitative Chemistry I	2
C 120	Quantitative Chemistry II	3
C 321	Organic Chemistry	3 <sup>2</sup>
C 325	Organic Chemistry Laboratory	1 <sup>2</sup>
C 322	Organic Chemistry	3 <sup>2</sup>
C 326	Organic Chemistry Laboratory	1 <sup>2</sup>
or		
C 331	Organic Chemistry	3
C 333	Organic Chemistry Laboratory I	2
C 332	Organic Chemistry	3
C 334	Organic Chemistry Laboratory II	2
C 437	Instrumental Methods	3 <sup>3</sup>
C 438	Instrumental Methods Laboratory	1 <sup>3</sup>
C 418	Introductory Physical Chemistry	3 <sup>3</sup>
C 419	Introductory Physical Chemistry	3 <sup>3</sup>
C 445	Physical Chemistry Laboratory	1 <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 24.

†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.

or		
C 443	Physical Chemistry	3
C 444	Physical Chemistry	3
C 445	Physical Chemistry Laboratory	1
One of the following eight courses:		
C 457	Inorganic Chemistry	3 <sup>3,4</sup>
C 527	Introductory Biochemistry	3 <sup>3,4</sup>
C 620	Analytical Spectroscopy	3 <sup>4</sup>
C 621	Mass Spectrometry and Separations	3 <sup>4</sup>
C 622	Electroanalytical Chemistry	3 <sup>4</sup>
C 623	Advanced Chemical Analysis	3 <sup>4</sup>
C 633	Advanced Organic Chemistry	3 <sup>4</sup>
C 634	Advanced Organic Chemistry	3 <sup>4</sup>

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

M 221	Calculus I	3 <sup>1,4</sup>
or		
M 241	Analytic Geometry and Calculus A (strongly preferred)	4

*Physics*

PS 201	General Physics	4 <sup>1,4</sup>
PS 202	General Physics	4 <sup>1,4</sup>
or		
PS 207	General Physics	4
PS 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**

E 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 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.

*Mathematics*

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

or

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

or

## One of the following:

M 221	Calculus I	3
M 241	Analytic Geometry and Calculus A	4

or

Successful performance on the college proficiency exam.

*Breadth Requirements†* (See page 74)

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)

C 111	General Chemistry	3 <sup>1</sup>
C 112	General Chemistry	3 <sup>1</sup>
C 119	Quantitative Chemistry I	2 <sup>1</sup>
C 120	Quantitative Chemistry II	3 <sup>1</sup>
or		
C 103	General Chemistry	4 <sup>1</sup>
C 104	General Chemistry	4 <sup>1</sup>
C 220	Quantitative Analysis	3 <sup>2,3</sup>
C 221	Quantitative Analysis Laboratory	1 <sup>2,3</sup>
C 213	Elementary Organic Chemistry	4 <sup>2,3</sup>
or		
C 321	Organic Chemistry	3
C 322	Organic Chemistry	3
C 325	Organic Chemistry Laboratory	1
or		
C 331	Organic Chemistry	3
C 332	Organic Chemistry	3
C 333	Organic Chemistry Laboratory I	2
C 437	Instrumental Methods	3 <sup>3,4</sup>
C 438	Instrumental Methods Laboratory	1 <sup>3,4</sup>
C 418	Introductory Physical Chemistry	3 <sup>3,4</sup>
C 445	Physical Chemistry Laboratory	1 <sup>3,4</sup>
or		
C 443	Physical Chemistry	3
C 445	Physical Chemistry Laboratory	1
C 214	Elementary Biochemistry	3 <sup>2,4</sup>
C 216	Elementary Biochemistry Laboratory	1 <sup>2,4</sup>
Chemistry courses selected with consent of adviser		0-4 <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 24.

†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*

B 207	Introductory Biology I	4 <sup>1,4</sup>
GEO 105	General Geology	4 <sup>1,4</sup>
M 221	Calculus I	3 <sup>1,4</sup>
M 222	Calculus II	3 <sup>1,4</sup>
or		
M 241	Analytic Geometry and Calculus A	4
M 242	Analytic Geometry and Calculus B	4
PS 201	General Physics	4 <sup>1,4</sup>
or		
PS 207	General Physics	4
PS 202	General Physics	4 <sup>1,4</sup>
or		
PS 208	General Physics	4

**Professional Studies**

(22 credits)

EDS 201	Education and Society	3 <sup>1,4</sup>
EDS 301	Psychological Foundations of Education	3 <sup>1,4</sup>
EDS 302	Educational Psychology	3 <sup>2,4</sup>
SC 491	Science Materials and Approaches	4 <sup>4</sup>
EDS 420	Reading in the Content Areas	1 <sup>1,4</sup>
EDD 400	Student Teaching	9 <sup>4</sup>

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

E 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 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.  
(German recommended)

*Breadth Requirements†* (See page 74)

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**

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

**Within the College***Related Work*

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

\*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 24.

†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 SCIENCE  
MAJOR: BIOCHEMISTRY****CURRICULUM****CREDITS\*****UNIVERSITY REQUIREMENTS**

E 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 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. (German recommended)

*Breadth Requirements†* (See page 74)

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**

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

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

or

Biology laboratory courses selected from the following:	8 <sup>4</sup>
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B 303	Genetic and Evolutionary Biology (4)	
B 306	General Physiology (4)	
B 371	Introduction to Microbiology (4)	
B 601	Immunochimistry (4)	

**Within the College***Related Work*

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

	<i>Credits</i>
C 103, 104, (or 111,112,119)	8
Any three of the following:	
C 220, 221 (or 437, 438)	4
C 321, 325 (or 331, 333)	4-5
C 457, 458	4
C 418, 445 (or 443, 445)	4
C 527 or 641	3

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

\*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 24.

†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.

## 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

E 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 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.

##### Mathematics:

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

or

One of the following:

M 221 Calculus I	3
M 241 Analytic Geometry and Calculus A	4

or

Successful performance on the college proficiency exam.

*Breadth Requirements*† (See page 74)

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

COM 245 Mass Communication and Culture†	3 <sup>1S</sup>
COM 256 Principles of Communication Theory†	3 <sup>1F</sup>
COM 301 Introduction to Communication Inquiry†	3 <sup>2S</sup>
COM 330 Communication and Social Behavior†	3 <sup>2F</sup>
COM 350 Public Speaking	3 <sup>3,4</sup>
COM 361 Interpersonal Communication	3 <sup>3F</sup>
COM 417 Communication and the Management of Conflict	3 <sup>3S</sup>
COM 455 Symbolism in Organizations	3 <sup>4S</sup>
COM 456 Communication in Organizations	3 <sup>4F</sup>
One additional 400-level COM course, not COM 466 or	3 <sup>3,4</sup>
COM 468, outside your concentration.	

Up to 6 COM elective courses for a total of not less than 36 nor more than 45 COM credits. These may be taken from the other concentrations or from the following:

#### Interpersonal/Organizational Communication Electives

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

#### Mass Communication Electives

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

\*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 24.

†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.



*Public Relations Electives*

(Note: E 307 is prerequisite to the following sequence and should be taken in the sophomore year.)

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

*General Electives*

COM x66 Independent Study/Special Problems (366/466).....	1-6
COM 360 Oral Interpretation of Literature.....	3
COM 468 Internship.....	1-6
COM 490 Honors Reading in Communication.....	3
COM 491 Honor Thesis.....	3
COM 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**

E 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 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.

*Mathematics:*

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

or

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

or

One of the following:

M 221 Calculus I.....	3
M 241 Analytic Geometry and Calculus A.....	4

or

Successful performance on the college proficiency exam.

*Breadth Requirements†* (See page 74)

<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*

COM 245 Mass Communication and Culture†.....	3 <sup>1S</sup>
COM 256 Principles of Communication Theory†.....	3 <sup>1F</sup>
COM 301 Introduction to Communication Inquiry†.....	3 <sup>2S</sup>
COM 330 Communication and Social Behavior†.....	3 <sup>2F</sup>
COM 350 Public Speaking.....	3 <sup>3,4</sup>
COM 365 Legal Issues of the Mass Media.....	3 <sup>3S</sup>
COM 370 Theories of Mass Communication.....	3 <sup>3S</sup>
COM 424 Media Message Analysis.....	3 <sup>3S</sup>
COM 450 Mass Communication Effects.....	3 <sup>4F</sup>
One additional 400-level COM course, not COM 466 or COM 468, outside your concentration.....	3 <sup>3,4</sup>

Up to 6 COM elective courses for a total of not less than 36 nor more than 45 COM credits. These may be taken from the other concentrations or from the following:

*Interpersonal/Organizational Communication Electives*

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

*Mass Communication Electives*

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

*Public Relations Electives*

(Note: E 307 is prerequisite to the following sequence and should be taken in the sophomore year.)

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

*General Electives*

COM x66 Independent Study/Special Problems (366/466).....	1-6
---	-----

\*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 24.

†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.

COM 360 Oral Interpretation of Literature .....	3
COM 468 Internship .....	1-6
COM 490 Honors Reading in Communication .....	3
COM 491 Honor Thesis .....	3
COM 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**

E 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 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.

*Mathematics:*

M 114 Elementary Mathematics and Statistics .....	3 <sup>1</sup>
---	----------------

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

or

M 115 Pre-Calculus .....	3
--------------------------	---

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

or

One of the following:

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

Successful performance on the college proficiency exam.

*Breadth Requirements† (See page 74)*

<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 24.

†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**

CIS 180	Introduction to Computer Science I	3 <sup>1</sup>
CIS 181	Introduction to Computer Science II	3 <sup>1</sup>
CIS 220	Data Structures	3 <sup>2</sup>
CIS 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**

M 210	Discrete Mathematics I	3 <sup>1</sup>
M 241	Analytic Geometry and Calculus A	4 <sup>1</sup>
M 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**

E 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.

*Breadth Requirements† (See page 74)*

Six credits from each of the following groups	18 <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**

CIS 180	Introduction to Computer Science I	3 <sup>1</sup>
CIS 181	Introduction to Computer Science II	3 <sup>1</sup>
CIS 220	Data Structures	3 <sup>2</sup>
CIS 260	Machine Organization and Microcomputers	3 <sup>2</sup>

CIS 310	Logic and Programming	3 <sup>3</sup>
CIS 320	Algorithms and Advanced Programming	3 <sup>3</sup>
CIS 360	Computer Architecture	3 <sup>3</sup>
CIS 361	Operating Systems	3 <sup>3</sup>
CIS 471	Compiler Design	3 <sup>4</sup>

*CIS Electives* 9<sup>1-4</sup>

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

*CIS 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 CIS adviser is required.

**Within the College***Related Work*

M 210	Discrete Mathematics I	3 <sup>1</sup>
M 241	Analytic Geometry and Calculus A	4 <sup>1</sup>
M 315	Discrete Mathematics II	3 <sup>2</sup>
ST 205	Statistical Methods	4 <sup>2</sup>
E 312	Written Communications in Business	3 <sup>3</sup>

or

E 410	Technical Writing	3 <sup>3</sup>
CSC 355	Computers, Ethics and Society	3 <sup>3</sup>

One of the following sequences of laboratory science courses:

PS 207	General Physics	4 <sup>1-3</sup>
PS 208	General Physics	4 <sup>1-3</sup>

or

C 103	General Chemistry	4 <sup>1-3</sup>
C 104	General Chemistry	4 <sup>1-3</sup>

or

B 207	Introductory Biology I	4 <sup>1-3</sup>
B 208	Introductory Biology II	4 <sup>1-3</sup>

or

GEO 107	General Geology I	4 <sup>1-3</sup>
GEO 108	General Geology II	4 <sup>1-3</sup>

**Within the University**

EE 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 CIS 180, 181, and 220. Six additional credits at the 200 level or above (excluding CIS 200 and CIS 300) should be chosen with the adviser's approval.

\*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 24.

†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.

## ECONOMICS

Economics is a social science whose orientation, problem areas, and methods of analysis run parallel to such disciplines as history, political science, and sociology. The program leading to a Bachelor of Arts degree with a major in economics has the same general requirements as other social science programs in the College of Arts and Science. A Bachelor of Arts or a Bachelor of Science degree with a major in economics is also available to students enrolled in the College of Business and Economics. Students majoring in economics may obtain their major with related work in mathematics courses at the 200 level or higher, and courses at the 300 level or higher in history, philosophy, political science, psychology, sociology, anthropology and geography. The degree will be conferred either by the College of Arts and Science or the College of Business and Economics, depending on the college in which the student will be enrolled. Students majoring in economics will be advised by the faculty of the Department of Economics.

The concentration and related work required for the major as well as for the minor are also described under Economics in the College of Business and Economics section of this catalog.

### Application for Major:

Any University student who is not an economics major but wishes to become one must apply for admission into the major.

The principal criterion for acceptance is academic achievement, although it is also helpful to have taken some or all of the economics and quantitative courses required for the major. No student whose index is less than 2.0 at the University will be considered, and it is unlikely that you will be accepted unless your index is above 2.25. Applicants must have *completed* 30 credits at the University of Delaware before their application will be considered.

You may apply at the Office of the Department of Economics, 406 Purnell Hall. The department office will obtain a transcript to accompany your application. Applications must be submitted no later than October 15 or March 15 for consideration. Decisions about acceptance will be announced on November 15 and April 15 and will be made only at these times. Students not accepted may reapply the following semester; no waiting list is maintained.

The number of students admitted into the Department of Economics during a semester is limited because of constraints imposed by the size of our faculty, the number of sections of economics courses we can offer to our majors, and the sizeable number of sections we offer ser-

vicing students majoring in other departments.

## DEGREE: BACHELOR OF ARTS MAJOR: ECONOMICS

### CURRICULUM

CREDITS\*

### UNIVERSITY REQUIREMENTS

E 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 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.

#### Mathematics:

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

or

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

or

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

or

Successful performance on the college proficiency exam.

#### Breadth Requirements† (See page 74)

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

EC 151	Introduction to Microeconomics	3 <sup>1</sup>
EC 152	Introduction to Macroeconomics	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 24.

†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.



EC 302	Money, Credit and Banking	3 <sup>2,4</sup>
EC 401	Intermediate Microeconomic Theory	3 <sup>2,4</sup>
EC 402	Intermediate Macroeconomic Theory	3 <sup>1,4</sup>
Five Economics courses, two of which are at or above the 400 level		15 <sup>1,4</sup>

**Within the College**

ST 201	Introduction to Statistics I	3 <sup>1,4</sup>
or		
ST 370	Introduction to Statistical Analysis I	3
ST 202	Introduction to Statistics II	3 <sup>1,4</sup>
or		
ST 371	Introduction to Statistical Analysis II	3
Nine credits chosen from any 300-level or higher course in Anthropology, Business Administration Computer Science, Geography, History, Mathematics, Philosophy, Political Science, Psychology, Sociology and Statistics. Also acceptable are ACC 207/208 and any 200-level Mathematics course.		9 <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**

Ordinarily, degree credit is not given for 300-level courses that follow successful completion of (corresponding) 400 level courses. Degree credit for a 400 level course after successful completion of the corresponding 300-level course will be given only upon approval of the chair. Such corresponding courses include EC 311 and EC 411, EC 332 and EC 433, EC 360 and EC 461 and EC 463, and EC 381 and EC 483.

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

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

CURRICULUM	CREDITS*
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**UNIVERSITY REQUIREMENTS**

E 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 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.

*Mathematics:*

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

or

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

or

## One of the following:

M 221	Calculus I	3
M 241	Analytic Geometry and Calculus A	4

or

Successful performance on the college proficiency exam.

*Breadth Requirements† (See page 74)*

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**

EC 151	Introduction to Microeconomics	3 <sup>1</sup>
EC 152	Introduction to Macroeconomics	3 <sup>1</sup>
EC 302	Money, Credit and Banking	3 <sup>1,4</sup>
EC 300	Intermediate Microeconomic Theory	3 <sup>1,4</sup>
EC 303	Intermediate Macroeconomic Theory	3 <sup>1,4</sup>
Five Economics courses, two of which are at or above the 400 level		15

**Within the College**

ST 201	Introduction to Statistics I	3 <sup>1,4</sup>
or		
ST 370	Introduction to Statistical Analysis I	3
ST 202	Introduction to Statistics II	3 <sup>1,4</sup>
or		
ST 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.

PSY 201	General Psychology	3 <sup>1,4</sup>
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**Professional Studies**

EDS 201	Education and Society	3 <sup>1,4</sup>
EDS 301	Psychological Foundations of Education	3 <sup>1,4</sup>
EDS 302	Educational Psychology	3 <sup>1,4</sup>
H 491	Planning a Course of Instruction	3 <sup>4</sup>
H 493	Seminar: Problems in Teaching History and Social Sciences	3 <sup>4</sup>
EDS 420	Reading in the Content Areas	1 <sup>1,4</sup>
EDD 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 24.

†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.



## 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 50 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*, *The D.H. Lawrence Review*, and *Teaching Writing*.

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 cinema, and other subjects. The program in business/technical writing is designed to prepare students for positions as professional writers or editors in industry and government. This concentration requires internships of qualified students. The concentration in English education prepares students to teach English in the secondary schools (grades 7-12). Graduates of this program receive the B.A. in English and are eligible for teacher certification in 27 states and the Overseas Dependent Schools System.

The 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: E 204, 210, 301, and 365. E 307, 308, 309, 310, 407, and 409 may be counted only as part of the journalism concentration; E 312, 410, 411, 412, 413, 414, and 464 may be counted only as part of the concentration in business/technical writing; and E 384 may be counted only as part of the concentration in English education.

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

E 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 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.

*Mathematics:*

M 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

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

or

One of the following:

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

Successful performance on the college proficiency exam.

*Breadth Requirements† (See page 74)*

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**

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

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

E 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>
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a. A course other than Shakespeare in Medieval or Renaissance literature.

b. A course in literature between 1700 and 1900.

c. A course in Modern literature.

d. A course in cultural and theoretical studies.

English courses at or above the 200 level	9 <sup>1-4</sup>
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All English majors must take at least one E 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
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**DEGREE: BACHELOR OF ARTS****MAJOR: ENGLISH****CONCENTRATION: BUSINESS/TECHNICAL WRITING****CURRICULUM CREDITS\*****UNIVERSITY REQUIREMENTS**

E 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>
---------	------------------

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 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.

*Mathematics:*

M 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

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

or

One of the following:

M 221	Calculus I	3
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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 24.

†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.

M 241	Analytic Geometry and Calculus A	4
or	Successful performance on the college proficiency exam.	
<i>Breadth Requirements†</i> (See page 74)		
<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**

E 202	Biblical and Classical Literature	3 <sup>1-4</sup>
E 205	Great English Writers I	3 <sup>1-4</sup>
E 206	Great English Writers II	3 <sup>1-4</sup>
E 324	Shakespeare	3 <sup>2-4</sup>
or		
E 424	Studies in Shakespeare	3 <sup>3,4</sup>
E 340	American Literature to the Civil War	3 <sup>2-4</sup>
or		
E 341	American Literature: Civil War to World War II	3 <sup>2,3</sup>
Nine credits at the 200 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.		
E 411	Rhetoric for Business and Technical Writers	3 <sup>1-4</sup>
One of the following two courses		
E 312	Written Communications in Business	3 <sup>2-4</sup>
E 410	Technical Writing	3 <sup>2-4</sup>
E 412	Business and Technical Publication	3 <sup>2-4</sup>
E 464	Internship in Business/Technical Writing	3 <sup>2-4</sup>
E 414	Technical Editing	3 <sup>2-4</sup>
or		
E 413	Topics in Technical Writing or one other EBT course	3 <sup>2-4</sup>
All EBT majors must take at least one E 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**

E 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 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.

*Mathematics:*

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

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

or  
One of the following:  
M 221 Calculus I 3  
M 241 Analytic Geometry and Calculus A 4  
or

Successful performance on the college proficiency exam.

*Breadth Requirements†* (See page 74)

*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**

E 202	Biblical and Classical Literature	3 <sup>1-4</sup>
E 205	Great English Writers I	3 <sup>1-4</sup>
E 206	Great English Writers II	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 24.

†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 324	Shakespeare .....	3 <sup>1-4</sup>
or		
E 424	Studies in Shakespeare .....	3 <sup>3,4</sup>
E 340	American Literature to the Civil War .....	3 <sup>1-4</sup>
or		
E 341	American Literature: Civil War to World War II .....	3 <sup>2,3</sup>
Nine credits at the 200 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.		
At least nine credits chosen from among the following courses:		
E 217	Introduction to Film .....	3 <sup>1-4</sup>
E 317	Film History .....	3 <sup>1-4</sup>
E 318	Studies in Film .....	3 <sup>1-4</sup>
	(variable content, may be repeated once)	
E 417	Film Theory and Criticism .....	3 <sup>1-4</sup>
All EFM majors must take at least one E 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

E 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 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.

### Mathematics:

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

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

One of the following:

M 221	Calculus I .....	3
M 241	Analytic Geometry and Calculus A .....	4

or

Successful performance on the college proficiency exam.

*Breadth Requirements†* (See page 74)

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

E 202	Biblical and Classical Literature .....	3 <sup>1-4</sup>
E 205	Great English Writers I .....	3 <sup>1-4</sup>
E 206	Great English Writers II .....	3 <sup>1-4</sup>
E 324	Shakespeare .....	3 <sup>1-4</sup>
or		
E 424	Studies in Shakespeare .....	3 <sup>3,4</sup>
E 340	American Literature to the Civil War .....	3 <sup>1-4</sup>
or		
E 341	American Literature: Civil War to World War II .....	3 <sup>2,3</sup>

Nine credits at the 200 level or above distributed as follows: .....

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

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

E 307	News Writing and Editing .....	3 <sup>1-4</sup>
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English courses. At least nine credits chosen from among the following courses: .....

E 308	Reporter's Practicum .....	3
E 309	Feature and Magazine Writing .....	3
E 310	Copy Editing and Layout .....	3
E 407	Advanced Reporting .....	1-3
E 409	Topics in Journalism .....	3
E 466	Internship .....	1-6

All EJR majors must take at least one E 480 seminar and can count only one 200 level course toward the minimum number of 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 24.

‡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: ENGLISH EDUCATION**

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

E 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 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.

*Mathematics:*

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

or

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

or

One of the following:

M 221 Calculus I 3

M 241 Analytic Geometry and Calculus A 4

or

Successful performance on the college proficiency exam.

*Breadth Requirements† (See page 74)*

*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†**

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

Three English courses at the 300 level or above 9<sup>1-4</sup>

distributed as follows:

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

**Within the College**

COM 360 Oral Interpretation of Literature 3<sup>1-4</sup>

One of the following six courses:

E 494	History of the English Language	3
LIN 490	Linguistic Theory	3
LIN 491	Semantics I	3
LIN 495	Modern English Grammars	3
LIN 497	Sociolinguistics of English in the Inner City	3
LIN 498	Teaching English as a Second Language	3

**Professional Studies**

EDS 201	Education and Society	3 <sup>1-4</sup>
EDS 301	Psychological Foundations of Education	3 <sup>1-4</sup>
EDS 302	Educational Psychology	3 <sup>1-4</sup>
EDD 403	Adolescent Literature	3
E 384	Teaching English in Secondary School	3 <sup>1-4</sup>
E 481	Seminar in Teaching English	3 <sup>4</sup>
E 688	Teaching Composition	3 <sup>4</sup>
EDD 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 E 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 E 351 and H 373. A student may also minor in Medieval Studies.

\*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 24.

†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.



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, E 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 1990-91 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 previous study of that language. As a general rule, students with fewer than two years of high school foreign language or the equivalent will be placed at the 105 level, students with two-three years will be placed at the 106 level, and students with more than three years will be placed at the 107 level. Exceptions to this rule can be made only upon the recommendation of the Foreign Language Placement Officer.

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

## 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**

E 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 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.

*Mathematics:*

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

or

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

or

One of the following:

M 221 Calculus I	3
M 241 Analytic Geometry and Calculus A	4

or

Successful performance on the college proficiency exam.

*Breadth Requirements† (See page 74)*

<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**

AS 360 Humanities Colloquium	3 <sup>1-4</sup>
GR 101 Elementary Greek	3 <sup>1-4</sup>
GR 102 Elementary Greek	3 <sup>1-4</sup>
Twelve credits in Greek and Latin above the 100 level with	12 <sup>1-4</sup>

six credits at or above the 300 level, and at least three credits in each language.

FLL 316 Classical Mythology	3 <sup>1-4</sup>
FLL 222 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: CLASSICS EDUCATION**

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

**UNIVERSITY REQUIREMENTS**

E 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 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.

*Mathematics:*

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

or

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

or

One of the following:

M 221 Calculus I	3
M 241 Analytic Geometry and Calculus A	4

or

Successful performance on the college proficiency exam.

*Breadth Requirements† (See page 74)*

<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.

\*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 24.

†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 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

AS 360 Humanities Colloquium ..... 3  
GR 101 Elementary Greek I ..... 3  
GR 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.

FLL 316 Classical Mythology ..... 3  
FLL 222 Topics: Classical Literature in Translation ..... 6

### Professional Studies

EDS 201 Education and Society ..... 3  
EDS 304 Psychological Foundations of Education ..... 3  
EDS 305 Educational Psychology ..... 3  
LIN 421 Methods of Teaching Foreign Language ..... 3  
LIN 422 Language Syllabus Design ..... 3  
LIN 424 Second Language Testing ..... 3  
EDD 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: 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\***

### UNIVERSITY REQUIREMENTS

E 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 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.

#### Mathematics:

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

or

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

or

One of the following:

M 221 Calculus I ..... 3  
M 241 Analytic Geometry and Calculus A ..... 4

or

Successful performance on the college proficiency exam.

*Breadth Requirements†* (See page 74)

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

\*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 24.

†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.

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

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

CURRICULUM	CREDITS*
<b>UNIVERSITY REQUIREMENTS</b>	
E 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 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.

*Mathematics:*

M 114 Elementary Mathematics and Statistics ..... 3<sup>1</sup>

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

or

M 115 Pre-Calculus ..... 3

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

or

One of the following:

M 221 Calculus I ..... 3

M 241 Analytic Geometry and Calculus A ..... 4

or

Successful performance on the college proficiency exam.

*Breadth Requirements†* (See page 74)

*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**

FR 201 French Reading & Composition: Short Story ..... 3<sup>1-4</sup>

or

FR 202 French Reading & Composition: Theatre ..... 3<sup>1-4</sup>

FR 301 French Literature: Poetry & Theatre ..... 3<sup>1-4</sup>

FR 302 French Literature: Prose ..... 3<sup>1-4</sup>

FR 304 French Phonetics ..... 3<sup>1-4</sup>

FR 303 Intensive French Composition ..... 3<sup>1-4</sup>

FR 306 Practical Oral/Written Expression ..... 3<sup>1-4</sup>

or

FR 367 Advanced French Conversation ..... 3<sup>1-4</sup>

Two of the following courses:

FR 308 Contemporary France II ..... 3<sup>1-4</sup>

FR 310 French Civilization I ..... 3

FR 311 French Civilization II ..... 3

FR 312 French Civilization III ..... 3

FR 401 Advanced French Grammar ..... 3

FR 402 Advanced French Composition ..... 3

FR 403 History & Evolution of French Language ..... 3

FR 406 Advanced French Language ..... 3

or

LIN 440 Structure of French ..... 3

Six credits in French Literature at the 400-level ..... 6<sup>1-4</sup>

**Professional Studies**

EDS 201 Education and Society ..... 3

EDS 304 Psychological Foundations of Education ..... 3

EDS 305 Educational Psychology ..... 3

LIN 421 Methods of Teaching Foreign Language ..... 3

LIN 422 Language Syllabus Design ..... 3

LIN 424 Second Language Testing ..... 3

EDD 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*
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**UNIVERSITY REQUIREMENTS**

E 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.#

\*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 24.

†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 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.

*Mathematics*

M 114 Elementary Mathematics and Statistics ..... 3<sup>1</sup>

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

or

M 115 Pre-Calculus ..... 3

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

or

One of the following:

M 221 Calculus I ..... 3

M 241 Analytic Geometry and Calculus A ..... 4

or

Successful performance on the college proficiency exam.

*Breadth Requirements† (See page 74)*

*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 GER electives at the 200 level and above ..... 12<sup>1-4</sup>

Twelve credits in GER 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.

**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: GERMAN EDUCATION****CURRICULUM****CREDITS\*****UNIVERSITY REQUIREMENTS**

E 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 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.

*Mathematics*

M 114 Elementary Mathematics and Statistics ..... 3<sup>1</sup>

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

or

M 115 Pre-Calculus ..... 3

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

or

One of the following:

M 221 Calculus I ..... 3

M 241 Analytic Geometry and Calculus A ..... 4

or

Successful performance on the college proficiency exam.

*Breadth Requirements† (See page 74)*

*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 24.

†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**

GER 203 German Grammar Review	3
or	
GER 205 German Conversation	3
GER 211 German Reading and Composition: Short Fiction	3
or	
GER 212 German Reading and Composition: Drama	3
GER 305 German Conversation and Composition	3
or	
GER 306 Practical Oral/Written Expression	3
GER 311 Introduction to German Literature I	3
and	
GER 312 Introduction to German Literature II	3
GER 308 Contemporary Germany II	3
or	
GER 325 German Civilization and Culture	3
GER 340 Focus on Genre: German Drama, Prose or Poetry	3
or	
GER 355 Special Topics	3
GER 404 History of the German Language	3
GER 406 Advanced German Language	3
or	
LIN 460 The Structure of German	3
Six credits in GER literature at the 400 level	6

**Professional Studies**

EDS 201 Education and Society	3
EDS 304 Psychological Foundations of Education	3
EDS 305 Educational Psychology	3
LIN 421 Methods of Teaching Foreign Language	3 <sup>4</sup>
LIN 422 Language Syllabus Design	3 <sup>4</sup>
LIN 424 Second Language Testing	3 <sup>4</sup>
EDD 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**

E 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>

**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 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.

*Mathematics*

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

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

or

One of the following:

M 221 Calculus I ..... 3

M 241 Analytic Geometry and Calculus A ..... 4

or

Successful performance on the college proficiency exam.

*Breadth Requirements† (See page 74)*

*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 IT electives at the 200 level and above ..... 12<sup>1-4</sup>

Twelve credits in IT 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.

\*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 24.

†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: 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**

- E 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 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.

*Mathematics:*

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

or

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

or

One of the following:

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

or

Successful performance on the college proficiency exam.

*Breadth Requirements*† (See page 74)

- 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 LAT electives at the 200 level and above ..... 12<sup>1,4</sup>

- Twelve credits in LAT 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**

- E 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 24.

†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 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.

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

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

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

or ..... 4  
Successful performance on the college proficiency exam.

*Breadth Requirements†* (See page 74)

*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

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

### Professional Studies

EDS 201 Education and Society	3
EDS 304 Psychological Foundations of Education	3
EDS 305 Educational Psychology	3
LIN 421 Methods of Teaching Foreign Language	3
LIN 422 Language Syllabus Design	3
LIN 424 Second Language Testing	3
EDD 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

E 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 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.

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

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

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

or ..... 4  
Successful performance on the college proficiency exam.

*Breadth Requirements†* (See page 74)

*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 24.

†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**

Twelve credits in RU electives at the 200 level and above. .... 12

Twelve credits in RU literature at the 300 or 400 level. .... 12  
(at least six credits must be at the 400 level)

FLL 327 Topics: Russian Literature in Translation ..... 3

FLL 375 Topics: Russian and Soviet Culture in Translation ..... 3

**Within the College**

A total of nine credits at the 200 level or above, chosen ..... 9

with prior approval of the adviser and according to option requirements, from the following areas: Russian, Art History, Comparative Literature, English, Foreign Languages and Literatures, History, Linguistics, Music, Political Science.

**ELECTIVES***Electives*

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

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

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: RUSSIAN EDUCATION****CURRICULUM****CREDITS\*****UNIVERSITY REQUIREMENTS**

E 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 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.

*Mathematics:*

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

or

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

or

One of the following:

M 221 Calculus I ..... 3

M 241 Analytic Geometry and Calculus A ..... 4

or

Successful performance on the college proficiency exam.

*Breadth Requirements†* (See page 74)**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**

One of:

RU 203 Russian Grammar Review ..... 3

RU 205 Russian Conversation ..... 3

RU 206 Practical Oral/Written Expression ..... 3

RU 211 Russian Reading and Composition ..... 3

RU 305 Russian Conversation and Composition ..... 3

Two of:

RU 310 Introduction to Russian Literature I ..... 3

RU 312 Introduction to Russian Literature II ..... 3

or

RU 325 Russian Civilization and Culture ..... 3

RU 401 Advanced Russian Grammar and Composition ..... 3

Six credits in RU literature at the 400-level ..... 6

Related Work:

FLL 327 Topics: Russian Literature in Translation ..... 3

FLL 375 Topics: Russian and Soviet Culture in Translation ..... 3

**Professional Studies**

EDS 201 Education and Society ..... 3

EDS 304 Psychological Foundations of Education ..... 3

EDS 305 Educational Psychology ..... 3

LIN 421 Methods of Teaching Foreign Language ..... 3

LIN 422 Language Syllabus Design ..... 3

LIN 424 Second Language Testing ..... 3

EDD 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 24.

†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**

E 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 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.

*Mathematics:*

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

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

## or

## One of the following:

M 221 Calculus I ..... 3  
 M 241 Analytic Geometry and Calculus A ..... 4

## or

Successful performance on the college proficiency exam.

*Breadth Requirements†* (See page 74)

*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 SP electives at the 200 level and above. .... 12<sup>1-4</sup>

Twelve credits in SP 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: SPANISH EDUCATION**

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

E 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 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.

\*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 24.

†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:*

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

or

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

or

One of the following:

M 221 Calculus I ..... 3

M 241 Analytic Geometry and Calculus A ..... 4

or

Successful performance on the college proficiency exam.

*Breadth Requirements*† (See page 74)

*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**

SP 203 Spanish Reading and Composition ..... 3

or

SP 204 Spanish Composition and Grammar ..... 3

SP 211 Spanish Civilization and Culture ..... 3

SP 212 Latin American Civilization and Culture ..... 3

or

SP 308 Contemporary Spain II ..... 3

Any three of the following four literature survey courses:

SP 301 Survey of Spanish Literature ..... 3

SP 302 Survey of Spanish Literature ..... 3

SP 303 Survey of Spanish-American Literature ..... 3

SP 304 Survey of Spanish-American Literature ..... 3

SP 305 Oral Communication ..... 3

or

SP 306 Practical Oral/Written Expression ..... 3

SP 314 Spanish Phonetics and Phonology ..... 3

SP 401 Advanced Spanish Grammar ..... 3

SP 403 History of the Spanish Language ..... 3

SP 406 Advanced Spanish Language ..... 3

or

LIN 431 Applied Spanish Linguistics ..... 3

Six credits in SP literature at the 400-level ..... 6

**Professional Studies**

EDS 201 Education and Society ..... 3

EDS 304 Psychological Foundations of Education ..... 3

EDS 305 Educational Psychology ..... 3

LIN 421 Methods of Teaching Foreign Language ..... 3

LIN 422 Language Syllabus Design ..... 3

LIN 424 Second Language Testing ..... 3

EDD 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**

E 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 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.

*Mathematics:*

M 114 Elementary Mathematics and Statistics ..... 3<sup>1</sup>

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

or

M 115 Pre-Calculus ..... 3

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

or

One of the following:

M 221 Calculus I ..... 3

M 241 Analytic Geometry and Calculus A ..... 4

or

Successful performance on the college proficiency exam.

*Breadth Requirements*† (See page 74)

*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 24.

†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

#### 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 ..... 9-11<sup>1-4</sup>  
credits at or above the 200 level for Western language).

#### 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

E 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 or, for students with more than 4 years of high school foreign language or the equivalent, satisfactory perfor-

mance on a proficiency test in that language.

### Mathematics:

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

or

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

or

One of the following:

M 221 Calculus I ..... 3

M 241 Analytic Geometry and Calculus A ..... 4

or

Successful performance on the college proficiency exam.

### Breadth Requirements† (See page 74)

*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)  
Three additional credits at the 400 level ..... 3<sup>1-4</sup>

#### Second Language

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>

#### Third Language

Nine to eleven credits of language courses (at least three ..... 9-11<sup>1-4</sup>  
credits at or above the 200 level for Western language).

#### Fourth Language

Six to eight credits of language courses ..... 6-8<sup>1-4</sup>  
(at or above the intermediate level for Western language).

#### Related Work

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

\*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 24.

†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.

## 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.

At least 15 credits in the major language and literature, including at least 6 credits in 400-level literature courses, must be taken on campus. This restriction does not apply to students who participate in semester programs 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 FR 201 or 202, FR 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 two 200-level courses (except SP 207 and 208), 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 FLL 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, of cultural attitudes toward land and nature, represent a further dimension 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, behavioral 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

E 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 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.

##### *Mathematics:*

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

or

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

or

One of the following:

M 221	Calculus I	3
M 241	Analytic Geometry and Calculus A	4

or

Successful performance on the college proficiency exam.

##### *Breadth Requirements†* (See page 74)

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:

G 101	Physical Geography	3 <sup>1-4</sup>
G 152	Climate and Life	4
G 206	Physical Geography: Topography-Soils	3
G 220	Meteorology	3
G 230	Humans and the Earth Ecosystem	3
G 235	Conservation of Natural Resources	3
G 255	Applied Climatology	3
G 257	Paleoclimatology	3

Six credits selected from the following courses:

G 102	Human Geography	3 <sup>1-4</sup>
G 120	World Regional Geography	3
G 203	Cultural Geography	3
G 210	Economic Geography	3
G 236	Conservation: Global Issues	3
G 240	Environment and Behavior	3

Three credits selected from the following courses:

G 250	Computer Methods in Geography	4 <sup>1-4</sup>
G 270	Map Communication and Design	3
G 272	Air Photo Interpretation and Photogrammetry	3

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

Six credits selected from geography courses 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

E 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 24.

†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 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.

*Mathematics:*M 114 Elementary Mathematics and Statistics ..... 3<sup>1</sup>

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

or

## M 115 Pre-Calculus ..... 3

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

or

## One of the following:

## M 221 Calculus I ..... 3

## M 241 Analytic Geometry and Calculus A ..... 4

or

Successful performance on the college proficiency exam.

*Breadth Requirements*† (See page 74)*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**

Six credits selected from the following courses:

G 101 Physical Geography ..... 3<sup>1-4</sup>

## G 152 Climate and Life ..... 4

## G 206 Physical Geography: Topography-Soils ..... 3

## G 220 Meteorology ..... 3

## G 230 Humans and the Earth Ecosystem ..... 3

## G 235 Conservation of Natural Resources ..... 3

## G 255 Applied Climatology ..... 3

## G 257 Paleoclimatology ..... 3

Six credits selected from the following courses:

G 102 Human Geography ..... 3<sup>1-4</sup>

## G 120 World Regional Geography ..... 3

## G 203 Cultural Geography ..... 3

## G 210 Economic Geography ..... 3

## G 236 Conservation: Global Issues ..... 3

## G 240 Environment and Behavior ..... 3

Three credits selected from the following courses:

G 250 Computer Methods in Geography ..... 4<sup>1-4</sup>

## G 270 Map Communication and Design ..... 3

## G 272 Air Photo Interpretation and Photogrammetry ..... 3

Nine credits selected from geography courses ..... 9<sup>1-4</sup>  
at the 300 or 400 level (G 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 least three credits in each department ..... 24<sup>1-4</sup>

## Anthropology course ..... 3

## Economics course ..... 3

## History course ..... 3

## Political Science course ..... 3

## Sociology course ..... 3

PSY 201 General Psychology ..... 3<sup>1-4</sup>

Six additional credits selected from the departments listed above. .... 6<sup>1-4</sup>

**Professional Studies**EDS 201 Education and Society ..... 3<sup>1-4</sup>EDS 301 Psychological Foundations of Education ..... 3<sup>1-4</sup>EDS 302 Educational Psychology ..... 3<sup>1-4</sup>H 491 Planning a Course of Instruction ..... 3<sup>4</sup>H 493 Seminar: Problems in Teaching History ..... 3<sup>4</sup>

and Social Sciences

EDS 420 Reading in the Content Area ..... 1<sup>1-4</sup>EDD 400 Student Teaching ..... 9<sup>4</sup>

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

**INTERDEPARTMENTAL AND DOUBLE MAJORS**

An interdepartmental major, for students having interests in two areas, requires 21 credits each in geography and in one other department in the college plus 9 more elective credits, approved by both departments. Of the minimum of 21 credits in geography, a student must take 9 credits from the foundation level, of which one course must be from the Natural 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.

†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 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: G 203, 345, 346

GROUP B: G 225, 227

GROUP C: G 102, 120, 210, 230, 235, 240, 320

GROUP D: G 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 field station at Lewes, Delaware is

available for summer program study to those students whose interests lie in marine and coastal 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****CURRICULUM****CREDITS\*****UNIVERSITY REQUIREMENTS**

E 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>1-2</sup>
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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.

*Mathematics*

M 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		
M 115	Pre-Calculus	3

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

or		
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*One of the following:*

M 221	Calculus I	3
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M 241	Analytic Geometry and Calculus A	4
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or		
----	--	--

Successful performance on the college proficiency exam.

*Breadth Requirements† (See page 74)*

<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.

\*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 24.

†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

GEO 107 General Geology I	4 <sup>1</sup>
GEO 108 General Geology II	4 <sup>1</sup>
GEO 203 Optical and Petrographic Mineralogy	4 <sup>2</sup>
GEO 204 Physical Mineralogy and Crystallography	4 <sup>2</sup>
GEO 301 Systematic and Evolutionary Paleontology	4 <sup>3</sup>
GEO 303 Sedimentology	3 <sup>3</sup>
GEO 304 Stratigraphy	3 <sup>3</sup>
GEO 401 Structural Geology and Tectonics	4 <sup>4</sup>
GEO 433 Geowriting	3 <sup>3,4</sup>
(This course is intended to fulfill the Arts and Science requirement for a second writing course.)	
GEO 432 Recent Sedimentary Environments	3 <sup>4</sup>

#### Within the College

Chemistry courses (C 103-104)	8 <sup>2</sup>
Physics courses (PS 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

#### CURRICULUM

#### CREDITS\*

#### UNIVERSITY REQUIREMENTS

E 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.

##### *Mathematics*

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

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

One of the following:

M 221 Calculus I	3
M 241 Analytic Geometry and Calculus A	4

or

Successful performance on the college proficiency exam.

*Breadth Requirements†* (See page 74)

<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

GEO 107 General Geology I	4 <sup>1</sup>
GEO 108 General Geology II	4 <sup>1</sup>
GEO 203 Optical and Petrographic Mineralogy	4 <sup>2</sup>
GEO 204 Physical Mineralogy and Crystallography	4 <sup>2</sup>
GEO 301 Systematic and Evolutionary Paleontology	4 <sup>3</sup>
GEO 303 Sedimentology	3 <sup>3</sup>
GEO 304 Stratigraphy	3 <sup>3</sup>
GEO 401 Structural Geology and Tectonics	4 <sup>4</sup>
GEO 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:

GEO 432 Recent Sedimentary Environments	3 <sup>3,4</sup>
and/or	
GEO 460 Field Geology in the Western States	3-6 <sup>3,4</sup>

#### Within the College

B 207 Introductory Biology I	4 <sup>1</sup>
B 208 Introductory Biology II	4 <sup>1</sup>
B 302 General Ecology	3 <sup>3</sup>
B 303 Genetic and Evolutionary Biology	4 <sup>4</sup>
B 306 General Physiology	4 <sup>3</sup>
or	
B 301 Cellular and Molecular Biology	4 <sup>3</sup>
Physics courses (PS 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

\*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 24.

†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 SCIENCE  
MAJOR: GEOLOGY****CURRICULUM CREDITS\*****UNIVERSITY REQUIREMENTS**

E 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 GEO 433.)

<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 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.

*Breadth Requirements†* (See page 74)

Thirty credits are required with a minimum of nine credits in each of the following groups:	30 <sup>1,4</sup>
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*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:

GEO 107	General Geology I	4 <sup>1</sup>
GEO 108	General Geology II	4 <sup>1</sup>
GEO 203	Optical and Petrographic Mineralogy	4 <sup>2</sup>
GEO 204	Physical Mineralogy and Crystallography	4 <sup>2</sup>
GEO 301	Systematic and Evolutionary Paleontology	4 <sup>3</sup>
GEO 303	Sedimentology	3 <sup>3</sup>
GEO 304	Stratigraphy	3 <sup>3</sup>
GEO 401	Structural Geology and Tectonics	4 <sup>3,4</sup>
GEO 407	Igneous and Metamorphic Petrology	4 <sup>4</sup>
GEO 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:

GEO 460	Field Geology in the Western States	3-6 <sup>3,4</sup>
or		
GEO 432	Recent Sedimentary Environments	3 <sup>3,4</sup>
Geology courses (400 level)		5 <sup>3,4</sup>

**Within the College***Related Work*

M 241	Analytic Geometry and Calculus A	4 <sup>1</sup>
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M 242	Analytic Geometry and Calculus B	4 <sup>1</sup>
C 103	General Chemistry	4 <sup>2</sup>
C 104	General Chemistry	4 <sup>2</sup>
PS 201	General Physics	4 <sup>3</sup>
PS 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**

The minor consists of at least 18 credit hours in geology. The requirements are as follows:

GEO 107/108 (8 credits); at least two of the following: GEO 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****CURRICULUM CREDITS\*****UNIVERSITY REQUIREMENTS**

E 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 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.

*Mathematics:*

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

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

or

One of the following:

M 221	Calculus I	3
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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 24.

†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.

M 241	Analytic Geometry and Calculus A	4
or	Successful performance on the college proficiency exam.	
<i>Breadth Requirements†</i> (See page 74)		
<i>Group A</i>	Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.	12 <sup>1-4</sup>
<i>Group B</i>	The study of culture and institutions over time. Twelve credits representing at least two areas.	12 <sup>1-4</sup>
<i>Group C</i>	Empirically based study of human beings and their environment. Twelve credits representing at least two areas	12 <sup>1-4</sup>
<i>Group D</i>	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.)	13 <sup>1-4</sup>

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

GEO 105	General Geology I	4 <sup>1</sup>
GEO 106	General Geology II	4 <sup>1</sup>
or		
GEO 107	General Geology I	4
GEO 108	General Geology II	4
GEO 204	Physical Mineralogy and Crystallography	4 <sup>2</sup>
GEO 302	Stratigraphic and Sedimentary Geology	4 <sup>3</sup>
GEO 432	Recent Sedimentary Environments	3 <sup>4</sup>
G 101	Physical Geography	3 <sup>1-4</sup>
G 220	Meteorology	3 <sup>1-4</sup>
G 235	Conservation of Natural Resources	3 <sup>1-4</sup>
G 343	Climatic Geomorphology	3 <sup>1-4</sup>
or		
G 255	Applied Climatology	3

**Within the College**

PS 133	Introduction to Astronomy	4 <sup>1,2</sup>
PS 201	General Physics	4 <sup>1,2</sup>
PS 202	General Physics	4 <sup>1,2</sup>
C 103	General Chemistry	4 <sup>1,2</sup>
B 195	Biological Evolution	3 <sup>1-4</sup>
M 221	Calculus I	3 <sup>1,2</sup>

**External to the College**

CMS 200	Introduction to Marine Studies	3 <sup>1-4</sup>
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**Professional Studies**

EDS 201	Education and Society	3 <sup>1-4</sup>
EDS 301	Psychological Foundations of Education	3 <sup>1-4</sup>
EDS 302	Educational Psychology	3 <sup>1-4</sup>
SC 491	Science Materials and Approaches	3 <sup>4</sup>
EDS 420	Reading in the Content Area	1 <sup>1-4</sup>
EDD 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 offers courses in varied aspects of geology for nonmajors. These include the basic courses, GEO 105 and 106 as well as specialty courses such as GEO 233, 234, 235, 243, 244 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 1990. See Professor John Madsen or Professor Sue McGearry for details.

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

E 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 GEO 433.)

*Breadth Requirements†* (See page 74)

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

\*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 24.

†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 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**

GEO 107 General Geology I	4 <sup>1</sup>
GEO 108 General Geology II	4 <sup>1</sup>
GEO 204 Physical Mineralogy and Crystallography	4 <sup>3</sup>
GEO 303 Sedimentology	3 <sup>3</sup>
GEO 304 Stratigraphy	3 <sup>3</sup>
GEO 401 Structural Geology and Tectonics	4 <sup>3</sup>
GEO 433 Geowriting	3 <sup>3,4</sup>

(This course is intended to fulfill the Arts and Science requirement for a second writing course.)

GEO 453 Elementary Geophysics I	3 <sup>4</sup>
GEO 454 Elementary Geophysics II	3 <sup>4</sup>

Five credits from the following:

GEO 460 Field Geology in the Western States	3-6
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or

GEO 432 Recent Sedimentary Environments	3
PS 207 General Physics	4 <sup>1</sup>
PS 208 General Physics	4 <sup>2</sup>
PS 209 General Physics	3 <sup>2</sup>
PS 419 Analytical Mechanics	3 <sup>3</sup>
PS 620 Analytical Mechanics	3 <sup>3</sup>

Two of the following six courses:

PS 313 Physical Optics	4 <sup>4</sup>
PS 616 Kinetic Theory and Thermodynamics	3
PS 621 Introduction to Modern Physics	3
PS 622 Introduction to Modern Physics	3
PS 631 Acoustics	3
MEC 305 Fluid Mechanics	3

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

CIS 105 General Computer Science	3 <sup>3</sup>
M 241 Analytic Geometry and Calculus A	4 <sup>1</sup>
M 242 Analytic Geometry and Calculus B	4 <sup>1</sup>
M 243 Analytic Geometry and Calculus C	4 <sup>2</sup>
M 302 Ordinary Differential Equations I	3 <sup>2</sup>
C 103 General Chemistry	4 <sup>2</sup>
C 104 General Chemistry	4 <sup>2</sup>

**CREDITS TO TOTAL A MINIMUM OF 127**

**HISTORY**

History is both a literary and analytical discipline that seeks to comprehend the development of human society in all its manifestations including political, religious and social institutions, economic life, culture, and technology. History provides a sense of how nations and civilizations

evolved toward their present forms, and thus tells us who we are by explaining where we have come from.

The study of history helps to develop a student's ability to analyze complex situations, including the relation of cause and effect, and to describe these findings clearly and effectively in both written and oral form. Because studying history develops this kind of judgment, history majors fit well into jobs in government, business, and journalism and are prepared for graduate work in law, business, theology, urban affairs, and public administration. The History Department, in collaboration with the College of Education, gives special attention to the training of secondary school social studies teachers. Advisers in the History Department can provide students with specific information about how to prepare for a specific graduate school or career while majoring in history.

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

E 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 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.

**Mathematics:**

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

or

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

or

One of the following:

M 221 Calculus I	3
M 241 Analytic Geometry and Calculus A	4

or

Successful performance on the college proficiency exam.

*Breadth Requirements*† (See page 74)

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.

\*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 24.

†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 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

H 101 Western Civilization to 1648 ..... 3<sup>1-4</sup>  
H 102 Western Civilization: 1648 to the Present ..... 3<sup>1-4</sup>  
H 268 Seminar ..... 3<sup>1-4</sup>  
History course on the third world or ancient history ..... 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 H 491 and 493 and Independent Study)  
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

## DEGREE: BACHELOR OF ARTS

### MAJOR: HISTORY

### CONCENTRATION: AMERICAN HISTORY

CURRICULUM ..... CREDITS\*

### UNIVERSITY REQUIREMENTS

E 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 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.

#### Mathematics:

M 114 Elementary Mathematics and Statistics ..... 3<sup>1</sup>  
(designed for students who do not intend to continue the study

of mathematics)

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

or

One of the following:

M 221 Calculus I ..... 3

M 241 Analytic Geometry and Calculus A ..... 4

or

Successful performance on the college proficiency exam.

*Breadth Requirements*† (See page 74)

*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

H 101 Western Civilization to 1648 ..... 3<sup>1-4</sup>  
H 102 Western Civilization: 1648 to the Present ..... 3<sup>1-4</sup>  
H 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 H 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

E 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.#

\*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 24.

†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 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.

*Mathematics:*

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

or

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

or

One of the following:

M 221 Calculus I ..... 3

M 241 Analytic Geometry and Calculus A ..... 4

or

Successful performance on the college proficiency exam.

*Breadth Requirements† (See page 74)*

*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**

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

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

H 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 H 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**

E 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 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.

*Mathematics:*

M 114 Elementary Mathematics and Statistics ..... 3<sup>1</sup>

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

or

M 115 Pre-Calculus ..... 3

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

or

One of the following:

M 221 Calculus I ..... 3

M 241 Analytic Geometry and Calculus A ..... 4

or

Successful performance on the college proficiency exam.

*Breadth Requirements† (See page 74)*

*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 24.

†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**

H 101	Western Civilization to 1648.....	3 <sup>1,4</sup>
H 102	Western Civilization: 1648 to the Present.....	3 <sup>1,4</sup>
H 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..... (excluding H 491 and 493 and Independent Study)	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: HISTORY****CONCENTRATION: POLICY HISTORY**

**CURRICULUM** CREDITS\*

**UNIVERSITY REQUIREMENTS**

E 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 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.

*Mathematics:*

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

or

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

or

One of the following:

M 221	Calculus I.....	3
M 241	Analytic Geometry and Calculus A.....	4

or

Successful performance on the college proficiency exam.

*Breadth Requirements† (See page 74)*

<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 environ- ment. 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 associat- ed laboratory.

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

H 101	Western Civilization to 1648.....	3 <sup>1,4</sup>
H 102	Western Civilization: 1648 to the Present.....	3 <sup>1,4</sup>
H 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..... (excluding H 491 and 493 and Independent Study)	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: HISTORY EDUCATION**

**CURRICULUM** CREDITS\*

**UNIVERSITY REQUIREMENTS**

E 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 24.

†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>1-2</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.

**Mathematics:**

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

or

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

or

One of the following:

M 221 Calculus I ..... 3

M 241 Analytic Geometry and Calculus A ..... 4

or

Successful performance on the college proficiency exam.

*Breadth Requirements*† (See page 74)

*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**

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

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

H 268 Seminar ..... 3<sup>1-4</sup>

History course on the third world or ancient history ..... 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 H 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

PSY 201 General Psychology ..... 3<sup>1-4</sup>

Six additional credits selected from the departments listed ..... 6<sup>1-4</sup>

**Professional Studies**

EDS 201 Education and Society ..... 3<sup>1-4</sup>

EDS 301 Psychological Foundations of Education ..... 3<sup>1-4</sup>

EDS 302 Educational Psychology ..... 3<sup>1-4</sup>

H 491 Planning a Course of Instruction ..... 3<sup>4</sup>

H 493 Seminar: Problems in Teaching History and Social Sciences ..... 3<sup>4</sup>

EDS 420 Reading in the Content Areas ..... 1<sup>1-4</sup>

EDD 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**

E 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.

*Mathematics:*

M 114 Elementary Mathematics and Statistics ..... 3<sup>1</sup>

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

or

M 115 Pre-Calculus ..... 3

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

or

One of the following:

M 221 Calculus I ..... 3

M 241 Analytic Geometry and Calculus A ..... 4

or

Successful performance on the college proficiency exam.

*Breadth Requirements*† (See page 74)

*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 24.

†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

H 101 Western Civilization to 1648 ..... 3<sup>1-4</sup>  
H 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 H 491 and 493 and Independent Study)

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

Civilization: Two classical civilization (or culture) courses:  
e.g. FLL 202 (Biblical and Classical Literature)  
and FLL 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 GR 213 and GR 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

E 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.

##### Mathematics:

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

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

or

One of the following:

M 221 Calculus I ..... 3

M 241 Analytic Geometry and Calculus A ..... 4

or

Successful performance on the college proficiency exam.

*Breadth Requirements*† (See page 74)

*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

H 101 Western Civilization to 1648 ..... 3<sup>1-4</sup>  
H 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 H 491 and 493 and Independent Study)

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

Civilization: FR 310 (French Civilization), or FR 311  
(French Civilization) or FR 312 (Contemporary France) ..... 3<sup>1-4</sup>  
Literature: FR 301 (Introduction to French Literature: Prose) and FR 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

E 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 24.

†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 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.

*Mathematics:*

M 114 Elementary Mathematics and Statistics ..... 3<sup>1</sup>

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

or

M 115 Pre-Calculus ..... 3

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

or

One of the following:

M 221 Calculus I ..... 3

M 241 Analytic Geometry and Calculus A ..... 4

or

Successful performance on the college proficiency exam.

*Breadth Requirements†* (See page 74)

*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**

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

H 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 H 491 and 493 and Independent Study)

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

Civilization: GER 325 (German Civilization and Culture) ..... 3<sup>1-4</sup>

Literature: GER 311 (Introduction to German Literature I) ..... 6<sup>1-4</sup>

and GER 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**

E 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.

*Mathematics:*

M 114 Elementary Mathematics and Statistics ..... 3<sup>1</sup>

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

or

M 115 Pre-Calculus ..... 3

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

or

One of the following:

M 221 Calculus I ..... 3

M 241 Analytic Geometry and Calculus A ..... 4

or

Successful performance on the college proficiency exam.

*Breadth Requirements†* (See page 74)

*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 24.

†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

H 101 Western Civilization to 1648 ..... 3<sup>1,4</sup>  
H 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 H 491 and 493 and Independent Study)

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

Civilization: RU 311 (History of Russian Culture) ..... 3<sup>1,4</sup>  
Literature: RU 321 (Russian Poets of 18th and 19th Century) and RU 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>

### 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

E 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.

##### Mathematics

M 114 Elementary Mathematics and Statistics ..... 3<sup>1</sup>

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

or

M 115 Pre-Calculus ..... 3

(designed for students who intend to continue the study of

mathematics)

or

One of the following:

M 221 Calculus I ..... 3

M 241 Analytic Geometry and Calculus A ..... 4

or

Successful performance on the college proficiency exam.

*Breadth Requirements†* (See page 74)

*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

H 101 Western Civilization to 1648 ..... 3<sup>1,4</sup>

H 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 H 491 and 493 and Independent Study)

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

Civilization: SP 211 (Spanish Civilization and Culture) or

SP 212 (Latin American Civilization and Culture) ..... 3<sup>1,4</sup>

Literature: SP 301 (Survey of Spanish Literature) and

SP 302 (Survey of Spanish Literature) ..... 6<sup>1,4</sup>

or

SP 303 (Survey of Spanish-American Literature) and

SP 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

E 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 #

\*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 24.

†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 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.

*Mathematics:*M 114 Elementary Mathematics and Statistics ..... 3<sup>1</sup>

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

or

## M 115 Pre-Calculus ..... 3

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

or

## One of the following:

## M 221 Calculus I ..... 3

## M 241 Analytic Geometry and Calculus A ..... 4

or

Successful performance on the college proficiency exam.

*Breadth Requirements†* (See page 74)*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**H 101 Western Civilization to 1648 ..... 3<sup>1-4</sup>H 102 Western Civilization: 1648 to the Present ..... 3<sup>1-4</sup>H 268 Seminar ..... 3<sup>1-4</sup>A course on the third world or ancient history ..... 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 H 491 and 493 and Independent Study)

History course ..... 3<sup>1-4</sup>**Within the College**E 307 New Writing and Editing ..... 3<sup>1-4</sup>Nine credits chosen from the following courses: ..... 9<sup>1-4</sup>

## F 308 Reporter's Practicum ..... 3

## E 309 Feature and Magazine Writing ..... 3

## E 310 Copy Editing and Layout ..... 3

## E 407 Advanced Reporting ..... 1-3

## E 409 Topics in Journalism ..... 3

## E 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 H 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. Several courses fulfill Group C requirements.

**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.

†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.

## 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 (LIN 101), Studies: Language (LIN 265), and Introduction to the English Language (LIN 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:

LIN 101	Introduction to Linguistics	3
One of the following:		
LIN 407	Phonology I	3
LIN 409	Syntax I	3
LIN 491	Semantics I	3

Any four additional LIN courses, two of which must be at the 300-level or above	12
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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 interpreters 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:

LIN 426 Theory and Techniques of Interpretation I (3 credits)

LIN 427 Interpretation Practicum I (3 credits)

LIN 428 Theory and Techniques of Interpretation II (3 credits)

LIN 429 Interpretation Practicum II (3 credits)

Students must concurrently register for LIN 426 and 427 during the fall semester and for LIN 428 and 429 during the spring semester. A grade of *B* in both LIN 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 M 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*
<b>UNIVERSITY REQUIREMENTS</b>	
E 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>Foreign Language:</i>	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.	
<i>Mathematics:</i>	
M 114 Elementary Mathematics and Statistics	3 <sup>1</sup>
(designed for students who do not intend to continue the study of mathematics)	
or	
M 115 Pre-Calculus	3
(designed for students who intend to continue the study of mathematics)	
or	
One of the following:	
M 221 Calculus I	3
M 241 Analytic Geometry and Calculus A	4

or  
Successful performance on the college proficiency exam.

#### Breadth Requirements† (See page 74)

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

M 210 Discrete Mathematics I	3 <sup>1</sup>
M 242 Analytic Geometry and Calculus B**	4 <sup>1</sup>
M 243 Analytic Geometry and Calculus C	4 <sup>2</sup>
M 349 Elements of Linear Systems	3 <sup>2</sup>
M 302 Ordinary Differential Equations	3 <sup>2</sup>
M 303 Differential Equations Computing Lab	1 <sup>2</sup>
M 503 Advanced Calculus for Applications	3 <sup>3,4</sup>
or	
M 508 Introduction to Complex Variables and Applications	3
M 389 Graph Theory	3 <sup>3,4</sup>
or	
M 529 Linear Programming: Methods and Applications	3
ST 370 Introduction to Statistical Analysis I	3 <sup>3</sup>
ST 371 Introduction to Statistical Analysis II	3 <sup>3</sup>
Twelve credits of Mathematics and/or Statistics at the 300 level or above. M 601 and 602 are not applicable.	12 <sup>3,4</sup>

##### Within the College

CIS 105 General Computer Science	3 <sup>1,2</sup>
or	
CIS 106 General Computer Science for Engineers	3
or	
CIS 180 Introduction to Computer Science I	3
E 312 Written Communications in Business	3 <sup>3,4</sup>
or	
Suitable equivalent	

##### Within the University

Area of application outside the department must be approved by the department Undergraduate Studies Committee. Student should check with adviser.	15 <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, at least 79 outside Mathematical Sciences.

**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 24.

†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 taking adequate preparation for M 242 should begin with M 241.



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

**CURRICULUM CREDITS\***

**UNIVERSITY REQUIREMENTS**

E 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 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 74)

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.	30 <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**

M 210	Discrete Mathematics I.....	3 <sup>1</sup>
M 315	Discrete Mathematics II.....	3 <sup>2</sup>
M 242	Analytic Geometry and Calculus B**.....	4 <sup>1</sup>
M 243	Analytic Geometry and Calculus C.....	4 <sup>2</sup>
M 349	Elements of Linear Systems.....	3
M 302	Ordinary Differential Equations.....	3 <sup>2</sup>
M 303	Differential Equations Computing Lab.....	1 <sup>2</sup>
M 260	Concepts of Analysis.....	3 <sup>2</sup>
M 389	Graph Theory.....	3 <sup>2,3</sup>
M 426	Introduction to Numerical Analysis and Algorithmic Computation.....	3 <sup>3,4</sup>
M 503	Advanced Calculus for Applications.....	3 <sup>3,4</sup>
or		
M 601	Advanced Calculus—Introduction to Analysis I.....	3
and		
M 602	Advanced Calculus—Introduction to Analysis II.....	3
M 508	Introduction to Complex Variables and Application.....	3 <sup>3,4</sup>
M 450	Abstract Algebra.....	3-4 <sup>3,4</sup>
M 529	Linear Programming: Methods and Applications.....	3 <sup>3,4</sup>

ST 370	Introduction to Statistical Analysis I.....	3 <sup>3</sup>
ST 371	Introduction to Statistical Analysis II.....	3 <sup>3</sup>

**Within the College**

*Related Work*

CIS 180	Introduction to Computer Science I.....	3 <sup>1,2</sup>
and		
CIS 181	Introduction to Computer Science II.....	3
CIS 220	Data Structures.....	3 <sup>3,4</sup>
CIS 411	Algorithmic and Numerical Solution of Differential Equations.....	3 <sup>3,4</sup>
CIS 627	Simulation of Discrete Systems.....	3 <sup>3,4</sup>
E 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.

<b>CREDITS TO TOTAL A MINIMUM OF</b>	<b>128</b>
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**DEGREE: BACHELOR OF SCIENCE  
MAJOR: MATHEMATICAL SCIENCES  
CONCENTRATION: MATHEMATICS OF MANAGEMENT SCIENCES  
AND OPERATION RESEARCH**

**CURRICULUM CREDITS\***

**UNIVERSITY REQUIREMENTS**

E 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 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 74)

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.

\*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 24.

†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 taking adequate preparation for M 242 should begin with M 241.

**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**

M 210	Discrete Mathematics I	3 <sup>1</sup>
M 242	Analytic Geometry and Calculus B**	4 <sup>1</sup>
M 243	Analytic Geometry and Calculus C	4 <sup>2</sup>
M 260	Concepts of Analysis	3 <sup>2</sup>
M 349	Elements of Linear Systems	3 <sup>2</sup>
M 302	Ordinary Differential Equations	3 <sup>2</sup>
M 303	Differential Equations Computing Lab	1 <sup>2</sup>
M 389	Graph Theory	3 <sup>2,3</sup>
M 426	Introduction to Numerical Analysis and Algorithmic Computation	3 <sup>3,4</sup>
M 601	Advanced Calculus—Introduction to Analysis I	3 <sup>3,4</sup>
M 602	Advanced Calculus—Introduction to Analysis II	3 <sup>3,4</sup>
M 508	Introduction to Complex Variables and Application	3 <sup>3,4</sup>
M 450	Abstract Algebra	3-4 <sup>3,4</sup>
M 672	Vector Spaces	3 <sup>3,4</sup>
M 529	Linear Programming: Methods and Applications	3 <sup>3,4</sup>
ST 370	Introduction to Statistical Analysis I	3 <sup>3</sup>
ST 371	Introduction to Statistical Analysis II	3 <sup>3</sup>
Nine credits from the following:		9 <sup>3,4</sup>
M 428	Algorithmic and Numerical Solution to Differential Equations	3
M 630	Introduction to Probability Theory	3
M 631	Introduction to Stochastic Processes	3
M 632	Topics in Applied Probability	3
M 518	Mathematical Models and Applications	3
M 688	Combinatorics and Graph Theory with Applications I	3
M 689	Combinatorics and Graph Theory with Applications II	3
M 694	Methods of Optimization	3

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

PS 207	General Physics	4 <sup>1,2</sup>
PS 208	General Physics	4 <sup>1,2</sup>
CIS 105	General Computer Science	3 <sup>1,2</sup>
or		
CIS 106	General Computer Science for Engineers	3
or		
CIS 180	Introduction to Computer Science I	3
E 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: MATHEMATICAL SCIENCES**  
**CONCENTRATION: PHYSICAL MATHEMATICS**

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

E 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 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 74)**

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**

M 210	Discrete Mathematics I	3 <sup>1</sup>
M 242	Analytic Geometry and Calculus B**	4 <sup>1</sup>
M 243	Analytic Geometry and Calculus C	4 <sup>2</sup>
M 349	Elements of Linear Systems	3 <sup>2</sup>
M 302	Ordinary Differential Equations	3 <sup>2</sup>
M 303	Differential Equations Computing Lab	1 <sup>2</sup>
M 260	Concepts of Analysis	3 <sup>2</sup>
M 426	Introduction to Numerical Analysis and Algorithmic Computation	3 <sup>3,4</sup>
M 601	Advanced Calculus—Introduction to Analysis I	3 <sup>3,4</sup>
M 602	Advanced Calculus—Introduction to Analysis II	3 <sup>3,4</sup>
M 508	Introduction to Complex Variables and Application	3 <sup>3,4</sup>
M 450	Abstract Algebra	3-4 <sup>3,4</sup>
M 672	Vector Spaces	3 <sup>3,4</sup>
M 609	Intermediate Ordinary Differential Equations	3 <sup>3,4</sup>
and		
M 610	Introduction to Partial Differential Equations with Applications	3 <sup>3,4</sup>
or		
M 616	Introduction to Applied Mathematics I	3
and		

\*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 24.

†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 taking adequate preparation for M 242 should begin with M 241.

M 617	Introduction to Applied Mathematics II	3 <sup>3,4</sup>
ST 370	Introduction to Statistical Analysis I	3 <sup>3</sup>
ST 371	Introduction to Statistical Analysis II	3 <sup>3</sup>
<i>Related Work</i>		
PS 207	General Physics	4 <sup>1,2</sup>
PS 208	General Physics	4 <sup>1,2</sup>
PS 209	General Physics	3 <sup>2,3</sup>
PS 419	Analytical Mechanics	3 <sup>3,4</sup>
PS 620	Analytical Mechanics	3 <sup>3,4</sup>
CIS 105	General Computer Science	3 <sup>1,2</sup>
or		
CIS 106	General Computer Science for Engineers	3
or		
CIS 180	Introduction to Computer Science I	3
E 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

E 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 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 74)

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

M 210	Discrete Mathematics I	3 <sup>1</sup>
M 242	Analytic Geometry and Calculus B**	4 <sup>1</sup>
M 243	Analytic Geometry and Calculus C	4 <sup>2</sup>
M 349	Elements of Linear Systems	3 <sup>2</sup>
M 302	Ordinary Differential Equations	3 <sup>2</sup>
M 303	Differential Equations Computing Lab	1 <sup>2</sup>
M 260	Concepts of Analysis	3 <sup>2</sup>
M 426	Introduction to Numerical Analysis and Algorithmic Computation	3 <sup>3,4</sup>
M 503	Advanced Calculus for Applications	3 <sup>3,4</sup>
or		
M 601	Advanced Calculus—Introduction to Analysis I	3
and		
M 602	Advanced Calculus—Introduction to Analysis II	3
ST 205	Statistical Methods	4 <sup>1</sup>
ST 370	Introduction to Statistical Analysis	3 <sup>2</sup>
ST 371	Introduction to Statistical Analysis II	3 <sup>2</sup>
ST 418	Sampling Methods	3 <sup>3,4</sup>
ST 420	Data Analysis and Nonparametric Statistics	3 <sup>3,4</sup>
ST 611	Regression Analysis	3 <sup>3,4</sup>
ST 615	Design and Analysis of Experiments	3 <sup>3,4</sup>

Three credits from the following:

ST 616	Design and Analysis of Experiments II	3 <sup>4</sup>
ST 617	Multivariate Methods	3 <sup>4</sup>
ST 618	Sampling Techniques	3 <sup>4</sup>

### Within the College

#### Related Work

CIS 105	General Computer Science	3 <sup>1,2</sup>
or		
CIS 106	General Computer Science for Engineers	3
or		
CIS 180	Introduction to Computer Science I	3
E 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**

\*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 24.

†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 taking adequate preparation for M 242 should begin with M 241.

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

E 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>
--------------------------	---------------------

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 74)*

<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>	9 <sup>1-4</sup>
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The study of culture and institutions over time. Nine credits representing at least two areas.

<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>	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**

M 210	Discrete Mathematics I	3 <sup>1</sup>
M 242	Analytic Geometry and Calculus B**	4 <sup>1</sup>
M 243	Analytic Geometry and Calculus C	4 <sup>2</sup>
M 260	Concepts of Analysis	3 <sup>2,3</sup>
M 302	Ordinary Differential Equations	3 <sup>2</sup>
M 303	Differential Equations Computing Lab	1 <sup>2</sup>
M 349	Elements of Linear Systems	3 <sup>2</sup>
M 518	Mathematical Models and Applications	3 <sup>3,4</sup>
M 540	Fundamentals of Geometry	3 <sup>3</sup>
M 450	Abstract Algebra	3-4 <sup>3</sup>
ST 370	Introduction to Statistical Analysis I	3 <sup>3</sup>
ST 371	Introduction to Statistical Analysis II	3 <sup>3</sup>

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

M 503	Advanced Calculus for Applications	3 <sup>1-4</sup>
M 508	Introduction to Complex Variables and Application	3 <sup>1-4</sup>

**Within the College**

CIS 105	General Computer Science	3 <sup>1,2</sup>
or		
CIS 106	General Computer Science for Engineering	3
or		
CIS 180	Introduction to Computer Science	3
PS 207	General Physics	4 <sup>1,2</sup>
E 312	Written Communications in Business	3 <sup>3,4</sup>

**Professional Studies**

EDS 201	Education and Society	3 <sup>1-4</sup>
EDS 302	Educational Psychology	3 <sup>1-4</sup>
EDS 304	Psychological Foundations of Education	3 <sup>1-4</sup>
M 379	Problem Solving Strategies	1 <sup>4</sup>
M 380	Approaches to Teaching Mathematics	3 <sup>4</sup>
M 381	Practicum in Secondary Mathematics	1 <sup>2</sup>
EDS 420	Reading in the Content Areas	1 <sup>1-4</sup>
EDD 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 M 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 M 242 to avoid repetition of known material. Students with advanced placement are automatically placed in M 242, and others should follow the advice given during freshman orientation.

The calculus sequence M 221-222 and finite mathematics course M 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 M 210 as an alternative to M 230 and M 241-242 as an alternative to M 221-222.

The sequence M 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 M 115. M 114 serves to establish minimal skills level for students not expecting to continue at the 200 level. Students seeking mathematical electives for self-enrichment may select M 280 if their skills are adequate for the 200 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 24.

†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 M 242 should begin with M 241.



Ordinarily, credit is not given for 100-level courses that follow successful completion of 200-level courses. Credit for corresponding courses from different tracks M 114 and 115; M 210 and 230; M 221 and 241; M 222 and 242; M 302 and M 341; and, M 349 and M 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 M 302 (M 341 is not considered above M 302 since they are corresponding courses from different tracks). ST 370 or any course cross-listed with a mathematics course may be counted toward the minor, except that courses in mathematics education (e.g., M 379, M 380, M 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.** Two-, three-, or 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 musical theatre 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, Kriel Husa, Vincent Persichetti, Gunther Schuller, Gian Carlo Menotti, and Robert Ward.

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

E 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 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.

#### *Mathematics:*

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

or

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

or

One of the following:

M 221	Calculus I	3
M 241	Analytic Geometry and Calculus A	4

or

Successful performance on the college proficiency exam.

#### *Breadth Requirements† (See page 74)*

<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 MU 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 MU 311, 312, and 313. H 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>
----------------	-------------------

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 24.

†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†***Applied Music*

MU 161	Private Study	2 <sup>1-3</sup>
MU 162	Private Study	2 <sup>1-3</sup>
MU 261	Private Study	2 <sup>2-4</sup>
MU 262	Private Study	2 <sup>2-4</sup>

*Theory*

MU 185	Ear Training and Sight Singing I	2 <sup>1-3</sup>
MU 186	Ear Training and Sight Singing II	2 <sup>1-3</sup>
MU 285	Advanced Ear Training and Sight Singing I	2 <sup>2-4</sup>
MU 286	Advanced Ear Training and Sight Singing II	2 <sup>2-4</sup>
MU 195	Harmony I	3 <sup>1-3</sup>
MU 196	Harmony II	3 <sup>1-3</sup>
MU 295	Advanced Harmony I	3 <sup>2-4</sup>
MU 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*

MU 111	Introduction to Music History	3 <sup>2,3</sup>
MU 311	Music History: 1450-1750	3 <sup>2,3</sup>
MU 312	Music History: 1715-1825	3 <sup>3,4</sup>
MU 313	Music History: 1825 to the Present	3 <sup>3,4</sup>

*Music Elective*

MU Theory or Literature course (excludes private study)	3 <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** ..... 125

**DEGREE: BACHELOR OF MUSIC****MAJOR: APPLIED MUSIC****CONCENTRATION: INSTRUMENTAL****CURRICULUM****CREDITS\*****UNIVERSITY REQUIREMENTS**

E 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:*

M 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

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

## One of the following:

M 221	Calculus I	3
M 241	Analytic Geometry and Calculus A	4

or

Successful performance on the college proficiency exam.

English literature course	3-4
H 101 Western Civilization to 1648	3-4
H 102 Western Civilization: 1648 to the Present	3-4
FLL Languages courses	6-14
Science and/or Mathematics courses	5-14

*Breadth Requirements†* (See page 74)

<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. (This requirement is partially satisfied by MU 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 partially satisfied by MU 311, 312, 313, H 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**

(Six semesters of recital attendance are required.)

*Applied Music*

MU 161	Private Study	4 <sup>1</sup>
MU 162	Private Study	4 <sup>1</sup>
MU 261	Private Study	4 <sup>2</sup>
MU 262	Private Study	4 <sup>2</sup>
MU 361	Private Study	4 <sup>3</sup>
MU 362	Private Study	4 <sup>3</sup>
MU 461	Private Study	4 <sup>4</sup>
MU 462	Private Study	4 <sup>4</sup>
MU 175	Class Piano: Elementary I	1 <sup>1-4</sup>
MU 176	Class Piano: Elementary II	1 <sup>1-4</sup>
MU 301	Junior Recital	0 <sup>3,4</sup>
MU 401	Senior Recital	0 <sup>4</sup>

*Theory*

MU 185	Ear Training and Sight Singing I	2 <sup>1,2</sup>
MU 186	Ear Training and Sight Singing II	2 <sup>1,2</sup>
MU 285	Advanced Ear Training and Sight Singing I	2 <sup>2,3</sup>
MU 286	Advanced Ear Training and Sight Singing II	2 <sup>2,3</sup>
MU 195	Harmony I	3 <sup>1,2</sup>
MU 196	Harmony II	3 <sup>1,2</sup>
MU 295	Advanced Harmony I	3 <sup>2,3</sup>
MU 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 24.

†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.

MU Theory courses.....	4-6 <sup>1-4</sup>
<i>Ensemble</i>	
Twelve credits selected from the following:.....	12 <sup>1-4</sup>
MU 115 Band.....	1
MU 116 Jazz Ensemble.....	1
MU 117 University Orchestra.....	1
MU 321 Ensemble.....	1
(All Ensembles may be repeated.)	
Guitarists must complete the following:	
MU 321 Ensemble: Guitar.....	8 <sup>1-4</sup>
MU 109, 115, 116, 117 or 118.....	2 <sup>1,2</sup>
<i>Literature</i>	
MU 111 Introduction to Music History.....	3 <sup>2,3</sup>
MU 311 Music History: 1450-1750.....	3 <sup>2,3</sup>
MU 312 Music History: 1715-1825.....	3 <sup>3,4</sup>
MU 313 Music History: 1825 to the Present.....	3 <sup>3,4</sup>
Music Elective.....	3 <sup>1-4</sup>
<i>Music Electives</i>	
Excludes private study on primary instrument.....	7-9 <sup>1-4</sup>
May include two credits of ensemble.	
<b>CREDITS TO TOTAL A MINIMUM OF</b> .....	<b>127-131</b>

**DEGREE: BACHELOR OF MUSIC**  
**MAJOR: APPLIED MUSIC**  
**CONCENTRATION: PIANO/ORGAN**

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

**UNIVERSITY REQUIREMENTS**

E 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**

<i>Skill Requirements</i>	
<i>Writing:</i> .....	
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>	
M 114 Elementary Mathematics and Statistics.....	3 <sup>1</sup>
(designed for students who do not intend to continue the study of mathematics)	
or	
M 115 Pre-Calculus.....	3
(designed for students who intend to continue the study of mathematics)	
or	
One of the following:	
M 221 Calculus I.....	3
M 241 Analytic Geometry and Calculus A.....	4
or	
Successful performance on the college proficiency exam.	

English literature course.....	3 <sup>1-4</sup>
H 101 Western Civilization to 1648.....	3 <sup>1-4</sup>
H 102 Western Civilization: 1648 to the Present.....	3 <sup>1-4</sup>
FLL Languages courses.....	6 <sup>1-4</sup>
Science and/or Mathematics courses.....	3-5 <sup>1-4</sup>

*Breadth Requirements†* (See page 74)

<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. (This requirement is partially satisfied by MU 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 partially satisfied by MU 311, 312, 313, H 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**

(Six semesters of recital attendance are required.)

<i>Applied Music</i>	
MU 161 Private Study.....	4 <sup>1</sup>
MU 162 Private Study.....	4 <sup>1</sup>
MU 261 Private Study.....	4 <sup>2</sup>
MU 262 Private Study.....	4 <sup>2</sup>
MU 361 Private Study.....	4 <sup>3</sup>
MU 362 Private Study.....	4 <sup>3</sup>
MU 461 Private Study.....	4 <sup>4</sup>
MU 462 Private Study.....	4 <sup>4</sup>
MU 301 Junior Recital.....	0 <sup>3,4</sup>
MU 401 Senior Recital.....	0 <sup>4</sup>
MU 193 Sight Reading at the Keyboard I.....	1 <sup>1,2</sup>
MU 194 Sight Reading at the Keyboard II.....	1 <sup>1,2</sup>
<i>Theory</i>	
MU 185 Ear Training and Sight Singing I.....	2 <sup>1,2</sup>
MU 186 Ear Training and Sight Singing II.....	2 <sup>1,2</sup>
MU 285 Advanced Ear Training and Sight Singing I.....	2 <sup>2,3</sup>
MU 286 Advanced Ear Training and Sight Singing II.....	2 <sup>2,3</sup>
MU 195 Harmony I.....	3 <sup>1,2</sup>
MU 196 Harmony II.....	3 <sup>1,2</sup>
MU 295 Advanced Harmony I.....	3 <sup>2,3</sup>
MU 296 Advanced Harmony II.....	3 <sup>2,3</sup>
MU 393 Keyboard Harmony.....	2 <sup>3,4</sup>
MU 394 Keyboard Harmony.....	2 <sup>3,4</sup>
MU Theory courses.....	4-6 <sup>1-4</sup>
<i>Ensemble</i>	
MU 321 Ensemble.....	2 <sup>1-4</sup>
MU 341 Accompanying Chamber Music: Piano I.....	2 <sup>1-4</sup>
MU 342 Accompanying Chamber Music: Piano II.....	2 <sup>1-4</sup>
MU 441 Accompanying Chamber Music: Piano.....	2 <sup>1-4</sup>
MU 442 Accompanying Chamber Music: Piano.....	2 <sup>1-4</sup>
<i>Literature</i>	
MU 111 Introduction to Music History.....	3 <sup>2,3</sup>
MU 311 Music History: 1450-1750.....	3 <sup>2,3</sup>
MU 312 Music History: 1715-1825.....	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 24.

†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.

MU 313 Music History 1825 to the Present.....	3 <sup>3,4</sup>
MU 363 Keyboard Literature I†.....	3 <sup>3,4</sup>
MU 364 Keyboard Literature II†.....	3 <sup>3,4</sup>
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 134-136**

**DEGREE: BACHELOR OF MUSIC**  
**MAJOR: APPLIED MUSIC**  
**CONCENTRATION: VOICE**

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

E 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:*

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

or

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

or

One of the following:

M 221 Calculus I.....	3
M 241 Analytic Geometry and Calculus A.....	4

or

Successful performance on the college proficiency exam.

H 102 Western Civilization: 1648 to the Present.....	3 <sup>1-4</sup>
Languages courses (French, German and Italian).....	24 <sup>1-4</sup>
THE 226 Acting I.....	3 <sup>1-4</sup>

*Breadth Requirements† (See page 74)*

<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 MU 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 MU 311, 312, 313 and H 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>
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The study of natural phenomena through experiment and analysis.

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

(Six semesters of recital attendance are required.)

*Applied Music*

MU 161 Private Study.....	4 <sup>1</sup>
MU 162 Private Study.....	4 <sup>1</sup>
MU 261 Private Study.....	4 <sup>2</sup>
MU 262 Private Study.....	4 <sup>2</sup>
MU 361 Private Study.....	4 <sup>3</sup>
MU 362 Private Study.....	4 <sup>3</sup>
MU 461 Private Study.....	4 <sup>4</sup>
MU 462 Private Study.....	4 <sup>4</sup>
MU 175 Class Piano: Elementary I.....	1 <sup>1,2</sup>
MU 176 Class Piano: Elementary II.....	1 <sup>1,2</sup>
MU 275 Class Piano: Intermediate I.....	1 <sup>2,3</sup>
MU 276 Class Piano: Intermediate II.....	1 <sup>2,3</sup>
MU 301 Junior Recital.....	0 <sup>3</sup>
MU 401 Senior Recital.....	0 <sup>4</sup>

*Theory*

MU 185 Ear Training and Sight Singing I.....	2 <sup>1,2</sup>
MU 186 Ear Training and Sight Singing II.....	2 <sup>1,2</sup>
M U 285 Advanced Ear Training and Sight Singing I.....	2 <sup>2,3</sup>
MU 286 Advanced Ear Training and Sight Singing II.....	2 <sup>2,3</sup>
MU 195 Harmony I.....	3 <sup>1,2</sup>
MU 196 Harmony II.....	3 <sup>1,2</sup>
MU 295 Advanced Harmony I.....	3 <sup>2,3</sup>
MU 296 Advanced Harmony II.....	3 <sup>2,3</sup>

*Ensemble*

MU 109 Choral Union.....	8 <sup>1-4</sup>
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*Literature*

MU 111 Introduction to Music History.....	3 <sup>2,3</sup>
MU 311 Music History: 1450-1750.....	3 <sup>2,3</sup>
MU 312 Music History: 1715-1825.....	3 <sup>3,4</sup>
MU 313 Music History: 1825 to the Present.....	3 <sup>3,4</sup>

*Related Music Studies*

MU 171 Diction: English.....	1 <sup>1</sup>
MU 172 Diction: Italian.....	1 <sup>1</sup>
MU 271 Diction: German.....	1 <sup>2</sup>
MU 272 Diction: French.....	1 <sup>2</sup>
MU 365 Vocal Coaching I.....	1 <sup>3</sup>
MU 465 Vocal Coaching II.....	1 <sup>4</sup>
MU 489 Opera Workshop.....	1 <sup>1-4</sup>

*Music Electives*

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

MU 314 Opera History.....	3
MU 327 German Lieder.....	2
MU 335 Basic Conducting.....	2
MU 395 Form Analysis.....	3
MU 397 Contemporary Harmony.....	3
MU 427 French Art Song.....	2
MU 428 Twentieth-Century Art Song.....	2
MU 479 Opera Production.....	3
MU 480 Vocal Pedagogy.....	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 24.

†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 MU 335, MUE 336, or MU 328.

MU 489	Opera Workshop (up to 3 credits allowed)	1
MU 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**

E 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:*

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

or

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

or

One of the following:

M 221	Calculus I	3
M 241	Analytic Geometry and Calculus A	4

or

Successful performance on the college proficiency exam.

*Breadth Requirements†* (See page 74)

Art or Art History course, may be from Group A or B	3 <sup>1-4</sup>
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Group A	9-12 <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 MU 195 and 196.)

Group B	9-12 <sup>1-4</sup>
---------	---------------------

The study of culture and institutions over time. (MU 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**

(Six semesters of recital attendance are required.)

*Applied Music*

MU 161	Private Study	2 <sup>1</sup>
MU 162	Private Study	2 <sup>1</sup>
MU 261	Private Study	2 <sup>2</sup>
MU 262	Private Study	2 <sup>2</sup>
MU 361	Private Study	2 <sup>3</sup>
MU 362	Private Study	2 <sup>3</sup>
MU 461	Private Study	2 <sup>4</sup>
MU 175	Class Piano: Elementary I	1 <sup>1-3</sup>
MU 176	Class Piano: Elementary II	1 <sup>1-4</sup>
MU 174	Class Voice: Beginning	1 <sup>1-3</sup>
MU 301	Junior Recital	0 <sup>3,4</sup>

*Theory*

MU 185	Ear Training and Sight Singing I	2 <sup>1,2</sup>
MU 186	Ear Training and Sight Singing II	2 <sup>1,2</sup>
MU 285	Advanced Ear Training and Sight Singing I	2 <sup>2,3</sup>
MU 286	Advanced Ear Training and Sight Singing II	2 <sup>2,3</sup>
MU 195	Harmony I	3 <sup>1,2</sup>
MU 196	Harmony II	3 <sup>1,2</sup>
MU 295	Advanced Harmony I	3 <sup>2,3</sup>
MU 296	Advanced Harmony II	3 <sup>2,3</sup>
MU 331	Orchestration	2 <sup>3,4</sup>

*Ensemble*

MU 115	Band	7 <sup>1-4</sup>
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*Literature*

MU 311	Music History: 1450-1750	3 <sup>2,3</sup>
MU 312	Music History: 1715-1825	3 <sup>3,4</sup>
MU 313	Music History: 1825 to the Present	3 <sup>3</sup>

*Secondary Instruments*

MU 214	Stringed Instruments Class	1 <sup>1-3</sup>
MU 215	High Brass Instruments Class	1 <sup>1-3</sup>
MU 216	Low Brass Instruments Class	1 <sup>1-3</sup>
MU 217	Woodwind Instruments Class I	1 <sup>1-4</sup>
MU 218	Woodwind Instruments Class II	1 <sup>1-3</sup>
MU 219	Percussion Instruments	1 <sup>1-3</sup>

*Music Methods*

MU 335	Basic Conducting	2 <sup>3</sup>
MUE 279	Practicum in Music Education	3 <sup>2</sup>
MUE 337	Instrumental Conducting	2 <sup>3,4</sup>
MUE 379	Music in the Elementary and Junior High	3 <sup>3</sup>
(or Middle) School		
MUE 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*

EDS 201	Education and Society	3 <sup>1-4</sup>
EDS 301	Psychological Foundations of Education	3 <sup>1-4</sup>
EDS 302	Educational Psychology	3 <sup>3,4</sup>
EDD 400	Student Teaching	9 <sup>4</sup>

**CREDITS TO TOTAL A MINIMUM OF** ..... 129-131

\*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 24.

†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 MUSIC**  
**MAJOR: MUSIC EDUCATION—GENERAL/CHORAL**  
**CONCENTRATION: KEYBOARD**

**CURRICULUM**

**CREDITS\***

**UNIVERSITY REQUIREMENTS**

E 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:*

M 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

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

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

or

Successful performance on the college proficiency exam.

*Breadth Requirements†* (See page 74)

Art or Art History course, may be from Group A or B	3 <sup>1-4</sup>
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<i>Group A</i>	9-12 <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 MU 195 and 196.)

<i>Group B</i>	9-12 <sup>1-4</sup>
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The study of culture and institutions over time. (MU 311, 312, and 313 count toward completion of this requirement.)

<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>	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**

(Six semesters of recital attendance are required.)

*Applied Music*

MU 161	Private Study	2 <sup>1</sup>
MU 162	Private Study	2 <sup>1</sup>
MU 261	Private Study	2 <sup>2</sup>
MU 262	Private Study	2 <sup>2</sup>
MU 361	Private Study	2 <sup>3</sup>
MU 362	Private Study	2 <sup>3</sup>
MU 461	Private Study	2 <sup>4</sup>

MU 174	Class Voice: Beginning	1 <sup>1-4</sup>
MU 274	Class Voice: Advanced	1 <sup>1-4</sup>
MU 480	Vocal Pedagogy	3 <sup>3,4</sup>
MU 171	Diction: English	1 <sup>1</sup>
MU 172	Diction: Italian	1 <sup>1</sup>
MU 271	Diction: German	1 <sup>2</sup>
MU 272	Diction: French	1 <sup>2</sup>
MU 301	Junior Recital	0 <sup>3,4</sup>

*Theory*

MU 185	Ear Training and Sight Singing I	2 <sup>1,2</sup>
MU 186	Ear Training and Sight Singing II	2 <sup>1,2</sup>
MU 285	Advanced Ear Training and Sight Singing I	2 <sup>2,3</sup>
MU 286	Advanced Ear Training and Sight Singing II	2 <sup>2,3</sup>
MU 195	Harmony I	3 <sup>1,2</sup>
MU 196	Harmony II	3 <sup>1,2</sup>
MU 295	Advanced Harmony I	3 <sup>2,3</sup>
MU 296	Advanced Harmony II	3 <sup>2,3</sup>
MU 397	Contemporary Harmony	3 <sup>3,4</sup>

*Ensemble*

MU 109	Choral Union	7 <sup>1-4</sup>
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*Literature*

MU 311	Music History: 1450-1750	3 <sup>2,3</sup>
MU 312	Music History: 1715-1825	3 <sup>3,4</sup>
MU 313	Music History: 1825 to the Present	3 <sup>3</sup>
MU 328	Choral Literature	3 <sup>3</sup>

*Secondary Instruments*

MU 214	Stringed Instruments Class	1 <sup>1-4</sup>
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MU 215	High Brass Instruments Class	1 <sup>1-4</sup>
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or

MU 217	Woodwind Instruments Class I	1
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*Music Methods*

MU 335	Basic Conducting	2 <sup>3</sup>
MUE 279	Practicum in Music Education	3 <sup>2</sup>
MUE 336	Choral Conducting	2 <sup>3,4</sup>
MUE 379	Music in the Elementary and Junior High (or Middle) School	3 <sup>3,4</sup>
MUE 479	Secondary Music Materials and Approaches	3 <sup>3,4</sup>

*Music Electives*

Three credits of music electives excluding ensemble and private study on primary instrument. (MU 407 recommended)	3 <sup>1-4</sup>
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**Professional Studies**

*Education*

EDS 201	Education and Society	3 <sup>1-4</sup>
EDS 301	Psychological Foundations of Education	3 <sup>1-4</sup>
EDS 302	Educational Psychology	3 <sup>3,4</sup>
EDD 400	Student Teaching	9 <sup>4</sup>

**CREDITS TO TOTAL A MINIMUM OF 126**

**DEGREE: BACHELOR OF MUSIC**  
**MAJOR: MUSIC EDUCATION—GENERAL/CHORAL**  
**CONCENTRATION: VOICE**

**CURRICULUM**

**CREDITS\***

**UNIVERSITY REQUIREMENTS**

E 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 24.

†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.

*Mathematics:*

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

or

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

or

One of the following:

M 221 Calculus I ..... 3

M 241 Analytic Geometry and Calculus A ..... 4

or

Successful performance on the college proficiency exam.

*Breadth Requirements†* (See page 74)

Art or Art History course, may be from Group A or B ..... 3<sup>1,4</sup>

*Group A* ..... 9-12<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 MU 195 and 196.)

*Group B* ..... 9-12<sup>1,4</sup>

The study of culture and institutions over time. (MU 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**

(Six semesters of recital attendance are required.)

*Applied Music*

MU 161	Private Study	2 <sup>1</sup>
MU 162	Private Study	2 <sup>1</sup>
MU 261	Private Study	2 <sup>2</sup>
MU 262	Private Study	2 <sup>2</sup>
MU 361	Private Study	2 <sup>3</sup>
MU 362	Private Study	2 <sup>3</sup>
MU 461	Private Study	2 <sup>4</sup>
MU 175	Class Piano: Elementary I	1 <sup>2</sup>
MU 176	Class Piano: Elementary II	1 <sup>2,3</sup>
MU 275	Class Piano: Intermediate I	1 <sup>2,3</sup>
MU 276	Class Piano: Intermediate II	1 <sup>3,4</sup>
MU 171	Diction: English	1 <sup>1</sup>
MU 172	Diction: Italian	1 <sup>1</sup>
MU 271	Diction: German	1 <sup>2</sup>
MU 272	Diction: French	1 <sup>2</sup>
MU 480	Vocal Pedagogy	3 <sup>1,4</sup>
MU 301	Junior Recital	0 <sup>3,4</sup>

*Theory*

MU 185	Ear Training and Sight Singing I	2 <sup>1,2</sup>
MU 186	Ear Training and Sight Singing II	2 <sup>1,2</sup>
MU 285	Advanced Ear Training and Sight Singing I	2 <sup>2,3</sup>
MU 286	Advanced Ear Training and Sight Singing II	2 <sup>2,3</sup>
MU 195	Harmony I	3 <sup>1,2</sup>
MU 196	Harmony II	3 <sup>1,2</sup>
MU 295	Advanced Harmony I	3 <sup>2,3</sup>
MU 296	Advanced Harmony II	3 <sup>2,3</sup>
MU 397	Contemporary Harmony	3 <sup>3,4</sup>

*Ensemble*

MU 109	Choral Union	7 <sup>1,4</sup>
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*Literature*

MU 311	Music History: 1450-1750	3 <sup>2,3</sup>
MU 312	Music History: 1715-1825	3 <sup>3,4</sup>
MU 313	Music History: 1825 to the present	3 <sup>3</sup>
MU 328	Choral Literature	3 <sup>1,4</sup>

*Secondary Instruments*

MU 214	Stringed Instruments Class	1 <sup>1,4</sup>
MU 215	High Brass Instruments Class	1 <sup>1,4</sup>
or		
MU 217	Woodwind Instruments Class I	1 <sup>1,4</sup>

*Music Methods*

MU 335	Basic Conducting	2 <sup>3</sup>
MUE 279	Practicum in Music Education	3 <sup>2</sup>
MUE 336	Choral Conducting	2 <sup>3,4</sup>
MUE 379	Music in the Elementary and Junior High (or Middle) School	3 <sup>3</sup>
MUE 479	Secondary Music Materials and Approaches	3 <sup>4</sup>

*Music Electives*

Three credits of music electives excluding ensemble and private study on primary instrument. (MU 407 recommended)	3 <sup>1,4</sup>
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**Professional Studies***Education*

EDS 201	Education and Society	3 <sup>2,4</sup>
EDS 301	Psychological Foundations of Education	3 <sup>3,4</sup>
EDS 302	Educational Psychology	3 <sup>3,4</sup>
EDD 400	Student Teaching	9 <sup>4</sup>

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

**DEGREE: BACHELOR OF MUSIC**  
**MAJOR: THEORY AND COMPOSITION**  
**CONCENTRATION: THEORY OR COMPOSITION**

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

**UNIVERSITY REQUIREMENTS**

E 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

\*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 24.

†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.

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:

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

or

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

or

One of the following:

M 221 Calculus I ..... 3

M 241 Analytic Geometry and Calculus A ..... 4

or

Successful performance on the college proficiency exam.

#### Modern Languages

Twelve credits in one of the following: French, German ..... 12<sup>1-4</sup>  
or Italian

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

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

#### Breadth Requirements† (See page 74)

Two 200-level English literature courses selected from Group A or B

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

Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas (This requirement is partially satisfied by MU 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 MU 311, 312, 313, H 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

(Six semesters of recital attendance are required.)

#### Applied Music

MU 175 Class Piano: Elementary I ..... 1<sup>1,2</sup>

MU 176 Class Piano: Elementary II ..... 1<sup>1,2</sup>

MU 275 Class Piano: Intermediate I ..... 1<sup>2,3</sup>

MU 276 Class Piano: Intermediate II ..... 1<sup>2,3</sup>

#### Secondary Instruments and Conducting

MU 214 Stringed Instruments Class ..... 1<sup>1-4</sup>

MU 215 High Brass Instruments Class ..... 1<sup>1-4</sup>

MU 217 Woodwind Instruments Class I ..... 1<sup>1-4</sup>

MU 219 Percussion Instruments ..... 1<sup>1-4</sup>

MU 335 Basic Conducting ..... 2<sup>1-4</sup>

#### Theory

MU 185 Ear Training and Sight Singing I ..... 2<sup>1,2</sup>

MU 186 Ear Training and Sight Singing II ..... 2<sup>1,2</sup>

MU 285 Advanced Ear Training and Sight Singing I ..... 2<sup>2,3</sup>

MU 286 Advanced Ear Training and Sight Singing II ..... 2<sup>2,3</sup>

MU 195 Harmony I ..... 3<sup>1,2</sup>

MU 196 Harmony II ..... 3<sup>1,2</sup>

MU 295 Advanced Harmony I ..... 3<sup>2,3</sup>

MU 296 Advanced Harmony II ..... 3<sup>2,3</sup>

MU 287 Computing in Music ..... 3<sup>1-4</sup>

MU 331 Orchestration ..... 2<sup>3,4</sup>

MU 385 Electronic Music I ..... 3<sup>1,4</sup>

MU 392 Contrapuntal Writing ..... 2<sup>3,4</sup>

MU 393 Keyboard Harmony I ..... 2<sup>3,4</sup>

MU 394 Keyboard Harmony II ..... 2<sup>3,4</sup>

MU 395 Form Analysis ..... 3<sup>3,4</sup>

MU 397 Contemporary Harmony ..... 3<sup>3,4</sup>

#### Theory Majors

MU 485 Pedagogy of Theory ..... 3<sup>4</sup>

MU 420 Advanced Composition ..... 3<sup>4</sup>

MU 420 Advanced Composition ..... 3<sup>4</sup>

or

MU Theory, literature or applied music elective ..... 3<sup>4</sup>

MU 421 Special Projects in Music Theory ..... 3<sup>4</sup>

#### Composition Majors

MU 485 Pedagogy of Theory ..... 3<sup>4</sup>

MU 420 Advanced Composition ..... 3<sup>3,4</sup>

MU 420 Advanced Composition ..... 3<sup>4</sup>

MU 420 Advanced Composition ..... 3<sup>4</sup>

#### Literature

MU 311 Music History: 1450-1750 ..... 3<sup>2,3</sup>

MU 312 Music History: 1715-1825 ..... 3<sup>3,4</sup>

MU 313 Music History: 1825 to the Present ..... 3<sup>3,4</sup>

MU 407 Twentieth-Century Music ..... 3<sup>3,4</sup>

#### Ensemble

A variety of ensembles are recommended, including ..... 4<sup>1-4</sup>  
Chamber ensembles.

### 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 ..... 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:

	Credits
Class Piano*	1
Applied Music** MU 161, 162, 261, 262	8
Ensemble†	4

\*Not required of persons minoring in applied keyboard.

\*\*Lessons will be 1/2 hour per week and will include a repertory class.

†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.

‡Ensemble and private study must be taken concurrently. See Ensemble Policy in the Department of Music Student Handbook.

Theory/Composition.....	5
MU 185 and 195	
Music Literature/History.....	3
(MU 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)	

### 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. MU 181 and 281.....	4
Ensemble MU 116 (four semesters), MU 321.....	5
Jazz Improvisation MU 293 and 294.....	6
Harmony and History MU 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>
MU 185 Ear Training and Sight Singing.....	2
MU 195 Harmony I.....	3
MU 111 Introduction to Music History.....	3
MU 311 Music History: 1450-1750.....	3
or	
MU 312 Music History: 1715-1825.....	
or	
MU 313 Music History: 1825 to Present.....	2
MU Ensemble.....	2
MU History/Literature Elective (MU 101 and 102 do not	3
fulfill this requirement. Any other music history course	
will do.)	
MU Theory Elective (MU 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*
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#### UNIVERSITY REQUIREMENTS

E 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*

<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 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.

##### *Mathematics*

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

or

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

or

One of the following:

M 221 Calculus I.....	3
M 241 Analytic Geometry and Calculus A.....	4

or

Successful performance on the college proficiency exam.

##### *Breadth Requirements† (See page 74)*

<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.

\*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 24.

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

\*\*A minimum grade of C is required in each course.

<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**

PHL 105 Clear Thinking.....	3 <sup>1,4</sup>
PHL 205 Logic.....	3 <sup>1,4</sup>
PHL 320 Experience, Knowledge and Reality.....	3 <sup>3,4</sup>
One of the following four courses:	
PHL 201 Social and Political Philosophy.....	3 <sup>1,4</sup>
PHL 203 Ethics.....	3
PHL 209 Philosophy of Religion.....	3
PHL 244 Philosophy of Art.....	3
Two of the following three courses:	
PHL 301 Ancient Philosophy.....	3 <sup>3,4</sup>
PHL 303 Modern Philosophy.....	3
PHL 305 Twentieth-Century Philosophy.....	3
Six additional credits in Philosophy at the 300 level or higher.....	6 <sup>3,4</sup>
Six credits of Philosophy.....	6 <sup>1,4</sup>

**Within the College**

Six credits of related subjects chosen in consultation with the student's adviser from suitable BAS or WS courses or from other courses with primary focus on non-Western thought or cultures. This may include courses counted within the philosophy major.....	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

**REQUIREMENTS FOR A MINOR IN PHILOSOPHY**

A minor in philosophy requires a minimum of 15 credits, consisting of PHL 105 or 205; one course from PHL 201, 203, 209 or 244; PHL 301 or 303; an additional 300-level PHL course; and a PHL 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 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**

E 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 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.

*Mathematics:*

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

or

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

or

One of the following:

M 221 Calculus I.....	3
M 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.

\*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 24.

†German, Russian, or French is suggested for the foreign language requirements.



**Breadth Requirements†** (See page 74)

<b>Group A</b> .....	12 <sup>1,4</sup>
Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.	
<b>Group B</b> .....	12 <sup>1,4</sup>
The study of culture and institutions over time. Twelve credits representing at least two areas.	
<b>Group C</b> .....	12 <sup>1,4</sup>
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.	
<b>Group D</b> .....	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. (PS 207, 208 and C 103, 104 are strongly recommended to satisfy this group requirement.)	

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

PS 207 General Physics (strongly recommended) .....	4 <sup>1</sup>
or	
PS 201 General Physics .....	4
PS 208 General Physics (strongly recommended) .....	4 <sup>1,2</sup>
or	
PS 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**

M 241 Analytic Geometry and Calculus A (recommended) .....	4 <sup>1</sup>
M 242 Analytic Geometry and Calculus B .....	4 <sup>1,2</sup>
M 243 Analytic Geometry and Calculus C .....	4 <sup>2</sup>
or	
M 221 Calculus I .....	3
M 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**

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

E 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 or for students with more than four years of high school foreign language or the equivalent, satisfactory performance on a proficiency test in that language. German, French, or Russian is strongly recommended.

*Breadth Requirements†* (See page 74)

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 Departments§**

PS 207 General Physics .....	4 <sup>1</sup>
PS 208 General Physics .....	4 <sup>2</sup>
PS 209 General Physics .....	3 <sup>2</sup>
PS 313 Physical Optics .....	4 <sup>2</sup>
PS 419 Analytical Mechanics .....	3 <sup>3</sup>
PS 603 Electricity and Magnetism .....	3 <sup>4</sup>
PS 604 Electricity and Magnetism .....	3 <sup>4</sup>
PS 616 Kinetic Theory and Thermodynamics .....	3 <sup>3,4</sup>
PS 617 Atomic and Nuclear Physics Laboratory .....	1 <sup>3,4</sup>
PS 618 Atomic and Nuclear Physics Laboratory .....	1 <sup>3,4</sup>
PS 620 Analytical Mechanics .....	3 <sup>3</sup>
PS 621 Introduction to Modern Physics .....	3 <sup>3,4</sup>
PS 622 Introduction to Modern Physics .....	3 <sup>3,4</sup>
PS 645 Electronics for Scientists .....	3 <sup>3</sup>
PS 646 Instrumentation for Scientists .....	3 <sup>3</sup>

**Within the College***Mathematics:*

M 241 Analytic Geometry and Calculus A .....	4 <sup>1</sup>
M 242 Analytic Geometry and Calculus B .....	4 <sup>1,2</sup>
M 243 Analytic Geometry and Calculus C .....	4 <sup>3</sup>
M 302 Ordinary Differential Equations .....	3 <sup>2</sup>
M 503 Advanced Calculus for Applications .....	3 <sup>3</sup>

**One of the following four courses:**

M 508 Introduction to Complex Variables and Application .....	3 <sup>3,4</sup>
M 521 Fourier Series and Orthogonal Polynomials .....	3
M 349 Elements of Linear Systems .....	3
M 514 Topics in Advanced Mathematics for Engineers .....	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 24.

#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 PS 101, 201, and 207 may be counted toward graduation requirements; similarly no more than four from among PS 102, 202, 208. Students interested in majoring in Physics who have taken an introductory sequence other than PS 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.

*Natural Science*

C 103	General Chemistry.....	4 <sup>1-3</sup>
C 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**

E 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 or for students with more than four years of high school foreign language or the equivalent, satisfactory performance on a proficiency test in that language. German, French, or Russian is strongly recommended.

*Breadth Requirements†* (See page 74)

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§**

PS 207	General Physics.....	4 <sup>1</sup>
PS 208	General Physics.....	4 <sup>1,2</sup>
PS 209	General Physics.....	3 <sup>2</sup>

PS 313	Physical Optics.....	4 <sup>2</sup>
PS 419	Analytical Mechanics.....	3 <sup>3</sup>
PS 620	Analytical Mechanics.....	3 <sup>3</sup>
PS 603	Electricity and Magnetism and.....	3 <sup>4</sup>
PS 604	Electricity and Magnetism.....	3 <sup>4</sup>
or		
PS 645	Electronics for Scientists and.....	3 <sup>3</sup>
PS 646	Instrumentation for Scientists.....	3 <sup>3</sup>
PS 621	Introduction to Modern Physics.....	3 <sup>4</sup>
PS 622	Introduction to Modern Physics.....	3 <sup>4</sup>
PS 616	Kinetic Theory and Thermodynamics.....	3 <sup>4</sup>
PS 133	Introduction to Astronomy.....	4 <sup>1,2</sup>
PS 134	Introduction to Astronomy.....	4 <sup>1,2</sup>
PS 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:*

M 241	Analytic Geometry and Calculus A.....	4 <sup>1</sup>
M 242	Analytic Geometry and Calculus B.....	4 <sup>1,2</sup>
M 243	Analytic Geometry and Calculus C.....	4 <sup>2</sup>
M 302	Ordinary Differential Equations.....	3 <sup>2</sup>
M 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**

E 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 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.

\*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 24.

‡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 PS 101, 201, and 207 may be counted toward graduation requirements; similarly no more than four from among PS 102, 202, 208. Students interested in majoring in Physics who have taken an introductory sequence other than PS 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.

**Breadth Requirements†** (See page 74)

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>

**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§**

PS 207	General Physics	4 <sup>1</sup>
PS 208	General Physics	4 <sup>2</sup>
PS 209	General Physics	3 <sup>2</sup>
PS 419	Analytical Mechanics	3 <sup>3</sup>
PS 620	Analytical Mechanics	3 <sup>3</sup>
PS 603	Electricity and Magnetism	3 <sup>3,4</sup>
PS 645	Electronics for Scientists	3 <sup>3</sup>
PS 646	Instrumentation for Scientists	3 <sup>3</sup>
PS 621	Introduction to Modern Physics	3 <sup>3,4</sup>
PS 622	Introduction to Modern Physics	3 <sup>3,4</sup>
PS 616	Kinetic Theory and Thermodynamics	3 <sup>3,4</sup>

**Within the College****Mathematics:**

M 241	Analytic Geometry and Calculus A	4 <sup>1</sup>
M 242	Analytic Geometry and Calculus B	4 <sup>1</sup>
M 243	Analytic Geometry and Calculus C	4 <sup>2</sup>
M 302	Ordinary Differential Equations	3 <sup>2</sup>
M 503	Advanced Calculus for Applications	3 <sup>3,4</sup>

**Natural Science**

C 103	General Chemistry	4 <sup>1</sup>
C 104	General Chemistry	4 <sup>1</sup>
C 321	Organic Chemistry	3 <sup>2,4</sup>
C 322	Organic Chemistry	3 <sup>2,4</sup>
C 325	Organic Chemistry Laboratory	1 <sup>2,4</sup>
C 326	Organic Chemistry Laboratory	1 <sup>2,4</sup>
C 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

**DEGREE: BACHELOR OF SCIENCE****MAJOR: PHYSICS****CONCENTRATION: APPLIED PHYSICS****CURRICULUM****CREDITS\*****UNIVERSITY REQUIREMENTS**

E 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**

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.

**Breadth Requirements†** (See page 74)

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>

**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§**

PS 207	General Physics	4 <sup>1</sup>
PS 208	General Physics	4 <sup>1</sup>
PS 209	General Physics	3 <sup>2</sup>
PS 313	Physical Optics	4 <sup>2</sup>
PS 419	Analytical Mechanics	3 <sup>3</sup>
PS 645	Electronics for Scientists	3 <sup>3</sup>
PS 646	Instrumentation for Scientists	3 <sup>3</sup>
PS 621	Introduction to Modern Physics	3 <sup>3,4</sup>
PS 622	Introduction to Modern Physics	3 <sup>3,4</sup>
PS 616	Kinetic Theory and Thermodynamics	3 <sup>3,4</sup>
PS 627	Advanced Laboratory Techniques	3 <sup>3,4</sup>
PS 617	Atomic and Nuclear Physics Laboratory	1 <sup>3</sup>
PS 618	Atomic and Nuclear Physics Laboratory	1 <sup>4</sup>

**Within the College****Mathematics:**

M 241	Analytic Geometry and Calculus A	4 <sup>1</sup>
M 242	Analytic Geometry and Calculus B	4 <sup>1</sup>
M 243	Analytic Geometry and Calculus C	4 <sup>2</sup>
M 302	Ordinary Differential Equations	3 <sup>2,3</sup>

**One of the following five courses:**

M 349	Elements of Linear Systems	3 <sup>2</sup>
M 503	Advanced Calculus for Applications	3 <sup>2</sup>
M 508	Introduction to Complex Variables and Applications	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 24.

†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 PS 101, 201, and 207 may be counted toward graduation requirements; similarly no more than four from among PS 102, 202, 208. Students interested in majoring in Physics who have taken an introductory sequence other than PS 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.

M 514	Topics in Advanced Mathematics for Engineers	3 <sup>2</sup>
M 521	Fourier Series and Orthogonal Polynomials	3 <sup>2</sup>

*Natural Science*

C 103	General Chemistry	4 <sup>1,3</sup>
C 104	General Chemistry	4 <sup>1,3</sup>

*Computer Science*

CIS 105	General Computer Science	3 <sup>1,2</sup>
CIS 300	Introduction to Scientific Computation	3 <sup>1,2</sup>

**External to the College**

EE 205	Linear Circuit Theory I	4 <sup>2</sup>
EE 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**

E 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 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.

*Mathematics:*

M 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

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

One of the following:

M 221	Calculus I	3
M 241	Analytic Geometry and Calculus A	4

(Satisfies the Math Skills requirement and is strongly recom-

mended 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 74)

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>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 PS 207, 208 and C 103, 104.)

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

PS 207	General Physics	4 <sup>1</sup>
PS 208	General Physics	4 <sup>1,2</sup>
PS 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**

M 241	Analytic Geometry and Calculus A	4 <sup>1</sup>
M 242	Analytic Geometry and Calculus B	4 <sup>1</sup>
M 243	Analytic Geometry and Calculus C	4 <sup>2</sup>
C 103	General Chemistry	4 <sup>1,2</sup>
C 104	General Chemistry	4 <sup>1,2</sup>

**Professional Studies**

EDS 201	Education and Society	3 <sup>1-4</sup>
EDS 301	Psychological Foundations of Education	3 <sup>1-4</sup>
EDS 302	Educational Psychology	3 <sup>1-4</sup>
SC 491	Teaching Science in Secondary Schools	4 <sup>4</sup>
EDS 420	Reading in the Content Areas	1 <sup>1-4</sup>
EDD 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.

\*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 24.

†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.

**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 PS 207-208 plus 9 credits from PS 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 PSC 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**

E 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**

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

<i>Mathematics:</i>	
M 114 Elementary Mathematics and Statistics (designed for students who do not intend to continue the study of mathematics)	3 <sup>1</sup>
or	
M 115 Pre-Calculus (designed for students who intend to continue the study of mathematics)	3
or	

One of the following:	
M 221 Calculus I	3
M 241 Analytic Geometry and Calculus A	4
or	
Successful performance on the college proficiency exam.	

*Breadth Requirements†* (See page 74)

<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.	

**Within the Department**

PSC 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.	
PSC 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**

\*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 24.

†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: POLITICAL SCIENCE EDUCATION**
**CURRICULUM****CREDITS\*****UNIVERSITY REQUIREMENTS**

E 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 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.

*Mathematics:*

M 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

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

or

One of the following:

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

or

Successful performance on the college proficiency exam.

*Breadth Requirements† (See page 74)*

<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.

**Within the Department**

PSC 105 The American Political System .....	3 <sup>1-4</sup>
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Eighteen credits distributed as follows: .....	18 <sup>1-4</sup>
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Nine credits from courses at the 400 level; nine credits from courses at the 300 or 400 level.

PSC 302 Research Methods (Recommended) .....	3
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A student must take at least one course numbered at the 300 or

400 level in four of the five fields listed below:

- American Government and Politics
- Comparative Government and Politics
- International Relations
- Public Administration and Public Policy
- Political Theory

Political Science courses .....	9 <sup>1-4</sup>
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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>
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Anthropology course .....	3
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Economics course .....	3
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Geography course .....	3
------------------------	---

History course .....	3
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Sociology course .....	3
------------------------	---

PSY 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**

EDS 201 Education and Society .....	3 <sup>1-4</sup>
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EDS 301 Psychological Foundations of Education .....	3 <sup>1-4</sup>
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EDS 302 Educational Psychology .....	3 <sup>1-4</sup>
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H 491 Planning a Course of Instruction .....	3 <sup>4</sup>
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H 493 Seminar: Problems in Teaching History and Social Sciences .....	4 <sup>4</sup>
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EDS 420 Reading in the Content Areas .....	1 <sup>1-4</sup>
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EDD 400 Student Teaching .....	9 <sup>4</sup>
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**CREDITS OF 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:* PSC 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:* PSC 105, 302, 303.

\*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 24.

†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.

*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

E 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.

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

#### *Mathematics:*

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

or

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

or

One of the following:

M 221 Calculus I 3

M 241 Analytic Geometry and Calculus A 4

or

Successful performance on the college proficiency exam.

#### *Breadth Requirements†* (See page 74)

*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*

PSY 201 General Psychology 3<sup>1,2</sup>

PSY 309 Measurement and Statistics 3<sup>2-4</sup>

PSY 415 History and Systems of Psychology 3<sup>4</sup>

Two of the following three courses:

PSY 301 Personality 3<sup>1-4</sup>

PSY 303 Introduction to Social Psychology 3

PSY 325 Child Psychology 3

Two of the following four courses:

PSY 310 Sensation and Perception 3<sup>2-4</sup>

PSY 312 Learning and Motivation 3

PSY 314 Brain and Behavior 3

PSY 340 Cognition 3

Nine credits of content electives. At least two courses must

be at or above the 400 level; however, PSY 366, 466, 468 and 365 may not be used to fulfill this requirement.

Three credits of any Psychology course 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 24.

†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: PSYCHOLOGY EDUCATION**

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

**UNIVERSITY REQUIREMENTS**

E 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 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.

*Mathematics:*

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

or

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

or

One of the following:

M 221 Calculus I ..... 3

M 241 Analytic Geometry and Calculus A ..... 4

or

Successful performance on the college proficiency exam.

*Breadth Requirements†* (See page 74)

*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**

PSY 201 General Psychology ..... 3<sup>1,2</sup>

PSY 309 Measurement and Statistics ..... 3<sup>2-4</sup>

PSY 415 History and Systems of Psychology ..... 3<sup>4</sup>

Two of the following three courses:

PSY 301 Personality ..... 3<sup>1-4</sup>

PSY 303 Introduction to Social Psychology ..... 3

PSY 325 Child Psychology ..... 3

Two of the following four courses:

PSY 310 Sensation and Perception ..... 3<sup>2-4</sup>

PSY 312 Learning and Motivation ..... 3

PSY 314 Brain and Behavior ..... 3

PSY 340 Cognition ..... 3

Nine credits of content electives. At least two courses must

be at or above the 400 level; however, PSY 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**

EDS 201 Education and Society ..... 3<sup>1-4</sup>

EDS 301 Psychological Foundations of Education ..... 3<sup>1-4</sup>

EDS 302 Educational Psychology ..... 3<sup>1-4</sup>

H 491 Planning a Course of Instruction ..... 3<sup>4</sup>

H 493 Seminar: Problems in Teaching History and Social Sciences ..... 3<sup>4</sup>

EDS 420 Reading in the Content Areas ..... 1<sup>1-4</sup>

EDD 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 PSY 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.

\*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 24.

†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.

## 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

E 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

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

mance on a proficiency test in that language.

##### Mathematics:

M 114 or M 170	Elementary Mathematics and Statistics (designed for students who do not intend to continue the study of mathematics)	3 <sup>1</sup>
or		
M 115 or M 171	Pre-Calculus (designed for students who intend to continue the study of mathematics)	3
or		
	One of the following:	
M 221	Calculus I	3
M 241	Analytic Geometry and Calculus A	4
or		
	Successful performance on the college proficiency exam.	

##### Breadth Requirements† (See page 74)

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

## MAJOR REQUIREMENTS

### Within the Department

SOC 201	Introduction to Sociology	3 <sup>1-4</sup>
SOC 301	Introduction of Sociological Research	3 <sup>1-4</sup>
SOC 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>
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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

\*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 24.

†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: PREGRADUATE WORK**

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

**UNIVERSITY REQUIREMENTS**

E 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 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.

*Mathematics:*

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

or

M 115 or M 171 Pre-Calculus (designed for students who intend to continue the study of mathematics)	3
---	---

or

One of the following:

M 221 Calculus I	3
M 241 Analytic Geometry and Calculus A	4

or

Successful performance on the college proficiency exam.

*Breadth Requirements†* (See page 74)

<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**

SOC 201 Introduction to Sociology	3 <sup>1-4</sup>
SOC 301 Introduction of Sociological Research	3 <sup>1-4</sup>
SOC 312 Theories of Society	3 <sup>1-4</sup>
Two Sociology courses at the 600 level.	6 <sup>1-4</sup>

SOC 605 Data Collection	3 <sup>1-4</sup>
or	
SOC 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.

<b>CREDITS TO TOTAL A MINIMUM OF</b>	<b>124</b>
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**DEGREE: BACHELOR OF ARTS**  
**MAJOR: SOCIOLOGY**  
**CONCENTRATION: SOCIAL WELFARE**

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

**UNIVERSITY REQUIREMENTS**

E 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 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.

*Mathematics:*

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

or

M 115 or M 171 Pre-Calculus (designed for students who intend to continue the study of mathematics)	3
---	---

or

One of the following:

M 221 Calculus I	3
M 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 24.

†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 74)

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

SOC 201 Introduction to Sociology .....	3 <sup>1-4</sup>
SOC 301 Introduction of Sociological Research .....	3 <sup>1-4</sup>
SOC 312 Theories of Society .....	3 <sup>1-4</sup>
SOC 341 Welfare and Society .....	3 <sup>1-4</sup>
SOC 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>
SOC 202 Social Deviance .....	3
SOC 204 Urban Communities .....	3
SOC 303 Juvenile Delinquency .....	3
SOC 304 Criminology .....	3
SOC 305 Social Class and Inequality .....	3
SOC 308 The Family .....	3
SOC 346 Sociology of Aging .....	3
SOC 361 Race, Power and Social Conflict .....	3
SOC 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.	
SOC 441 Social Welfare 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**

PSY 411 Politics and Poverty .....	3 <sup>1-4</sup>
PSY 301 Personality .....	3 <sup>1-4</sup>
PSY 322 Psychology of Adjustment .....	3 <sup>1-4</sup>
PSY 325 Child Psychology .....	3 <sup>1-4</sup>
PSY 334 Abnormal Psychology .....	3 <sup>1-4</sup>
EDD 374 Experimental Education .....	3
IFS 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**
**DEGREE: BACHELOR OF ARTS**  
**MAJOR: SOCIOLOGY**  
**CONCENTRATION: APPLIED URBAN STUDIES**
**CURRICULUM****CREDITS\*****UNIVERSITY REQUIREMENTS**

E 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**

<b>Writing:</b> .....	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.

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

**Mathematics:**

M 114 or M 170 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

M 115 or M 171 Pre-Calculus .....	3
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(designed for students who intend to continue the study of mathematics)

or

One of the following:

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

Successful performance on the college proficiency exam.

**Breadth Requirements†** (See page 74)

<b>Group A</b> .....	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.

<b>Group B</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.

<b>Group C</b> .....	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.

<b>Group D</b> .....	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**

SOC 201 Introduction to Sociology .....	3 <sup>1-4</sup>
SOC 301 Introduction of Sociological Research .....	3 <sup>1-4</sup>
SOC 312 Theories of Society .....	3 <sup>1-4</sup>
SOC 204 Urban Communities .....	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 24.

†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.

SOC 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.	

SOC 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

PSC 355 Urban Politics.....	3 <sup>1-4</sup>
Four courses selected from the following:	
G 325 Urban Geography.....	3
PSC 355 Urban Politics.....	3
H 459 U.S. Urban History.....	3
PSC 452 Problems in Urban Politics.....	3
EC 393 Urban Economics.....	3
ARH 324 Modern Architecture.....	3
CJ 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*
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#### UNIVERSITY REQUIREMENTS

E 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 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.

##### Mathematics:

M 114 or M 170 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

M 115 or M 171 Pre-Calculus.....	3
----------------------------------	---

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

or

One of the following:

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

or

Successful performance on the college proficiency exam.

##### Breadth Requirements† (See page 74)

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

SOC 201 Introduction to Sociology.....	3 <sup>1-4</sup>
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SOC 301 Introduction of Sociological Research.....	3 <sup>1-4</sup>
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SOC 312 Theories of Society.....	3 <sup>1-4</sup>
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SOC 310 Sociology of Health Care.....	3 <sup>1-4</sup>
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SOC 311 Hospitals.....	3 <sup>1-4</sup>
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And five additional Sociology courses.....	15 <sup>1-4</sup>
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(SOC 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.

SOC 410 Health Services 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

##### Related Work

Eleven additional credits of related work are required and will be selected in consultation with the student's adviser.	11 <sup>1-4</sup>
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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.

#### 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 24.

†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: LAW AND SOCIETY**

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

E 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 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.

*Mathematics:*

M 114 or M 170 Elementary Mathematics and Statistics	3 <sup>1</sup>
--	----------------

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

or

M 115 or M 171 Pre-Calculus	3
-----------------------------	---

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

or

One of the following:

M 221 Calculus I	3
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M 241 Analytic Geometry and Calculus A	4
--	---

or

Successful performance on the college proficiency exam.

*Breadth Requirements† (See page 74)*

<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**

SOC 201 Introduction to Sociology	3 <sup>1-4</sup>
SOC 301 Introduction of Sociological Research	3 <sup>1-4</sup>
SOC 312 Theories of Society	3 <sup>1-4</sup>
SOC 345 Sociology of Law	3 <sup>1-4</sup>

SOC 456 Lawyers and Society	3 <sup>1-4</sup>
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Any five other courses in Sociology	15 <sup>1-4</sup>
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Suggested courses for the study of family/gender include:

SOC 202 Social Deviance	3
SOC 303 Juvenile Delinquency	3
SOC 307 Sociology of Sex Roles	3
SOC 308 The Family	3
SOC 330 Population, Law and Society	3

Suggested courses in the organization/work area:

SOC 327 Sociology of Organizations	3
SOC 330 Population, Law and Society	3
SOC 355 Computers, Ethics and Society	3
SOC 428 Corporate Crime	3
SOC 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

SOC 495 Law and Society 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***Related Work*

Twelve credits from the following courses are recommended:	12 <sup>1-4</sup>
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CJ 320 Introduction to Criminal Law	3
CJ 347 The Jury	3
CJ 357 Seminar in the Police	3
CJ 425 Criminal Law and Social Policy	3
CJ 467 Contemporary Debates	3
PSC 402 Civil Liberties I	3
PSC 406 Civil Liberties II	3
PSC 404 The Judicial Process	3
PSC 405 Constitutional Law	3
PHL 201 Introduction to Political and Legal Philosophy	3
PHL 446 Philosophy of Law	3
H 301 The Worker in American Life	3
H 309 American Business, Government and Society	3

A second writing course in any department	3 <sup>1-4</sup>
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A course in oral communication is suggested	3 <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.

<b>CREDITS TO TOTAL A MINIMUM OF</b>	<b>124</b>
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**DEGREE: BACHELOR OF ARTS**  
**MAJOR: SOCIOLOGY**  
**CONCENTRATION: DATA ANALYSIS**

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

E 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 24.

†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 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.

### Mathematics:

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

or

M 115 or M 171 Pre-Calculus ..... 3  
(designed for students who intend to continue the study of mathematics)

or

One of the following:

M 221 Calculus I ..... 3

M 241 Analytic Geometry and Calculus A ..... 4

or

Successful performance on the college proficiency exam.

### Breadth Requirements† (See page 74)

**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

SOC 201 Introduction to Sociology ..... 3<sup>1-4</sup>

SOC 301 Introduction of Sociological Research ..... 3<sup>1-4</sup>

SOC 312 Theories of Society ..... 3<sup>1-4</sup>

SOC 401 Advanced Sociological Methods ..... 3<sup>1-4</sup>

SOC 411 Techniques of Demographic Analysis ..... 3<sup>1-4</sup>

SOC 414 Data Analysis ..... 3<sup>1-4</sup>

Any five other courses in Sociology ..... 15<sup>1-4</sup>

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.

SOC 412 Practicum ..... 4

This course is required but does not count as one of the thirty Sociology credits for the major.

### Within the College

#### Related Work

ST 201\*\* Introduction to Statistics I ..... 3

ST 202\*\* Introduction to Statistics II ..... 3

CIS 100 Introduction to Digital Computer Programming ..... 3

G 250 Computer Methods in Geography ..... 3

G 470 Computer Cartography ..... 3

H 268 Seminar: Nature and Verification of Historical Evidence ..... 3

PHL 320 Experience, Knowledge, Reality ..... 3

PHL 244 Ethical Issues in Scientific Research ..... 3

EC 422 Introduction to Econometrics ..... 3

ST 418 Sampling Methods ..... 3

ST 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

E 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 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.

### Mathematics:

M 114 or M 170 Elementary Mathematics and Statistics ..... 3<sup>1</sup>

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

or

M 115 or M 171 Pre-Calculus ..... 3

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

or

One of the following:

M 221 Calculus I ..... 3

M 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 24.

†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.

*Breadth Requirements†* (See page 74)

<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**

SOC 201 Introduction to Sociology .....	3 <sup>1-4</sup>
SOC 301 Introduction of Sociological Research .....	3 <sup>1-4</sup>
SOC 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>
Anthropology course .....	3
Economics course .....	3
Geography course .....	3
History course .....	3
Political Science course .....	3
PSY 201 General Psychology .....	3 <sup>1-4</sup>
Six additional credits selected from the departments listed above ..	6 <sup>1-4</sup>

**Professional Studies**

EDS 201 Education and Society .....	3 <sup>1-4</sup>
EDS 301 Psychological Foundations of Education .....	3 <sup>1-4</sup>
EDS 302 Educational Psychology .....	3 <sup>1-4</sup>
H 491 Planning a Course of Instruction .....	3 <sup>4</sup>
H 493 Seminar: Problems in Teaching History and Social Sciences .....	3 <sup>4</sup>
EDD 3xx Upper Level Reading Instruction .....	1 <sup>1-4</sup>
EDD 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 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 SOC 201 plus 15 credits in sociology, with at least 9 credits at or above the 300 level. SOC 301 or 312 is required or an equivalent course in another social science discipline, such as PSY 309, 405, EC 422, 426, ST 205, PSC 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 consid-

†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.



ered 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

E 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 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.

###### *Mathematics:*

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

or

M 115 or M 171	Pre-Calculus	3
	(designed for students who intend to continue the study of mathematics)	

or

Any mathematics course (M) at or above the 200 level **except** M 251 and M 252 (Math for Elementary School I and II)

or

Successful performance on the college proficiency exam.

##### *Breadth Requirements†* (See page 74)

<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 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

CJ 110	Introduction to Criminal Justice	3 <sup>1-4</sup>
CJ 201	Problems of Law Enforcement	3 <sup>1-4</sup>
CJ 202	Problems of Criminal Judiciary	3 <sup>1-4</sup>
CJ 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

SOC 201	Introduction to Sociology	3 <sup>1-4</sup>
SOC 301	Introduction of Sociological Research	3 <sup>1-4</sup>
SOC 304	Criminology	3 <sup>1-4</sup>
PSC 105	American Political Systems	3 <sup>1-4</sup>
PSY 201	General Psychology	3 <sup>1-4</sup>
PSY 303	Introduction to Social Psychology	3 <sup>1-4</sup>

One of the following three courses:

PSC 402	Civil Liberties I	3 <sup>1-4</sup>
PSC 405	Constitutional Law of the United States	3 <sup>1-4</sup>
PSC 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
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#### DEGREE: BACHELOR OF SCIENCE MAJOR: CRIMINAL JUSTICE

##### CURRICULUM

CREDITS\*

##### UNIVERSITY REQUIREMENTS

E 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 24.

†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*

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

or

M 115 or M 171 Pre-Calculus ..... 3  
(designed for students who intend to continue the study of mathematics)

or

Any mathematics course (M) at or above the 200 level **except** M 251 and M 252 (Math for Elementary School I and II)

or

Successful performance on the college proficiency exam.

*Breadth Requirements†* (See page 74)

*Group A* ..... 12<sup>14</sup>

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

*Group B* ..... 12<sup>14</sup>

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

*Group D* ..... 13<sup>14</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**

CJ 110 Introduction to Criminal Justice ..... 3<sup>14</sup>

CJ 201 Problems of Law Enforcement ..... 3<sup>14</sup>

CJ 202 Problems of Criminal Judiciary ..... 3<sup>14</sup>

CJ 203 Problems of Corrections ..... 3<sup>14</sup>

Criminal Justice courses at the 300 or 400 level ..... 18<sup>14</sup>

**Within the College***Related Work**Sociology*

SOC 201 Introduction to Sociology ..... 3<sup>14</sup>

SOC 301 Introduction of Sociological Research ..... 3<sup>14</sup>

SOC 304 Criminology ..... 3<sup>14</sup>

SOC 345 Sociology of Law ..... 3<sup>14</sup>

*Psychology*

PSY 201 General Psychology ..... 3<sup>14</sup>

PSY 303 Introduction to Social Psychology ..... 3<sup>14</sup>

*Political Science*

PSC 105 The American Political System ..... 3<sup>14</sup>

Two of the following three courses:

PSC 402 Civil Liberties I ..... 3<sup>14</sup>

PSC 405 Constitutional Law of the United States ..... 3<sup>14</sup>

PSC 406 Civil Liberties II ..... 3<sup>14</sup>

*History*

H 205 United States History ..... 3<sup>14</sup>

H 206 United States History ..... 3<sup>14</sup>

*Methods and Statistics*

ST 201 Introduction to Statistics I ..... 3<sup>14</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

**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.

†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.

## 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 stu-

dents. 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

E 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 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.

#### Mathematics:

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

or

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

or

One of the following:

M 221	Calculus I	3
M 241	Analytic Geometry and Calculus A	4

or

Successful performance on the college proficiency exam.

#### Breadth Requirements† (See page 74)

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

B 207	Introductory Biology I	4 <sup>1</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 24.

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

B 208	Introductory Biology II	4 <sup>1</sup>
B 303	Genetic and Evolutionary Biology	4 <sup>3</sup>

At least two of the following courses:

B 301	Molecular Biology of the Cell	4 <sup>2,3</sup>
B 302	General Ecology	3 <sup>2,3</sup>
B 306	General Physiology	4 <sup>2,3</sup>

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

C 103	General Chemistry	4 <sup>1</sup>
C 104	General Chemistry	4 <sup>1</sup>
C 321	Organic Chemistry	3 <sup>2</sup>
C 325	Organic Chemistry Laboratory	1 <sup>2</sup>
C 322	Organic Chemistry	3 <sup>2</sup>
C 326	Organic Chemistry Laboratory	1 <sup>2</sup>
or		
C 213	Elementary Organic Chemistry	4
C 214	Elementary Biochemistry	3
C 216	Elementary Biochemistry Laboratory	1
PS 201	General Physics	4 <sup>3</sup>
PS 202	General Physics	4 <sup>3</sup>
M 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 B 207, B 208, B 301 and B 371 (or other bio course if B 371 is not taken).

4. Within the pool of eligible applicants, admission into the program will be determined by academic achievement, and priority will be given to full-time University sophomores with a stated interest in obtaining employment in biotechnology or in 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

E 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 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.

##### Mathematics:

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

or

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

or

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

or

Successful performance on the college proficiency exam.

##### Breadth Requirements† (See page 74)

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.	

\*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 24.

†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 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:**

B 207	Introductory Biology I	4 <sup>1</sup>
B 208	Introductory Biology II	4 <sup>1</sup>
B 371	Introduction to Microbiology	4 <sup>2</sup>
B 301	Molecular Biology of the Cell	4 <sup>2</sup>
B 303	Genetic and Evolutionary Biology	4 <sup>3</sup>
B 305	Cell Biology	4 <sup>3,4</sup>

**Advanced lecture/laboratory combinations:**

I		
B 492	Human and Mammalian Cytogenetics	3 <sup>3,4</sup>
B 493	Mammalian Cytogenetics Laboratory	3 <sup>3,4</sup>
II		
B 671	Immunobiology	3 <sup>3,4</sup>
B 601	Immunochemistry	3 <sup>3,4</sup>
III		
B 604	Recombinant DNA Laboratory	4 <sup>4</sup>
B 653	Recent Advances in Molecular Biology	2 <sup>3,4</sup>

**Two courses selected from the following:**

B 602	Molecular Biology of Animal Cells	3 <sup>3,4</sup>
B 608	Genetic Toxicology	3 <sup>3,4</sup>
B 617	Laboratory Techniques for Electron Microscopy	3 <sup>3,4</sup>
B 654	Biochemical Genetics	3 <sup>3,4</sup>
B 658	Developmental Genetics	3 <sup>3,4</sup>
B 667	Plant Cell Biology	3 <sup>3,4</sup>
B 650	Bacterial Physiology	3 <sup>3,4</sup>
B 673	Topics in Immunogenetics	3 <sup>3,4</sup>
B 679	Virology	3 <sup>3,4</sup>
B 693	Human Genetics	3 <sup>3,4</sup>
B 667	Gene Control: Antibody Genes, HIV-1	3 <sup>3,4</sup>

**Within the College**

C 103	General Chemistry	4 <sup>1</sup>
C 104	General Chemistry	4 <sup>1</sup>
C 321	Organic Chemistry	3 <sup>2</sup>
C 322	Organic Chemistry	3 <sup>2</sup>
C 325	Organic Chemistry Laboratory	1 <sup>2</sup>
C 326	Organic Chemistry Laboratory	1 <sup>2</sup>
C 527	Introductory Biochemistry	3 <sup>3,4</sup>
or		
C 641 and C 642	Biochemistry	6
PS 201	General Physics	4 <sup>3</sup>
PS 202	General Physics	4 <sup>3</sup>
M 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. B 444 is encouraged but not required.

**CREDITS TO TOTAL A MINIMUM OF 124**

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

E 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 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.

**Mathematics:**

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

or

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

or

One of the following:

M 221	Calculus I	3
M 241	Analytic Geometry and Calculus A	4

or

Successful performance on the college proficiency exam.

**Breadth Requirements† (See page 74)**

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**

B 207	Introductory Biology I	4 <sup>1,4</sup>
B 208	Introductory Biology II	4 <sup>1,4</sup>
B 301	Molecular Biology of the Cell	4 <sup>1,4</sup>
B 303	Genetic and Evolutionary Biology	4 <sup>1,4</sup>
B 302	General Ecology	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 24.

†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.



or		
B 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**

C 103	General Chemistry .....	4 <sup>1-4</sup>
C 104	General Chemistry .....	4 <sup>1-4</sup>
C 213	Elementary Organic Chemistry .....	4 <sup>1-4</sup>
or		
C 321	Organic Chemistry .....	3
and		
C 325	Organic Chemistry Laboratory .....	1
C 214	Elementary Biochemistry .....	3 <sup>1-4</sup>
and		
C 216	Elementary Biochemistry Laboratory .....	1 <sup>1-4</sup>
PS 201	General Physics .....	4 <sup>1-4</sup>
PS 202	General Physics .....	4 <sup>1-4</sup>
M 221	Calculus I .....	3 <sup>1-4</sup>
GEO 105	General Geology .....	4 <sup>1-4</sup>
Geology Elective	.....	3-4 <sup>1-4</sup>

**Professional Studies**

EDS 201	Education and Society .....	3 <sup>1-4</sup>
EDS 301	Psychological Foundations of Education .....	3 <sup>1-4</sup>
EDS 302	Educational Psychology .....	3 <sup>1-4</sup>
EDS 420	Reading in the Content Areas .....	1 <sup>1-4</sup>
SC 491	Science Materials and Approaches .....	3 <sup>4</sup>
EDD 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 B 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 B 207 or 208, perhaps followed by other core courses or other courses more appropriate to their professional interests.

Students planning to major in biology with the purpose of teaching science in secondary schools must identify themselves and plan their programs with the faculty

adviser for secondary education as early in their academic careers as possible.

**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 B 207, 208; two courses from B 301, 302 (or 321), 303, 371, 306 (or 406, 416); C 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 C 104, 105 and 106.

Since all of the B 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 B 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 American Medical Association through 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 diagnostic 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 with a grade-point index of 2.5 or better.

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: B 207, 208, 371, 406-416, and C 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

E 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:*

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

or

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

or

One of the following:

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

Successful performance on the college proficiency exam.

##### *Breadth Requirements† (See page 74)*

Group A	6 <sup>1,2</sup>
---------	------------------

Understanding and appreciation of the creative arts and humanities.

Group B	6 <sup>1,2</sup>
---------	------------------

The study of culture and institutions over time

Group C	6 <sup>1,2</sup>
---------	------------------

Empirically based study of human beings and their environment.

#### MAJOR REQUIREMENTS

##### *Within the Department*

MT 100	Introduction to Medical Technology	1 <sup>1</sup>
MT 372	Diagnostic Parasitology	2 <sup>3</sup>
MT 376	Clinical Virology and Immunology	2 <sup>3</sup>
MT 378	Clinical Laboratory Computer Applications	2 <sup>3</sup>
MT 400	Urinalysis and Body Fluids	3 <sup>3</sup>
MT 401	Clinical Physiological Chemistry I	4 <sup>3</sup>
MT 411	Clinical Physiological Chemistry I Laboratory	2 <sup>3</sup>
MT 404	Hematology I	2 <sup>3</sup>
MT 414	Hematology I Laboratory	1 <sup>3</sup>
MT 406	Medical Microbiology	3 <sup>3</sup>
MT 416	Medical Microbiology Laboratory	2 <sup>3</sup>
MT 410	Principles of Medical Technology Education	1 <sup>3</sup>
MT 402	Medical Mycology	1 <sup>4</sup>
MT 412	Medical Mycology Laboratory	1 <sup>4</sup>
MT 403	Clinical Physiological Chemistry II	3 <sup>4</sup>
MT 413	Clinical Physiological Chemistry II Laboratory	2 <sup>4</sup>
MT 418	Medical Technology Senior Seminar	1 <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 24.

†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.

MT 405	Hematology II	2 <sup>4</sup>
MT 415	Hematology II Laboratory	2 <sup>4</sup>
MT 409	Immunohematology	1 <sup>3</sup>
MT 419	Immunohematology Laboratory	1 <sup>3</sup>
MT 407	Diagnostic Microbiology	2 <sup>4</sup>
MT 417	Diagnostic Microbiology Laboratory	2 <sup>4</sup>
MT 420	Immunohematology II	1 <sup>4</sup>
MT 421	Immunohematology II Laboratory	1 <sup>4</sup>
MT 470	Medical Technology Clinical Education	3 <sup>4</sup>
MT 471	Seminar: Medical Technology Laboratory Management	1 <sup>4</sup>
MT 473	Clinical Chemistry Practicum	3 <sup>4</sup>
MT 475	Clinical Hematology	3 <sup>4</sup>
MT 477	Clinical Microbiology	3 <sup>4</sup>
MT 479	Clinical Immunohematology	3 <sup>4</sup>

**Within the College***Related Work*

B 207	Introductory Biology I	4 <sup>1</sup>
B 208	Introductory Biology II	4 <sup>1</sup>
B 406	Human Physiology	3 <sup>2</sup>
B 416	Human Anatomy and Physiology Laboratory	1 <sup>2</sup>
B 371	Introduction to Microbiology	4 <sup>2</sup>
B 471	Introductory Immunology	3 <sup>3</sup>
C 103	General Chemistry	4 <sup>1</sup>
C 104	General Chemistry	4 <sup>1</sup>
C 213	Elementary Organic Chemistry	4 <sup>2</sup>
C 214	Elementary Biochemistry	3 <sup>2</sup>
C 216	Elementary Biochemistry Laboratory	1 <sup>2</sup>
or		
C 321	Organic Chemistry	3
C 322	Organic Chemistry	3
C 325	Organic Chemistry Laboratory	1
C 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 MT course in the medical technology major.

**Physical Therapy**

Pre-physical therapy (undergraduate) students are admitted to the University as "physical therapy interest" and follow a program of study leading to a baccalaureate degree with a major in one of the traditional disciplines (e.g., biological sciences). 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 life. The program, interdisciplinary in nature, offers students the opportunity to organize an integrated program of courses in American subjects especially suited to 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, notably the Winterthur and Hagley Museums and the historic district in Odessa, Delaware.

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 synthesize and grasp cultural patterns are available in research and teaching, library and museum work, public relations, journalism, editing and publishing. Prelaw and pretheological students, as well as those contemplating careers in social service, business, and public administration, find value in such a program. And men and women, whatever their vocations, will have greater awareness as citizens if they are acquainted with the history and institutions of their society.

**DEGREE: BACHELOR OF ARTS  
MAJOR: AMERICAN STUDIES****CURRICULUM****CREDITS\*****UNIVERSITY REQUIREMENTS**

E 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 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.

*Mathematics:*

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

or

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

or

One of the following:

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

or

Successful performance on the college proficiency exam

*Breadth Requirements† (See page 74)*

<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>
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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**

AMS 101 Introduction to American Civilization I .....	3 <sup>1-4</sup>
AMS 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 AMS 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

\*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 24.

†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.



Literatures, Anthropology, Philosophy, etc.); these courses should be of interest to most students.

**DEGREE: BACHELOR OF ARTS**  
**MAJOR: COMPARATIVE LITERATURE**

**CURRICULUM**

**CREDITS\***

**UNIVERSITY REQUIREMENTS**

E 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 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.

*Mathematics:*

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

or

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

or

One of the following:

M 221	Calculus I	3
M 241	Analytic Geometry and Calculus A	4

or

Successful performance on the college proficiency exam.

*Breadth Requirements† (See page 74)*

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**

CL 202	Biblical and Classical Literature	3 <sup>1-4</sup>
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(E 205 or 206 or CL 316 may be substituted with adviser's approval)

CL 207	Great Writers of the Western World: 1100-1700	3 <sup>1-4</sup>
CL 208	Great Writers of the Western World: 1650-1950	3 <sup>1-4</sup>
CL 484	Literary Criticism	3 <sup>4</sup>
Comparative Literature courses or courses in related fields approved by the adviser.		6 <sup>1-4</sup>

**Within the College**

Nine credits in each of two national literatures studied in the original text with at least three credits at the 400 level.	18 <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.

<b>CREDITS TO TOTAL A MINIMUM OF</b>	<b>124</b>
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**REQUIREMENTS FOR  
THE MINOR IN COMPARATIVE LITERATURE**

- I. Core courses in comparative literature (6 credits)  
Two of CL 202, 207, or 208
- II. Foreign literature courses (6 credits)  
Advanced elective-level courses studied in the original text.
- III. Advanced English or Advanced CL 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 PSC 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.

\*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 24.

†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: INTERNATIONAL RELATIONS**

## CURRICULUM

## CREDITS\*

**UNIVERSITY REQUIREMENTS**

E 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 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

*Mathematics*

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

or

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

or

One of the following:

M 221 Calculus I	3
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M 241 Analytic Geometry and Calculus A	4
--	---

or

Successful performance on the college proficiency exam.

*Breadth Requirements*† (See page 74)

<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 Departments***Anthropology*

Six credits chosen from the following courses:	6 <sup>1-4</sup>
ANT 222 Technology and Culture	3
ANT 225 Peasant Societies	3
ANT 230 Peoples of the World	3

ANT 231 Personality and Culture	3
ANT 245 The Novel as Ethnography	3
ANT 255 Applied Anthropology	3
ANT 260 Sociocultural History of Africa	3
ANT 265 High Civilizations of the Americas	3
ANT 269 Early Civilizations of the Old World	3
ANT 325 Peoples of Europe	3
ANT 327 Peoples of the Caribbean	3
ANT 330 Development and Underdevelopment	3
ANT 331 Anthropology in Film	3
ANT 333 Peoples of Africa	3
ANT 337 South American Indians	3
ANT 368 Anthropology of Slavery	3
ANT 370 Culture of Food Production and Economic Development	3
ANT 375 Peoples and Cultures of Modern Latin America	3
ANT 377 Ecological Anthropology	3
ANT 380 Peoples and Cultures of Mexico and Central America	3
ANT 401 The Idea of Race	3
ANT 363 Women in Cross Cultural Perspective	3
ANT 473 Comparative Political Systems	3

*Economics*

EC 151 Introduction to Microeconomics	3
EC 152 Introduction to Macroeconomics	3
EC 340 International Economic Relations	3
Three credits chosen from the following courses:	3 <sup>1-4</sup>
EC 305 Capitalism and Socialism: Comparative Economic Systems	3
EC 311 Economic Growth and Development Policy	3
EC 341 Environment of Multinational Corporations	3
EC 405 The Planned Economies	3
EC 411 Economics of Growth and Development	3
EC 443 International Monetary Economics	3

*Geography*

Three credits chosen from the following courses:	3 <sup>1-4</sup>
G 102 Human Geography	3
G 120 World Regional Geography	3
G 203 Cultural Geography	3
G 210 Economic Geography	3
G 226 Geography of Latin America	3
G 227 Historical Geography of Europe	3
G 236 Conservation: Global Issues	3
G 460 Women in International Development	3

*History*

Six credits chosen from the following courses:	6 <sup>1-4</sup>
H 101 Western Civilization to 1648	3
H 102 Western Civilization 1648 to the Present	3
H 134 History of Africa	3
H 135 Latin America to 1830	3
H 136 Latin America Since 1830	3
H 137 East Asian Civilization: China	3
H 138 East Asian Civilization: Japan	3
H 207 The World in Our Time	3
H 208 Leaders of the Twentieth Century	3
H 209 War and Society to 1775	3
H 210 War and Society Since 1775	3
H 248 Africa Under Colonial Rule	3
H 249 History of South Africa	3
H 264 The Jewish Holocaust 1933-1945	3
H 267 Pan Africanism	3
H 285 The Atomic Age	3
H 306 History of American Foreign Policy	3
H 330 Peasants and Revolution in Africa	3
H 334 History of Mexico	3
H 351 Europe in Crisis: 1919-1945	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 24

†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.

H 352	Contemporary European Society	3
H 357	Russian History to 1801	3
H 358	Russian History: 1801-Present	3
H 359	Soviet Russia: 1917 to the Present	3
H 364	Modern Germany: 1870-1945	3
H 367	Africa Since 1960	3
H 373	Modern Ireland: 1534-Present	3
H 374	History of England to 1715	3
H 375	History of England, 1715 to Present	3
H 376	English Legal and Constitutional History	3
H 391	History of Modern China	3
H 392	History of Modern Japan	3
H 430	Twentieth-Century Latin American Revolutions	3
H 467	Race, Class, and Revolution in South Africa	3
H 474	Studies in English History	3
H 475	Seminar in Modern European History	3
H 477	Studies in Latin American History	3
H 479	Studies in Asian History	3

*Political Science*

PSC 240	Introduction to International Relations	3 <sup>1-4</sup>
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Twelve credits chosen from the following courses: 12<sup>1-4</sup>

PSC 270	Comparative Politics	3
PSC 310	European Governments	3
PSC 311	Politics of Developing Nations	3
PSC 313	American Foreign Policy	3
PSC 314	Making United States Foreign Policy	3
PSC 333	Communism, Fascism and Democracy	3
PSC 334	Liberalism and Conservatism	3
PSC 365	Model United Nations	3
PSC 372	East European Political Systems	3
PSC 377	Arab-Israeli Politics	3
PSC 408	International Organization	3
PSC 409	Contemporary Problems of World Politics	3
PSC 412	Foreign Policy of the Soviet Union	3
PSC 414	Problems in American Foreign Policy	3
PSC 415	Force and World Politics	3
PSC 416	Transnational Relations and World Politics	3
PSC 426	Latin American Political Systems	3
PSC 429	East Asian Political Systems	3
PSC 430	Comparative Administration	3
PSC 431	Latin American Politics: Countries	3
PSC 432	Political Systems of the Soviet Union	3
PSC 433	African Political Systems	3
PSC 442	Problems of Western European Politics	3
PSC 443	Foreign Policy of China	3
PSC 444	Seminar in World Politics	3
PSC 450	Problems of Latin American Politics	3
PSC 477	Politics of the Arab World	3
PSC 651	Communist Political Thought	3

*Sociology*

SOC 201	Introduction to Sociology	3 <sup>1-4</sup>
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Three credits chosen from the following courses: 3<sup>1-4</sup>

SOC 210	Population Problems	3
SOC 306	Personality and Social Systems	3
SOC 320	Personality and Politics	3
SOC 350	Political Sociology	3
SOC 360	Sociology of Religion	3
SOC 361	Race, Power and Social Conflict	3
SOC 380	Development and Modernization	3
SOC 460	Women in International Development	3

*Other*

Three credits chosen from the following courses: 3<sup>1-4</sup>

Any course included in the previous listing		3
Literature course in a foreign area		3
ST 201	Introduction to Statistics I	3
PHL 102	Basic Problems of Philosophy	3
PHL 201	Introduction to Political and Legal Philosophy	3
PHL 202	Contemporary Moral Problems	3
PHL 204	Religions of Mankind	3
PHL 309	Indian Religion and Philosophy	3

PHL 310	Chinese Religion and Philosophy	3
COM 320	Analysis of Intercultural Communication	3
Course in a second foreign language		3
AS 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 multiethnic 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 BAS 110, 304, 306, and one BAS 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 BAS 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 BAS 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 E 351 and H 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.

H 135, 136, 334, 430

G 226

SP 212, 303, 304, 417, 430, 441, 443

ANT 265, 323, 327, 330, 338, 375, 380

PSC 426, 431, 450

**Language Requirement.** In addition to the 18-credit minimum, students must complete SP 112 or demonstrate equivalent proficiency on the proficiency test. Equivalent competency in Portuguese will be allowed.

**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 is an interdisciplinary teaching and research unit of the College of Arts and Science.

The Center employs ideas and methods of the humanities, the sciences, and social sciences 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.

The Center offers two academic minors. 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.

The Center also sponsors seminars and lectures 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.

**DEGREE: BACHELOR OF ARTS**  
**MAJOR: TECHNOLOGY OF ARTISTIC AND HISTORIC OBJECTS**

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

**UNIVERSITY REQUIREMENTS**

E 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>
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.	

*Mathematics:*

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

or

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

One of the following:

M 221 Calculus I	3
M 241 Analytic Geometry and Calculus A	4

or

Successful performance on the college proficiency exam

*Breadth Requirements† (See page 74)*

<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>
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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>
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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 College**

*Art and Art Conservation:*

ART 244 Photography I	3 <sup>1-4</sup>
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One of the following four courses:

ART 250 Sculpture I	3 <sup>1-4</sup>
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ART 254 Ceramics I	3 <sup>1-4</sup>
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ART 260 Metals I	3 <sup>1-4</sup>
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ART 273 On Loom Weaving I	3 <sup>1-4</sup>
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ARC 685 Color Mixing and Matching	3 <sup>1-4</sup>
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ARC 682 Studio Materials and Techniques of Drawing in the West	3
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ARC 688 Studio Materials and Techniques of Painting I	3
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or

ARC 689 Studio Materials and Techniques of Painting II	3 <sup>1-4</sup>
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ARC 690 Studio in the Materials and Techniques of Printmaking I	3 <sup>1-4</sup>
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ARC 466 Conservation Internship at Winterthur	6
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*Art History*

Twenty-four credits in Art History as follows:	24 <sup>1-4</sup>
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ARH 208 Greek and Roman Art	3
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or

ARH 207 Origins of Art	3
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ARH 210 Art of the Middle Ages	3
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ARH 212 High Renaissance and Mannerist Art	3
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or

ARH 211 Early Renaissance Art	3
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ARH 214 Baroque Art	3
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ARH 216 American Art	3
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or

ARH 380 Oriental Art	3
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ARH 315 Modern Art I: Nineteenth Century	3
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ARH 316 Modern Art II: Twentieth Century	3
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ARH 401 Literature, Theory and Methods of Art History	3
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*Chemistry*

Twenty to twenty-three credits in Chemistry as follows:	20-23 <sup>1-4</sup>
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C 103 General Chemistry	4
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C 104 General Chemistry	4
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or

C 111 General Chemistry	3
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C 112 General Chemistry	3
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or

C 119 Quantitative Chemistry I	2
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C 120 Quantitative Chemistry II	3
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C 220 Quantitative Analysis	3
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C 221 Quantitative Analysis Laboratory	1
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C 321 Organic Chemistry	3
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C 325 Organic Chemistry Laboratory	1
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C 322 Organic Chemistry	3
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C 326 Organic Chemistry Laboratory	1
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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.

<b>CREDITS TO TOTAL A MINIMUM OF</b>	<b>124</b>
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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 24.

†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.

## 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 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: WS 201, 470, 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 WS courses at or above the 300 level. A 2.0 average must be maintained in these courses.

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.