



COLLEGE OF ARTS AND SCIENCE

• DEPARTMENTS

- Anthropology
- Art
- Art Conservation
- Art History
- Chemistry and Biochemistry
- Communication
- Computer and Information Sciences
- Economics
- English
- Foreign Languages and Literatures
- Geography
- Geology
- History
- Life and Health Sciences
 - Medical Technology
 - Physical Therapy
- Linguistics
- Mathematical Sciences
- Military Science
- Music

- Philosophy
- Physics and Astronomy
- Political Science and International Relations
- Psychology
- Sociology and Criminal Justice
- Theatre

• PROGRAMS

- A&S Teacher Education
- Black American Studies
- Comparative Literature
- Latin American Studies
- Liberal Arts/Engineering
- University Honors Program
- Women's Studies

• CENTERS

- Math Center
- Science and Culture
- Writing Center

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

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

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

a comprehensive world view, historical perspective, and increased skill in communication, both verbal and non-verbal. Through the behavioral and social sciences, students should acquire knowledge of facts and concepts relating to social and political organization and patterns of interaction among individuals and groups; awareness of the practical, moral and ethical issues in society; and an understanding of psychological development and the determinants of individual behavior.

In an increasingly complex, technological society, an educated person must have some knowledge of the natural sciences and competency to deal with mathematical and quantitative concepts.

The intent of these requirements is to provide students acquaintance with, and appreciation of, the materials and methodologies of each area and, ideally, to foster

an awareness that the works of an artist, novelist, sociologist, and physicist may all be equally valid representations of reality. In the process, students should develop a heightened understanding of all aspects of human environment, intellectual curiosity, respect for fact, perception of the complexity of truth, skill in reasoning, and concern for integrity and logical consistency and should acquire perceptions, skills, and attitudes that will assist them in achieving a full and satisfying life as contributing members of society.

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

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

Courses to fulfill degree requirements must be taken for credits unless they are offered only on a pass/fail basis.

BACHELOR OF ARTS

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

SKILL REQUIREMENTS

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

- 1) ENGL 110 will be taken by all students as freshmen, except by students who have otherwise demonstrated the skills taught in that course. All students must have satisfied this requirement by no later than the end of their sophomore year. A score of 650 on the College Board Achievement Test in English Composition will be a satisfactory demonstration of basic writing skills.
- 2) A second writing course must be taken after completion of 62 credit hours. Courses fulfilling this requirement will involve a significant writing experience including two papers of moderate length that are to be submitted for extended faculty critique of both composition and content and are to be returned to the student.

COURSES APPROVED FOR SECOND WRITING REQUIREMENT

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

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

American Studies (AMST)

- AMST 303 American Intellectual History (cross-listed with HIST 303)
- AMST 304 American Intellectual History (cross-listed with HIST 304)
- AMST 310 Community Studies
- AMST 319 Revolutionary America (cross-listed with HIST 319)
- AMST 328 American Industrial Society: 1815 to Present (cross-listed with HIST 328)
- AMST 343 Cultural Issues in American Literature (cross-listed with ENGL 343)
- AMST 368 Literature and Science (cross-listed with CSCC 368 and ENGL 368)
- AMST 480 Seminar (cross-listed with CMLT 480 and ENGL 480)

Anthropology (ANTH)

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

Art History (ARTH)

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

Arts and Science (ARSC)

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

Biology (BISC)

- BISC 498 Topics in Biology (cross-listed with CSCC 498)
- BISC 603 Nucleoprotein Interactions

Black American Studies (BAMS)

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

Center for Science and Culture (CSCC)

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

Chemistry (CHEM)

- CHEM 610 History of Chemistry

Communication (COMM)

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

Comparative Literature (CMLT)

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

- CMLT 341 Theatre/Drama: Classic/Medieval
(cross-listed with THEA 341)
CMLT 342 Theatre/Drama: Renaissance to 1700
(cross-listed with THEA 342)
CMLT 343 Theatre/Drama: 1700 to 1900 (cross-listed with THEA 343)
CMLT 344 Theatre/Drama: 1900 to Present
(cross-listed with THEA 344)
CMLT 480 Seminar (cross-listed with AMST 480 and ENGL 480)

Criminal Justice (CRJU)

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

English (ENGL)

- ENGL 200 Approaches to Literature
ENGL 301 Problems in Composition
ENGL 302 Advanced Composition
ENGL 307 News Writing and Editing
ENGL 309 Feature and Magazine Writing
ENGL 312 Written Communications in Business
ENGL 316 Honors: Peer Tutoring/Advanced Composition
(cross-listed with ARSC 316)
ENGL 343 Cultural Issues in American Literature
(cross-listed with AMST 343)
ENGL 368 Literature and Science
(cross-listed with AMST 368 and CSCC 368)
ENGL 409 Topics in Journalism
ENGL 410 Technical Writing
ENGL 480 Seminar (cross-listed with AMST 480 and CMLT 480)

Foreign Languages and Literatures (FLLT)

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

Geography (GEOG)

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

History (HIST)

- HIST 250 Roots of Contemporary Culture
HIST 268 Seminar
HIST 300 Women in American History (cross-listed with WOMS 300)
HIST 302 The World in Our Time
HIST 303 American Intellectual History (cross-listed with AMST 303)
HIST 304 American Intellectual History (cross-listed with AMST 304)
HIST 307 The U.S. in the Early National Period
HIST 309 U.S. Business and Political Economy
HIST 313 Twentieth-Century America
HIST 314 Twentieth-Century America
HIST 318 Colonial America
HIST 319 Revolutionary America (cross-listed with AMST 319)
HIST 328 American Industrial Society: 1815 to Present
(cross-listed with AMST 328)
HIST 330 Peasants and Revolution in Africa
HIST 334 History of Mexico
HIST 341 Ancient Rome
HIST 344 Renaissance Europe
HIST 345 Europe in the Reformation Era: 1517 to 1648
HIST 346 Age of Louis XIV
HIST 347 The French Revolution and Napoleon
HIST 355 Early Modern Intellectual History
HIST 356 Modern European Intellectual History
HIST 361 European Business History: 1850 to Present
HIST 364 Modern Germany: 1870 to 1945
HIST 373 Modern Ireland: 1534 to Present
HIST 385 History of Biological Ideas (cross-listed with CSCC 385)
HIST 391 History of Modern China
HIST 392 History of Modern Japan
HIST 397 History of South Africa
HIST 409 Varieties of Modern Feminism (cross-listed with WOMS 409)
HIST 411 Seminar in American History (cross-listed with CSCC 411)
HIST 416 The American Family 1608 to 1900
(cross-listed with WOMS 416)

- HIST 430 Latin American Revolutions
HIST 459 United States Urban History
HIST 471 Studies in Medieval History
HIST 473 Studies in Early Modern European History
(cross-listed with WOMS 473)
HIST 474 Studies in English History
HIST 475 Seminar in Modern European History
HIST 479 Studies in Asian History

Music (MUSC)

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

Philosophy (PHIL)

- PHIL 444 Medical Ethics (cross-listed with CSCC 444)
PHIL 463 Ethical Theory
PHIL 465 Seminar: Philosophical Topics

Psychology (PSYC)

- PSYC 405 Advanced Social Psychology
PSYC 415 History and Systems of Psychology
PSYC 416 Psychological Perspectives on the Black American
(cross-listed with BAMS 432)
PSYC 425 Topics in Child Psychology

Sociology (SOCI)

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

Theatre (THEA)

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

University (UNIV)

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

Women's Studies (WOMS)

- WOMS 300 Women in American History (cross-listed with HIST 300)
WOMS 409 Varieties of Modern Feminism (cross-listed with HIST 409)
WOMS 415 Race, Class and Gender
(cross-listed with BAMS 415 and SOCI 415)
WOMS 416 The American Family 1608 to 1900
(cross-listed with HIST 416)
WOMS 473 Studies in Early Modern European History
(cross-listed with HIST 473)

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

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

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

- 1) Successful completion of MATH 114 Elementary Mathematics and Statistics (designed for students who do not intend to continue the study of mathematics); or,
- 2) Successful completion of MATH 115 Pre-Calculus (designed for students who intend to continue the study of mathematics); or,
- 3) Successful completion of any mathematics course above the 100 level except MATH 251 or MATH 252; or,
- 4) Successful performance on a proficiency test in mathematics administered by the Department of Mathematical Sciences through the Advisement Center of the College of Arts and Science.

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

BREADTH REQUIREMENTS

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

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

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

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

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

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

GROUP D. The study of natural phenomena through experiment or analysis.

Thirteen credits of courses representing at least two departments or appropriate instructional units and including a minimum of one course with an associated laboratory.

A course may be applied both toward the major requirements and a breadth requirement, but the credits are counted only once toward the total credits for graduation. If all but one course in a group has been taken in one department or program, a course cross-listed with that program will not satisfy the distribution requirement.

COURSES APPROVED FOR BREADTH REQUIREMENTS

GROUP A

American Studies (AMST)

- AMST 101 Introduction to American Civilization I
 AMST 102 Introduction to American Civilization II
 AMST 314 Introduction to Folklore and Folklife
 (cross-listed with CMLT 314 and ENGL 314)
 AMST 317 American Philosophy (cross-listed with PHIL 317)
 AMST 368 Literature and Science
 (cross-listed with CSCC 368 and ENGL 368)

Anthropology (ANTH)

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

Art History (ARTH)

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

Center for Science and Culture (CSCC)

- CSCC 241 Ethical and Moral Dimensions of Health Care
 (cross listed with PHIL 241)
 CSCC 245 Ethical Issues in Scientific Research
 (cross-listed with PHIL 245)
 CSCC 246 Philosophical Perspectives of Medicine
 (cross-listed with PHIL 246)
 CSCC 368 Literature and Science
 (cross-listed with AMST 368 and ENGL 368)
 CSCC 369 Literature and Medicine (cross-listed with ENGL 369)

Communication (COMM)

- COMM 360 Oral Interpretation of Literature

Comparative Literature (CMLT)

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

English (ENGL)

- ENGL 200 Approaches to Literature
 ENGL 202 Biblical and Classical Literature
 (cross-listed with FLIT 202 and CMLT 202)
 ENGL 204 Great American Writers
 ENGL 207 Introduction to Poetry
 ENGL 208 Introduction to Drama (cross-listed with CMLT 218)
 ENGL 209 Introduction to the Novel (cross-listed with CMLT 219)
 ENGL 210 Short Story
 ENGL 217 Introduction to Film (cross-listed with CMLT 217)
 ENGL 314 Introduction to Folklore and Folklife
 (cross-listed with AMST 314 and CMLT 314)
 ENGL 315 Ballad and Folksong
 ENGL 324 Shakespeare
 ENGL 327 English Bible
 ENGL 368 Literature and Science
 (cross-listed with AMST 368 and CSCC 368)

- ENGL 369 Literature and Medicine (cross-listed with CSCC 369)
 ENGL 380 Women Writers (cross-listed with WOMS 380)

Foreign Languages and Literatures (FLLT)

- FLLT 202 Biblical and Classical Literature
 (cross-listed with CMLT 202 and ENGL 202)
 FLLT 316 Classical Mythology (cross-listed with CMLT 316)
 FLLT 320 Varying Authors and Genres (cross-listed with CMLT 320)
 FLLT 322 Topics: Classical Literature in Translation
 (cross-listed with CMLT 322)
 FLLT 324 Topics: French Literature in Translation
 (cross-listed with WOMS 324)
 FLLT 325 Topics: German Literature in Translation
 (cross-listed with WOMS 325)
 FLLT 326 Topics: Hispanic Literature in Translation
 (cross-listed with WOMS 326)
 FLLT 327 Topics: Russian Literature in Translation

Geography (GEOG)

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

German (GRMN)

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

Linguistics (LING)

- LING 301 Dictionaries

Music (MUSC)

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

Philosophy (PHIL)

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

Political Science (POSC)

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

Theatre (THEA)

- THEA 102 Introduction to Performance
 THEA 104 Introduction to Theatre and Drama
 THEA 106 The Theatrical Experience Abroad
 THEA 200 Introduction to Theatre Production
 THEA 202 Introduction to Theatre Design
 THEA 203 Introduction to Costuming
 THEA 206 Introduction to Dance
 THEA 410 Fundamentals of Dramaturgy

University (UNIV)

- UNIV 490 Honors Tutorial: Humanities

Women's Studies (WOMS)

- WOMS 204 Gender and Knowledge
 WOMS 205 Women in the Arts and Humanities
 WOMS 210 Women and Religion (cross-listed with PHIL 210)
 WOMS 216 Introduction to Feminist Theory (cross-listed with PHIL 216)
 WOMS 324 French Literature in Translation
 (cross-listed with FLLT 324)
 WOMS 325 German Literature in Translation
 (cross-listed with FLLT 325)
 WOMS 326 Hispanic Literature in Translation
 (cross-listed with FLLT 326)
 WOMS 380 Women Writers (cross-listed with ENGL 380)

GROUP B

American Studies (AMST)

- AMST 278 Historic Cultures of the Mid-Atlantic Region
 (cross-listed with ANTH 278 and HIST 278)
 AMST 303 American Intellectual History (cross-listed with HIST 303)
 AMST 304 American Intellectual History (cross-listed with HIST 304)
 AMST 319 Revolutionary America (cross-listed with HIST 319)
 AMST 322 The City in American Culture
 (cross-listed with ANTH 322 and HIST 322)
 AMST 344 Black American Literature I
 (cross-listed with BAMS 313 and ENGL 344)
 AMST 345 Black American Literature II (cross-listed with ENGL 345)

Anthropology (ANTH)

- ANTH 101 Introduction to Social and Cultural Anthropology
 ANTH 228 Peoples and Cultures of the Southwest
 ANTH 260 Sociocultural History of Africa
 ANTH 261 Peoples and Cultures of the Middle East
 ANTH 265 High Civilizations of the Americas
 ANTH 278 Historic Cultures of the Mid-Atlantic Region
 (cross-listed with AMST 278 and HIST 278)
 ANTH 322 The City in American Culture
 (cross-listed with AMST 322 and HIST 322)
 ANTH 323 Prehistory of South America
 ANTH 375 Peoples and Cultures of Modern Latin America

Art History (ARTH)

- ARTH 153 Introduction to Art History I
 ARTH 154 Introduction to Art History II
 ARTH 207 Origins of Art
 ARTH 208 Greek and Roman Art
 ARTH 209 Early Medieval Art A.D. 200-1000
 ARTH 210 Later Medieval Art 1000-1400
 ARTH 231 American Art: 1865-Present
 ARTH 315 Modern Art I: Nineteenth Century

Black American Studies (BAMS)

- BAMS 134 History of Africa (cross-listed with HIST 134)
 BAMS 304 History of Black America to the Civil War
 (cross-listed with HIST 325)
 BAMS 306 History of Black America Since the Civil War
 (cross-listed with HIST 326)
 BAMS 313 Black American Literature I
 (cross-listed with AMST 344 and ENGL 344)

Center for Science and Culture (CSCC)

- CSCC 330 Varying Authors, Themes and Movements
 (cross-listed with CMLT 330, FLLT 330 and WOMS 330)
 CSCC 382 History of Western Medicine (cross-listed with HIST 382)

Comparative Literature (CMLT)

- CMLT 207 Great Writers of the Western World I
 (cross-listed with ENGL 211)

- CMLT 208 Great Writers of the Western World II
(cross-listed with ENGL 212)
CMLT 317 Film History (cross-listed with ENGL 317)
CMLT 321 Introduction to Medieval Literature
(cross-listed with ENGL 321)
CMLT 330 Varying Authors, Themes, and Movements
(cross-listed with CSCC 330, FLLT 330 and WOMS 330)
CMLT 341 Theatre/Drama: Classic/Medieval
(cross-listed with THEA 341)
CMLT 342 Theatre/Drama: Renaissance to 1700
(cross-listed with THEA 342)
CMLT 343 Theatre/Drama: 1700 to 1900
(cross-listed with THEA 343)
CMLT 344 Theatre/Drama: 1900 to Present
(cross-listed with THEA 344)

Economics (ECON)

- ECON 316 American Economic History
ECON 318 Economic History of France

English (ENGL)

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

Foreign Languages and Literatures (FLLT)

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

French (FREN)

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

Geography (GEOG)

- GEOG 225 Historical Geography of the United States

German (GRMN)

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

History (HIST)

- HIST 101 Western Civilization to 1648
HIST 102 Western Civilization: 1648 to Present
HIST 134 History of Africa (cross-listed with BAMS 134)
HIST 135 Latin America to 1830
HIST 136 Latin America Since 1830
HIST 137 East Asian Civilization: China
HIST 138 East Asian Civilization: Japan
HIST 205 United States History
HIST 206 United States History
HIST 210 War and Society Since 1775
HIST 278 Historic Cultures of the Mid-Atlantic Region
(cross-listed with AMST 278 and ANTH 278)

- HIST 280 Science and Civilization
HIST 300 Women in American History (cross-listed with WOMS 300)
HIST 303 American Intellectual History (cross-listed with AMST 303)
HIST 304 American Intellectual History (cross-listed with AMST 304)
HIST 306 History of American Foreign Policy
HIST 315 Postwar America: The United States Since 1945
HIST 318 Colonial America, 1580-1777
HIST 319 Revolutionary America, 1760-1787
(cross-listed with AMST 319)
HIST 322 The City in American Culture
(cross-listed with AMST 322 and ANTH 322)
HIST 325 History of Black America to the Civil War
(cross-listed with BAMS 304)
HIST 326 History of Black America Since the Civil War
(cross-listed with BAMS 306)
HIST 330 Peasants and Revolution in Africa
HIST 340 Ancient Near East and Greece
HIST 341 Ancient Rome
HIST 344 Renaissance Europe
HIST 345 Europe in the Reformation Era: 1517 to 1648
HIST 355 Early Modern Intellectual History
HIST 356 Modern European Intellectual History
HIST 359 Soviet Russia: 1917 to the Present
HIST 374 History of England to 1715
HIST 375 History of England: 1715 to Present
HIST 382 History of Western Medicine (cross-listed with CSCC 382)
HIST 383 History of Science and Medicine I
HIST 384 History of Science and Medicine II
HIST 387 Technology in Western Civilization I
HIST 388 Technology in Western Civilization II
HIST 391 History of Modern China
HIST 392 History of Modern Japan
HIST 397 History of South Africa
HIST 474 Studies in English History

Italian (ITAL)

- ITAL 310 Survey of Italian Literature (to be taught in Italian)
ITAL 311 Survey of Italian Literature (to be taught in Italian)
ITAL 325 Italian Civilization and Culture

Music (MUSC)

- MUSC 205 Music of the Non-Western World
MUSC 206 Music of China, Korea and Japan
MUSC 207 History of Jazz
MUSC 311 Music History: 400 through 1600
MUSC 312 Music History: 1600 through 1827
MUSC 313 Music History: 1825 to the Present
MUSC 345 History of Theatre: American Musical Theatre
(cross-listed with THEA 345)

Philosophy (PHIL)

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

Political Science (POSC)

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

Russian (RUSS)

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

Spanish (SPAN)

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

- SPAN 302 Survey of Spanish Literature (to be taught in Spanish)
 SPAN 303 Survey of Spanish-American Literature
 (to be taught in Spanish)
 SPAN 304 Survey of Spanish-American Literature
 (to be taught in Spanish)

Theatre (THEA)

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

Women's Studies (WOMS)

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

GROUP C**American Studies (AMST)**

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

Anthropology (ANTH)

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

Arts and Science (ARSC)

- ARSC 127 Shaping of the Modern World

Black American Studies (BAMS)

- BAMS 110 Introduction to Black American Studies
 BAMS 204 Urban Communities (cross-listed with SOCI 204)
 BAMS 205 Contemporary Afro-American Issues
 BAMS 212 Afro-Caribbean Life and Culture
 BAMS 361 Race, Power, and Social Conflict
 (cross-listed with SOCI 361)

Center for Science and Culture (CSCC)

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

Communication (COMM)

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

Criminal Justice (CRJU)

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

Economics (ECON)

- ECON 100 Economic Issues and Policies
 ECON 151 Introduction to Microeconomics
 ECON 152 Introduction to Macroeconomics
 ECON 305 Capitalism and Socialism: Comparative Economic Systems
 ECON 306 Public Choice (cross-listed with POSC 306)
 ECON 311 Economic Growth and Development Policy
 ECON 332 Public Finance and Fiscal Policy
 ECON 340 International Economic Relations
 ECON 348 Industrial Policies of France
 ECON 360 Government and Business
 ECON 381 Economics of Human Resources
 ECON 393 Urban Economics

English (ENGL)

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

Geography (GEOG)

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

History (HIST)

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

Linguistics (LING)

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

Political Science (POSC)

- POSC 105 The American Political System
 POSC 106 Introduction to Political Science: Issues
 POSC 220 Introduction to Public Policy
 POSC 240 Introduction to International Relations
 POSC 270 Comparative Politics
 POSC 306 Public Choice (cross-listed with ECON 306)

Psychology (PSYC)

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

Sociology (SOCI)

- SOCI 201 Introduction to Sociology
 SOCI 202 Social Deviance
 SOCI 203 The Individual and Society
 SOCI 204 Urban Communities (cross-listed with BAMS 204)
 SOCI 209 Social Problems
 SOCI 210 Population Problems
 SOCI 211 Men, Conflict, and Social Change
 (cross-listed with WOMS 211)
 SOCI 243 Society, Politics, and Health Care
 (cross-listed with CSCC 243 and ANTH 223)
 SOCI 307 Sociology of Sex and Gender
 (cross-listed with WOMS 307)

- SOCI 308 The Family
 SOCI 310 Sociology of Health Care (cross-listed with CSCI 310)
 SOCI 311 Hospitals (cross-listed with CSCI 311)
 SOCI 317 Women in American Society (cross-listed with WOMS 317)
 SOCI 322 Crowds, Cults, and Revolutions
 SOCI 345 Sociology of Law (cross-listed with CRJU 345)
 SOCI 361 Race, Power, and Social Conflict
 (cross-listed with BAMS 361)
 SOCI 362 Sociology of Mass Communication

Women's Studies (WOMS)

- WOMS 201 Introduction to Women's Studies
 WOMS 211 Men, Conflict, and Social Change
 (cross-listed with SOCI 211)
 WOMS 265 Studies: Language (cross-listed with LING 265)
 WOMS 307 Sociology of Sex and Gender (cross-listed with SOCI 307)
 WOMS 317 Women in American Society (cross-listed with SOCI 317)
 WOMS 333 Psychology of Women (cross-listed with PSYC 333)

GROUP D**Anthropology (ANTH)**

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

Biology (BISC)

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

Chemistry (CHEM)

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

Computer and Information Sciences (CISC)

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

Entomology (ENTO)

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

Geography (GEOG)

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

Geology (GEOL)

- GEOL 105 General Geology (duplicate credit with GEOL 107)
 GEOL 106 General Geology (duplicate credit with GEOL 108)
 GEOL 107 General Geology I (duplicate credit with GEOL 105)
 GEOL 110 Evolution and Extinction (duplicate credit with GEOL 144)
 GEOL 144 Evolution and Earth History
 (duplicate credit with GEOL 110)
 GEOL 233 The Ice Ages and Human Chronology
 GEOL 234 Earth Resources and Ecology
 GEOL 235 Geology of the Solar System
 GEOL 243 Rocks and Minerals
 GEOL 245 Volcanoes and Earthquakes

Mathematical Sciences (MATH)

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

Nutrition and Dietetics (NTDT)

- NTDT 200 Nutrition Concepts

Philosophy (PHIL)

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

Physics (PHYS)

- PHYS 101 Introduction to Physics (duplicate credit with PHYS 104
 which is not a Group D, PHYS 201, 207, and SCEN 101)
 PHYS 102 Introduction to Physics (duplicate credit with PHYS 202, 208)
 PHYS 133 Introduction to Astronomy
 PHYS 134 Introduction to Astronomy
 PHYS 143 Energy, Technology, and Society
 PHYS 144 Concepts of the Universe
 (duplicate credit if taken after PHYS 133 or 134)
 PHYS 145 Quasars, Black Holes, and the Universe
 PHYS 201 General Physics (duplicate credit with PHYS 101, 104
 which is not in Group D, PHYS 207, and SCEN 101)
 PHYS 202 General Physics (duplicate credit with PHYS 102, 208)
 PHYS 207 General Physics (duplicate credit with PHYS 101, 104
 which is not in Group D, PHYS 201, and SCEN 101)
 PHYS 208 General Physics (duplicate credit with PHYS 102, 202)

Plant Science (PLSC)

- PLSC 101 Botany I

Psychology (PSYC)

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

Science (SCEN)

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

Statistics (STAT)

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

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

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

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

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

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

Double Major. This involves fulfilling the major requirements of two of the programs listed above. The advantage of a double major is that the student is able to develop and demonstrate strength in each area covered in the undergraduate program. Admission to double major status requires the approval of both departments and the dean of the college. A minimum grade of *C* is necessary in all courses required for the double major.

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

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

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

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. Similar degrees are the Bachelor of Fine Arts, with a heavy concentration on studio work, and the Bachelor of Music with its own areas of specialization. Curricular details for all of these degree programs can be found in the sections devoted to the individual departments.

BACHELOR OF ARTS IN LIBERAL STUDIES

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

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

Admission into Bachelor of Arts in Liberal Studies is determined by 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 pro-

posals 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

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

COLLEGE REQUIREMENTS

Skill Requirements

Writing:	3 ^{3,4}
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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 ¹⁻⁴
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Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Mathematics:

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

or	
MATH 115 Pre-Calculus	3

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

or	
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One of the following:

MATH 221 Calculus I	3
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MATH 241 Analytic Geometry and Calculus A	4
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or
 Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

Group A	12 ¹⁻⁴
Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.	

Group B	12 ¹⁻⁴
The study of culture and institutions over time. Twelve credits representing at least two areas.	

Group C	12 ¹⁻⁴
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.	

Group D	13 ¹⁻⁴
The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory.	

MAJOR REQUIREMENTS

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

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

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

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

LIBERAL ARTS/ENGINEERING

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

FIELD STUDIES OPTION

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

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

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

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

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 general education requirements so that they can build their entire program with faculty advisers. They are generally selected after they have finished three semesters at the University. Additional information is available from the Dean's Office upon request.

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,

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

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

PREMEDICINE AND PREDENTISTRY

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

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

GENERAL

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

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

larly, a Math 115 course would not be acceptable if taken after a Math 221 course.

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

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

THE DEPARTMENTS

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

ANTHROPOLOGY

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

The undergraduate program at the University emphasizes a variety of subspecialties in social and cultural anthropology, but provides, nevertheless, a broad perspective on the fields of archaeology and physical anthropo-

gy. Because the department is devoted primarily to undergraduate instruction, students can take advantage of many opportunities to work closely with the faculty and to participate in small seminar classes. Courses are enriched by visits to museums and special exhibits in neighboring cultural centers, by films, and by local field inquiry.

DEGREE: BACHELOR OF ARTS MAJOR: ANTHROPOLOGY

CURRICULUM

CREDITS*

UNIVERSITY REQUIREMENTS

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

COLLEGE REQUIREMENTS

Skill Requirements

<i>Writing:</i>	3 ^{3,4}
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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 ¹⁻⁴
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Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Mathematics:

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

or

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

or

One of the following:

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

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

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

<i>Group C</i>	12 ¹⁻⁴
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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 ¹⁻⁴
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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.

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

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

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

MAJOR REQUIREMENTS

Within the Department

Social and Cultural Anthropology courses	12 ¹⁻⁴
Biological Anthropology courses	6 ¹⁻⁴
Archaeological Anthropology courses	6 ¹⁻⁴
ANTH 486 Tutorial in Social and Cultural Anthropology	3 ¹⁻⁴
ANTH 487 Tutorial in Archaeology	3 ¹⁻⁴
or	
ANTH 488 Tutorial in Physical Anthropology	3
Anthropology course	3 ¹⁻⁴

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

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

COLLEGE REQUIREMENTS

Skill Requirements

Writing:	3 ^{3,4}
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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 ¹⁻⁴
Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.	

Mathematics:

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

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

or

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

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

Group A	12 ¹⁻⁴
Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.	
Group B	12 ¹⁻⁴
The study of culture and institutions over time. Twelve credits representing at least two areas.	
Group C	12 ¹⁻⁴
Empirically based study of human beings and their environment. Twelve credits representing at least two areas	
Group D	13 ¹⁻⁴
The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory.	

MAJOR REQUIREMENTS

Within the Department

Social and Cultural Anthropology courses	12 ¹⁻⁴
Biological Anthropology courses	6 ¹⁻⁴
Archaeological Anthropology courses	6 ¹⁻⁴
ANTH 486 Tutorial in Social and Cultural Anthropology	3 ¹⁻⁴
ANTH 487 Tutorial in Archaeology	3 ¹⁻⁴
or	
ANTH 488 Tutorial in Physical Anthropology	3
Anthropology course	3 ¹⁻⁴

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 ¹⁻⁴
Geography course	3 ¹⁻⁴
History course	3 ¹⁻⁴
Political Science course	3 ¹⁻⁴
Sociology course	3 ¹⁻⁴
PSYC 201 General Psychology	3 ¹⁻⁴
Six additional credits selected from the departments listed above	6 ¹⁻⁴

Professional Studies

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

CREDITS TO TOTAL A MINIMUM OF 124

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

- A minimum of 9 credits at the 200 level, including 3 Honors credits.
- A minimum of 15 credits in 300- and 400-level courses, including 9 Honors credits. At least one Honors Seminar (ANTH 499) should be taken. Six

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

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

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

credits of special problems can be counted toward requirements for A and B.

- C. Completion in the junior and senior year of an Honors thesis based on independent research. The research and thesis are to be approved by the student's project adviser and a departmental Honors committee. The number of credits to be given will be 6, that is, the same amount now awarded for a thesis for a degree with distinction in a major field.

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

INTERDEPARTMENTAL MAJORS

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

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

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

Students should consult with their advisors for additional information on interdepartmental majors.

REQUIREMENTS FOR THE MINOR IN ANTHROPOLOGY

Students wishing to minor in anthropology must complete 18 credits in anthropology courses distributed as follows: 6 credits in 200-level courses and 12 credits in 300- and 400-level courses.

ART

The Department of Art is a studio-oriented department offering a wide range of visual arts activities and subject areas. The art major may elect to concentrate in ceramics, fibers, metals, photography, illustration, visual communication (graphic design, advertising, and applied photography), or the traditional fine arts, i.e., painting and drawing, sculpture, printmaking (etching, lithography,

serigraphy, block printing). The courses of study are designed to prepare the student for professional practice in the student's chosen area of specialization.

The Department of Art offers three undergraduate degrees: Bachelor of Arts (B.A.), Bachelor of Fine Arts (B.F.A.), and Bachelor of Science (B.S.) (in visual communication). The department offers two graduate degrees: Master of Arts (M.A.) and Master of Fine Arts (M.F.A.).

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

The department enjoys an excellent reputation and has been ranked by an independent rating service as number fourteen among all college and university art programs in the nation. The proximity of the University to major cultural centers of the northeastern United States provides students with easy access to important museums and galleries and allows for an outstanding program of visiting artists.

DEGREE: BACHELOR OF ARTS

MAJOR: ART

CURRICULUM

CREDITS*

UNIVERSITY REQUIREMENTS

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

COLLEGE REQUIREMENTS

Skill Requirements

<i>Writing:</i>	3 ^{3,4}
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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 ¹⁻⁴
--------------------------------	---------------------

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

Mathematics:

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

or

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

or

One of the following:

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

or

Successful performance on the college proficiency exam.

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

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

Breadth Requirements† (See page 80)

<i>Group A</i>	12 ¹⁻⁴
Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.	
<i>Group B</i>	12 ¹⁻⁴
The study of culture and institutions over time. Twelve credits representing at least two areas.	
<i>Group C</i>	12 ¹⁻⁴
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.	
<i>Group D</i>	13 ¹⁻⁴
The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory.	

MAJOR REQUIREMENTS**Within the Department‡***Foundations*

ART 110	Foundation I Drawing.....	3 ¹
ART 111	Foundation I Design.....	3 ¹
ART 112	Foundation II Drawing.....	3 ¹

One required course selected from 2-D study:

ART 122	Introduction to Figurative Illustration.....	3 ¹
ART 140	Introduction to Printmaking.....	3 ¹
ART 234	Painting I.....	3 ¹
ART 244	Photography I.....	3 ¹

One required course selected from 3-D study:

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

*Core***

Art courses.....	3 ¹⁻⁴
One course of 3-D Study selected from Sculpture, Ceramics, Fibers, or Metals.	

Art courses.....	3 ¹⁻⁴
One course of 2-D Study selected from Photography, Painting, Printmaking, Drawing or Illustration.	

Area of Concentration

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

Within the College

Art History courses.....	6 ¹⁻⁴
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ELECTIVES*Electives*

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

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

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

COLLEGE REQUIREMENTS*Skill Requirements*

<i>Writing:</i>	3 ^{3,4}
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A writing course involving significant writing experience including two papers with a combined minimum of 3,000 words to be submitted for extended faculty critique of both composition and content. This course must be taken in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

Mathematics:

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

or

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

or

One of the following:

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

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

<i>Group A</i>	6 ¹⁻⁴
Understanding and appreciation of the creative arts and humanities.	
<i>Group B</i>	6 ¹⁻⁴
The study of culture and institutions over time.	
<i>Group C</i>	6 ¹⁻⁴
Empirically based study of human beings and their environment.	
<i>Group D</i>	7 ¹⁻⁴
The study of natural phenomena through experiment and analysis. Seven credits including a minimum of one course with an associated laboratory.	

MAJOR REQUIREMENTS

ART 110	Foundation I Design.....	3 ¹
ART 111	Foundation I Drawing.....	3 ¹
ART 112	Foundation II Drawing.....	3 ¹

One required course selected from 2-D study:

ART 122	Illustration I.....	3 ¹
ART 140	Introduction to Printmaking.....	3 ¹
ART 234	Painting I.....	3 ¹
ART 244	Photography I.....	3 ¹

One required course selected from 3-D study:

ART 170	Basic Design: Fibers/CAD.....	3 ¹
ART 250	Sculpture I.....	3 ¹

*Superior figures indicate year or years in which the course is normally taken, i.e., ¹freshman year, ²sophomore 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 26.

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

‡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.

ART 254	Ceramics I.....	3 ¹
ART 260	Metals I.....	3 ¹
Art electives (2).....		6 ¹⁻⁴
ART 200	Visual Communications Process I.....	4 ²
ART 201	Visual Communications Process II.....	4 ²
ART 210	Photo Design.....	4 ²
ART 302	Introduction to Graphic Design.....	3 ³
ART 304	Introduction to Advertising Design.....	3 ³
ART 310	Introduction to Applied Photography.....	3 ³
ART 408	Practicum.....	3 ⁴

Required for Visual Communications majors
concentrating in graphic design:

ART 303	Graphic Design.....	3 ³
ART 305	Advertising Design.....	3 ³
ART 402	Advanced Graphic Design I.....	6 ⁴
ART 403	Advanced Graphic Design II.....	6 ⁴

Required for Visual Communications majors
concentrating in advertising design:

ART 303	Graphic Design.....	3 ³
ART 305	Advertising Design.....	3 ³
ART 404	Advanced Advertising Design I.....	6 ⁴
ART 405	Advanced Advertising Design II.....	6 ⁴

Required for Visual Communications majors
concentrating in applied photography:

Photography elective.....		3 ³
ART 311	Applied Photography.....	3 ³
ART 410	Advanced Applied Photography I.....	6 ⁴
ART 411	Advanced Applied Photography II.....	6 ⁴

Within the College

Related Work

Art History courses.....	9 ¹⁻⁴
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ELECTIVES

Electives

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

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

DEGREE: BACHELOR OF FINE ARTS

MAJOR: FINE ARTS

CURRICULUM

CREDITS*

UNIVERSITY REQUIREMENTS

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

COLLEGE REQUIREMENTS

Skill Requirements

Writing.....	3 ^{3,4}
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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 stu-

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

Mathematics:

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

or

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

or

One of the following:

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

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

Group A.....	12 ¹⁻⁴
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Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.

Group B.....	9 ¹⁻⁴
--------------	------------------

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

Group C.....	9 ¹⁻⁴
--------------	------------------

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

Group D.....	10 ¹⁻⁴
--------------	-------------------

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

MAJOR REQUIREMENTS

Within the Department‡

Foundations

ART 110	Foundation I Drawing.....	3 ¹
ART 111	Foundation I Design.....	3 ¹
ART 112	Foundation II Drawing.....	3 ¹

One required course selected from 2-D study:

ART 122	Illustration I.....	3 ¹
ART 140	Introduction to Printmaking.....	3 ¹
ART 234	Painting I.....	3 ¹
ART 244	Photography I.....	3 ¹

One required course selected from 3-D study:

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

*Core***

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

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

ART Studio Major.....	18 ¹⁻⁴
ART Studio Minor.....	9 ¹⁻⁴
Art Department Electives.....	12 ¹⁻⁴
B.F.A. Senior Exhibition.....	0 ⁴

*Superior figures indicate year or years in which the course is normally taken, i.e., ¹freshman year, ²sophomore 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 26.

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

‡NOTE: 60 credit hours minimum Art Department courses; 80 credit hours maximum Art Department courses; all grades in art must be C or better.

Within the CollegeArt History courses 12^{1,4}**ELECTIVES***Electives*

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

CREDITS TO TOTAL A MINIMUM OF 126

REQUIREMENTS FOR A MINOR IN ART

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

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

ART HISTORY

Art history is primarily concerned with the historical development of ideas and institutions as expressed in the tangible language of art throughout the ages. The Department offers courses in nearly every area of art history, but its faculty has special expertise in various areas of American and European painting, photography, sculpture, and architecture from antiquity to the present. The faculty of the Department also collaborate with the general research and vocational objectives of the Winterthur Program in Early American Culture and the Department of Art Conservation. Visits to the nearby Winterthur Museum, which houses one of the largest and most comprehensive collections of early American arts, and to various other museums between New York and Washington are scheduled in connection with many art history courses. The University Gallery houses a collection of original works of art and offers internship, research, and exhibition opportunities for students. Advanced students may draw upon the departmental slide and photograph collections, including the Wayne Andrews photographic archive of American architecture and the Index of American Sculpture. Morris Library houses unique research materials, such as the Albert Pinkham Ryder Archive and a collection of rare books on Italian Futurism.

Art history majors holding the B.A. degree may enter positions in businesses that are art related, education, museums, art galleries, historic preservation, fine arts and slide librarianship, state and national arts and humanities agencies, art book and magazine publishing, art journalism, and various posts connected with architecture and the decorative arts. Additional study on the graduate level prepares students for professional careers in the fields of college teaching, museums, historic preservation, librarianship, and research.

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

**DEGREE: BACHELOR OF ARTS
MAJOR: ART HISTORY****CURRICULUM**

CREDITS*

UNIVERSITY REQUIREMENTS

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

COLLEGE REQUIREMENTS*Skill Requirements*

<i>Writing:</i>	3 ^{3,4}
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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 ^{1,4}
--------------------------------	---------------------

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

Mathematics:

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

or

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

or

One of the following:

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

or

Successful performance on the college proficiency exam.

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

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

Breadth Requirements† (See page 80)

<i>Group A</i>	12 ¹⁻⁴
Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.	
<i>Group B</i>	12 ¹⁻⁴
The study of culture and institutions over time. Twelve credits representing at least two areas.	
<i>Group C</i>	12 ¹⁻⁴
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.	
<i>Group D</i>	13 ¹⁻⁴
The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory.	

MAJOR REQUIREMENTS**Within the Department**

ARTH 153 Introduction to Art History I.....	3 ¹
ARTH 154 Introduction to Art History II.....	3 ¹
Fifteen credits at the 200 level or above distributed as follows:.....	15 ²⁻⁴
a. Ancient.....	3 ²⁻⁴
b. Medieval (including Northern Renaissance).....	3 ²⁻⁴
c. Renaissance.....	3 ²⁻⁴
d. Baroque or 18th Century.....	3 ²⁻⁴
e. Modern.....	3 ²⁻⁴
ARTH 301 Research and Methodology in Art History.....	3 ³
Art History Seminar.....	3 ³⁻⁴
Art History courses above 100-level.....	6 ¹⁻⁴

Within the College

Fifteen credits of related work as follows:.....	15 ¹⁻⁴
ENGL 202 Biblical and Classical Literature.....	3 ¹⁻⁴
Any adviser-approved 200- or 300-level History course.....	3 ¹⁻⁴

Nine credits, with the adviser's approval, from appropriate courses in the following areas: American Studies, Anthropology, Studio Art, Education, English, History, Foreign Languages and Literatures (other than that used to satisfy the College's foreign language requirement), Music and Philosophy. A second History course, a Studio Art course, and a foreign language literature course are recommended.

ELECTIVES*Electives*

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

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

REQUIREMENTS FOR THE MINOR IN ART HISTORY

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

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

ASTRONOMY

(See Physics and Astronomy)

BIOLOGICAL SCIENCES

(See School of Life and Health Sciences)

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

CHEMISTRY AND BIOCHEMISTRY

Chemists are concerned with matter and its properties: composition, structure, and reactions. The methods and techniques of chemistry are broadly applicable in many areas of science and engineering. Familiarity with the many chemicals in common use is becoming more and more necessary for the nonchemists who are concerned with public policy. Because of the central position of chemistry in the sciences, it covers areas from the fundamental to the applied and allows strong interactions with areas as diverse as physics, mathematics, biology, geology, computer science, business, economics, chemical engineering, criminal justice, art history, medicine, and marine studies.

Chemists are working in research, product development, medicine, pollution control, sales, technical service, technical libraries, and industrial management. Graduate work or other specialized studies are necessary for certain types of work. Because of the large number of elective credits in the chemistry and biochemistry curricula, it is possible to arrange a course of study that will include work in another area of interest in order to broaden the student's education or more precisely fit the student for the specific career in view.

The department has extensive equipment and space for research, and advanced undergraduates are encouraged to undertake research with graduate students under the supervision of the faculty. There is an active chapter of the Student Affiliates of the American Chemical Society, which has technical and social functions during the year. Undergraduate research often leads to publication, and seniors frequently present the results of their

†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.

research at the annual Intercollegiate Student Chemists Convention. The department has a vigorous graduate teaching and research program and an active seminar program with many notable visiting speakers. Seminars are generally open to undergraduates.

DEGREE: BACHELOR OF ARTS**MAJOR: CHEMISTRY****CURRICULUM****CREDITS*****UNIVERSITY REQUIREMENTS**

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

COLLEGE REQUIREMENTS*Skill Requirements*

Writing:	3 ^{3,4}
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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 ¹⁻⁴
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Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Mathematics:

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

or

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

or

One of the following:

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

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

Group A	12 ¹⁻⁴
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Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.

Group B	12 ¹⁻⁴
---------	-------------------

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

Group C	12 ¹⁻⁴
---------	-------------------

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

Group D	13 ¹⁻⁴
---------	-------------------

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

MAJOR REQUIREMENTS**Within the Department**

CHEM 103 General Chemistry	4 ¹
CHEM 104 General Chemistry	4 ¹
CHEM 220 Quantitative Analysis	3 ²
CHEM 221 Quantitative Analysis Laboratory	1 ²

or

CHEM 111 General Chemistry	3
CHEM 112 General Chemistry	3
CHEM 119 Quantitative Chemistry I	2
CHEM 120 Quantitative Chemistry II	3

CHEM 321 Organic Chemistry	3 ²
CHEM 325 Organic Chemistry Laboratory	1 ²
CHEM 322 Organic Chemistry	3 ²
CHEM 326 Organic Chemistry Laboratory	1 ²

or

CHEM 331 Organic Chemistry	3
CHEM 333 Organic Chemistry Laboratory I	2
CHEM 332 Organic Chemistry	3
CHEM 334 Organic Chemistry Laboratory II	2

CHEM 437 Instrumental Methods	3 ³
CHEM 438 Instrumental Methods Laboratory	1 ³

CHEM 418 Introductory Physical Chemistry	3 ³
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CHEM 419 Introductory Physical Chemistry	3 ³
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CHEM 445 Physical Chemistry Laboratory	1 ³
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or

CHEM 443 Physical Chemistry	3
CHEM 444 Physical Chemistry	3
CHEM 445 Physical Chemistry Laboratory	1

One of the following eight courses:

CHEM 457 Inorganic Chemistry	3 ^{3,4}
CHEM 527 Introductory Biochemistry	3 ^{3,4}
CHEM 620 Analytical Spectroscopy	3 ⁴
CHEM 622 Electroanalytical Chemistry	3 ⁴
CHEM 633 Advanced Organic Chemistry	3 ⁴
CHEM 634 Advanced Organic Chemistry	3 ⁴

Within the College*Related Work**Mathematics*

MATH 221 Calculus I	3 ¹⁻⁴
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or

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

PHYS 201 General Physics	4 ¹⁻⁴
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PHYS 202 General Physics	4 ¹⁻⁴
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or

PHYS 207 General Physics	4
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PHYS 208 General Physics	4
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ELECTIVES*Electives*

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

CREDITS TO TOTAL A MINIMUM OF 124

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

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

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

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

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

COLLEGE REQUIREMENTS*Skill Requirements*

<i>Writing:</i>	3 ^{3,4}
-----------------------	------------------

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 ¹⁻⁴
--------------------------------	---------------------

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

Mathematics:

MATH 114 Elementary Mathematics and Statistics	3 ¹
--	----------------

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

or

MATH 115 Pre-Calculus	3
-----------------------------	---

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

or

One of the following:

MATH 221 Calculus I	3
---------------------------	---

MATH 241 Analytic Geometry and Calculus A	4
---	---

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

<i>Group A</i>	12 ¹⁻⁴
----------------------	-------------------

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

<i>Group B</i>	12 ¹⁻⁴
----------------------	-------------------

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

<i>Group C</i>	12 ¹⁻⁴
----------------------	-------------------

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

<i>Group D</i>	13 ¹⁻⁴
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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**

(30 credits)

CHEM 111 General Chemistry	3 ¹
CHEM 112 General Chemistry	3 ¹
CHEM 119 Quantitative Chemistry I	2 ¹
CHEM 120 Quantitative Chemistry II	3 ¹

or	
CHEM 103 General Chemistry	4 ¹
CHEM 104 General Chemistry	4 ¹
CHEM 220 Quantitative Analysis	3 ^{2,3}
CHEM 221 Quantitative Analysis Laboratory	1 ^{2,3}
CHEM 213 Elementary Organic Chemistry	4 ^{2,3}

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

or	
CHEM 331 Organic Chemistry	3
CHEM 332 Organic Chemistry	3
CHEM 333 Organic Chemistry Laboratory I	2
CHEM 437 Instrumental Methods	3 ^{3,4}
CHEM 438 Instrumental Methods Laboratory	1 ^{3,4}
CHEM 418 Introductory Physical Chemistry	3 ^{3,4}
CHEM 445 Physical Chemistry Laboratory	1 ^{3,4}

or	
CHEM 443 Physical Chemistry	3
CHEM 445 Physical Chemistry Laboratory	1
CHEM 214 Elementary Biochemistry	3 ^{2,4}
CHEM 216 Elementary Biochemistry Laboratory	1 ^{2,4}
Chemistry courses selected with consent of adviser	0-4 ^{1,4}

Within the College*Related Work*

BISC 207 Introductory Biology I	4 ^{1,4}
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GEOL 105 General Geology	4 ^{1,4}
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MATH 221 Calculus I	3 ^{1,4}
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MATH 222 Calculus II	3 ^{1,4}
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or	
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MATH 241 Analytic Geometry and Calculus A	4
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MATH 242 Analytic Geometry and Calculus B	4
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PHYS 201 General Physics	4 ^{1,4}
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or	
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PHYS 207 General Physics	4
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PHYS 202 General Physics	4 ^{1,4}
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or	
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PHYS 208 General Physics	4
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Professional Studies

(23 credits)

EDST 201 Education and Society	3 ^{1,4}
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EDST 304 Educational Psychology – Social Aspects	3 ^{1,4}
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EDST 305 Educational Psychology – Cognitive Aspects	3 ^{2,4}
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SCEN 491 Science Materials and Approaches	4 ⁴
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EDST 420 Reading in the Content Areas	1 ^{1,4}
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EDDV 400 Student Teaching	9 ⁴
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CREDITS TO TOTAL A MINIMUM OF..... 124

DEGREE: BACHELOR OF SCIENCE**MAJOR: CHEMISTRY****CURRICULUM****CREDITS*****UNIVERSITY REQUIREMENTS**

ENGL 110 Critical Reading and Writing	3 ¹
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Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content.#	3 ¹⁻⁴
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*Superior figures indicate year or years in which the course is normally taken, i.e., ¹freshman year, ²sophomore year, etc.

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

†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^{3,4}

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^{1,4}
Completion of the intermediate-level course (107 or 112) in a modern foreign language. Students with four or more years of high school work in a single modern foreign language may attempt to fulfill the requirement in that language by taking an exemption examination. (German recommended)

Breadth Requirements† (See page 80)

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

Group A

Understanding and appreciation of the creative arts and humanities.

Group B

The study of culture and institutions over time.

Group C

Empirically based study of human beings and their environment.

MAJOR REQUIREMENTS

Within the Department

CHEM 111	General Chemistry	3 ¹
CHEM 119	Quantitative Chemistry I	2 ¹
CHEM 112	General Chemistry	3 ¹
CHEM 120	Quantitative Chemistry II	3 ¹
CHEM 331	Organic Chemistry	3 ²
CHEM 333	Organic Chemistry Laboratory I	2 ²
CHEM 332	Organic Chemistry	3 ²
CHEM 334	Organic Chemistry Majors Laboratory II	2 ²
CHEM 443	Physical Chemistry	3 ³
CHEM 445	Physical Chemistry Laboratory	1 ³
CHEM 437	Instrumental Methods	3 ³
CHEM 438	Instrumental Methods Laboratory	1 ³
CHEM 527	Introductory Biochemistry	3 ³

or

CHEM 641	Biochemistry	3
CHEM 444	Physical Chemistry	3 ³
CHEM 446	Physical Chemistry Laboratory	1 ³
CHEM 457	Inorganic Chemistry	3 ³
CHEM 458	Inorganic Chemistry Laboratory	1 ³
CHEM 465	Seminar (two semesters)	2 ⁴
Advanced Chemistry course at 600 level or higher		3 ^{3,4}
CHEM 468	Undergraduate Research (optional)	3 ^{3,4}

Within the College*Related Work*

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

or

PHYS 201	General Physics	4 ²
PHYS 202	General Physics	4 ²

ELECTIVES

Electives

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

CREDITS TO TOTAL A MINIMUM OF 128

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

**DEGREE: BACHELOR OF SCIENCE
MAJOR: BIOCHEMISTRY**

CURRICULUM

CREDITS*

UNIVERSITY REQUIREMENTS

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

COLLEGE REQUIREMENTS

Skill Requirements

Writing: 3^{3,4}

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^{1,4}
Completion of the intermediate-level course (107 or 112) in a modern foreign language. Students with four or more years of high school work in a single modern foreign language may attempt to fulfill the requirement in that language by taking an exemption examination. (German recommended)

Breadth Requirements† (See page 80)

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

Group A

Understanding and appreciation of the creative arts and humanities.

Group B

The study of culture and institutions over time.

Group C

Empirically based study of human beings and their environment.

MAJOR REQUIREMENTS

Within the Department

CHEM 111	General Chemistry	3 ^{1F}
CHEM 112	General Chemistry	3 ^{1S}
CHEM 119	Quantitative Chemistry I	2 ^{1F}
CHEM 120	Quantitative Chemistry II	3 ^{1S}
CHEM 331	Organic Chemistry	3 ^{2F}

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

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

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

CHEM 333 Organic Chemistry Laboratory I.....	2 ^{2F}
CHEM 332 Organic Chemistry.....	3 ^{2S}
CHEM 334 Organic Chemistry Majors Laboratory II.....	2 ^{2S}
CHEM 342 Introduction to Biochemistry.....	3 ^{2S}
CHEM 310 Computers in Chemistry (Recommended).....	3 ³
CHEM 418 Introductory Physical Chemistry.....	3 ^{3F}
or	
CHEM 443 Physical Chemistry.....	3 ^{3F}
CHEM 437 Instrumental Methods.....	3 ³
CHEM 438 Instrumental Methods.....	1 ³
CHEM 641 Biochemistry.....	3 ^{3F}
CHEM 419 Introductory Physical Chemistry.....	3 ^{3S}
or	
CHEM 444 Physical Chemistry.....	3 ^{3S}
CHEM 445 Physical Chemistry Laboratory.....	1 ^{3S}
CHEM 642 Biochemistry.....	3 ^{3S}
Advanced Chemistry or Biochemistry course at 600 level.....	3 ⁴
Advanced Biochemistry courses at 600 level.....	6 ⁴
or	
Biology courses selected from the following:.....	6-8 ⁴
BISC 301 Molecular Biology of the Cell (4).....	
BISC 303 Genetic and Evolutionary Biology (4).....	
BISC 601 Immunochimistry (4).....	
BISC 604 Recombinant DNA Laboratory (4).....	
BISC 654 Biochemical Genetics (3).....	
BISC 679 Virology (3).....	
BISC 698 Comparative Endocrinology (3).....	
CHEM 465 Seminar (two semesters).....	2 ⁴
CHEM 468 Undergraduate Research.....	6 ⁴
or	
Biology laboratory courses selected from the following:.....	8 ⁴
BISC 303 Genetic and Evolutionary Biology (4).....	
BISC 306 General Physiology (4).....	
BISC 371 Introduction to Microbiology (4).....	
BISC 601 Immunochimistry (4).....	

Within the College*Related Work*

MATH 241 Analytic Geometry and Calculus A.....	4 ^{1F}
or	
MATH 221 Calculus I.....	3 ^{1F}
MATH 242 Analytic Geometry and Calculus B.....	4 ^{1S}
or	
MATH 222 Calculus II.....	3 ^{1S}
BISC 207 Introductory Biology I.....	4 ^{1S}
BISC 208 Introductory Biology II.....	4 ^{2F}
PHYS 201 General Physics.....	4 ^{2F}
PHYS 202 General Physics.....	4 ^{2S}

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:

CHEM 103, 104, (or 111,112,119).....	Credits 8
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Any three of the following:

CHEM 220, 221 (or 437, 438).....	4
CHEM 321, 325 (or 331, 333).....	4-5
CHEM 457, 458.....	4
CHEM 418, 445 (or 443, 445).....	4
CHEM 527 or 641.....	3

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

COMMUNICATION

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

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

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

Students who major in communication will plan with their assigned faculty adviser a program of courses, satisfactory to the department, leading to the degree of Bachelor of Arts. Further information may be obtained from the department.

DEGREE: BACHELOR OF ARTS**MAJOR: COMMUNICATION****CONCENTRATION: INTERPERSONAL/ORGANIZATIONAL COMMUNICATION****CURRICULUM CREDITS*****UNIVERSITY REQUIREMENTS**

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

COLLEGE REQUIREMENTS*Skill Requirements*

Writing.....	3 ^{3,4}
A writing course involving significant writing experience including two papers with a combined minimum of 3,000	

*Superior figures indicate semester (fall or spring) and/or years in which the course is normally taken, i.e., ^{1F}fall of freshman year, ^{2S}spring of sophomore year, etc.
#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 26.

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: 0-12¹⁴
Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Mathematics:
MATH 114 Elementary Mathematics and Statistics 3¹
(designed for students who do not intend to continue the study of mathematics)

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

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

or
Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

Group A 12¹⁴
Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.

Group B 12¹⁴
The study of culture and institutions over time. Twelve credits representing at least two areas.

Group C 12¹⁴
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.

Group D 13¹⁴
The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory.

MAJOR REQUIREMENTS

Within the Department

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

COMM 245 Mass Communication and Culture† 3^{1S}
COMM 256 Principles of Communication Theory† 3^{1F}
COMM 301 Introduction to Communication Inquiry† 3^{2S}
COMM 330 Communication and Social Behavior† 3^{2F}
COMM 350 Public Speaking 3^{3,4}
COMM 361 Interpersonal Communication 3^{3F}
COMM 417 Communication and the Management of Conflict 3^{3S}
COMM 455 Symbolism in Organizations 3^{4S}
COMM 456 Communication in Organizations 3^{4F}
One additional 400-level COMM course, not COMM 466 or 3^{3,4}
COMM 464, outside your concentration.

Six to 15 COMM elective credits 6-15^{3,4}
for a total of not less than 36 nor more than 45 COMM credits. These may be taken from the other concentrations or from the following:

Interpersonal/Organizational Communication Electives

COMM 200 Introduction to Human Communication Systems 3
COMM 251 The Development of Verbal Communication 3
COMM 320 Analysis of Intercultural Communication 3

COMM 356 Small Group Communication 3
COMM 438 Speech and Language in Human Behavior 3
COMM 440 Topics in Interpersonal and Organizational Communication 3
COMM 452 Communication, Power and Values 3
COMM 485 Analysis of Verbal Communication 3

Mass Communication Electives

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

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

Public Relations Electives

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

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

General Electives

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

ELECTIVES

Electives

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

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

DEGREE: BACHELOR OF ARTS

MAJOR: COMMUNICATION

CONCENTRATION: MASS COMMUNICATION

CURRICULUM

CREDITS*

UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing 3¹
Three credits in an approved course or courses stressing 3¹⁴
multicultural, ethnic, and/or gender-related content.#

COLLEGE REQUIREMENTS

Skill Requirements

Writing: 3^{3,4}

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: 0-12¹⁴
Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

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

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

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

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

Mathematics:

MATH 114 Elementary Mathematics and Statistics 3¹
(designed for students who do not intend to continue the study of mathematics)

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

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

or
Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

Group A 12¹⁻⁴
Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.

Group B 12¹⁻⁴
The study of culture and institutions over time. Twelve credits representing at least two areas.

Group C 12¹⁻⁴
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.

Group D 13¹⁻⁴
The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory.

MAJOR REQUIREMENTS**Within the Department**

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

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

Six to 15 COMM elective credits 6-15^{3,4}
for a total of not less than 36 nor more than 45 COMM credits. These may be taken from the other concentrations or from the following:

Interpersonal/Organizational Communication Electives

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

Mass Communication Electives

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

COMM 325 Television Production 3
COMM 388 TV Production Practicum 3

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

Public Relations Electives

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

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

General Electives

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

ELECTIVES**Electives**

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

CREDITS TO TOTAL A MINIMUM OF 124

COMPUTER AND INFORMATION SCIENCES

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

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

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

†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.

DEGREE: BACHELOR OF ARTS
MAJOR: COMPUTER AND INFORMATION SCIENCES

CURRICULUM	CREDITS*
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UNIVERSITY REQUIREMENTS

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

COLLEGE REQUIREMENTS
Skill Requirements

Writing:	3 ^{3,4}
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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 ¹⁻⁴
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Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Breadth Requirements† (See page 80)

Group A:	12 ¹⁻⁴
Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.	

Group B:	12 ¹⁻⁴
The study of culture and institutions over time. Twelve credits representing at least two areas	

Group C:	12 ¹⁻⁴
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.	

Group D:	13 ¹⁻⁴
The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory.	

MAJOR REQUIREMENTS
Within the Department

CISC 180 Introduction to Computer Science I	3 ¹
CISC 181 Introduction to Computer Science II	3 ¹
CISC 220 Data Structures	3 ²
CISC 260 Machine Organization and Microcomputers	3 ²
Eighteen credits of Computer Science numbered 301 or above, approved by the student's adviser.	18

Within the College

MATH 210 Discrete Mathematics I	3 ¹
MATH 241 Analytic Geometry and Calculus A	4 ¹
MATH 315 Discrete Mathematics II	3 ²

ELECTIVES
Electives

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

CREDITS TO TOTAL A MINIMUM OF	124
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DEGREE: BACHELOR OF SCIENCE
MAJOR: COMPUTER AND INFORMATION SCIENCES

CURRICULUM	CREDITS*
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UNIVERSITY REQUIREMENTS

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

COLLEGE REQUIREMENTS
Skill Requirements

Writing:	3 ^{3,4}
----------------	------------------

A writing course involving significant writing experience including two papers with a combined minimum of 3,000 words to be submitted for extended faculty critique of both composition and content. This course must be taken in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

Breadth Requirements† (See page 80)

Six credits from each of the following groups	18 ¹⁻⁴
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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

CISC 180 Introduction to Computer Science I	3 ¹
CISC 181 Introduction to Computer Science II	3 ¹
CISC 220 Data Structures	3 ²
CISC 260 Machine Organization and Microcomputers	3 ²
CISC 310 Logic and Programming	3 ³
CISC 320 Algorithms and Advanced Programming	3 ³
CISC 360 Computer Architecture	3 ³
CISC 361 Operating Systems	3 ³
CISC 471 Compiler Design	3 ⁴

CISC Electives	9 ¹⁻⁴
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Nine credits of Computer Science numbered 301 or above, approved by the student's adviser.

CISC Concentration	12 ¹⁻⁴
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Twelve credits in advanced courses in an adviser-approved concentration. Students are encouraged to explore how other subject areas impact and are impacted by computer science. An approval form signed by the CISC adviser is required.

Within the College
Related Work

MATH 210 Discrete Mathematics I	3 ¹
MATH 241 Analytic Geometry and Calculus A	4 ¹
MATH 315 Discrete Mathematics II	3 ²
STAT 205 Statistical Methods	4 ²
ENGL 312 Written Communications in Business	3 ³

OR

ENGL 410 Technical Writing	3 ³
CSCC 355 Computers, Ethics and Society	3 ³

One of the following sequences of laboratory science courses:

PHYS 207 General Physics	4 ¹⁻³
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*Superior figures indicate year or years in which the course is normally taken, i.e., ¹freshman year, ²sophomore year, etc.

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

†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.

PHYS 208	General Physics	4 ¹⁻³
or		
CHEM 103	General Chemistry	4 ¹⁻³
CHEM 104	General Chemistry	4 ¹⁻³
or		
BISC 207	Introductory Biology I	4 ¹⁻³
BISC 208	Introductory Biology II	4 ¹⁻³
or		
GEOL 106	General Geology	4 ¹⁻³
GEOL 107	General Geology	4 ¹⁻³
Within the University		
ELEG 202	Introduction to Digital Systems	4 ²

ELECTIVES*Electives*

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

CREDITS TO TOTAL A MINIMUM OF 124

REQUIREMENTS FOR A MINOR IN COMPUTER SCIENCE

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

ECONOMICS

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

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

Economics is often confused with business administration. Economics and business administration courses both deal with the production and distribution of materi-

al goods and services. Both are concerned with business firms, with industrial organizations, and with governmental policies affecting such matters. They differ sharply, however, in both the methodology and viewpoint taken in these studies. Whereas, quite properly, the point of view of most business administration courses is that of the business firm and its well-being, the point of view of economics courses is that of society and society's economic well-being. Economics focuses on the question of how individuals in society can improve their material well-being and society can achieve its economic goals.

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

Both a Bachelor of Arts and Bachelor of Science degree are available to students enrolled in the College of Business and Economics. The group and language (Bachelor of Arts) or quantitative proficiency (Bachelor of Science) requirements for students enrolled in the College of Business and Economics are described below in addition to the concentration and related work requirements that apply to all economics majors.

A minor program in economics is also available.

Students majoring in economics will be advised by the faculty of the Department of Economics within the College of Business and Economics.

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

CURRICULUM CREDITS*

UNIVERSITY REQUIREMENTS

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

COLLEGE REQUIREMENTS*Skill Requirements*

Writing:	3 ^{3,4}
----------	------------------

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 ¹⁻⁴
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Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Mathematics:

MATH 114 or 170	Elementary Mathematics and Statistics	3 ¹
(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., ¹freshman year, ²sophomore year, etc.

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

MATH 115 or 171 Pre-Calculus 3
(designed for students who intend to continue the study of mathematics)
or

One of the following:

MATH 221 Calculus I 3

MATH 241 Analytic Geometry and Calculus A 4

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

Group A 12¹⁻⁴

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

Group B 12¹⁻⁴

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

Group C 12¹⁻⁴

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

Group D 13¹⁻⁴

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

MAJOR REQUIREMENTS

Within the Department

ECON 151 Introduction to Microeconomics 3¹

ECON 152 Introduction to Macroeconomics 3¹

ECON 302 Money, Credit and Banking 3²⁻⁴

ECON 401 Intermediate Microeconomic Theory 3²⁻⁴

ECON 402 Intermediate Macroeconomic Theory 3¹⁻⁴

Six Economics courses, three of which are at or above the 400 level 18¹⁻⁴

Within the College

STAT 201 Introduction to Statistics I 3¹⁻⁴

or

STAT 370 Introduction to Statistical Analysis I 3

STAT 202 Introduction to Statistics II 3¹⁻⁴

or

STAT 371 Introduction to Statistical Analysis II 3

Nine credits chosen from any 300-level or higher course in

Accounting, Anthropology, Business Administration, Computer Science, Geography, History, Mathematics, Philosophy, Political Science, Psychology, Sociology and Statistics. Also acceptable are ACCT 207/208 and any 200-level Mathematics course. 9¹⁻⁴

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

Certain corresponding courses offered at different levels or difficulty will not be counted toward a degree if taken in reverse order of difficulty. These corresponding courses include ECON 311 and EC 411; ECON 332 and ECON 433; ECON 340 and ECON 443; ECON 360 and ECON 461 or ECON 463; and ECON 381 and ECON 483. In addition, students may take these courses in order of difficulty only by rare exception and approval from the department chair.

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

DEGREE: BACHELOR OF ARTS MAJOR: ECONOMICS EDUCATION

CURRICULUM

CREDITS*

UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing 3¹

Three credits in an approved course or courses stressing 3¹⁻⁴
multicultural, ethnic, and/or gender-related content.#

COLLEGE REQUIREMENTS

Skill Requirements

Writing: 3^{3,4}

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: 0-12¹⁻⁴

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

Mathematics:

MATH 114 or 170 Elementary Mathematics and Statistics 3¹

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

or

MATH 115 or 171 Pre-Calculus 3

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

or

One of the following:

MATH 221 Calculus I 3

MATH 241 Analytic Geometry and Calculus A 4

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

Group A 12¹⁻⁴

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

Group B 12¹⁻⁴

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

Group C 12¹⁻⁴

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

Group D 13¹⁻⁴

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

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

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

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

MAJOR REQUIREMENTS**Within the Department**

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

Within the College

STAT 201	Introduction to Statistics I	3 ¹⁻⁴
or		
STAT 370	Introduction to Statistical Analysis I	3
STAT 202	Introduction to Statistics II	3 ¹⁻⁴
or		
STAT 371	Introduction to Statistical Analysis II	3
PSYC 201	General Psychology	3 ¹⁻⁴
Fifteen credits in the following social sciences with at least three credits in each department: Anthropology, Geography, History, Political Science, International Relations, and Sociology.		15 ¹⁻⁴

Professional Studies

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

CREDITS TO TOTAL A MINIMUM OF 124

ENGLISH

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

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

The English Department at the University is fortunate to have a faculty consisting of over fifty full-time individuals who have distinguished themselves in teaching, scholarship, and creative writing. The faculty includes literary critics, editors, members of editorial

boards, consultants, reviewers for publishers and journals, poets, and fiction writers. Almost all faculty work with both undergraduate and graduate students, and many of the faculty have won University teaching awards for superior teaching. Since most classes have fewer than 35 students, the faculty is easily accessible for consultation. Although all literary periods and genres are well represented, the regular faculty is exceptionally strong in modernist and American literature, new cultural studies of literature, and creative writing.

The regular faculty is augmented by visiting distinguished professors such as Pulitzer Prize winner James Wright, novelist Angus Wilson, eminent Shakespearean Derek Traversi, and internationally known scholar and critic David Daiches. The department regularly offers a series of creative writing courses both comprehensive and tailored to individual student needs. Courses in writing poetry and fiction are available at all levels, and the department publishes a literary magazine called *Caesura*. In addition, scholarly journals edited in the department include *The Journal of Irish Literature*, *George Spelvin's Theatre Book*, and *The D.H. Lawrence Review*.

The department sponsors every year a series of creative writers and scholars who give readings and lectures on campus and spend a period of time with undergraduate students. Department faculty also offer colloquia to which all undergraduates are invited and in which the faculty discuss their own research projects and the work in which they are engaged. In conjunction with the University Honors Program, the department offers opportunities for undergraduate students to conduct research under the supervision of regular faculty. Outstanding students are also eligible to join Sigma Tau Delta, the national English honor society. Finally, the students give poetry and fiction readings, both with the faculty and by themselves.

The English Department has a widely varied undergraduate program. In the undergraduate literary and cultural studies major, students can study literature in English from Britain, America, and around the world. Undergraduates may elect concentrations in journalism, film, or business/technical writing, or, if they meet the admission requirements, may elect the program in English education. Journalism concentrators undergo intensive training in written journalism and serve on the staff of the University newspaper, *The Review*, in connection with their study. A number of undergraduate journalism concentrators also gain internship experience with local newspapers, TV stations, and other organizations. The film concentration includes courses in history and theory of film as well as film and literature, Black 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: ENGL 200, 204, 210, 301, and 365. ENGL 307, 308, 309, 310, 407, and 409 may be counted only as part of the journalism concentration; ENGL 312, 410, 411, 412, 413, 414, and 464 may be counted only as part of the concentration in business/technical writing; and ENGL 384 may be counted only as part of the concentration in English education.

DEGREE: BACHELOR OF ARTS

MAJOR: ENGLISH

CURRICULUM

CREDITS*

UNIVERSITY REQUIREMENTS

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

COLLEGE REQUIREMENTS

Skill Requirements

Writing:	3 ^{3,4}
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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 ¹⁻⁴
Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.	

Mathematics:

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

or

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

or

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

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

Group A:	12 ¹⁻⁴
Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.	

Group B:	12 ¹⁻⁴
The study of culture and institutions over time. Twelve credits representing at least two areas.	

Group C:	12 ¹⁻⁴
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.	

Group D:	13 ¹⁻⁴
The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory.	

MAJOR REQUIREMENTS

Within the Department

ENGL 202 Biblical and Classical Literature	3 ¹⁻⁴
ENGL 205 Great English Writers I	3 ¹⁻⁴
ENGL 206 Great English Writers II	3 ¹⁻⁴
ENGL 324 Shakespeare	3 ²⁻⁴
or	
ENGL 424 Studies in Shakespeare	3 ^{3,4}
ENGL 340 American Literature to the Civil War	3 ¹⁻⁴
or	
ENGL 341 American Literature: Civil War to World War II	3 ^{2,3}
Twelve credits at the 300 level or above distributed as follows:	12 ¹⁻⁴
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 300 level	6 ¹⁻⁴
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English courses at or above the 200 level	3 ¹⁻⁴
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All English majors must take at least one ENGL 480 seminar and can count only one 200 level course toward the minimum number of credits for the major.

ELECTIVES

Electives

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

CREDITS TO TOTAL A MINIMUM OF	124
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DEGREE: BACHELOR OF ARTS

MAJOR: ENGLISH

CONCENTRATION: BUSINESS/TECHNICAL WRITING

CURRICULUM

CREDITS*

UNIVERSITY REQUIREMENTS

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

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

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

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

COLLEGE REQUIREMENTS*Skill Requirements**Writing:* 3^{3,4}

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^{1,4}

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

Mathematics:

MATH 114 Elementary Mathematics and Statistics 3¹
(designed for students who do not intend to continue the study of mathematics)

or

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

or

One of the following:

MATH 221 Calculus I 3

MATH 241 Analytic Geometry and Calculus A 4

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)*Group A* 12^{1,4}

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

Group B 12^{1,4}

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

Group C 12^{1,4}

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

Group D 13^{1,4}

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

MAJOR REQUIREMENTS**Within the Department**

ENGL 202 Biblical and Classical Literature 3^{1,4}

ENGL 205 Great English Writers I 3^{1,4}

ENGL 206 Great English Writers II 3^{1,4}

ENGL 324 Shakespeare 3^{2,4}

or

ENGL 424 Studies in Shakespeare 3^{3,4}

ENGL 340 American Literature to the Civil War 3^{2,4}

or

ENGL 341 American Literature: Civil War to World War II 3^{2,3}

Nine credits at the 300 level or above distributed as follows: 9^{1,4}

- 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.

One of the following two courses

ENGL 312 Written Communications in Business 3^{2,4}

ENGL 410 Technical Writing 3^{2,4}

ENGL 411 Rhetoric for Business and Technical Writers 3^{1,4}

ENGL 412 Business and Technical Publication 3^{2,4}

ENGL 464 Internship in Business/Technical Writing 3^{2,4}

Optional:

ENGL 414 Technical Editing 3^{2,4}

or

ENGL 413 Topics in Technical Writing or one other EBT course 3^{2,4}

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

ELECTIVES*Electives*

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

CREDITS TO TOTAL A MINIMUM OF **124**

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

ENGL 110 Critical Reading and Writing 3¹

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

COLLEGE REQUIREMENTS*Skill Requirements**Writing:* 3^{3,4}

A 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^{1,4}

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

Mathematics:

MATH 114 Elementary Mathematics and Statistics 3¹

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

or

MATH 115 Pre-Calculus 3

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

or

One of the following:

MATH 221 Calculus I 3

MATH 241 Analytic Geometry and Calculus A 4

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

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

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

or
Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

<i>Group A</i>	12 ¹⁻⁴
Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.	
<i>Group B</i>	12 ¹⁻⁴
The study of culture and institutions over time. Twelve credits representing at least two areas.	
<i>Group C</i>	12 ¹⁻⁴
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.	
<i>Group D</i>	13 ¹⁻⁴
The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory.	

MAJOR REQUIREMENTS

Within the Department

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

Students concentrating in film must take the following film courses:

ENGL 217	Introduction to Film.....	3 ¹⁻⁴
ENGL 317	Film History.....	3 ¹⁻⁴
ENGL 318	Studies in Film.....	3 ¹⁻⁴
(variable content, may be repeated once)		
ENGL 417	Film Theory and Criticism.....	3 ¹⁻⁴

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

ELECTIVES

Electives

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

CREDITS TO TOTAL A MINIMUM OF 124

DEGREE: BACHELOR OF ARTS MAJOR: ENGLISH CONCENTRATION: JOURNALISM

CURRICULUM

CREDITS*

UNIVERSITY REQUIREMENTS

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

COLLEGE REQUIREMENTS

Skill Requirements

Writing:..... 3^{3,4}

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:..... 0-12¹⁻⁴

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

Mathematics:

MATH 114 Elementary Mathematics and Statistics..... 3¹

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

or

MATH 115 Pre-Calculus..... 3

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

or

One of the following:

MATH 221 Calculus I..... 3

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

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

Group A..... 12¹⁻⁴

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

Group B..... 12¹⁻⁴

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

Group C..... 12¹⁻⁴

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

Group D..... 13¹⁻⁴

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

MAJOR REQUIREMENTS

Within the Department

ENGL 202	Biblical and Classical Literature.....	3 ¹⁻⁴
ENGL 205	Great English Writers I.....	3 ¹⁻⁴
ENGL 206	Great English Writers II.....	3 ¹⁻⁴

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

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

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

ENGL 324 Shakespeare	3 ^{1,4}
or	
ENGL 424 Studies in Shakespeare	3 ^{3,4}
ENGL 340 American Literature to the Civil War	3 ^{1,4}
or	
ENGL 341 American Literature: Civil War to World War II	3 ^{2,3}
Nine credits at the 300 level or above distributed as follows:	9 ^{1,4}
a. A course other than Shakespeare in Medieval or Renaissance literature or a course in literature between 1700 and 1900.	
b. A course in Modern literature or a course in cultural and theoretical studies.	
c. A literature course.	
Prior to enrolling in the following course, ENGL 110 or equivalent must be completed with a grade of B or better.	
ENGL 307 News Writing and Editing	3 ^{1,4}
At least nine credits chosen from among	9 ^{1,4}
the following courses:	
ENGL 308 Reporter's Practicum	3
ENGL 309 Feature and Magazine Writing	3
ENGL 310 Copy Editing and Layout	3
ENGL 407 Advanced Reporting	1-3
ENGL 409 Topics in Journalism	3
May be taken in addition to the 36 required credits in English:	
ENGL 466 Internship	1-6
All EJR majors must take at least one ENGL 480 seminar and can count only one 200 level course toward the minimum number of credits for the major.	

ELECTIVES*Electives*

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

CREDITS TO TOTAL A MINIMUM OF 124

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

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

COLLEGE REQUIREMENTS*Skill Requirements*

<i>Writing:</i>	3 ^{3,4}
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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 ^{1,4}
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Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Mathematics:

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

or

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

or

One of the following:

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

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

<i>Group A</i>	12 ^{1,4}
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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 ^{1,4}
----------------------	-------------------

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

<i>Group C</i>	12 ^{1,4}
----------------------	-------------------

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

<i>Group D</i>	13 ^{1,4}
----------------------	-------------------

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

MAJOR REQUIREMENTS**Within the Department†**

ENGL 202 Biblical and Classical Literature	3 ^{1,4}
ENGL 205 Great English Writers I	3 ^{1,4}
ENGL 206 Great English Writers II	3 ^{1,4}
ENGL 302 Advanced Composition	3 ^{1,4}
ENGL 324 Shakespeare	3 ^{1,4}
ENGL 340 American Literature to the Civil War	3 ^{1,4}
ENGL 341 American Literature: Civil War to World War II	3 ^{1,4}
ENGL 390 Introduction to the English Language	3 ^{1,4}

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

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

All XEE majors must take at least one ENGL 480 seminar.

Within the College

COMM 251, 312, or 350 or THEA 102, 204, 226, or 360	3 ^{1,4}
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One of the following six courses:

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

Professional Studies

EDST 201 Education and Society	3 ^{1,4}
EDST 304 Educational Psychology – Social Aspects	3 ^{1,4}
EDST 305 Educational Psychology – Cognitive Aspects	3 ^{1,4}
EDDV 403 Adolescent Literature	3
ENGL 383 Teaching Composition in Secondary School	3 ⁴

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

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

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

ENGL 384	Teaching English in Secondary School	3 ¹⁴
ENGL 481	Seminar in Teaching English	3 ⁴
EDDV 400	Student Teaching	9 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

REQUIREMENTS FOR OTHER PROGRAMS IN ENGLISH

The English Department also offers a program leading to a minor in English. The course of study for the English minor includes ENGL 202, 205, 206, 324 and two additional courses in literature and composition above the 200 level. One course must be in British/World Literature, and one course must be in American Literature, Cultural and Theoretical Studies. By earning 15 credits in recommended courses at or above the 300 level, a student may minor in Irish Studies. Required courses include ENGL 351 and HIST 373. A student may also minor in Medieval Studies.

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

FOREIGN LANGUAGES AND LITERATURES

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

To prepare students to speak, understand, read and write the language they are studying, the Department of Foreign Languages and Literatures uses proficiency-oriented communicative approaches to language learning. Many of the elementary/intermediate courses are team taught, and there are special programs for students at this level who want to continue their language/culture

study abroad. A high-tech Foreign Language Media Center is available for the use of students and faculty.

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

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

COLLEGE REQUIREMENTS

Skill Requirements

<i>Writing:</i>	3 ^{3,4}
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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 ¹⁻⁴
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Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Mathematics:

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

or

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

or

One of the following:

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

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

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

<i>Group C</i>	12 ¹⁻⁴
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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 ¹⁻⁴
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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

ARSC 360 Humanities Colloquium	3 ¹⁻⁴
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GREK 101 Elementary Greek	3 ¹⁻⁴
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GREK 102 Elementary Greek	3 ¹⁻⁴
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Twelve credits in Greek and Latin above the 100 level with	12 ¹⁻⁴
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six credits at or above the 300 level, and at least three credits in each language.

FLLT 316 Classical Mythology	3 ¹⁻⁴
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FLLT 322 Topics: Classical Literature in Translation	6 ¹⁻⁴
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Within the College

Six credits from 200-, 300-, or 400-level courses (including	6 ¹⁻⁴
--	------------------

courses in translation) in Foreign Languages and

Literatures, Comparative Literature, Linguistics, or other departments, 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
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DEGREE: BACHELOR OF ARTS

MAJOR: HISTORY/CLASSICS

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

MAJOR REQUIREMENTS

Within the Department of History

HIST 101 Western Civilization to 1648	3 ¹⁻⁴
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HIST 102 Western Civilization: 1648 to the Present	3 ¹⁻⁴
--	------------------

Five 300-level courses, at least two of which must deal with	15 ¹⁻⁴
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countries that use the chosen foreign language	3 ¹⁻⁴
--	------------------

History seminar at the 400-level or above	3 ¹⁻⁴
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(excluding HIST 491 and 493 and Independent Study)

Within the Department of Foreign Languages and Literatures

Civilization: Two classical civilization (or culture) courses:

e.g., FLLT 202 (Biblical and Classical Literature)

and FLLT 316 (Mythology)	6 ¹⁻⁴
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*Superior figures indicate year or years in which the course is normally taken, i.e., ¹freshman year, ²sophomore year, etc.

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

†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.

Literature: Either 9 credits of Latin at the 200-level or above
and 3 credits of Latin at the 300-level or above, OR
GREK 213 and GREK 214 and 6 credits of Latin at the
200-level or above. 12¹⁻⁴
6 credits of Latin at the 200 level or above. 6¹⁻⁴

DEGREE: BACHELOR OF ARTS MAJOR: CLASSICS EDUCATION

CURRICULUM

CREDITS*

UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing 3¹
Three credits in an approved course or courses stressing
multicultural, ethnic, and/or gender-related content.# 3¹⁻⁴

COLLEGE REQUIREMENTS

Skill Requirements

Writing: 3^{3,4}

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: 0-12¹⁻⁴

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

Mathematics:

MATH 114 Elementary Mathematics and Statistics 3¹
(designed for students who do not intend to continue the study
of mathematics)

or

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

or

One of the following:

MATH 221 Calculus I 3

MATH 241 Analytic Geometry and Calculus A 4

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

Group A 12¹⁻⁴

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

Group B 12¹⁻⁴

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

Group C 12¹⁻⁴

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

Group D 13¹⁻⁴

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

MAJOR REQUIREMENTS

Within the Department

ARSC 360 Humanities Colloquium 3

GREK 101 Elementary Greek I 3

GREK 102 Elementary Greek II 3

Twelve credits in Greek and Latin at or above the 100 level
with six credits at or above the 300 level, and at least 3 credits
in each language. 12

FLIT 316 Classical Mythology 3

FLIT 322 Topics: Classical Literature in Translation 6

Professional Studies

EDST 201 Education and Society 3

EDST 304 Educational Psychology – Social Aspects 3

EDST 305 Educational Psychology – Cognitive Aspects 3

LING 421 Methods of Teaching Foreign Language 3

LING 422 Language Syllabus Design 3

LING 424 Second Language Testing 3

EDDV 400 Student Teaching 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 cul-
ture, area studies, period studies), students should see their
adviser or the associate chair of the department.

CURRICULUM

CREDITS*

UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing 3¹

Three credits in an approved course or courses stressing
multicultural, ethnic, and/or gender-related content.# 3¹⁻⁴

COLLEGE REQUIREMENTS

Skill Requirements

Writing: 3^{3,4}

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: 0-12¹⁻⁴

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

Mathematics:

MATH 114 Elementary Mathematics and Statistics 3¹

(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., ¹freshman year, ²sophomore year, etc.

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

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

MATH 115 Pre-Calculus 3	
(designed for students who intend to continue the study of mathematics)	
or	
One of the following:	
MATH 221 Calculus I 3	
MATH 241 Analytic Geometry and Calculus A 4	
or	
Successful performance on the college proficiency exam.	
<i>Breadth Requirements</i> † (See page 80)	
<i>Group A</i> 12 ¹⁻⁴	
Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.	
<i>Group B</i> 12 ¹⁻⁴	
The study of culture and institutions over time. Twelve credits representing at least two areas.	
<i>Group C</i> 12 ¹⁻⁴	
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.	
<i>Group D</i> 13 ¹⁻⁴	
The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory.	

MAJOR REQUIREMENTS**Within the Department**

Twelve credits in FREN electives at the 200 level and above. 12 ¹⁻⁴	
Twelve credits in FREN literature at the 300 or 400 level 12 ¹⁻⁴	
(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 ¹⁻⁴	
chosen with prior approval of the adviser and according to option requirements, from the following areas: French, Anthropology, Art History, Comparative Literature, English, Foreign Languages and Literatures, History, Linguistics, Music, Philosophy, Political Science, Theatre.	

ELECTIVES*Electives*

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

CREDITS TO TOTAL A MINIMUM OF 124

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

**DEGREE: BACHELOR OF ARTS
MAJOR: HISTORY/FRENCH**

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

MAJOR REQUIREMENTS**Within the Department of History**

HIST 101 Western Civilization to 1648 3 ¹⁻⁴	
--	--

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

Within the Department of Foreign Languages and Literatures

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

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

CURRICULUM	CREDITS*
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UNIVERSITY REQUIREMENTS

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

COLLEGE REQUIREMENTS*Skill Requirements*

<i>Writing:</i> 3 ^{3,4}	
--	--

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 ¹⁻⁴	
Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.	

Mathematics:

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

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

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

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

<i>Group A</i> 12 ¹⁻⁴	
Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.	
<i>Group B</i> 12 ¹⁻⁴	
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., ¹freshman year, ²sophomore year, etc.

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

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

Group C 12¹⁻⁴
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.

Group D 13¹⁻⁴
The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory.

MAJOR REQUIREMENTS

Within the Department

FREN 201 French Reading & Composition: Short Story 3¹⁻⁴
or
FREN 202 French Reading & Composition: Theatre 3¹⁻⁴
FREN 301 French Literature: Poetry & Theatre 3¹⁻⁴
FREN 302 French Literature: Prose 3¹⁻⁴
FREN 304 French Phonetics 3¹⁻⁴
One of the following courses:
FREN 303 Intensive French Composition 3¹⁻⁴
FREN 306 Practical Oral/Written Expression 3¹⁻⁴
FREN 305 Advanced French Conversation 3¹⁻⁴

Two of the following courses:
FREN 308 Contemporary France II 3¹⁻⁴
FREN 310 French Civilization I 3
FREN 311 French Civilization II 3
FREN 312 French Civilization III 3

One of the following courses:
FREN 401 Advanced French Grammar 3
FREN 402 Advanced French Composition 3
FREN 403 History & Evolution of French Language 3
FREN 406 Advanced French Language 3
LING 440 Structure of French 3
Six credits in French Literature at the 400 level 6¹⁻⁴

Professional Studies

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

ELECTIVES

Electives

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

CREDITS TO TOTAL A MINIMUM OF 124

DEGREE: BACHELOR OF ARTS

MAJOR: FOREIGN LANGUAGES AND LITERATURES CONCENTRATION: GERMAN STUDIES

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

CURRICULUM

CREDITS*

UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing 3¹
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content.# 3¹⁻⁴

COLLEGE REQUIREMENTS

Skill Requirements

Writing: 3^{3,4}

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: 0-12¹⁻⁴

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

Mathematics:

MATH 114 Elementary Mathematics and Statistics 3¹
(designed for students who do not intend to continue the study of mathematics)

or

MATH 115 Pre-Calculus 3

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

or

One of the following:

MATH 221 Calculus I 3

MATH 241 Analytic Geometry and Calculus A 4

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

Group A 12¹⁻⁴

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

Group B 12¹⁻⁴

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

Group C 12¹⁻⁴

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

Group D 13¹⁻⁴

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

MAJOR REQUIREMENTS

Within the Department

Twelve credits in GRMN electives at the 200 level and above 12¹⁻⁴

Twelve credits in GRMN literature at the 300 or 400 level 12¹⁻⁴
(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, 12-15¹⁻⁴
chosen with prior approval of the adviser and according to

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

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

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

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: HISTORY/GERMAN

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

MAJOR REQUIREMENTS

Within the Department of History

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

Within the Department of Foreign Languages and Literatures

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

DEGREE: BACHELOR OF ARTS MAJOR: GERMAN EDUCATION

CURRICULUM

CREDITS*

UNIVERSITY REQUIREMENTS

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

COLLEGE REQUIREMENTS

Skill Requirements

Writing:	3 ^{3,4}
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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 ¹⁻⁴
Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.	

Mathematics:

MATH 114 Elementary Mathematics and Statistics (designed for students who do not intend to continue the study of mathematics)	3 ¹
or	
MATH 115 Pre-Calculus (designed for students who intend to continue the study of mathematics)	3
or	

One of the following:

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

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

Group A	12 ¹⁻⁴
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Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.

Group B	12 ¹⁻⁴
---------	-------------------

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

Group C	12 ¹⁻⁴
---------	-------------------

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

Group D	13 ¹⁻⁴
---------	-------------------

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

MAJOR REQUIREMENTS

Within the Department

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

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

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

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

Professional Studies

EDST 201	Education and Society	3
EDST 304	Educational Psychology – Social Aspects	3
EDST 305	Educational Psychology – Cognitive Aspects	3
LING 421	Methods of Teaching Foreign Language	3 ⁴
LING 422	Language Syllabus Design	3 ⁴
LING 424	Second Language Testing	3 ⁴
EDDV 400	Student Teaching	9 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: FOREIGN LANGUAGES AND LITERATURES
CONCENTRATION: ITALIAN STUDIES**

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

CURRICULUM **CREDITS***

UNIVERSITY REQUIREMENTS

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

COLLEGE REQUIREMENTS*Skill Requirements*

Writing:	3 ^{3,4}
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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 ¹⁻⁴
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Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Mathematics:

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

or

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

or

One of the following:

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

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

Group A	12 ¹⁻⁴
Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.	

Group B	12 ¹⁻⁴
The study of culture and institutions over time. Twelve credits representing at least two areas.	

Group C	12 ¹⁻⁴
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.	

Group D	13 ¹⁻⁴
The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory.	

MAJOR REQUIREMENTS**Within the Department**

Twelve credits in ITAL electives at the 200 level and above.	12 ¹⁻⁴
Twelve credits in ITAL literature at the 300 or 400 level (at least six credits must be at the 400 level)	12 ¹⁻⁴

Within the College

A total of twelve to fifteen credits at the 200 level or above, 12-15¹⁻⁴ chosen with prior approval of the adviser and according to option requirements, from the following areas: Italian, Anthropology, Art History, Comparative Literature, English, Foreign Languages and Literatures, History, Linguistics, Music, Philosophy, Political Science, Theatre.

ELECTIVES*Electives*

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

CREDITS TO TOTAL A MINIMUM OF 124

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

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

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

CURRICULUM **CREDITS***

UNIVERSITY REQUIREMENTS

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

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

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

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

COLLEGE REQUIREMENTS*Skill Requirements*

Writing: 3^{3,4}

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: 0-12¹⁻⁴

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

Mathematics:

MATH 114 Elementary Mathematics and Statistics 3¹
(designed for students who do not intend to continue the study of mathematics)

or

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

or

One of the following:

MATH 221 Calculus I 3

MATH 241 Analytic Geometry and Calculus A 4

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

Group A 12¹⁻⁴

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

Group B 12¹⁻⁴

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

Group C 12¹⁻⁴

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

Group D 13¹⁻⁴

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

MAJOR REQUIREMENTS**Within the Department**

Twelve credits in LATN electives at the 200 level and above. 12¹⁻⁴

Twelve credits in LATN literature at the 300 or 400 level 12¹⁻⁴
(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, 12-15¹⁻⁴
chosen with prior approval of the adviser and according to option requirements, from the following areas: Latin, Anthropology, Art History, Comparative Literature, English, Foreign Languages and Literatures, History, Linguistics, Music, Philosophy, Political Science, Theatre.

ELECTIVES*Electives*

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

CREDITS TO TOTAL A MINIMUM OF 124

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

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

ENGL 110 Critical Reading and Writing 3¹

Three credits in an approved course or courses stressing 3¹⁻⁴
multicultural, ethnic, and/or gender-related content.#

COLLEGE REQUIREMENTS*Skill Requirements*

Writing: 3^{3,4}

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: 0-12¹⁻⁴

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

Mathematics:

MATH 114 Elementary Mathematics and Statistics 3¹

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

or

MATH 115 Pre-Calculus 3

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

or

One of the following:

MATH 221 Calculus I 3

MATH 241 Analytic Geometry and Calculus A 4

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

Group A 12¹⁻⁴

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

Group B 12¹⁻⁴

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

Group C 12¹⁻⁴

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

Group D 13¹⁻⁴

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

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

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

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

MAJOR REQUIREMENTS**Within the Department**

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

Professional Studies

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

ELECTIVES*Electives*

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

CREDITS TO TOTAL A MINIMUM OF 124

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

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

CURRICULUM CREDITS*

UNIVERSITY REQUIREMENTS

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

COLLEGE REQUIREMENTS*Skill Requirements*

Writing:	3 ^{3,4}
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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 ¹⁻⁴
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Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Mathematics:

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

or

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

or

One of the following:

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

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

Group A	12 ¹⁻⁴
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Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.

Group B	12 ¹⁻⁴
---------	-------------------

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

Group C	12 ¹⁻⁴
---------	-------------------

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

Group D	13 ¹⁻⁴
---------	-------------------

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

MAJOR REQUIREMENTS**Within the Department**

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

Within the College

A total of nine credits at the 200 level or above, chosen with prior approval of the adviser and according to option requirements, from the following areas: Russian, Art History, Comparative Literature, English, Foreign Languages and Literatures, History, Linguistics, Music, Political Science.	9
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ELECTIVES*Electives*

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

CREDITS TO TOTAL A MINIMUM OF 124

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

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

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

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

**DEGREE: BACHELOR OF ARTS
MAJOR: HISTORY/RUSSIAN**

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

MAJOR REQUIREMENTS**Within the Department of History**

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

Within the Department of Foreign Languages and Literatures

Civilization: RUSS 325 (Russian Civilization)	3 ¹⁻⁴
Literature: RUSS 310 (Introduction to Russian Literature I) and RUSS 312 (Introduction to Russian Literature II)	6 ¹⁻⁴
400-level literature course	3 ¹⁻⁴
Two courses at the 200, 300, or 400 level	6 ¹⁻⁴

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

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

COLLEGE REQUIREMENTS*Skill Requirements*

Writing:	3 ^{3,4}
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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 ¹⁻⁴
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Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Mathematics:

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

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

One of the following:

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

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

Group A	12 ¹⁻⁴
---------	-------------------

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

Group B	12 ¹⁻⁴
---------	-------------------

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

Group C	12 ¹⁻⁴
---------	-------------------

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

Group D	13 ¹⁻⁴
---------	-------------------

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

MAJOR REQUIREMENTS**Within the Department**

One of the following courses:

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

Two of the following courses:

RUSS 310 Introduction to Russian Literature I	3
RUSS 312 Introduction to Russian Literature II	3
RUSS 325 Russian Civilization and Culture	3
RUSS 401 Advanced Russian Grammar and Composition	3
Six credits in RUSS literature at the 400 level	6

Related Work:

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

Professional Studies

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

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

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

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

CURRICULUM

CREDITS*

UNIVERSITY REQUIREMENTS

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

COLLEGE REQUIREMENTS

Skill Requirements

<i>Writing:</i>	3 ^{3,4}
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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 ¹⁻⁴
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Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Mathematics:

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

or

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

or

One of the following:

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

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

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

<i>Group C</i>	12 ¹⁻⁴
----------------------	-------------------

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

<i>Group D</i>	13 ¹⁻⁴
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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

Twelve credits in SPAN electives at the 200 level and above	12 ¹⁻⁴
Twelve credits in SPAN literature at the 300 or 400 level	12 ¹⁻⁴
(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 ¹⁻⁴
chosen with prior approval of the adviser and according to option requirements, from the following areas: Spanish,	

Anthropology, Art History, Comparative Literature, English, Foreign Languages and Literatures, History, Linguistics, Music, Philosophy, Political Science, Theatre.

ELECTIVES

Electives

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

CREDITS TO TOTAL A MINIMUM OF 124

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

DEGREE: BACHELOR OF ARTS
MAJOR: HISTORY/SPANISH

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

MAJOR REQUIREMENTS

Within the Department of History

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

Within the Department of Foreign Languages and Literatures**

Civilization: SPAN 211 (Spanish Civilization and Culture) or SPAN 212 (Latin American Civilization and Culture)	3 ¹⁻⁴
Literature: SPAN 301 (Survey of Spanish Literature) and SPAN 302 (Survey of Spanish Literature)	6 ¹⁻⁴
or	
SPAN 303 (Survey of Spanish-American Literature) and SPAN 304 (Survey of Spanish-American Literature)	6 ¹⁻⁴
400-level literature course	3 ¹⁻⁴
Two courses at the 200, 300, or 400 level	6 ¹⁻⁴

DEGREE: BACHELOR OF ARTS
MAJOR: SPANISH EDUCATION

CURRICULUM

CREDITS*

UNIVERSITY REQUIREMENTS

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

COLLEGE REQUIREMENTS

Skill Requirements

<i>Writing:</i>	3 ^{3,4}
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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 stu-

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

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

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

**Students must choose either the Peninsular (211, 301, 302) or the Latin American (212, 303, 304) track.

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

Foreign Language: 0-12^{1,4}
Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Mathematics:

MATH 114 Elementary Mathematics and Statistics 3¹
(designed for students who do not intend to continue the study of mathematics)

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

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

or
Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

Group A: 12^{1,4}
Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.

Group B: 12^{1,4}
The study of culture and institutions over time. Twelve credits representing at least two areas.

Group C: 12^{1,4}
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.

Group D: 13^{1,4}
The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory.

MAJOR REQUIREMENTS

Within the Department

SPAN 203 Spanish Reading and Composition 3

or
SPAN 204 Spanish Composition and Grammar 3

One of the following courses:

SPAN 211 Spanish Civilization and Culture 3

SPAN 212 Latin American Civilization and Culture 3

SPAN 308 Contemporary Spain II 3

Any three of the following four literature survey courses:

SPAN 301 Survey of Spanish Literature 3

SPAN 302 Survey of Spanish Literature 3

SPAN 303 Survey of Spanish-American Literature 3

SPAN 304 Survey of Spanish-American Literature 3

SPAN 305 Oral Communication 3

or

SPAN 306 Practical Oral/Written Expression 3

SPAN 314 Spanish Phonetics and Phonology 3

One of the following courses:

SPAN 401 Advanced Spanish Grammar 3

SPAN 403 History of the Spanish Language 3

SPAN 406 Advanced Spanish Language 3

LING 431 Applied Spanish Linguistics 3

Six credits in SPAN literature at the 400 level 6

Professional Studies

EDST 201 Education and Society 3

EDST 304 Educational Psychology – Social Aspects 3

EDST 305 Educational Psychology – Cognitive Aspects 3

LING 421 Methods of Teaching Foreign Language 3

LING 422 Language Syllabus Design 3

LING 424 Second Language Testing 3

EDDV 400 Student Teaching 9

ELECTIVES

Electives

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

CREDITS TO TOTAL A MINIMUM OF 124

DEGREE: BACHELOR OF ARTS

MAJOR: FOREIGN LANGUAGES AND LITERATURES

CONCENTRATION: THREE LANGUAGES

CURRICULUM CREDITS*

UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing 3¹

Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content # 3^{1,4}

COLLEGE REQUIREMENTS

Skill Requirements

Writing: 3^{3,4}

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^{1,4}

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

Mathematics:

MATH 114 Elementary Mathematics and Statistics 3¹
(designed for students who do not intend to continue the study of mathematics)

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

or

One of the following:

MATH 221 Calculus I 3

MATH 241 Analytic Geometry and Calculus A 4

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

Group A: 12^{1,4}

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., ¹freshman year, ²sophomore year, etc.

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

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

<i>Group B</i>	12 ¹⁻⁴
The study of culture and institutions over time. Twelve credits representing at least two areas.	
<i>Group C</i>	12 ¹⁻⁴
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.	
<i>Group D</i>	13 ¹⁻⁴
The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory.	

MAJOR REQUIREMENTS**Within the Department***First Language*

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

Second Language

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

Third Language

Nine to eleven credits of language courses (at least three credits at or above the 200 level for Western language).....	9-11 ¹⁻⁴
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Related Work

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

ELECTIVES*Electives*

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

CREDITS TO TOTAL A MINIMUM OF	124
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DEGREE: BACHELOR OF ARTS**MAJOR: FOREIGN LANGUAGES AND LITERATURES****CONCENTRATION: FOUR LANGUAGES****CURRICULUM****CREDITS*****UNIVERSITY REQUIREMENTS**

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

COLLEGE REQUIREMENTS*Skill Requirements*

<i>Writing</i>	3 ^{3,4}
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 ¹⁻⁴
Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.	

Mathematics

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

or

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

or

One of the following:

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

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

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

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

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

<i>Group D</i>	13 ¹⁻⁴
The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory.	

MAJOR REQUIREMENTS**Within the Department***First Language*

Six first-language elective credits at the 200 level and above.....	6 ¹⁻⁴
Nine credits in literature at the 300 or 400 level.....	9 ¹⁻⁴
(at least three credits at each level)	
Three additional credits at the 400 level.....	3 ¹⁻⁴

Second Language

Six to eight credits of language courses (two courses).....	6-8 ¹⁻⁴
Six credits at the 200 level and above.....	6 ¹⁻⁴

Third Language

Nine to eleven credits of language courses (at least three credits at or above the 200 level for Western language).....	9-11 ¹⁻⁴
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Fourth Language

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

Related Work

Three credits in Linguistics at the 200, 300, or 400 level.....	3 ¹⁻⁴
Three credits of courses in Foreign Languages and Literatures, Comparative Literature, or Linguistics, selected in consultation with the adviser.....	3 ¹⁻⁴

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

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

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

ELECTIVES*Electives*

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

CREDITS TO TOTAL A MINIMUM OF 124

STUDY ABROAD

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

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

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

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

RESIDENCY REQUIREMENT

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

MISCELLANY

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

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

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

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

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

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

MINORS

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

FRENCH: 18 credits above the 100 level including FREN 201 *or* 202, FREN 301 and 302, one course at the 300 or 400 level, and one other 400-level course.

GERMAN: 18 credits above the 100 level including two 300-level courses, one 400-level literature course, and one other 400-level course.

ITALIAN: 18 credits composed of two Italian courses at the 200 level; three courses at the 300 or 400 level, one of which must be a 400-level course; and 3 credits of related work (e.g., in Italian art history, history, linguistics, etc.).

RUSSIAN: 18 credits composed of two Russian courses at the 200 level; three courses at the 300 or 400 level, one of which must be a 400-level course; and 3 credits of related work (e.g., Russian history, political science, art, music, etc.).

SPANISH: 18 credits including SPAN 203 or SPAN 204 and an additional 200-level course; two 300-level courses (one must be a Survey of Literature); and two 400-level courses.

CLASSICS: 18 credits including 12 credits in Latin and/or Greek at or above the 200 level and 6 credits in FLLT courses, with one course at or above the 300 level.

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

A minor in French Studies, German Studies, or Spanish Studies requires a minimum of 21 credits at the 200-level and above, as follows:

FRENCH STUDIES MINOR

FREN 2xx, 3xx, 4xx	6
FREN 306, 406	3
FREN 308	3
Three of: ARTH 339, FREN 355, FREN 455, HIST 339, POSC 441	9
	21

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

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

GERMAN STUDIES MINOR

GRMN 2xx, 3xx, 4xx.....	6
GRMN 306, 406	3
GRMN 308	3
Three of: ARTH 339, GRMN 355, GRMN 455, HIST 339, POSC 441	9
	21

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

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

SPANISH STUDIES MINOR

SPAN 2xx, 3xx, 4xx	6
SPAN 306, 406	3
SPAN 308.....	3
Three of: ARTH 339, SPAN 355, SPAN 455, HIST 339, POSC 441	9
	21

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

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

GEOGRAPHY

Geographers investigate processes that explain the location of human and natural phenomena, as well as the interactions between people and their physical world. At the University of Delaware, geographic research includes modeling of the impact of climate on health and on socioeconomic conditions, the role of energy and water budgets in the solution of environmental problems, the examination of urban development and landscape aesthetics, and new approaches to cartographic representation. The study of migration and settlement, and of cultural attitudes toward land and nature, represent further dimensions of inquiry in the department. Such a broad range of interests exemplifies the integrative nature of geography and reflects its position simultaneously in the natural sciences, social sciences, and humanities. Geography students are consequently finding employment opportunities in those parts of the public and private sectors that are concerned with the relationship between human activities and the environment. Computer, cartographic and other skills gained by geography students are also in demand on the job market. Geography majors are well prepared to pursue graduate

studies in landscape architecture, urban planning, resource management-oriented programs and climatology.

Students who major in geography may, if they choose, specialize in a number of options. The department has an excellent program in climatology with an active research effort undertaken through its Center for Climatic Research. Other areas of study include biogeography, conservation, cartography, cultural-historical geography, urban geography and geomorphology. Students are required to take an introductory sequence of courses to provide a common background for all majors. An additional component of the program is the opportunity for majors to take a number of courses in allied disciplines, tailored to the student's particular interests. During the senior year, majors may, at their option, undertake a research paper under the direction of their program advisers.

**DEGREE: BACHELOR OF ARTS
MAJOR: GEOGRAPHY**

CURRICULUM	CREDITS*
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UNIVERSITY REQUIREMENTS

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

COLLEGE REQUIREMENTS*Skill Requirements*

Writing:	3 ^{3,4}
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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 ^{1,4}
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Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Mathematics:

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

or

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

or

One of the following:

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

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

Group A	12 ^{1,4}
---------------	-------------------

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., ¹freshman year, ²sophomore year, etc.

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

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

<i>Group B</i>	12 ¹⁻⁴
The study of culture and institutions over time. Twelve credits representing at least two areas.	
<i>Group C</i>	12 ¹⁻⁴
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.	
<i>Group D</i>	13 ^{1,2}
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 natural geography courses:

GEOG 101 Physical Geography	3 ¹⁻⁴
GEOG 152 Climate and Life	4
GEOG 206 Physical Geography: Topography-Soils	3
GEOG 220 Meteorology	3
GEOG 230 Humans and the Earth Ecosystem	3
GEOG 235 Conservation of Natural Resources	3
GEOG 255 Applied Climatology	3

Six credits selected from the following human geography courses:

GEOG 102 Human Geography	3 ¹⁻⁴
GEOG 120 World Regional Geography	3
GEOG 203 Cultural Geography	3
GEOG 210 Economic Geography	3
GEOG 225 Historical Geography of the United States	3
GEOG 236 Conservation: Global Issues	3

Three credits selected from the following methods courses:

GEOG 250 Computer Methods in Geography	4 ¹⁻⁴
GEOG 270 Map Communication and Design	3
GEOG 272 Map and Air Photo Interpretation	3

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

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

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

COLLEGE REQUIREMENTS*Skill Requirements*

<i>Writing:</i>	3 ^{3,4}
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: 0-12¹⁻⁴

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

Mathematics:

MATH 114 Elementary Mathematics and Statistics 3¹
(designed for students who do not intend to continue the study of mathematics)

or

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

or

One of the following:

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

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)*Group A*..... 12¹⁻⁴

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

Group B..... 12¹⁻⁴

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

Group C..... 12¹⁻⁴

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

Group D..... 13¹⁻⁴

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

MAJOR REQUIREMENTS**Within the Department**

Six credits selected from the following natural geography courses:

GEOG 101 Physical Geography	3 ¹⁻⁴
GEOG 152 Climate and Life	4
GEOG 206 Physical Geography: Topography-Soils	3
GEOG 220 Meteorology	3
GEOG 230 Humans and the Earth Ecosystem	3
GEOG 235 Conservation of Natural Resources	3
GEOG 255 Applied Climatology	3

Six credits selected from the following human geography courses:

GEOG 102 Human Geography	3 ¹⁻⁴
GEOG 120 World Regional Geography	3
GEOG 203 Cultural Geography	3
GEOG 210 Economic Geography	3
GEOG 225 Historical Geography of the United States	3
GEOG 236 Conservation: Global Issues	3

Three credits selected from the following methods courses:

GEOG 250 Computer Methods in Geography	4 ¹⁻⁴
GEOG 270 Map Communication and Design	3
GEOG 272 Map and Air Photo Interpretation	3

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

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

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

Nine credits selected from geography courses 9^{1,4}
 at the 300 or 400 level (GEOG 445 strongly recommended).

Six credits selected from geography courses 6^{1,4}
 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^{1,4}

Anthropology course 3

Economics course 3

History course 3

Political Science course 3

Sociology course 3

PSYC 201 General Psychology 3^{1,4}

Six additional credits selected from the departments listed above. 6^{1,4}

Professional Studies

EDST 201 Education and Society 3^{1,4}

EDST 304 Educational Psychology – Social Aspects 3^{1,4}

EDST 305 Educational Psychology – Cognitive Aspects 3^{1,4}

HIST 491 Planning a Course of Instruction 3⁴

HIST 493 Seminar: Problems in Teaching History 3⁴
 and Social Sciences

EDST 420 Reading in the Content Areas 1^{1,4}

EDDV 400 Student Teaching 9⁴

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

INTERDEPARTMENTAL AND DOUBLE MAJORS

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

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

REQUIREMENTS FOR THE MINOR IN GEOGRAPHY

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

ELECTIVES FOR NONMAJORS

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

GROUP A: GEOG 203, 345, 346

GROUP B: GEOG 225, 227

GROUP C: GEOG 102, 120, 210, 230, 235, 320

GROUP D: GEOG 101, 152, 206, 220, 250

A detailed brochure describing the geography program and requirements is available upon request from the department office.

BACHELOR OF ENVIRONMENTAL SCIENCE

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

DEGREE: BACHELOR OF SCIENCE MAJOR: ENVIRONMENTAL SCIENCE

CURRICULUM

CREDITS*

UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing 3¹

Three credits in an approved course or courses stressing 3^{1,4}
 multicultural, ethnic, and/or gender-related content #

COLLEGE REQUIREMENTS

Skill Requirements

Writing: 3^{3,4}

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., ¹freshman year, ²sophomore year, etc.

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

Foreign Language: 0-12¹⁻⁴
Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Breadth Requirements† (See page 80)
Nine credits are required in each of the following groups: 27¹⁻⁴

Group A 9
Understanding and appreciation of the creative arts and humanities. At least two areas must be represented.

Group B 9
The study of culture and institutions over time. At least two areas must be represented.

Group C 9
Empirically based study of human beings and their environment. At least two areas must be represented.

MAJOR REQUIREMENTS

Within the Cooperating Departments

GEOL 107 General Geology	4 ^{1,2}
BISC 207, BISC 208 Introductory Biology I and II	8 ^{1,2}
GEOG 220 Meteorology	3 ^{1,2}
GEOG 250 Computer Methods in Geography	4 ^{2,3}
BISC 302 General Ecology	3 ^{2,3}
BISC 312 General Ecology Lab	1 ^{2,3}
GEOG 352 Physical Climatology	4 ^{3,4}
GEOL 414 Quaternary Geology and Geochronology	3 ^{3,4}
GEOG 450 Proseminar in Environmental Science	3 ^{3,4}

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

Atmospheric Environment

GEOG 420 Atmospheric Physics	3 ^{3,4}
GEOG 451 Microclimatology	3 ^{3,4}
GEOG 453 Synoptic Climatology	3 ^{3,4}
GEOG 455 Water Budget in Environmental Analysis	3 ^{3,4}
GEOG 657 Climate Dynamics	3 ^{3,4}

Biological Environment

BISC 321 Environmental Biology	3 ^{3,4}
BISC 494 Experimental Ecology	3 ^{3,4}
BISC 495 Evolution	3 ^{3,4}
BISC 637 Population Ecology	3 ^{3,4}
BISC 641 Microbial Ecology	3 ^{3,4}

Geology

GEOL 204 Properties of Rocks and Minerals	4 ²⁻⁴
GEOL 303 Sedimentology	3 ^{3,4}
GEOL 304 Stratigraphy	3 ^{3,4}
GEOL 305 Structural Geology	3 ^{3,4}

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

BISC 324 Invertebrate Zoology	3 ^{3,4}
CHEM 213 Elementary Organic Chemistry	3 ²⁻⁴
CIEG 331 Introduction to Environmental Engineering	3 ^{3,4}
GEOG 152 Climate and Life	4 ¹⁻⁴
GEOG 206 Topography and Soils	3 ¹⁻⁴
GEOG 230 Humans and the Earth Ecosystem	3 ¹⁻⁴
GEOG 235 Conservation of Natural Resources	3 ¹⁻⁴
GEOG 236 Conservation: Global Issues	3 ¹⁻⁴
GEOG 255 Applied Climatology	3 ¹⁻⁴
GEOG 272 Map and Air Photo Interpretation	3 ²⁻⁴
GEOG 320 Water and Society	3 ²⁻⁴

GEOG 330 Biogeography	3 ²⁻⁴
GEOG 342 Bioclimatology	3 ²⁻⁴
GEOG 343 Climatic Geomorphology	3 ²⁻⁴
GEOG 351 Urban Climatology	3 ²⁻⁴
GEOG 357 Paleoclimatology	3 ²⁻⁴
GEOG 372 Geographic Information Systems	3 ²⁻⁴
GEOG 423 Atmospheric Dynamics	3 ^{3,4}
GEOG 430 Conservation Forest Ecosystems	3 ²⁻⁴
GEOG 681 Remote Sensing of Environment	3 ^{3,4}
GEOL 402 History of the Earth	3 ^{3,4}
GEOL 403 Regional Geology of North America	3 ^{3,4}
GEOL 411 Quantitative Geomorphology	3 ^{3,4}
GEOL 412 Geological Approaches to Archaeology and History	3 ^{3,4}
GEOL 421 Environmental and Applied Geology	3 ^{3,4}
GEOL 428 Hydrogeology	3 ^{3,4}
GEOL 431 Marine Geology	3 ^{3,4}
GEOL 432 Recent Sedimentary Environments	3 ^{3,4}
GEOL 434 The Geology of Coasts	3 ^{3,4}
GEOL 446 General Geochemistry	3 ^{3,4}
GEOL 460 Field Geology in the Western States	3-6 ^{3,4}
MAST 200 Concepts in Oceanography	3 ¹⁻⁴
PHYS 208 General Physics	4 ^{2,3}
PLSC 204 Introduction to Soil Science	4 ¹⁻⁴
POSC 350 Politics and the Environment	3 ²⁻⁴

Within the College

Related Work

MATH 241, MATH 242, MATH 243 Analytic Geometry and Calculus	12 ^{1,2}
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One of the following four courses:

MATH 302 Differential Equations	3 ^{2,3}
MATH 349 Elements of Linear Systems	3 ^{2,3}
STAT 450 Statistics for Engineering & Physical Sciences	3 ^{3,4}
STAT 657 Statistics for Earth Sciences	3 ^{3,4}
CHEM 103, CHEM 104 General Chemistry	8 ^{1,2}
PHYS 207 General Physics	4 ^{2,3}
or	
PHYS 201 General Physics	4 ^{2,3}

ELECTIVES

Electives

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

CREDITS TO TOTAL A MINIMUM OF 127

GEOLOGY

Geology, the study of the earth, employs the methods of other sciences, as well as those unique to geology, to investigate the nature, processes, and history of the earth. 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

†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.

of northern Delaware, and the history of sea-level change over the last few hundred thousand years.

Geology is vital to the discovery and recovery of earth resources including metals, building materials, and petroleum and other fuels. Geologists also deal with land use, environmental planning, earthquake prediction, and the understanding of hazards such as landslides, floods, and other natural disasters.

Students can enjoy close association with faculty engaged in active field and laboratory research. Advanced undergraduate students are encouraged to undertake research under the supervision of the faculty. The laboratory-classroom building is accessible to all students in research-oriented upper class courses and is equipped for research in mineralogy-petrology, micropaleontology, geochemistry, paleontology, stratigraphy, sedimentary petrology, geophysics, paleomagnetism, and structural geology.

The Department has close ties with the Delaware Geological Survey and with the College of Marine Studies.

The Department of Geology offers Bachelor of Arts degrees in geology, in geology with a concentration in paleobiology, and in earth science education. In addition, the Department offers Bachelor of Science degrees in geology and in geophysics (jointly with the Physics Department), and a minor in geology.

DEGREE: BACHELOR OF ARTS

MAJOR: GEOLOGY

CURRICULUM

CREDITS*

UNIVERSITY REQUIREMENTS

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

COLLEGE REQUIREMENTS

Skill Requirements

Writing:	3 ^{3,4}
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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 ^{1,2}
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Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Mathematics:

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

or

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

or

One of the following:

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

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

Group A	12 ^{1,4}
---------------	-------------------

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

Group B	12 ^{1,4}
---------------	-------------------

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

Group C	12 ^{1,4}
---------------	-------------------

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

Group D	13 ^{1,4}
---------------	-------------------

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

MAJOR REQUIREMENTS

Within the Department

GEOL 107 General Geology I	4 ¹
GEOL 203 Mineralogy and Crystallography	3 ²
GEOL 204 Properties of Rocks and Minerals	4 ²
GEOL 301 Systematic and Evolutionary Paleontology	3 ³
GEOL 303 Sedimentology	3 ³
GEOL 304 Stratigraphy	3 ³
GEOL 305 Structural Geology	3 ³
GEOL 402 History of the Earth	3 ⁴
GEOL 407 Igneous and Metamorphic Petrology	3 ⁴
GEOL 452 Plate Tectonics and Geophysics	3 ⁴

Three credits of field geology (taught only in the summer):

GEOL 432 Recent Sedimentary Environment	3 ^{3,4}
GEOL 460 Field Geology in the Western States	3-6 ^{3,4}

Within the College

Chemistry courses (CHEM 103-104)	8 ²
Physics courses (PHYS 201-202)	8 ³
Mathematics courses through college-level trigonometry	3-4 ¹

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

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

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

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

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

COLLEGE REQUIREMENTS*Skill Requirements*

Writing: 3^{3,4}

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: 0-12¹⁻²

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

Mathematics:

MATH 114 Elementary Mathematics and Statistics 3¹
(designed for students who do not intend to continue the study of mathematics)

or

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

or

One of the following:

MATH 221 Calculus I 3

MATH 241 Analytic Geometry and Calculus A 4

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

Group A 12¹⁻⁴

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

Group B 12¹⁻⁴

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

Group C 12¹⁻⁴

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

Group D 13¹⁻⁴

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

MAJOR REQUIREMENTS**Within the Department**

GEOL 107 General Geology I 4¹

GEOL 203 Mineralogy and Crystallography 3²

GEOL 204 Properties of Rocks and Minerals 4²

GEOL 301 Systematic and Evolutionary Paleontology 3³

GEOL 303 Sedimentology 3³

GEOL 304 Stratigraphy 3³

GEOL 305 Structural Geology 3⁴

GEOL 402 History of the Earth 3⁴

GEOL 466 Independent Study 3⁴

Three credits of field geology (taught only in the summer):

GEOL 432 Recent Sedimentary Environment 3^{3,4}

GEOL 460 Field Geology in the Western States 3-6^{3,4}

Within the College

BISC 207 Introductory Biology I 4¹

BISC 208 Introductory Biology II 4¹

BISC 302 General Ecology 3³

BISC 324 Invertebrate Zoology 4⁴

BISC 442 Vertebrate Morphology (recommended) 3

BISC 495 Evolution 3⁴

STAT 201 Introduction to Statistics I 3⁴

STAT 202 Introduction to Statistics II 3⁴

CHEM 103 General Chemistry 4²

CHEM 104 General Chemistry 4²

MATH 115 Pre-calculus 3¹

ELECTIVES

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

CREDITS TO TOTAL A MINIMUM OF 124

**DEGREE: BACHELOR OF SCIENCE
MAJOR: GEOLOGY****CURRICULUM****CREDITS*****UNIVERSITY REQUIREMENTS**

ENGL 110 Critical Reading and Writing 3¹

Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content # 3¹⁻⁴

COLLEGE REQUIREMENTS*Skill Requirements*

Writing: 3^{3,4}

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: 0-12¹⁻⁴

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

Breadth Requirements† (See page 80)

Thirty credits are required with a minimum of six credits in each of the following groups: 18¹⁻⁴

Group A

Understanding and appreciation of the creative arts and humanities.

Group B

The study of culture and institutions over time.

Group C

Empirically based study of human beings and their environment.

MAJOR REQUIREMENTS**Within the Department**

GEOL 107 General Geology I 4¹

GEOL 203 Mineralogy and Crystallography 3²

GEOL 204 Properties of Rocks and Minerals 4²

GEOL 301 Systematic and Evolutionary Paleontology 3³

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

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

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

GEOL 303	Sedimentology	3 ³
GEOL 304	Stratigraphy	3 ³
GEOL 305	Structural Geology	3 ^{3,4}
GEOL 402	History of the Earth	3 ⁴
GEOL 407	Igneous and Metamorphic Petrology	3 ⁴
GEOL 452	Plate Tectonics and Geophysics	3 ^{3,4}

Six credits from the following:

GEOL 460	Field Geology in the Western States	3-6 ^{3,4}
or		
GEOL 432	Recent Sedimentary Environments	3 ^{3,4}
Geology courses (400 level)		9 ^{3,4}

Within the College

Related Work

MATH 241	Analytic Geometry and Calculus A	4 ¹
MATH 242	Analytic Geometry and Calculus B	4 ¹
CHEM 103	General Chemistry	4 ²
CHEM 104	General Chemistry	4 ²
PHYS 201	General Physics	4 ³
PHYS 202	General Physics	4 ³

Eight credits from the departments: 8²⁻⁴

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

ELECTIVES

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

CREDITS TO TOTAL A MINIMUM OF 125

REQUIREMENTS FOR THE MINOR IN GEOLOGY

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

GEOL 107 (4 credits); at least two of the following: GEOL 203, 204, 301, 303, 304, 305, GEOL 402 (History of the Earth); any 400-level course or courses may be used to obtain the remaining credits needed to reach a total of 18.

DEGREE: BACHELOR OF ARTS MAJOR: EARTH SCIENCE EDUCATION

CURRICULUM CREDITS*

UNIVERSITY REQUIREMENTS

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

COLLEGE REQUIREMENTS

Skill Requirements

Writing	3 ^{3,4}
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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 stu-

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

Foreign Language: 0-12¹⁻²

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

Mathematics:

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

or

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

or

One of the following:

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

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

Group A	12 ¹⁻⁴
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Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.

Group B	12 ¹⁻⁴
---------	-------------------

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

Group C	12 ¹⁻⁴
---------	-------------------

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

Group D	13 ¹⁻⁴
---------	-------------------

The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory. (This requirement is satisfied by the completion of the interdisciplinary major courses.)

MAJOR REQUIREMENTS

Within the College

GEOL 105	General Geology	4 ¹
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or

GEOL 107	General Geology	4 ¹
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GEOL 106	General Geology	4 ¹
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GEOG 101	Physical Geography	3 ¹⁻⁴
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GEOL 203	Mineralogy and Crystallography	3 ²
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GEOG 220	Meteorology	3 ¹⁻⁴
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GEOG 235	Conservation of Natural Resources	3 ¹⁻⁴
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GEOL 303	Sedimentology	3 ³
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GEOG 343	Climatic Geomorphology	3 ¹⁻⁴
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or

GEOG 255	Applied Climatology	3
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PHYS 133	Introduction to Astronomy	4 ^{1,2}
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PHYS 201	General Physics	4 ^{1,2}
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PHYS 202	General Physics	4 ^{1,2}
----------	-----------------	------------------

CHEM 103	General Chemistry	4 ^{1,2}
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BISC 195	Biological Evolution	3 ¹⁻⁴
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MATH 221	Calculus I	3 ^{1,2}
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Three credits from the following:

GEOL 432	Recent Sedimentary Environments	3 ^{3,4}
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GEOL 460	Field Geology in the Western States	3-6 ^{3,4}
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*Superior figures indicate year or years in which the course is normally taken, i.e., ¹freshman year, ²sophomore year, etc.

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

†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.

External to the College

MAST 200	Introduction to Marine Studies	3 ^{1,4}
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Professional Studies

EDST 201	Education and Society	3 ^{1,4}
EDST 304	Educational Psychology – Social Aspects	3 ^{1,4}
EDST 305	Educational Psychology – Cognitive Aspects	3 ^{1,4}
SCEN 491	Science Materials and Approaches	4 ⁴
EDST 420	Reading in the Content Area	1 ^{1,4}
EDDV 400	Student Teaching	9 ⁴

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. Majors in Environmental Science (ENSC) can concentrate in Geology by earning a Minor in Geology while earning a B.S. in ENSC.

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, GEOL 105 and 106 as well as specialty courses such as GEOL 233, 234, 235, 243, and 245. These courses fulfill the GROUP D requirements for the College of Arts and Science.

BACHELOR OF SCIENCE DEGREE IN GEOPHYSICS

In addition to the B.A. and B.S. degrees in geology, the Geology Department, in cooperation with the Physics Department, offers a B.S. degree in geophysics. Recognizing the specialization of geophysics as a discipline on its own, and because of the need to better coordinate the completion of many courses in two disciplines, a separate degree program with a special curriculum has been formed. The requirements for the geophysics degree and the special curriculum are:

**DEGREE: BACHELOR OF SCIENCE
MAJOR: GEOPHYSICS**

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

COLLEGE REQUIREMENTS*Skill Requirements*

Writing: 3^{3,4}

A writing course involving significant writing experience including two papers with a combined minimum of 3,000 words to be submitted for extended faculty critique of both composition and content. This course must be taken in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

Breadth Requirements† (See page 80)

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

Group A

Understanding and appreciation of the creative arts and humanities.

Group B

The study of culture and institutions over time.

Group C

Empirically based study of human beings and their environment.

MAJOR REQUIREMENTS**Within the Department**

GEOL 107	General Geology I	4 ¹
GEOL 203	Mineralogy and Crystallography	3 ²
GEOL 204	Properties of Rocks and Minerals	4 ²
GEOL 303	Sedimentology	3 ³
GEOL 305	Structural Geology	4 ³
GEOL 402	History of the Earth	3 ⁴
GEOL 451	Geophysical Field Methods	3 ^{3,4}
GEOL 452	Plate Tectonics and Geophysics	3 ^{3,4}
GEOL 453	Elementary Geophysics I	3 ⁴
GEOL 454	Elementary Geophysics II	3 ⁴
GEOL 460	Field Geology in the Western States	3 ^{3,4}

One of the following three courses:

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

Within the College

PHYS 207	General Physics	4 ¹
PHYS 208	General Physics	4 ²
PHYS 209	General Physics	3 ²
PHYS 645	Electronics for Scientists	3 ^{3,4}
PHYS 646	Instrumentation for Scientists	3 ^{3,4}

One of the following four courses:

PHYS 313	Physical Optics	4 ⁴
PHYS 603	Electricity and Magnetism	3 ^{3,4}

(If PHYS 603 is selected, PHYS 604 is strongly encouraged as an elective course.)

PHYS 616	Kinetic Theory and Thermodynamics	3
PHYS 631	Acoustics	3

Related Work

CISC 106	General Computer Science for Engineers	3 ^{1,2}
MATH 241	Analytic Geometry and Calculus A	4 ¹
MATH 242	Analytic Geometry and Calculus B	4 ¹
MATH 243	Analytic Geometry and Calculus C	4 ²
MATH 302	Ordinary Differential Equations I	3 ²
CHEM 103	General Chemistry	4 ²

External to the College

MEEG 213	Principles of Mechanics I	3 ^{3,4}
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CREDITS TO TOTAL A MINIMUM OF 125

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

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

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

HISTORY

There is a history in all our lives. Those having little sense of their personal past can rarely appreciate what they are, let alone develop a vision of their future. The same holds true for our community and nation, and for the whole of humanity. Only our ignorance of history can condemn us to repeating our mistakes. To thrive in the present, and to advance to a sensible future, we must first seek out the meaning of our past.

Those who know history as merely names and dates do not know history. In its focus on people and their experiences, the practice of history is a literary art. In its attempt to make sense of this experience, it is often as analytical as any discipline in the social sciences. Indeed, many social sciences are rooted in or influenced by history.

Combining literary art and critical analysis, the study of history enables us to analyze complex situations and to present our findings clearly and effectively. These intellectual and literary skills can be easily transferred to other disciplines and to real life situations. History majors are able to build outstanding careers in government, business, publishing and journalism, just as they are well prepared for graduate work in law, business, public administration, and teaching. Above all, these skills are essential for an educated person to function in today's world.

Delaware has long been known for its excellence in the fields of U.S. and European history; social, cultural, and intellectual history; the history of science and technology; and the history of American civilization. Course offerings in African, East Asian, Latin American, and history of women are outstanding.

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

The above programs are made possible by a faculty of high caliber. All professors of the department are dedicated to undergraduate teaching and research.

DEGREE: BACHELOR OF ARTS MAJOR: HISTORY

CURRICULUM

CREDITS*

UNIVERSITY REQUIREMENTS

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

COLLEGE REQUIREMENTS

Skill Requirements

<i>Writing:</i>	3 ^{3,4}
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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 ¹⁻²
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Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Mathematics:

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

or

MATH 115 Pre-Calculus	3
-----------------------------	---

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

or

One of the following:

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

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

<i>Group A</i>	12 ¹⁻⁴
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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 ¹⁻⁴
----------------------	-------------------

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

<i>Group C</i>	12 ¹⁻⁴
----------------------	-------------------

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

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

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

MAJOR REQUIREMENTS

Within the Department

HIST 101 Western Civilization to 1648	3 ¹⁻⁴
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HIST 102 Western Civilization: 1648 to the Present	3 ¹⁻⁴
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HIST 268 Seminar	3 ¹⁻⁴
------------------------	------------------

History course on the history of Asia, Africa, Latin America, or the Ancient World	3 ¹⁻⁴
--	------------------

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

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

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

History courses at or above the 300 level	12 ^{1,4}
History seminar at the 400 level or above	3 ^{1,4}
(excluding HIST 491 and 493 and Independent Study)	
History course	3 ^{1,4}

ELECTIVES*Electives*

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

CREDITS TO TOTAL A MINIMUM OF 124

DEGREE: BACHELOR OF ARTS**MAJOR: HISTORY****CONCENTRATION: AMERICAN HISTORY****CURRICULUM**

CREDITS*

UNIVERSITY REQUIREMENTS

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

COLLEGE REQUIREMENTS*Skill Requirements*

<i>Writing:</i>	3 ^{3,4}
-----------------------	------------------

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 ^{1,2}
--------------------------------	---------------------

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

Mathematics:

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

or

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

or

One of the following:

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

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

<i>Group A</i>	12 ^{1,4}
----------------------	-------------------

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

<i>Group B</i>	12 ^{1,4}
----------------------	-------------------

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

<i>Group C</i>	12 ^{1,4}
----------------------	-------------------

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

<i>Group D</i>	13 ^{1,4}
----------------------	-------------------

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

MAJOR REQUIREMENTS**Within the Department**

HIST 101 Western Civilization to 1648	3 ^{1,4}
HIST 102 Western Civilization: 1648 to the Present	3 ^{1,4}
HIST 268 Seminar	3 ^{1,4}
History course on the history of Asia, Africa, Latin America, or the Ancient World	3 ^{1,4}
Seven courses in the field of emphasis. With written approval of the advisor, a student may take two of these courses outside the Department of History	21 ^{1,4}
History seminar at the 400 level or above	3 ^{1,4}
(excluding HIST 491 and 493 and Independent Study)	

ELECTIVES*Electives*

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

CREDITS TO TOTAL A MINIMUM OF 124

DEGREE: BACHELOR OF ARTS**MAJOR: HISTORY****CONCENTRATION: EUROPEAN HISTORY****CURRICULUM**

CREDITS*

UNIVERSITY REQUIREMENTS

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

COLLEGE REQUIREMENTS*Skill Requirements*

<i>Writing:</i>	3 ^{3,4}
-----------------------	------------------

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 ^{1,2}
--------------------------------	---------------------

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

Mathematics:

MATH 114 Elementary Mathematics and Statistics	3 ¹
(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., ¹freshman year, ²sophomore year, etc.

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

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

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

One of the following:

MATH 221 Calculus I 3

MATH 241 Analytic Geometry and Calculus A 4

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

Group A 12^{1,4}

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

Group B 12^{1,4}

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

Group C 12^{1,4}

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

Group D 13^{1,4}

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

MAJOR REQUIREMENTS

Within the Department

HIST 101 Western Civilization to 1648 3^{1,4}

HIST 102 Western Civilization: 1648 to the Present 3^{1,4}

HIST 268 Seminar 3^{1,4}

History course on the history of Asia, Africa, Latin America, or the Ancient World 3^{1,4}

Seven courses in the field of emphasis. With written approval of the advisor, a student may take two of these courses outside the Department of History 21^{1,4}

History seminar at the 400 level or above 3^{1,4}
(excluding HIST 491 and 493 and Independent Study)

ELECTIVES

Electives

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

CREDITS TO TOTAL A MINIMUM OF 124

DEGREE: BACHELOR OF ARTS

MAJOR: HISTORY

CONCENTRATION: GLOBAL HISTORY

CURRICULUM

CREDITS*

UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing 3¹

Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content# 3^{1,4}

COLLEGE REQUIREMENTS

Skill Requirements

Writing 3^{3,4}

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 0-12¹⁻²

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

Mathematics:

MATH 114 Elementary Mathematics and Statistics 3¹

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

or

MATH 115 Pre-Calculus 3

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

or

One of the following:

MATH 221 Calculus I 3

MATH 241 Analytic Geometry and Calculus A 4

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

Group A 12^{1,4}

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

Group B 12^{1,4}

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

Group C 12^{1,4}

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

Group D 13^{1,4}

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

MAJOR REQUIREMENTS

Within the Department

HIST 101 Western Civilization to 1648 3^{1,4}

HIST 102 Western Civilization: 1648 to the Present 3^{1,4}

HIST 268 Seminar 3^{1,4}

History course on the history of Asia, Africa, Latin America, or the Ancient World 3^{1,4}

Seven courses in the field of emphasis. With written approval of the advisor, a student may take two of these courses outside the Department of History 21^{1,4}

History seminar at the 400 level or above 3^{1,4}
(excluding HIST 491 and 493 and Independent Study)

ELECTIVES

Electives

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

CREDITS TO TOTAL A MINIMUM OF 124

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

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

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

DEGREE: BACHELOR OF ARTS
MAJOR: HISTORY
CONCENTRATION: POLICY HISTORY

CURRICULUM **CREDITS***

UNIVERSITY REQUIREMENTS

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

COLLEGE REQUIREMENTS

Skill Requirements

<i>Writing:</i>	3 ^{3,4}
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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 ¹⁻²
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Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Mathematics:

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

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

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

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

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

<i>Group C</i>	12 ¹⁻⁴
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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 ¹⁻⁴
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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

HIST 101 Western Civilization to 1648	3 ¹⁻⁴
HIST 102 Western Civilization: 1648 to the Present	3 ¹⁻⁴
HIST 268 Seminar	3 ¹⁻⁴
History course on the history of Asia, Africa, Latin America, or the Ancient World	3 ¹⁻⁴

Seven courses in the field of emphasis. With written approval of the advisor, a student may take two of these courses outside the Department of History	21 ¹⁻⁴
History seminar at the 400 level or above (excluding HIST 491 and 493 and Independent Study)	3 ¹⁻⁴

ELECTIVES

Electives

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

CREDITS TO TOTAL A MINIMUM OF	124
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DEGREE: BACHELOR OF ARTS
MAJOR: HISTORY EDUCATION

CURRICULUM **CREDITS***

UNIVERSITY REQUIREMENTS

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

COLLEGE REQUIREMENTS

Skill Requirements

<i>Writing:</i>	3 ^{3,4}
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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 ¹⁻²
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Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Mathematics:

MATH 114 Elementary Mathematics and Statistics (designed for students who do not intend to continue the study of mathematics)	3 ¹
--	----------------

or

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

or

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

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

<i>Group A</i>	12 ¹⁻⁴
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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 ¹⁻⁴
----------------	-------------------

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., ¹freshman year, ²sophomore year, etc.

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

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

Group C 12¹⁻⁴
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.

Group D 13¹⁻⁴
The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory.

MAJOR REQUIREMENTS

Within the Department

HIST 101 Western Civilization to 1648 3¹⁻⁴
HIST 102 Western Civilization: 1648 to the Present 3¹⁻⁴
HIST 268 Seminar 3¹⁻⁴
History course on the history of Asia, Africa, Latin America, or the Ancient World 3¹⁻⁴
History courses at or above the 300 level 12¹⁻⁴
History seminar at the 400 level or above 3¹⁻⁴
(excluding HIST 491 and 493 and Independent Study)
History course 3¹⁻⁴

Within the College

Twenty-four credits in the following social sciences with at least three credits in each department 24¹⁻⁴
Anthropology course 3
Economics course 3
Geography course 3
Political Science course 3
Sociology course 3
PSYC 201 General Psychology 3¹⁻⁴
Six additional credits selected from the departments listed 6¹⁻⁴

Professional Studies

EDST 201 Education and Society 3¹⁻⁴
EDST 304 Educational Psychology – Social Aspects 3¹⁻⁴
EDST 305 Educational Psychology – Cognitive Aspects 3¹⁻⁴
HIST 491 Planning a Course of Instruction 3⁴
HIST 493 Seminar: Problems in Teaching History and Social Sciences 3⁴
EDST 420 Reading in the Content Areas 1¹⁻⁴
EDDV 400 Student Teaching 9⁴

CREDITS TO TOTAL A MINIMUM OF 124

DEGREE: BACHELOR OF ARTS

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

CURRICULUM CREDITS*

UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing 3¹
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content.# 3¹⁻⁴

COLLEGE REQUIREMENTS

Skill Requirements

Writing: 3^{3,4}
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: 0-12¹⁻²
Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Mathematics:

MATH 114 Elementary Mathematics and Statistics 3¹
(designed for students who do not intend to continue the study of mathematics)

or

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

or

One of the following:

MATH 221 Calculus I 3

MATH 241 Analytic Geometry and Calculus A 4

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

Group A 12¹⁻⁴

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

Group B 12¹⁻⁴

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

Group C 12¹⁻⁴

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

Group D 13¹⁻⁴

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

MAJOR REQUIREMENTS

Within the Department of History

HIST 101 Western Civilization to 1648 3¹⁻⁴
HIST 102 Western Civilization: 1648 to the Present 3¹⁻⁴
Five 300-level courses, at least two of which must deal with countries that use the chosen foreign language 15¹⁻⁴
History seminar at the 400 level or above 3¹⁻⁴
(excluding HIST 491 and 493 and Independent Study)

Within the Department of Foreign Languages and Literatures

Classics

Civilization: Two classical civilization (or culture) courses: e.g., FLLT 202 (Biblical and Classical Literature) and FLLT 316 (Mythology) 6¹⁻⁴
Literature: Either 9 credits of Latin at the 200-level or above and 3 credits of Latin at the 300 level or above, or GREK 213 and GREK 214 and 6 credits of Latin at the 200-level or above 12¹⁻⁴

French

Civilization: FREN 310 (French Civilization), or FREN 311 (French Civilization) or FREN 312 (Contemporary France) 3¹⁻⁴
Literature: FREN 301 (Introduction to French Literature: Prose) and FREN 302 (Introduction to French Literature: Poetry and Theatre) 6¹⁻⁴
400-level literature course 3¹⁻⁴
Two courses at the 200, 300, or 400 level 6¹⁻⁴

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

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

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

German

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

Russian

Civilization: RUSS 325 (Russian Civilization)	3 ¹⁻⁴
Literature: RUSS 310 (Introduction to Russian Literature I) and RUSS 312 (Introduction to Russian Literature II)	6 ¹⁻⁴
400-level literature course	3 ¹⁻⁴
Two courses at the 200, 300, or 400 level	6 ¹⁻⁴

Spanish

Civilization: SPAN 211 (Spanish Civilization and Culture) or SPAN 212 (Latin American Civilization and Culture)	3 ¹⁻⁴
Literature: SPAN 301 (Survey of Spanish Literature) and SPAN 302 (Survey of Spanish Literature)	6 ¹⁻⁴
or	
SPAN 303 (Survey of Spanish-American Literature) and SPAN 304 (Survey of Spanish-American Literature)	6 ¹⁻⁴
400-level literature course	3 ¹⁻⁴
Two courses at the 200, 300, or 400 level	6 ¹⁻⁴

ELECTIVES*Electives*

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

CREDITS TO TOTAL A MINIMUM OF 124

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

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

COLLEGE REQUIREMENTS*Skill Requirements*

Writing:	3 ^{3,4}
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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 ¹⁻²
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Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Mathematics:

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

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

One of the following:

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

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

Group A	12 ¹⁻⁴
Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.	

Group B	12 ¹⁻⁴
The study of culture and institutions over time. Twelve credits representing at least two areas.	

Group C	12 ¹⁻⁴
Empirically based study of human beings and their environ- ment. Twelve credits representing at least two areas.	

Group D	13 ¹⁻⁴
The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associat- ed laboratory.	

MAJOR REQUIREMENTS**Within the Department**

HIST 101 Western Civilization to 1648	3 ¹⁻⁴
HIST 102 Western Civilization: 1648 to the Present	3 ¹⁻⁴
HIST 268 Seminar	3 ¹⁻⁴
History course on the history of Asia, Africa, Latin America, or the Ancient World	3 ¹⁻⁴
History courses at or above the 300 level	12 ¹⁻⁴
History seminar at the 400 level or above (excluding HIST 491 and 493 and Independent Study)	3 ¹⁻⁴
History course	3 ¹⁻⁴

Within the College

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

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

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

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

**Students must choose either the Peninsular (211, 301, 302) or the Latin American (212, 303, 304) track.

REQUIREMENTS FOR A MINOR IN HISTORY

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

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

JOURNALISM

The journalism program is centered in the Department of English but reaches beyond it. There is no separate journalism major, but there are concentrations in journalism for English, history and political science majors. The journalism courses—up to 15 credits not including internships—may also be used as the organizing principle for a Bachelor of Arts in Liberal Studies degree or an Interdepartmental Major. The courses are primarily practice oriented and are aimed at preparing the interested student to be well qualified for a position in some phase of reporting, writing, or editing for newspapers, magazines, radio, or television. For details, see English in this catalog.

LINGUISTICS

Although the Department of Linguistics offers only a minor at the undergraduate level, there are a number of courses in linguistics at the introductory, intermediate, and advanced levels in both applied and theoretical areas. Introduction to Linguistics (LING 101), Studies: Language (LING 265), and Introduction to the English Language (LING 390) can be used to fulfill Group C of the General Education Requirement in the College of Arts and Science, and Dictionaries (LING 301) can be used to fulfill Group A.

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

LING 101	Introduction to Linguistics	3
One of the following:		
LING 407	Phonology I	3
LING 409	Syntax I	3
LING 477	Structure of English	3
LING 491	Semantics I	3
Any four additional LING courses, two of which must be at the 300 level or above		12

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

CONFERENCE INTERPRETATION PROGRAM

Intensive Summer Seminar in Simultaneous and Consecutive Interpretation

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

Students Register for LING 426: Theory and Techniques of Interpretation (3). Coursework includes: basic theoretical constructs, pre-interpretation exercises, consecutive note-taking and note-reading, public speaking skills, simultaneous interpretation, self-monitoring techniques, short term memory strategies, ethics, scenario writing and role playing.

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

MATHEMATICAL SCIENCES

No other scientific field has such wide applicability in human affairs as the mathematical sciences. The mathematical sciences are more than a complex set of tools. Mathematics is an intellectual discipline, a structured way of thinking, a universal language. A humanist should endeavor to appreciate the cultural essence of mathematics just as a scientist should be able to enjoy literature and music. Statistics is frequently used in the planning and execution of problem-solving procedures. The science of statistics provides a rational basis for condensing observed data, drawing inferences from incomplete information, and making decisions in the face of uncertainty.

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

gives students more choices of upper level major courses along with an area of application; and the Bachelor of Arts in Mathematics Education, which trains students for careers in secondary school mathematics education.

Since mathematics is a highly structured discipline, careful attention must be paid to prerequisites. The successful mathematical sciences major must complete several courses in the major each year to graduate within a reasonable time frame. Thus, the Department of Mathematical Sciences carefully monitors student progress and will drop from the major any student not making satisfactory progress in the program. A normally matriculated student majoring in the Department of Mathematical Sciences is *not* making satisfactory progress if he or she: (1) has not successfully completed a required Mathematical Science course by the beginning of the third semester; or (2) has not successfully completed MATH 302/303 by the end of the fifth semester; or (3) has failed to successfully complete any required Mathematical Science course for two consecutive semesters. Consistent with the program requirements, "successfully complete" means to earn a grade of C- or better. A student not making satisfactory progress may petition the department to remain as a major when there are extenuating circumstances.

DEGREE: BACHELOR OF ARTS
MAJOR: MATHEMATICAL SCIENCES

CURRICULUM CREDITS*

UNIVERSITY REQUIREMENTS

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

COLLEGE REQUIREMENTS

<i>Skill Requirements</i>	
<i>Writing:</i>	3 ^{3,4}

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 ¹⁻²
Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.	

Breadth Requirements† (See page 80)

<i>Group A:</i>	12 ¹⁻⁴
Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.	
<i>Group B:</i>	12 ¹⁻⁴
The study of culture and institutions over time. Twelve credits representing at least two areas.	

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

<i>Group D:</i>	13 ¹⁻⁴
The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory.	

MAJOR REQUIREMENTS†

Within the Department

MATH 210 Discrete Mathematics I	3 ¹
MATH 242 Analytic Geometry and Calculus B**	4 ¹
MATH 243 Analytic Geometry and Calculus C	4 ²
MATH 349 Elements of Linear Systems	3 ²
MATH 302 Ordinary Differential Equations	3 ²
MATH 303 Differential Equations Computing Lab	1 ²
MATH 503 Advanced Calculus for Applications	3 ^{3,4}
or	
MATH 508 Introduction to Complex Variables and Applications	3
MATH 389 Graph Theory	3 ^{3,4}
or	
MATH 529 Linear Programming: Methods and Applications	3
STAT 370 Introduction to Statistical Analysis I	3 ³
STAT 371 Introduction to Statistical Analysis II	3 ³
Twelve credits of mathematics and/or statistics at the 300 level or above. MATH 600 and 602 are not applicable.	12 ^{3,4}

Within the College

CISC 105 General Computer Science	3 ^{1,2}
or	
CISC 106 General Computer Science for Engineers	3
or	
CISC 180 Introduction to Computer Science I	3
ENGL 312 Written Communications in Business	3 ^{3,4}
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 ¹⁻⁴
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ELECTIVES

Electives

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

CREDITS TO TOTAL A MINIMUM OF	124
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DEGREE: BACHELOR OF SCIENCE
MAJOR: MATHEMATICAL SCIENCES
CONCENTRATION: MATHEMATICS OF COMPUTATION

CURRICULUM CREDITS*

UNIVERSITY REQUIREMENTS

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

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

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

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

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

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

COLLEGE REQUIREMENTS

Skill Requirements

Writing: 3^{3,4}

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^{1,4}

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

Breadth Requirements† (See page 80)

A total of twenty-one credits from Groups A, B and C is 21^{1,4}
required with a minimum of six credits in each group. The six credits from each group could be from the same area.

Group A

Understanding and appreciation of the creative arts and humanities.

Group B

The study of culture and institutions over time.

Group C

Empirically based study of human beings and their environment.

MAJOR REQUIREMENTS‡

Within the Department

MATH 210	Discrete Mathematics I	3 ¹
MATH 242	Analytic Geometry and Calculus B**	4 ¹
MATH 243	Analytic Geometry and Calculus C	4 ²
MATH 260	Concepts of Analysis	3 ²
MATH 349	Elements of Linear Systems	3
MATH 302	Ordinary Differential Equations	3 ²
MATH 303	Differential Equations Computing Lab	1 ²
MATH 315	Discrete Mathematics II	3 ²
MATH 389	Graph Theory	3 ^{2,3}
MATH 426	Introduction to Numerical Analysis and Algorithmic Computation	3 ^{3,4}
MATH 450	Abstract Algebra	3 ^{4,3,4}
MATH 503	Advanced Calculus for Applications	3 ^{3,4}
or		
MATH 600	Advanced Calculus – Introduction to Analysis I	3
and		
MATH 602	Advanced Calculus – Introduction to Analysis II	3
MATH 508	Introduction to Complex Variables and Application	3 ^{3,4}
MATH 529	Linear Programming: Methods and Applications	3 ^{3,4}
STAT 370	Introduction to Statistical Analysis I	3 ³
STAT 371	Introduction to Statistical Analysis II	3 ³

Within the College

Related Work

CISC 180	Introduction to Computer Science I	3 ^{1,2}
and		
CISC 181	Introduction to Computer Science II	3
CISC 220	Data Structures	3 ^{3,4}
CISC 411	Algorithmic and Numerical Solution of Differential Equations	3 ^{3,4}
CISC 627	Simulation of Discrete Systems	3 ^{3,4}

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

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

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

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

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

ENGL 312	Written Communications in Business	3 ^{3,4}
	Two-semester sequence of laboratory science	8 ^{1,2}

ELECTIVES

Electives

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

CREDITS TO TOTAL A MINIMUM OF 128

DEGREE: BACHELOR OF SCIENCE

MAJOR: MATHEMATICAL SCIENCES

CONCENTRATION: MATHEMATICS OF MANAGEMENT SCIENCES AND OPERATION RESEARCH

CURRICULUM

CREDITS*

UNIVERSITY REQUIREMENTS

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

COLLEGE REQUIREMENTS

Skill Requirements

Writing: 3^{3,4}

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^{1,4}

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

Breadth Requirements† (See page 80)

A total of twenty-one credits from Groups A, B and C is 21^{1,4}
required with a minimum of six credits in each group. The six credits from each group could be from the same area.

Group A

Understanding and appreciation of the creative arts and humanities.

Group B

The study of culture and institutions over time.

Group C

Empirically based study of human beings and their environment.

MAJOR REQUIREMENTS‡

Within the Department

MATH 210	Discrete Mathematics I	3 ¹
MATH 242	Analytic Geometry and Calculus B**	4 ¹
MATH 243	Analytic Geometry and Calculus C	4 ²
MATH 260	Concepts of Analysis	3 ²
MATH 349	Elements of Linear Systems	3 ²
MATH 302	Ordinary Differential Equations	3 ²

MATH 303	Differential Equations Computing Lab	1 ²
MATH 389	Graph Theory	3 ^{2,3}
MATH 426	Introduction to Numerical Analysis and Algorithmic Computation	3 ^{3,4}
MATH 450	Abstract Algebra	3-4 ^{3,4}
MATH 508	Introduction to Complex Variables and Application	3 ^{3,4}
MATH 529	Linear Programming: Methods and Applications	3 ^{3,4}
MATH 600	Fundamentals of Real Analysis	3 ^{3,4}
MATH 602	Advanced Calculus – Introduction to Analysis II	3 ^{3,4}
MATH 672	Vector Spaces	3 ^{3,4}
STAT 370	Introduction to Statistical Analysis I	3 ³
STAT 371	Introduction to Statistical Analysis II	3 ³
Nine credits from the following:		9 ^{3,4}
MATH 428	Algorithmic and Numerical Solution to Differential Equations	3
MATH 518	Mathematical Models and Applications	3
MATH 630	Introduction to Probability Theory	3
MATH 631	Introduction to Stochastic Processes	3
MATH 632	Topics in Applied Probability	3
MATH 688	Combinatorics and Graph Theory with Applications I	3
MATH 689	Combinatorics and Graph Theory with Applications II	3
MATH 694	Methods of Optimization	3

Within the College*Related Work*

PHYS 207	General Physics	4 ^{1,2}
PHYS 208	General Physics	4 ^{1,2}
CISC 105	General Computer Science	3 ^{1,2}
or		
CISC 106	General Computer Science for Engineers	3
or		
CISC 180	Introduction to Computer Science I	3
ENGL 312	Written Communications in Business	3 ^{3,4}

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 128

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

CURRICULUM	CREDITS*
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UNIVERSITY REQUIREMENTS

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

COLLEGE REQUIREMENTS*Skill Requirements*

Writing:	3 ^{3,4}
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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: 0-12¹⁻⁴

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

Breadth Requirements† (See page 80)

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

Group A

Understanding and appreciation of the creative arts and humanities.

Group B

The study of culture and institutions over time.

Group C

Empirically based study of human beings and their environment.

MAJOR REQUIREMENTS‡**Within the Department**

MATH 210	Discrete Mathematics I	3 ¹
MATH 242	Analytic Geometry and Calculus B**	4 ¹
MATH 243	Analytic Geometry and Calculus C	4 ²
MATH 260	Concepts of Analysis	3 ²
MATH 349	Elements of Linear Systems	3 ²
MATH 302	Ordinary Differential Equations	3 ²
MATH 303	Differential Equations Computing Lab	1 ²
MATH 426	Introduction to Numerical Analysis and Algorithmic Computation	3 ^{3,4}
MATH 450	Abstract Algebra	3-4 ^{3,4}
MATH 601	Advanced Calculus – Introduction to Analysis I	3 ^{3,4}
MATH 602	Advanced Calculus – Introduction to Analysis II	3 ^{3,4}
MATH 508	Introduction to Complex Variables and Application	3 ^{3,4}
MATH 672	Vector Spaces	3 ^{3,4}
MATH 609	Intermediate Ordinary Differential Equations	3 ^{3,4}
and		
MATH 610	Introduction to Partial Differential Equations with Applications	3 ^{3,4}
or		
MATH 616	Introduction to Applied Mathematics I	3
and		
MATH 617	Introduction to Applied Mathematics II	3 ^{3,4}
STAT 370	Introduction to Statistical Analysis I	3 ³
STAT 371	Introduction to Statistical Analysis II	3 ³

Related Work

PHYS 207	General Physics	4 ^{1,2}
PHYS 208	General Physics	4 ^{1,2}
PHYS 209	General Physics	3 ^{2,3}
PHYS 419	Analytical Mechanics	3 ^{3,4}
PHYS 620	Analytical Mechanics	3 ^{3,4}
CISC 105	General Computer Science	3 ^{1,2}
or		
CISC 106	General Computer Science for Engineers	3
or		
CISC 180	Introduction to Computer Science I	3
ENGL 312	Written Communications in Business	3 ^{3,4}

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

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

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

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

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

ELECTIVES

Electives

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

CREDITS TO TOTAL A MINIMUM OF 128

DEGREE: BACHELOR OF SCIENCE MAJOR: STATISTICS

CURRICULUM CREDITS*

UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing 3¹
Three credits in an approved course or courses stressing
multicultural, ethnic, and/or gender-related content.# 3^{1,4}

COLLEGE REQUIREMENTS

Skill Requirements

Writing: 3^{3,4}

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^{1,4}

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

Breadth Requirements† (See page 80)

A total of twenty-one credits from Groups A, B and C is 21^{1,4}
required with a minimum of six credits in each group. The six credits from each group could be from the same area.

Group A

Understanding and appreciation of the creative arts and humanities.

Group B

The study of culture and institutions over time.

Group C

Empirically based study of human beings and their environment.

MAJOR REQUIREMENTS‡

Within the Department

MATH 210 Discrete Mathematics I 3¹
MATH 242 Analytic Geometry and Calculus B** 4¹
MATH 243 Analytic Geometry and Calculus C 4²
MATH 260 Concepts of Analysis 3²
MATH 349 Elements of Linear Systems 3²
MATH 302 Ordinary Differential Equations 3²
MATH 303 Differential Equations Computing Lab 1²
MATH 426 Introduction to Numerical Analysis and
Algorithmic Computation 3^{3,4}
MATH 503 Advanced Calculus for Applications 3^{3,4}
or

MATH 600 Advanced Calculus – Introduction to Analysis I 3
and
MATH 602 Advanced Calculus – Introduction to Analysis II 3
STAT 205 Statistical Methods 4¹
STAT 370 Introduction to Statistical Analysis 3²
STAT 371 Introduction to Statistical Analysis II 3²
STAT 418 Sampling Methods 3^{3,4}
STAT 420 Data Analysis and Nonparametric Statistics 3^{3,4}
STAT 611 Regression Analysis 3^{3,4}
STAT 615 Design and Analysis of Experiments 3^{3,4}
Three credits from the following:
STAT 616 Design and Analysis of Experiments II 3⁴
STAT 617 Multivariate Methods 3⁴
STAT 618 Sampling Techniques 3⁴

Within the College

Related Work

CISC 105 General Computer Science 3^{1,2}
or
CISC 106 General Computer Science for Engineers 3
or
CISC 180 Introduction to Computer Science I 3
ENGL 312 Written Communications in Business 3^{3,4}
Two-semester sequence of laboratory science 8^{1,2}

Area of application: 15^{1,4}

This program requires a fifteen-credit area of application outside the department. Students must meet regularly with the adviser to develop it.

ELECTIVES

Electives

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

CREDITS TO TOTAL A MINIMUM OF 128

DEGREE: BACHELOR OF ARTS MAJOR: MATHEMATICS EDUCATION

CURRICULUM CREDITS*

UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing 3¹
Three credits in an approved course or courses stressing
multicultural, ethnic, and/or gender-related content.# 3^{1,4}

COLLEGE REQUIREMENTS

Skill Requirements

Writing: 3^{3,4}

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^{1,2}

Completion of the intermediate-level course (107 or 112) in a given language or, for students with more than 4 years of high

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

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

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

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

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

school foreign language or the equivalent, satisfactory performance on a proficiency test in that language. French, Russian or German is recommended.

Breadth Requirements† (See page 80)

<i>Group A</i>	12 ^{1,4}
Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.	
<i>Group B</i>	9 ^{1,4}
The study of culture and institutions over time. Nine credits representing at least two areas.	
<i>Group C</i>	9 ^{1,4}
Empirically based study of human beings and their environment. Nine credits representing at least two areas.	
<i>Group D</i>	13 ^{1,4}
The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory.	

MAJOR REQUIREMENTS‡

Within the Department

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

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

MATH 503 Advanced Calculus for Applications	3 ^{1,4}
MATH 508 Introduction to Complex Variables and Application	3 ^{1,4}

Within the College

CISC 105 General Computer Science	3 ^{1,2}
OR	
CISC 106 General Computer Science for Engineering	3
OR	
CISC 180 Introduction to Computer Science	3
PHYS 207 General Physics	4 ^{1,2}
ENGL 312 Written Communications in Business	3 ^{3,4}

Professional Studies

EDST 201 Education and Society	3 ^{1,4}
EDST 304 Educational Psychology – Social Aspects	3 ^{1,4}
EDST 305 Educational Psychology – Cognitive Aspects	3 ^{1,4}
MATH 379 Problem Solving Strategies	1 ⁴
MATH 380 Approaches to Teaching Mathematics	3 ⁴
MATH 381 Practicum in Secondary Mathematics	1 ²
EDST 420 Reading in the Content Areas	1 ^{1,4}
EDDV 400 Student Teaching	9 ⁴

ELECTIVES

Electives

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

CREDITS TO TOTAL. A MINIMUM OF 124

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

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

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

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

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

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

REQUIREMENTS FOR A MINOR IN MATHEMATICS

A student seeking a minor in mathematics must obtain permission from the chairperson or his designee in the Department of Mathematical Sciences. Course requirements consist of a total of 18 credits in mathematics to include 9 credits above MATH 303 (MATH 341 is not considered above MATH 303 since it is a comparable course from a different track. However, MATH 342 may be counted as above MATH 303, provided MATH 349 is

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

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

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

not included in the count.) STAT 370 or any course cross-listed with a mathematics course may be counted toward the minor, except that courses in mathematics education (e.g., MATH 379, 380, 381) do not apply.

MILITARY SCIENCE

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

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

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

Pay and Allowances. ROTC students contracting for a commission during the junior and senior years receive a subsistence allowance of \$100 per academic month. Obligations: Up to four years of active duty (full-time employment), or eight years of part-time employment (one weekend per month and an annual two-week encampment) in the National Guard or Reserve Components, upon receipt of a commission.

Army ROTC Scholarship. Three- and four-year scholarships are awarded on the basis of academic merit and leadership potential. Scholarships pay tuition, an allowance for books and supplies, fees, and \$100 subsistence allowance per academic month. Obligation: Two to four years of active duty or eight years of part-time employment (as above) upon receipt of commission. A limited number of scholarships are available to qualified students who desire a commission in the Army Reserve or National Guard.

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

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

MUSIC

The Department of Music provides a wide variety of educational opportunities, ranging from experiences directed to the cultural enrichment of the entire University community to the preparation of students for professional careers in music. It is a full member of the National Association of Schools of Music.

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

A minor in music is available in applied music, musical studies, or jazz studies.

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

Entering majors are expected to demonstrate a high level of musical achievement and aptitude. Placement auditions and musicality tests for those students who wish to enter in the fall semester should be completed by June 1 of the preceding spring and must be completed before

acceptance is granted. *Acceptance to the University does not indicate acceptance as a music major.* Students who transfer from accredited colleges are placed in appropriate levels of music theory, literature, and applied music according to the results of tests given at the time of transfer.

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

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

During the academic year, there are many opportunities for students to participate in and attend musical events, including concerts, recitals and opera workshop productions. Over the years many significant musicians have been guests of the department: John Browning, Aaron Copland, John Corigliano, Norman Dello Joio, Eugene Fodor, Dizzy Gillespie, Howard Hanson, Lou Harrison, Karol Husa, Vincent Persichetti, Gunther Schuller, Gian Carlo Menotti, Robert Ward, and Joan Tower.

The faculty of the department include many accomplished performers who are recognized throughout North America and Europe for their artistry. In addition, many faculty have gained prominence through musical composition and scholarly publication. The department is a leader in the development of computer-based instruction in music and video-disc technology.

DEGREE: BACHELOR OF ARTS

MAJOR: MUSIC

CURRICULUM

CREDITS*

UNIVERSITY REQUIREMENTS

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

COLLEGE REQUIREMENTS

Skill Requirements

<i>Writing:</i>	3 ^{3,4}
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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 ^{1,4}
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Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination

Mathematics:

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

or

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

or

One of the following:

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

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

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

(This requirement is partially satisfied by MUSC 195 and 196.)

<i>Group B</i>	12 ¹⁻⁴
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The study of culture and institutions over time. Twelve credits representing at least two areas. (This requirement is partially satisfied by MUSC 311, 312, and 313. HIST 101 and 102 are recommended.)

<i>Group C</i>	12 ¹⁻⁴
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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 ¹⁻⁴
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The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory.

MAJOR REQUIREMENTS

Within the Department‡

Applied Music

MUSC 100 Recital Attendance (four semesters required)	0 ^{1,2}
MUSC 161 Private Study	2 ¹⁻³
MUSC 162 Private Study	2 ¹⁻³
MUSC 261 Private Study	2 ^{2,4}
MUSC 262 Private Study	2 ^{2,4}

Theory

MUSC 185 Ear Training and Sight Singing I	2 ¹⁻³
MUSC 186 Ear Training and Sight Singing II	2 ¹⁻³
MUSC 285 Advanced Ear Training and Sight Singing I	2 ^{2,4}
MUSC 286 Advanced Ear Training and Sight Singing II	2 ^{2,4}
MUSC 195 Harmony I	3 ¹⁻³
MUSC 196 Harmony II	3 ¹⁻³
MUSC 295 Advanced Harmony I	3 ^{2,4}
MUSC 296 Advanced Harmony II	3 ^{2,4}

Ensemble

Four credits of large ensembles. (Students must be enrolled in a large ensemble during three of the semesters in which they are enrolled in Applied Music.)	4 ¹⁻⁴
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Literature

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

Music Elective

(excludes private study)	1 ¹⁻⁴
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*Superior figures indicate year or years in which the course is normally taken, i.e., ¹freshman year, ²sophomore year, etc.

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

†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.

ELECTIVES*Electives*

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

CREDITS TO TOTAL A MINIMUM OF 124

DEGREE: BACHELOR OF MUSIC
MAJOR: APPLIED MUSIC
CONCENTRATION: INSTRUMENTAL

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

ENGL 110 Critical Reading and Writing 3¹
 Three credits in an approved course or courses stressing 3¹⁻⁴
 multicultural, ethnic, and/or gender-related content #

COLLEGE REQUIREMENTS*Skill Requirements*

Writing: 3^{3,4}

A writing course involving significant writing experience including two papers with a combined minimum of 3,000 words to be submitted for extended faculty critique of both composition and content. This course must be taken in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

Mathematics:

MATH 114 Elementary Mathematics and Statistics 3¹
 (designed for students who do not intend to continue the study of mathematics)

or

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

or

One of the following:

MATH 221 Calculus I 3

MATH 241 Analytic Geometry and Calculus A 4

or

Successful performance on the college proficiency exam.

English literature course (200 level – Group A or B) 3¹⁻⁴

HIST 101 Western Civilization to 1648 3¹⁻⁴

HIST 102 Western Civilization: 1648 to the Present 3¹⁻⁴

FLLT Languages courses 8¹⁻⁴

Breadth Requirements† (See page 80)

Group A 6¹⁻⁴

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

Group B 15¹⁻⁴

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

Group C 9¹⁻⁴

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

Group D 6¹⁻⁴

The study of natural phenomena through experiment and analysis.

MAJOR REQUIREMENTS**Within the Department***Applied Music*

MUSC 100 Recital Attendance (six semesters required) 0¹⁻³
 MUSC 161 Private Study 4¹
 MUSC 162 Private Study 4¹
 MUSC 261 Private Study 4²
 MUSC 262 Private Study 4²
 MUSC 361 Private Study 4³
 MUSC 362 Private Study 4³
 MUSC 461 Private Study 4⁴
 MUSC 462 Private Study 4⁴
 MUSC 175 Class Piano: Elementary I 1¹⁻⁴
 MUSC 176 Class Piano: Elementary II 1¹⁻⁴
 MUSC 301 Junior Recital 0^{3,4}
 MUSC 401 Senior Recital 0⁴

Theory

MUSC 185 Ear Training and Sight Singing I 2^{1,2}
 MUSC 186 Ear Training and Sight Singing II 2^{1,2}
 MUSC 285 Advanced Ear Training and Sight Singing I 2^{2,3}
 MUSC 286 Advanced Ear Training and Sight Singing II 2^{2,3}
 MUSC 195 Harmony I 3^{1,2}
 MUSC 196 Harmony II 3^{1,2}
 MUSC 295 Advanced Harmony I 3^{2,3}
 MUSC 296 Advanced Harmony II 3^{2,3}
 MUSC Theory courses 4-6¹⁻⁴

Ensemble

Twelve credits selected from the following: 12¹⁻⁴

MUSC 115 Band, MUSC 116 Jazz Ensemble, MUSC 117 University Orchestra, MUSC 118 Percussion Ensemble, and MUSC 321 Ensemble.

(All Ensembles may be repeated.)

Guitarists must complete the following:

MUSC 321 Ensemble: Guitar 8¹⁻⁴
 MUSC 109, 115, 116, 117 or 118 2^{1,2}

Literature

MUSC 111 Introduction to Music History 3^{2,3}
 MUSC 311 Music History: 1450-1750 3^{2,3}
 MUSC 312 Music History: 1715-1825 3^{3,4}
 MUSC 313 Music History: 1825 to the Present 3^{3,4}
 Music Elective 3¹⁻⁴

Music Electives

Excludes private study on primary instrument 7-9¹⁻⁴

May include two credits of ensemble.

CREDITS TO TOTAL A MINIMUM OF 130

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

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

ENGL 110 Critical Reading and Writing 3¹

Three credits in an approved course or courses stressing 3¹⁻⁴
 multicultural, ethnic, and/or gender-related content #

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

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

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

COLLEGE REQUIREMENTS*Skill Requirements**Writing:* 3^{3,4}

A writing course involving significant writing experience including two papers with a combined minimum of 3,000 words to be submitted for extended faculty critique of both composition and content. This course must be taken in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

Mathematics:

MATH 114 Elementary Mathematics and Statistics 3¹
(designed for students who do not intend to continue the study of mathematics)

or

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

or

One of the following:

MATH 221 Calculus I 3

MATH 241 Analytic Geometry and Calculus A 4

or

Successful performance on the college proficiency exam.

English literature course (200 level – Group A or B) 3¹⁻⁴

HIST 101 Western Civilization to 1648 3¹⁻⁴

HIST 102 Western Civilization: 1648 to the Present 3¹⁻⁴

FLLT Languages courses 8¹⁻⁴

Breadth Requirements† (See page 80)*Group A* 6¹⁻⁴

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

Group B 15¹⁻⁴

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

Group C 9¹⁻⁴

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

Group D 6¹⁻⁴

The study of natural phenomena through experiment and analysis.

MAJOR REQUIREMENTS**Within the Department***Applied Music*

MUSC 100 Recital Attendance (six semesters required) 0¹⁻³

MUSC 161 Private Study 4¹

MUSC 162 Private Study 4¹

MUSC 261 Private Study 4²

MUSC 262 Private Study 4²

MUSC 361 Private Study 4³

MUSC 362 Private Study 4³

MUSC 461 Private Study 4⁴

MUSC 462 Private Study 4⁴

MUSC 301 Junior Recital 0^{3,4}

MUSC 401 Senior Recital 0⁴

MUSC 193 Sight Reading at the Keyboard I 1^{1,2}

MUSC 194 Sight Reading at the Keyboard II 1^{1,2}

Theory

MUSC 185 Ear Training and Sight Singing I 2^{1,2}

MUSC 186 Ear Training and Sight Singing II 2^{1,2}

MUSC 285 Advanced Ear Training and Sight Singing I 2^{2,3}

MUSC 286 Advanced Ear Training and Sight Singing II 2^{2,3}

MUSC 195 Harmony I 3^{1,2}

MUSC 196 Harmony II 3^{1,2}

MUSC 295 Advanced Harmony I 3^{2,3}

MUSC 296 Advanced Harmony II 3^{2,3}

MUSC 393 Keyboard Harmony 2^{3,4}

MUSC 394 Keyboard Harmony 2^{3,4}

MUSC Theory courses 4-6¹⁻⁴

Ensemble

MUSC 321 Ensemble 2¹⁻⁴

MUSC 241 Accompanying Chamber Music: Piano 1¹⁻⁴

MUSC 242 Accompanying Chamber Music: Piano 1¹⁻⁴

MUSC 341 Accompanying Chamber Music: Piano 1¹⁻⁴

MUSC 342 Accompanying Chamber Music: Piano 1¹⁻⁴

MUSC 441 Accompanying Chamber Music: Piano 1¹⁻⁴

MUSC 442 Accompanying Chamber Music: Piano 1¹⁻⁴

Literature

MUSC 111 Introduction to Music History 3^{2,3}

MUSC 311 Music History: 1450-1750 3^{2,3}

MUSC 312 Music History: 1715-1825 3^{3,4}

MUSC 313 Music History 1825 to the Present 3^{3,4}

MUSC 363 Keyboard Literature I† 3^{3,4}

MUSC 364 Keyboard Literature II† 3^{3,4}

Music Literature course 3¹⁻⁴

Music Electives

Excludes private study on primary instrument. 8¹⁻⁴

May include two credits of ensemble.

CREDITS TO TOTAL A MINIMUM OF 137

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

ENGL 110 Critical Reading and Writing 3¹

Three credits in an approved course or courses stressing 3¹⁻⁴
multicultural, ethnic, and/or gender-related content.†

COLLEGE REQUIREMENTS*Skill Requirements**Writing:* 3^{3,4}

A writing course involving significant writing experience including two papers with a combined minimum of 3,000 words to be submitted for extended faculty critique of both composition and content. This course must be taken in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

Mathematics:

MATH 114 Elementary Mathematics and Statistics 3¹

(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., ¹freshman year, ²sophomore year, etc.

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

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

†Organ Majors may substitute MUSC 335, MUED 336, or MUSC 328.

MATH 115 Pre-Calculus	3
(designed for students who intend to continue the study of mathematics)	
or	
One of the following:	
MATH 221 Calculus I	3
MATH 241 Analytic Geometry and Calculus A	4
or	
Successful performance on the college proficiency exam.	
HIST 102 Western Civilization: 1648 to the Present	3 ¹⁻⁴
Languages courses (French, German and Italian)	24 ¹⁻⁴
THEA 226 Acting I	3 ¹⁻⁴
<i>Breadth Requirements†</i> (See page 80)	
<i>Group A</i>	6 ¹⁻⁴
Understanding and appreciation of the creative arts and humanities. (This requirement is satisfied by MUSC 195 and 196.)	
<i>Group B</i>	12 ¹⁻⁴
The study of culture and institutions over time. Twelve credits representing at least two areas. (This requirement is partially satisfied by MUSC 311, 312, 313 and HIST 102.)	
<i>Group C</i>	6 ¹⁻⁴
Empirically based study of human beings and their environment. Six credits representing at least two areas.	
<i>Group D</i>	3 ¹⁻⁴
The study of natural phenomena through experiment and analysis.	

MAJOR REQUIREMENTS

Within the Department

Applied Music

MUSC 100 Recital Attendance (six semesters required)	0 ¹⁻³
MUSC 161 Private Study	4 ¹
MUSC 162 Private Study	4 ¹
MUSC 261 Private Study	4 ²
MUSC 262 Private Study	4 ²
MUSC 361 Private Study	4 ³
MUSC 362 Private Study	4 ³
MUSC 461 Private Study	4 ⁴
MUSC 462 Private Study	4 ⁴
MUSC 175 Class Piano: Elementary I	1 ^{1,2}
MUSC 176 Class Piano: Elementary II	1 ^{1,2}
MUSC 275 Class Piano: Intermediate I	1 ^{2,3}
MUSC 276 Class Piano: Intermediate II	1 ^{2,3}
MUSC 301 Junior Recital	0 ³
MUSC 401 Senior Recital	0 ⁴

Theory

MUSC 185 Ear Training and Sight Singing I	2 ^{1,2}
MUSC 186 Ear Training and Sight Singing II	2 ^{1,2}
MUSC 285 Advanced Ear Training and Sight Singing I	2 ^{2,3}
MUSC 286 Advanced Ear Training and Sight Singing II	2 ^{2,3}
MUSC 195 Harmony I	3 ^{1,2}
MUSC 196 Harmony II	3 ^{1,2}
MUSC 295 Advanced Harmony I	3 ^{2,3}
MUSC 296 Advanced Harmony II	3 ^{2,3}

Ensemble

MUSC 109 Choral Union	8 ¹⁻⁴
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Literature

MUSC 111 Introduction to Music History	3 ^{2,3}
MUSC 311 Music History: 1450-1750	3 ^{2,3}
MUSC 312 Music History: 1715-1825	3 ^{3,4}

MUSC 313 Music History: 1825 to the Present	3 ^{3,4}
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Related Music Studies

MUSC 171 Diction: English	1 ¹
MUSC 172 Diction: Italian	1 ¹
MUSC 271 Diction: German	1 ²
MUSC 272 Diction: French	1 ²
MUSC 365 Vocal Coaching I	1 ³
MUSC 465 Vocal Coaching II	1 ⁴
MUSC 489 Opera Workshop	1 ¹⁻⁴

Music Electives

Twelve credits from the following: (including four credits from MUSC 327, 427 and/or 428)	12 ¹⁻⁴
MUSC 103 Introduction to Opera	3
MUSC 327 German Lieder	2
MUSC 335 Basic Conducting	2
MUSC 395 Form Analysis	3
MUSC 397 Contemporary Harmony	3
MUSC 427 French Art Song	2
MUSC 428 Twentieth-Century Art Song	2
MUSC 479 Opera Production	3
MUSC 480 Vocal Pedagogy	3
MUSC 489 Opera Workshop (up to 3 credits allowed)	1
MUSC 495 Analysis for Performance	3

ELECTIVES

Electives

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

CREDITS TO TOTAL A MINIMUM OF 140

DEGREE: BACHELOR OF MUSIC MAJOR: MUSIC EDUCATION CONCENTRATION: INSTRUMENTAL

CURRICULUM CREDITS*

UNIVERSITY REQUIREMENTS

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

COLLEGE REQUIREMENTS

Skill Requirements

<i>Writing</i>	3 ^{3,4}
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A writing course involving significant writing experience including two papers with a combined minimum of 3,000 words to be submitted for extended faculty critique of both composition and content. This course must be taken in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

Mathematics:

MATH 114 Elementary Mathematics and Statistics	3 ¹
(designed for students who do not intend to continue the study of mathematics)	
or	
MATH 115 Pre-Calculus	3
(designed for students who intend to continue the study of mathematics)	
or	

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

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

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

One of the following:	
MATH 221 Calculus I	3
MATH 241 Analytic Geometry and Calculus A	4
or	
Successful performance on the college proficiency exam.	
<i>Breadth Requirements†</i> (See page 80)	
Art or Art History course, may be from Group A or B	3 ¹⁻⁴
<i>Group A</i>	9 ¹⁻⁴
Understanding and appreciation of the creative arts and humanities. Nine credits representing at least two areas. (This requirement is partially satisfied by MUSC 195 and 196.)	
<i>Group B</i>	9 ¹⁻⁴
The study of culture and institutions over time. (MUSC 311, 312, and 313 count toward completion of this requirement.)	
<i>Group C</i>	9 ¹⁻⁴
Empirically based study of human beings and their environment. Nine credits representing at least two areas.	
<i>Group D</i>	4 ¹⁻⁴
The study of natural phenomena through experiment and analysis. One science course with an associated laboratory.	

MAJOR REQUIREMENTS**Within the Department**

<i>Applied Music</i>	
MUSC 100 Recital Attendance (six semesters required)	0 ¹⁻³
MUSC 161 Private Study	2 ¹
MUSC 162 Private Study	2 ¹
MUSC 261 Private Study	2 ²
MUSC 262 Private Study	2 ²
MUSC 361 Private Study	2 ³
MUSC 362 Private Study	2 ³
MUSC 461 Private Study	2 ⁴
MUSC 175 Class Piano: Elementary I	1 ¹⁻³
MUSC 176 Class Piano: Elementary II	1 ¹⁻⁴
MUSC 174 Class Voice: Beginning	1 ¹⁻³
MUSC 301 Junior Recital	0 ^{3,4}
<i>Theory</i>	
MUSC 185 Ear Training and Sight Singing I	2 ^{1,2}
MUSC 186 Ear Training and Sight Singing II	2 ^{1,2}
MUSC 285 Advanced Ear Training and Sight Singing I	2 ^{2,3}
MUSC 286 Advanced Ear Training and Sight Singing II	2 ^{2,3}
MUSC 195 Harmony I	3 ^{1,2}
MUSC 196 Harmony II	3 ^{1,2}
MUSC 295 Advanced Harmony I	3 ^{2,3}
MUSC 296 Advanced Harmony II	3 ^{2,3}
MUSC 331 Orchestration	2 ^{3,4}
<i>Ensemble</i>	
MUSC 115 Band	7 ¹⁻⁴
<i>Literature</i>	
MUSC 111 Introduction to Music History	3 ^{2,3}
Six credits to be selected from the following:	
MUSC 311 Music History: 1450-1750	3 ^{2,3}
MUSC 312 Music History: 1715-1825	3 ^{3,4}
MUSC 313 Music History: 1825 to the Present	3 ^{3,4}
<i>Secondary Instruments</i>	
MUSC 214 Stringed Instruments Class	1 ¹⁻³
MUSC 215 High Brass Instruments Class	1 ¹⁻³
MUSC 216 Low Brass Instruments Class	1 ¹⁻³
MUSC 217 Woodwind Instruments Class I	1 ¹⁻⁴
MUSC 218 Woodwind Instruments Class II	1 ¹⁻³
MUSC 219 Percussion Instruments	1 ¹⁻³

<i>Music Methods</i>	
MUSC 335 Basic Conducting	2 ³
MUED 279 Practicum in Music Education	3 ²
MUED 337 Instrumental Conducting	2 ^{3,4}
MUED 379 Music in the Elementary and Junior High (or Middle) School	3 ³
MUED 479 Secondary Music Materials and Approaches	3 ⁴

<i>Music Electives</i>	
Six music electives excluding ensemble and private study on primary instrument	6 ¹⁻⁴

Professional Studies

<i>Education</i>	
EDST 201 Education and Society	3 ¹⁻⁴
EDST 304 Educational Psychology – Social Aspects	3 ¹⁻⁴
EDST 305 Educational Psychology – Cognitive Aspects	3 ^{3,4}
EDDV 400 Student Teaching	9 ⁴

CREDITS TO TOTAL A MINIMUM OF 126

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

CURRICULUM CREDITS*

UNIVERSITY REQUIREMENTS

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

COLLEGE REQUIREMENTS

<i>Skill Requirements</i>	
<i>Writing:</i>	3 ^{3,4}

A writing course involving significant writing experience including two papers with a combined minimum of 3,000 words to be submitted for extended faculty critique of both composition and content. This course must be taken in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

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

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

or	
One of the following:	
MATH 221 Calculus I	3
MATH 241 Analytic Geometry and Calculus A	4
or	
Successful performance on the college proficiency exam.	

<i>Breadth Requirements†</i> (See page 80)	
Art or Art History course, may be from Group A or B	3 ¹⁻⁴
<i>Group A</i>	9 ¹⁻⁴
Understanding and appreciation of the creative arts and humanities. Nine credits representing at least two areas. (This requirement is partially satisfied by MUSC 195 and 196.)	

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

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

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

<i>Group B</i>	9 ¹⁻⁴
The study of culture and institutions over time. (MUSC 311, 312, and 313 count toward completion of this requirement.)	
<i>Group C</i>	9 ¹⁻⁴
Empirically based study of human beings and their environment. Nine credits representing at least two areas.	
<i>Group D</i>	4 ¹⁻⁴
The study of natural phenomena through experiment and analysis. One science course with an associated laboratory.	

MAJOR REQUIREMENTS**Within the Department***Applied Music*

MUSC 100	Recital Attendance (six semesters required)	0 ¹⁻³
MUSC 161	Private Study	2 ¹
MUSC 162	Private Study	2 ¹
MUSC 261	Private Study	2 ²
MUSC 262	Private Study	2 ²
MUSC 361	Private Study	2 ³
MUSC 362	Private Study	2 ³
MUSC 461	Private Study	2 ⁴
MUSC 174	Class Voice: Beginning	1 ¹⁻⁴
MUSC 274	Class Voice: Advanced	1 ¹⁻⁴
MUSC 480	Vocal Pedagogy	3 ^{3,4}
MUSC 171	Diction: English	1 ¹
MUSC 172	Diction: Italian	1 ¹
MUSC 271	Diction: German	1 ²
MUSC 272	Diction: French	1 ²
MUSC 301	Junior Recital	0 ^{3,4}

Theory

MUSC 185	Ear Training and Sight Singing I	2 ^{1,2}
MUSC 186	Ear Training and Sight Singing II	2 ^{1,2}
MUSC 285	Advanced Ear Training and Sight Singing I	2 ^{2,3}
MUSC 286	Advanced Ear Training and Sight Singing II	2 ^{2,3}
MUSC 195	Harmony I	3 ^{1,2}
MUSC 196	Harmony II	3 ^{1,2}
MUSC 295	Advanced Harmony I	3 ^{2,3}
MUSC 296	Advanced Harmony II	3 ^{2,3}
MUSC 397	Contemporary Harmony	3 ^{3,4}

Ensemble

MUSC 109	Choral Union	7 ¹⁻⁴
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Literature

MUSC 111	Introduction to Music History	3 ^{2,3}
Six credits to be selected from:		
MUSC 311	Music History: 1450-1750	3 ^{2,3}
MUSC 312	Music History: 1715-1825	3 ^{3,4}
MUSC 313	Music History: 1825 to the Present	3 ^{3,4}
MUSC 328	Choral Literature	3 ^{3,4}

Secondary Instruments

MUSC 214	Stringed Instruments Class	1 ¹⁻⁴
MUSC 215	High Brass Instruments Class	1 ¹⁻⁴
or		
MUSC 217	Woodwind Instruments Class I	1

Music Methods

MUSC 335	Basic Conducting	2 ³
MUED 279	Practicum in Music Education	3 ²
MUED 336	Choral Conducting	2 ^{3,4}
MUED 379	Music in the Elementary and Junior High (or Middle) School	3 ^{3,4}
MUED 479	Secondary Music Materials and Approaches	3 ^{3,4}

Music Electives

Three credits of music electives excluding ensemble and private study on primary instrument. (MUSC 407 recommended)	3 ¹⁻⁴
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Professional Studies*Education*

EDST 201	Education and Society	3 ¹⁻⁴
EDST 304	Educational Psychology – Social Aspects	3 ¹⁻⁴
EDST 305	Educational Psychology – Cognitive Aspects	3 ^{3,4}
EDDV 400	Student Teaching	9 ⁴

CREDITS TO TOTAL A MINIMUM OF 126

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

CURRICULUM CREDITS*

UNIVERSITY REQUIREMENTS

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

COLLEGE REQUIREMENTS*Skill Requirements*

<i>Writing:</i>	3 ^{3,4}
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A writing course involving significant writing experience including two papers with a combined minimum of 3,000 words to be submitted for extended faculty critique of both composition and content. This course must be taken in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

Mathematics:

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

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

One of the following:

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

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

Art or Art History course, may be from Group A or B	3 ¹⁻⁴
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<i>Group A</i>	9 ¹⁻⁴
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Understanding and appreciation of the creative arts and humanities. Nine credits representing at least two areas. (This requirement is partially satisfied by MUSC 195 and 196.)

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

<i>Group C</i>	9 ¹⁻⁴
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Empirically based study of human beings and their environment. Nine credits representing at least two areas.

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

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

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

<i>Group D</i>	4 ¹⁻⁴
The study of natural phenomena through experiment and analysis. One science course with an associated laboratory.	

MAJOR REQUIREMENTS**Within the Department***Applied Music*

MUSC 100	Recital Attendance (six semesters required)	0 ¹⁻³
MUSC 161	Private Study	2 ¹
MUSC 162	Private Study	2 ¹
MUSC 261	Private Study	2 ²
MUSC 262	Private Study	2 ²
MUSC 361	Private Study	2 ³
MUSC 362	Private Study	2 ³
MUSC 461	Private Study	2 ⁴
MUSC 175	Class Piano: Elementary I	1 ²
MUSC 176	Class Piano: Elementary II	1 ^{2,3}
MUSC 275	Class Piano: Intermediate I	1 ^{2,3}
MUSC 276	Class Piano: Intermediate II	1 ^{3,4}
MUSC 171	Diction: English	1 ¹
MUSC 172	Diction: Italian	1 ¹
MUSC 271	Diction: German	1 ²
MUSC 272	Diction: French	1 ²
MUSC 480	Vocal Pedagogy	3 ¹⁻⁴
MUSC 301	Junior Recital	0 ^{3,4}

Theory

MUSC 185	Ear Training and Sight Singing I	2 ^{1,2}
MUSC 186	Ear Training and Sight Singing II	2 ^{1,2}
MUSC 285	Advanced Ear Training and Sight Singing I	2 ^{2,3}
MUSC 286	Advanced Ear Training and Sight Singing II	2 ^{2,3}
MUSC 195	Harmony I	3 ^{1,2}
MUSC 196	Harmony II	3 ^{1,2}
MUSC 295	Advanced Harmony I	3 ^{2,3}
MUSC 296	Advanced Harmony II	3 ^{2,3}
MUSC 397	Contemporary Harmony	3 ^{3,4}

Ensemble

MUSC 109	Choral Union	7 ¹⁻⁴
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Literature

MUSC 111	Introduction to Music History	3 ^{2,3}
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Six credits to be selected from:

MUSC 311	Music History: 1450-1750	3 ^{2,3}
MUSC 312	Music History: 1715-1825	3 ^{3,4}
MUSC 313	Music History: 1825 to the Present	3 ^{3,4}

MUSC 328	Choral Literature	3 ³
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Secondary Instruments

MUSC 214	Stringed Instruments Class	1 ¹⁻⁴
MUSC 215	High Brass Instruments Class	1 ¹⁻⁴
or		
MUSC 217	Woodwind Instruments Class I	1 ¹⁻⁴

Music Methods

MUSC 335	Basic Conducting	2 ³
MUED 279	Practicum in Music Education	3 ²
MUED 336	Choral Conducting	2 ^{3,4}
MUED 379	Music in the Elementary and Junior High. (or Middle) School	3 ³
MUED 479	Secondary Music Materials and Approaches	3 ⁴

Music Electives

Three credits of music electives excluding ensemble and private study on primary instrument. (MUSC 407 recommended)	3 ¹⁻⁴
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Professional Studies*Education*

EDST 201	Education and Society	3 ²⁻⁴
EDST 304	Educational Psychology – Social Aspects	3 ³⁻⁴
EDST 305	Educational Psychology – Cognitive Aspects	3 ³⁻⁴
EDDV 400	Student Teaching	9 ⁴

CREDITS TO TOTAL A MINIMUM OF 128
DEGREE: BACHELOR OF MUSIC
MAJOR: THEORY AND COMPOSITION
CONCENTRATION: THEORY OR COMPOSITION
CURRICULUM**CREDITS*****UNIVERSITY REQUIREMENTS**

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

COLLEGE REQUIREMENTS*Skill Requirements*

<i>Writing:</i>	3 ^{3,4}
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A writing course involving significant writing experience including two papers with a combined minimum of 3,000 words to be submitted for extended faculty critique of both composition and content. This course must be taken in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

Mathematics:

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

or

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

or

One of the following:

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

or

Successful performance on the college proficiency exam.

Modern Languages

Twelve credits in one of the following: French, German or Italian	12 ¹⁻⁴
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HIST 101	Western Civilization to 1648	3 ¹⁻⁴
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HIST 102	Western Civilization 1648 to the Present	3 ¹⁻⁴
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Breadth Requirements† (See page 80)

Two 200-level English literature courses selected from Group A or B	6 ¹⁻⁴
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<i>Group A</i>	6 ¹⁻⁴
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Understanding and appreciation of the creative arts and humanities. (This requirement is satisfied by MUSC 195 and 196.)

<i>Group B</i>	15 ¹⁻⁴
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The study of culture and institutions over time. Fifteen credits representing at least two areas. (This requirement is satisfied by MUSC 311, 312, 313, HIST 101, and 102.)

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

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

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

<i>Group C</i>	9 ^{1,4}
Empirically based study of human beings and their environment. Nine credits representing at least two areas.	
<i>Group D</i>	10 ^{1,4}
The study of natural phenomena through experiment and analysis. Ten credits in at least two areas. Must include one course with an associated laboratory.	

MAJOR REQUIREMENTS**Within the Department***Applied Music*

MUSC 100	Recital Attendance (six semesters required)	0 ^{1,3}
MUSC 175	Class Piano: Elementary I	1 ^{1,2}
MUSC 176	Class Piano: Elementary II	1 ^{1,2}
MUSC 275	Class Piano: Intermediate I	1 ^{2,3}
MUSC 276	Class Piano: Intermediate II	1 ^{2,3}

Secondary Instruments and Conducting

MUSC 214	Stringed Instruments Class	1 ^{1,4}
MUSC 215	High Brass Instruments Class	1 ^{1,4}
MUSC 217	Woodwind Instruments Class I	1 ^{1,4}
MUSC 219	Percussion Instruments	1 ^{1,4}
MUSC 335	Basic Conducting	2 ^{1,4}

Theory

MUSC 185	Ear Training and Sight Singing I	2 ^{1,2}
MUSC 186	Ear Training and Sight Singing II	2 ^{1,2}
MUSC 285	Advanced Ear Training and Sight Singing I	2 ^{2,3}
MUSC 286	Advanced Ear Training and Sight Singing II	2 ^{2,3}
MUSC 195	Harmony I	3 ^{1,2}
MUSC 196	Harmony II	3 ^{1,2}
MUSC 295	Advanced Harmony I	3 ^{2,3}
MUSC 296	Advanced Harmony II	3 ^{2,3}
MUSC 287	Music Technology	3 ^{1,4}
MUSC 331	Orchestration	3 ^{2,4}
MUSC 385	Electronic Music I	3 ^{1,4}
MUSC 392	Contrapuntal Writing	3 ^{2,4}
MUSC 393	Keyboard Harmony I	2 ^{3,4}
MUSC 394	Keyboard Harmony II	2 ^{3,4}
MUSC 395	Form Analysis	3 ^{3,4}
MUSC 397	Contemporary Harmony	3 ^{3,4}

Theory Majors

MUSC 485	Pedagogy of Theory	3 ⁴
MUSC 420	Advanced Composition	3 ⁴
MUSC 420	Advanced Composition	3 ⁴
or		
MUSC	Theory, literature or applied music elective	3 ⁴
MUSC 421	Special Projects in Music Theory	3 ⁴

Composition Majors

MUSC 485	Pedagogy of Theory	3 ⁴
MUSC 420	Advanced Composition	3 ^{3,4}
MUSC 420	Advanced Composition	3 ⁴
MUSC 420	Advanced Composition	3 ⁴

Literature

MUSC 111	Introduction to Music History	3 ^{2,3}
MUSC 311	Music History: 1450-1750	3 ^{2,3}
MUSC 312	Music History: 1715-1825	3 ^{3,4}
MUSC 313	Music History: 1825 to the Present	3 ^{3,4}
MUSC 407	Twentieth-Century Music	3 ^{3,4}

Ensemble

A variety of ensembles are recommended, including		4 ^{1,4}
Chamber ensembles.		

CREDITS TO TOTAL A MINIMUM OF 130

*Not required of persons minoring in applied keyboard.

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

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

§A minimum grade of C is required in each course.

REQUIREMENTS FOR A MINOR IN MUSIC

A minimum grade of C is required in each course for music minors.

MUSIC MINOR: APPLIED MUSIC

The Applied Music minor is for nonmusic majors with some musical background who wish to continue their musical training on a more formal basis. Places in the minor program are dependent upon the total load of the applied faculty member involved. Admission into the Applied Music minor is determined by audition and musicality testing. The requirements are:

	<i>Credits</i>
Class Piano* MUSC 175	1
Applied Music** MUSC 161, 162, 261, 262	8
Ensemble†	4
Theory/Composition	5
MUSC 185 and 195	
Music Literature/History	3
(MUSC 101 and 102 do not fulfill this requirement. Any other music history course will do.)	

Total Credits **21**
(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. MUSC 181 and 281	4
Ensemble MUSC 116 (four semesters), MUSC 321	5
Jazz Improvisation MUSC 293 and 294	6
Harmony and History MUSC 197 and 207	6
Total Credits §	21

MUSIC MINOR: MUSICAL STUDIES

The Musical Studies minor is for nonmusic majors who wish to increase their knowledge and understanding of the history and theory of music. No audition is required for admission into the Musical Studies minor. The requirements are:

	<i>Credits</i>
MUSC 185 Ear Training and Sight Singing I	2
MUSC 195 Harmony I	3

MUSC 111 Introduction to Music History.....	3
MUSC 311 Music History: 1450-1750.....	3
or	
MUSC 312 Music History: 1715-1825.....	
or	
MUSC 313 Music History: 1825 to Present.....	
MUSC Ensemble.....	2
MUSC History/Literature Elective (MUSC 101 and 102 do not fulfill this requirement. Any other music history course will do.).....	3
MUSC Theory Elective (MUSC 186, 196, 197, 287, 385).....	2-3
Total Credits	18-19

PHILOSOPHY

Philosophy provides training in basic methods of reasoning, both clear thinking procedures for everyday decision making and more formal techniques of logical analysis. It examines fundamental issues and ideas about our knowledge and values. It furnishes a critical perspective on the methods and results of other disciplines.

A major, a minor, or a concentration in philosophy is a useful background for many careers including the teaching of philosophy. Majors often go on to graduate work in other arts and science disciplines, as well as to further schooling in law, theology, education, data processing, or business. In general, philosophy offers all students opportunities to develop their critical and analytical skills.

DEGREE: BACHELOR OF ARTS MAJOR: PHILOSOPHY

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

COLLEGE REQUIREMENTS

Skill Requirements

Writing:.....	3, 3, 4
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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 ¹⁻⁴
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Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Mathematics:

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

or

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

or

One of the following:

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

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

Group A.....	12 ¹⁻⁴
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Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.

Group B.....	12 ¹⁻⁴
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The study of culture and institutions over time. Twelve credits representing at least two areas.

Group C.....	12 ¹⁻⁴
--------------	-------------------

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

Group D.....	13 ¹⁻⁴
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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

PHIL 105 Clear Thinking.....	3
or	
PHIL 205 Logic.....	3
PHIL 203 Ethics.....	3
PHIL 301 Ancient Philosophy.....	3
PHIL 303 Modern Philosophy.....	3
PHIL 465 Philosophical Topics.....	3

Fifteen additional Philosophy credits at least six of which must be at the 300 level or above. Must include one of the following:

PHIL 302 Medieval Philosophy.....	3
PHIL 304 Nineteenth Century Philosophy.....	3
PHIL 305 Twentieth Century Philosophy.....	3
PHIL 317 American Philosophy.....	3
PHIL 320 Experience, Knowledge and Reality.....	3

Within the College

Six of the hours in the student's program must consist of 6¹⁻⁴ multicultural courses, selected in consultation with the advisor, from suitable courses in Philosophy, Black-American Studies, Women's Studies, Jewish Studies, or Oriental, Latin-American or African Studies. The six hours may include courses in Philosophy which count toward completing the major requirement.

ELECTIVES

Electives

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

CREDITS TO TOTAL A MINIMUM OF	124
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*Superior figures indicate year or years in which the course is normally taken, i.e., ¹freshman year, ²sophomore year, etc.

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

†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 PHILOSOPHY

A minor in philosophy requires a minimum of 15 credits, consisting of PHIL 105 or 205; PHIL 203; PHIL 301 or PHIL 303; an additional 300-level PHIL course; and a PHIL elective.

The American Philosophical Association's national headquarters is on the Delaware campus.

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	
ENGL 110 Critical Reading and Writing	3 ¹
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content.#	3 ¹⁻⁴
COLLEGE REQUIREMENTS	
<i>Skill Requirements</i>	
Writing:	3 ^{3,4}
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 ¹⁻⁴
Completion of the intermediate-level course (107 or 112) in a	

given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Mathematics:

MATH 114 Elementary Mathematics and Statistics 3¹
(designed for students who do not intend to continue the study
of mathematics)

or

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

or

One of the following:

MATH 221 Calculus I 3

MATH 241 Analytic Geometry and Calculus A 4

(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 80)

Group A 12¹⁻⁴

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

Group B 12¹⁻⁴

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

Group C 12¹⁻⁴

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

Group D 13¹⁻⁴

The study of natural phenomena through experiment and
analysis. A minimum of thirteen credits representing at least
two areas including a minimum of one course with an associat-
ed laboratory. (PHYS 207, 208 and CHEM 103, 104 are strongly
recommended to satisfy this group requirement.)

MAJOR REQUIREMENTS**Within the Departments§**

PHYS 207 General Physics (strongly recommended) 4¹

or

PHYS 201 General Physics 4

PHYS 208 General Physics (strongly recommended) 4^{1,2}

or

PHYS 202 General Physics 4

Twenty-two credits in Physics, of which fifteen must be at 22²⁻⁴
the 300 level or higher.

Within the College

MATH 241 Analytic Geometry and Calculus A (recommended) 4¹

MATH 242 Analytic Geometry and Calculus B 4^{1,2}

MATH 243 Analytic Geometry and Calculus C 4²

or

MATH 221 Calculus I 3

MATH 222 Calculus II 3

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

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

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

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

§Ordinarily, no more than four credits from among PHYS 101, 201, and 207 may be counted toward graduation requirements; similarly no more than four from among PHYS 102, 202, 208. Students interested in majoring in Physics who have taken an introductory sequence other than PHYS 207-8 should consult with a member of the Physics faculty to consider the need for additional introductory courses, for which some additional credit toward graduation may be given with permission of the Physics chair.

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**

ENGL 110 Critical Reading and Writing 3¹
 Three credits in an approved course or courses stressing 3^{1,4}
 multicultural, ethnic, and/or gender-related content.#

COLLEGE REQUIREMENTS*Skill Requirements*

Writing: 3^{3,4}

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^{1,4}

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

Breadth Requirements† (See page 80)

A total of twenty-one credits from Groups A, B and C is 21^{1,4}
 required with a minimum of six credits in each group. The six credits from each group could be from the same area.

Group A

Understanding and appreciation of the creative arts and humanities.

Group B

The study of culture and institutions over time.

Group C

Empirically based study of human beings and their environment.

MAJOR REQUIREMENTS**Within the Departments**

PHYS 207 General Physics 4¹
 PHYS 208 General Physics 4²
 PHYS 209 General Physics 3²
 PHYS 313 Physical Optics 4²
 PHYS 419 Analytical Mechanics 3³
 PHYS 603 Electricity and Magnetism 3⁴
 PHYS 604 Electricity and Magnetism 3⁴
 PHYS 616 Kinetic Theory and Thermodynamics 3^{3,4}

PHYS 617 Atomic and Nuclear Physics Laboratory 1^{3,4}
 PHYS 618 Atomic and Nuclear Physics Laboratory 1^{3,4}
 PHYS 620 Analytical Mechanics 3³
 PHYS 621 Introduction to Modern Physics 3^{3,4}
 PHYS 622 Introduction to Modern Physics 3^{3,4}
 PHYS 645 Electronics for Scientists 3³
 PHYS 646 Instrumentation for Scientists 3³

Within the College*Mathematics:*

MATH 241 Analytic Geometry and Calculus A 4¹
 MATH 242 Analytic Geometry and Calculus B 4^{1,2}
 MATH 243 Analytic Geometry and Calculus C 4³
 MATH 302 Ordinary Differential Equations 3²
 MATH 503 Advanced Calculus for Applications 3³

One of the following four courses:

MATH 349 Elements of Linear Systems 3
 MATH 508 Introduction to Complex Variables and Application 3^{3,4}
 MATH 514 Topics in Advanced Mathematics for Engineers 3
 MATH 521 Fourier Series and Orthogonal Polynomials 3

Natural Science

CHEM 103 General Chemistry 4^{1,3}
 CHEM 104 General Chemistry 4^{1,3}

ELECTIVES*Electives*

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

CREDITS TO TOTAL A MINIMUM OF 130

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

ENGL 110 Critical Reading and Writing 3¹
 Three credits in an approved course or courses stressing 3^{1,4}
 multicultural, ethnic, and/or gender-related content.#

COLLEGE REQUIREMENTS*Skill Requirements*

Writing: 3^{3,4}

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^{1,4}

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

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

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

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

§Ordinarily, no more than four credits from among PHYS 101, 201, and 207 may be counted toward graduation requirements; similarly no more than four from among PHYS 102, 202, 208. Students interested in majoring in Physics who have taken an introductory sequence other than PHYS 207-8 should consult with a member of the Physics faculty to consider the need for additional introductory courses, for which some additional credit toward graduation may be given with permission of the Physics chair.

Breadth Requirements† (See page 80)

A total of twenty-one credits from Groups A, B and C is 21^{1,4}
 required with a minimum of six credits in each group. The six
 credits from each group could be from the same area.

Group A

Understanding and appreciation of the creative arts and
 humanities.

Group B

The study of culture and institutions over time.

Group C

Empirically based study of human beings and their
 environment.

MAJOR REQUIREMENTS**Within the Department§**

PHYS 207	General Physics	4 ¹
PHYS 208	General Physics	4 ^{1,2}
PHYS 209	General Physics	3 ²
PHYS 313	Physical Optics	4 ²
PHYS 419	Analytical Mechanics	3 ³
PHYS 620	Analytical Mechanics	3 ³
PHYS 603	Electricity and Magnetism and	3 ⁴
PHYS 604	Electricity and Magnetism	3 ⁴
or		
PHYS 645	Electronics for Scientists	3 ³
PHYS 646	Instrumentation for Scientists	3 ³
PHYS 621	Introduction to Modern Physics	3 ⁴
PHYS 622	Introduction to Modern Physics	3 ⁴
PHYS 616	Kinetic Theory and Thermodynamics	3 ⁴
PHYS 133	Introduction to Astronomy	4 ^{1,2}
PHYS 134	Introduction to Astronomy	4 ^{1,2}
PHYS 449	Introduction to Research	3 ^{3,4}
Six credits of Astronomy courses above the 200 level		6 ^{1,4}
Two credits of Physics or Mathematics electives above the 200 level.		2 ^{1,4}

Within the College**Mathematics:**

MATH 241	Analytic Geometry and Calculus A	4 ¹
MATH 242	Analytic Geometry and Calculus B	4 ^{1,2}
MATH 243	Analytic Geometry and Calculus C	4 ²
MATH 302	Ordinary Differential Equations	3 ²
MATH 503	Advanced Calculus for Applications	3 ^{2,3}

ELECTIVES**Electives**

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

CREDITS TO TOTAL A MINIMUM OF 130

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

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

COLLEGE REQUIREMENTS**Skill Requirements**

Writing:	3 ^{3,4}
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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 stu-
 dent's junior or senior year. Appropriate writing courses are
 normally designated in the semester's Registration Booklet.

Foreign Language: 0-12^{1,4}

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

Breadth Requirements† (See page 80)

A total of twenty-one credits from Groups A, B and C is 21^{1,4}
 required with a minimum of six credits in each group. The six
 credits from each group could be from the same area.

Group A

Understanding and appreciation of the creative arts and
 humanities.

Group B

The study of culture and institutions over time.

Group C

Empirically based study of human beings and their
 environment.

MAJOR REQUIREMENTS**Within the Department§**

PHYS 207	General Physics	4 ¹
PHYS 208	General Physics	4 ²
PHYS 209	General Physics	3 ²
PHYS 419	Analytical Mechanics	3 ³
PHYS 620	Analytical Mechanics	3 ³
PHYS 603	Electricity and Magnetism	3 ^{3,4}
PHYS 645	Electronics for Scientists	3 ³
PHYS 646	Instrumentation for Scientists	3 ³
PHYS 621	Introduction to Modern Physics	3 ^{3,4}
PHYS 622	Introduction to Modern Physics	3 ^{3,4}
PHYS 616	Kinetic Theory and Thermodynamics	3 ^{3,4}

Within the College**Mathematics:**

MATH 241	Analytic Geometry and Calculus A	4 ¹
MATH 242	Analytic Geometry and Calculus B	4 ¹
MATH 243	Analytic Geometry and Calculus C	4 ²
MATH 302	Ordinary Differential Equations	3 ²
MATH 503	Advanced Calculus for Applications	3 ^{3,4}

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

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

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

§Ordinarily, no more than four credits from among PHYS 101, 201, and 207 may be counted toward graduation requirements; similarly no more than four from among PHYS 102, 202, 208. Students interested in majoring in Physics who have taken an introductory sequence other than PHYS 207-8 should consult with a member of the Physics faculty to consider the need for additional introductory courses, for which some additional credit toward graduation may be given with permission of the Physics chair.

Natural Science

CHEM 103	General Chemistry	4 ¹
CHEM 104	General Chemistry	4 ¹
CHEM 321	Organic Chemistry	3 ^{2,4}
CHEM 322	Organic Chemistry	3 ^{2,4}
CHEM 325	Organic Chemistry Laboratory	1 ^{2,4}
CHEM 326	Organic Chemistry Laboratory	1 ^{2,4}
CHEM 457	Inorganic Chemistry	3 ^{2,4}

ELECTIVES*Electives*

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

CREDITS TO TOTAL A MINIMUM OF 130

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

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

COLLEGE REQUIREMENTS*Skill Requirement*

Writing: 3^{3,4}

A writing course involving significant writing experience including two papers with a combined minimum of 3,000 words to be submitted for extended faculty critique of both composition and content. This course must be taken in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

Breadth Requirements† (See page 80)

A total of twenty-one credits from Groups A, B and C is 21^{1,4} required with a minimum of six credits in each group. The six credits from each group could be from the same area.

Group A

Understanding and appreciation of the creative arts and humanities.

Group B

The study of culture and institutions over time.

Group C

Empirically based study of human beings and their environment.

MAJOR REQUIREMENTS**Within the Department§**

PHYS 207	General Physics	4 ¹
PHYS 208	General Physics	4 ¹
PHYS 209	General Physics	3 ²
PHYS 313	Physical Optics	4 ²

PHYS 419	Analytical Mechanics	3 ³
PHYS 645	Electronics for Scientists	3 ³
PHYS 646	Instrumentation for Scientists	3 ³
PHYS 621	Introduction to Modern Physics	3 ^{3,4}
PHYS 622	Introduction to Modern Physics	3 ^{3,4}
PHYS 616	Kinetic Theory and Thermodynamics	3 ^{3,4}
PHYS 627	Advanced Laboratory Techniques	3 ^{3,4}
PHYS 617	Atomic and Nuclear Physics Laboratory	1 ³
PHYS 618	Atomic and Nuclear Physics I laboratory	1 ⁴

Within the College*Mathematics:*

MATH 241	Analytic Geometry and Calculus A	4 ¹
MATH 242	Analytic Geometry and Calculus B	4 ¹
MATH 243	Analytic Geometry and Calculus C	4 ²
MATH 302	Ordinary Differential Equations	3 ^{2,3}

One of the following five courses:

MATH 349	Elements of Linear Systems	3 ²
MATH 503	Advanced Calculus for Applications	3 ²
MATH 508	Introduction to Complex Variables and Applications	3 ²
MATH 514	Topics in Advanced Mathematics for Engineers	3 ²
MATH 521	Fourier Series and Orthogonal Polynomials	3 ²

Natural Science

CHEM 103	General Chemistry	4 ^{1,3}
CHEM 104	General Chemistry	4 ^{1,3}

Computer Science

CISC 105	General Computer Science	3 ^{1,2}
CISC 300	Introduction to Scientific Computation	3 ^{1,2}

External to the College

ELEG 205	Linear Circuit Theory I	4 ²
ELEG 309	Electronic Circuit Analysis I	4 ^{2,3}
Six additional credits of technical engineering or computer science courses.		6 ^{3,4}

ELECTIVES*Electives*

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

CREDITS TO TOTAL A MINIMUM OF 130

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

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

COLLEGE REQUIREMENTS*Skill Requirements*

Writing: 3^{3,4}

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., ¹freshman year, ²sophomore year, etc.

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

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

§Ordinarily, no more than four credits from among PHYS 101, 201, and 207 may be counted toward graduation requirements; similarly no more than four from among PHYS 102, 202, 208. Students interested in majoring in Physics who have taken an introductory sequence other than PHYS 207-8 should consult with a member of the Physics faculty to consider the need for additional introductory courses, for which some additional credit toward graduation may be given with permission of the Physics chair.

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: 0-12¹⁻⁴

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

Mathematics:

MATH 114 Elementary Mathematics and Statistics 3¹
(designed for students who do not intend to continue the study of mathematics)

or
MATH 115 Pre-Calculus 3
(designed for students who intend to continue the study of mathematics)

or

One of the following:

MATH 221 Calculus I 3

MATH 241 Analytic Geometry and Calculus A 4

(Satisfies the Math Skills requirement and is strongly recommended as the first math course for physics majors, unless the placement exam suggests differently)

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

Group A 12¹⁻⁴

Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.

Group B 12¹⁻⁴

The study of culture and institutions over time. Twelve credits representing at least two areas.

Group C 12¹⁻⁴

Empirically based study of human beings and their environment. Twelve credits representing at least two areas.

Group D 13²⁻⁴

The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas or appropriate instructional units and including a minimum of one course with an associated laboratory. (This requirement is satisfied by PHYS 207, 208 and CHEM 103, 104.)

MAJOR REQUIREMENTS

Within the Department

PHYS 207 General Physics 4¹

PHYS 208 General Physics 4^{1,2}

PHYS 209 General Physics 3²

Nineteen credits, fifteen of which must be at the 300 level or higher

Within the College

MATH 241 Analytic Geometry and Calculus A 4¹

MATH 242 Analytic Geometry and Calculus B 4¹

MATH 243 Analytic Geometry and Calculus C 4²

CHEM 103 General Chemistry 4^{1,2}

CHEM 104 General Chemistry 4^{1,2}

Professional Studies

EDST 201 Education and Society 3¹⁻⁴

EDST 304 Educational Psychology – Social Aspects 3¹⁻⁴

EDST 305 Educational Psychology – Cognitive Aspects 3¹⁻⁴

SCEN 491 Teaching Science in Secondary Schools 4⁴

EDST 420 Reading in the Content Areas 1¹⁻⁴

EDDV 400 Student Teaching 9⁴

CREDITS TO TOTAL A MINIMUM OF 124

BACHELOR OF SCIENCE (GEOPHYSICS) CURRICULUM

In addition to the B.A. and B.S. degrees in physics, and the varied options available within them, the Physics and Astronomy Department, in cooperation with the Geology Department, offers a B.S. degree in geophysics. This degree provides a well-balanced introduction to those areas of physics and geology relevant to the geophysical study of the earth and planets, their structure and behavior. The requirements of the B.S. program in geophysics and a course sequence are outlined in the Geology section of this catalog.

REQUIREMENTS FOR A MINOR IN PHYSICS

Students in other departments can receive credit for work in physics by means of a physics minor, consisting of PHYS 207-208 plus 9 credits from PHYS courses at or above the 300 level. Students considering minoring in physics should consult the physics associate chair for advice or prerequisites for these courses and for assignment to an adviser.

POLITICAL SCIENCE

A major in political science provides liberal arts students with opportunities to acquire a broad education that will equip them to adapt to a wide variety of careers. The program for majors is designed to encourage the student to analyze the theories, institutions, and processes of political systems in the context provided by the social sciences; to stimulate the student to attain a grasp of the broad sweep of political science as a discipline; to develop a continuing and responsible interest in political activity and public affairs; to provide the student with the opportunity to acquire a fundamental understanding of political science as a basis for citizenship, a career in government, or professional study or service; and to stimulate the qualified student's interest in graduate study in political science.

Students changing their major to political science must have completed POSC 105 with a grade of C or better and completed at least 12 additional hours of University courses. Students must have a minimum of a 2.3 average to change their major to political science. Students transferring into the major from outside the University of Delaware will have their transcripts evaluated by the Department on a case-by-case basis.

†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****CURRICULUM****CREDITS*****UNIVERSITY REQUIREMENTS**

ENGL 110 Critical Reading and Writing	3 ¹
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content.#	3 ¹⁻⁴

COLLEGE REQUIREMENTS*Skill Requirements*

<i>Writing:</i>	3 ^{3,4}
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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 ¹⁻⁴
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Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Mathematics:

MATH 114 Elementary Mathematics and Statistics	3 ¹
(designed for students who do not intend to continue the study of mathematics)	

or

MATH 115 Pre-Calculus	3
(designed for students who intend to continue the study of mathematics)	

or

One of the following:

MATH 221 Calculus I	3
MATH 241 Analytic Geometry and Calculus A	4

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

<i>Group A</i>	12 ¹⁻⁴
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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 ¹⁻⁴
----------------------	-------------------

The study of culture and institutions over time. Twelve credits representing at least two areas.

<i>Group C</i>	12 ¹⁻⁴
----------------------	-------------------

Empirically based study of human beings and their environment. Twelve credits representing at least two areas.

<i>Group D</i>	13 ¹⁻⁴
----------------------	-------------------

The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory.

Within the Department

POSC 105 The American Political System	3 ¹⁻⁴
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Eighteen credits distributed as follows:	18 ¹⁻⁴
--	-------------------

Nine credits from courses at the 400 level; nine credits from courses at the 300 or 400 level.

A student must take at least one course numbered at the 300 or 400 level in four of the five fields listed below:

- American Government and Politics
- Comparative Government and Politics

- International Relations
- Public Administration and Public Policy
- Political Theory

Political Science courses	9 ¹⁻⁴
including POSC 302 Research Methods (Recommended), POSC 464 Fieldwork in Political Science (Internship)	

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
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**DEGREE: BACHELOR OF ARTS
MAJOR: POLITICAL SCIENCE EDUCATION****CURRICULUM****CREDITS*****UNIVERSITY REQUIREMENTS**

ENGL 110 Critical Reading and Writing	3 ¹
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #	3 ¹⁻⁴

COLLEGE REQUIREMENTS*Skill Requirements*

<i>Writing:</i>	3 ^{3,4}
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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 ¹⁻⁴
--------------------------------	---------------------

Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Mathematics:

MATH 114 Elementary Mathematics and Statistics	3 ¹
(designed for students who do not intend to continue the study of mathematics)	

or

MATH 115 Pre-Calculus	3
(designed for students who intend to continue the study of mathematics)	

or

One of the following:

MATH 221 Calculus I	3
MATH 241 Analytic Geometry and Calculus A	4

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

<i>Group A</i>	12 ¹⁻⁴
----------------------	-------------------

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., ¹freshman year, ²sophomore year, etc.

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 26.

†A course may be applied toward both the major requirements and a breadth requirement, but credits are counted only once toward the total credits for graduation.

<i>Group B</i>	12 ¹⁻⁴
The study of culture and institutions over time. Twelve credits representing at least two areas.	
<i>Group C</i>	12 ¹⁻⁴
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.	
<i>Group D</i>	13 ¹⁻⁴
The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory.	
Within the Department	
POSC 105 The American Political System	3 ¹⁻⁴
Eighteen credits distributed as follows:	18 ¹⁻⁴
Nine credits from courses at the 400 level; nine credits from courses at the 300 or 400 level.	
A student must take at least one course numbered at the 300 or 400 level in four of the five fields listed below:	
a. American Government and Politics	
b. Comparative Government and Politics	
c. International Relations	
d. Public Administration and Public Policy	
e. Political Theory	
Political Science courses	9 ¹⁻⁴
including POSC 302 Research Methods (Recommended)	
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 ¹⁻⁴
Anthropology course	3
Economics course	3
Geography course	3
History course	3
Sociology course	3
PSYC 201 General Psychology	3 ¹⁻⁴
Six additional credits selected from the departments listed above	6 ¹⁻⁴
Professional Studies	
EDST 201 Education and Society	3 ¹⁻⁴
EDST 304 Educational Psychology – Social Aspects	3 ¹⁻⁴
EDST 305 Educational Psychology – Cognitive Aspects	3 ¹⁻⁴
HIST 491 Planning a Course of Instruction	3 ⁴
HIST 493 Seminar: Problems in Teaching History and Social Sciences	3 ⁴
EDST 420 Reading in the Content Areas	1 ¹⁻⁴
EDDV 400 Student Teaching	9 ⁴
CREDITS TO TOTAL A MINIMUM OF	124

The department maintains an advisory program for prelaw students and for students interested in government service.

Except as otherwise indicated, nonmajors may enroll in any political science course with consent of the instructor and without prerequisites.

REQUIREMENTS FOR A MINOR IN POLITICAL SCIENCE

The required 15 credits for a minor are distributed as follows:

Lower-division courses: POSC 105.

Field requirements: Three courses numbered 300 or above are required. Two of these courses must be at the 400 level in two of the five fields of political science, as indicated under requirements for the major. Students are required to take one additional political science course.

REQUIREMENTS FOR A MINOR IN PUBLIC ADMINISTRATION

The required 18 credits for this minor are distributed as follows:

Lower-division course: POSC 105, 302, 303.

Field requirements: Any two of three courses numbered 400 or above in Organization Theory, Public Personnel Administration, and Public Financial Management are required. Students are also required to take one additional course from a list of nine political science electives.

PSYCHOLOGY

Psychology is a biological, behavioral, social, and applied science, whose theories are integral to an understanding of ourselves and our place in the world.

The Department of Psychology provides students with an understanding of the principles of behavior, of the scientific methods used to derive and add to those principles, and of appropriate ways in which to apply such knowledge. Experimental psychology seeks to isolate in the laboratory the basic processes involved in neural systems, learning, perception, social behavior, personality development, thinking, etc. Applied psychology focuses on methods used to approach problems in settings such as industry, government, and the general community, as well as in the field of mental health. The many aspects of theoretical, experimental and applied psychology are represented in the introductory and 300-level courses, and more advanced courses enable students to pursue special interests in greater depth. Many courses offer experience in laboratory or field research. Campus facilities available to students include laboratories for the study of cognitive, learning, perceptual, physiological, and social processes and for the investigation of clinically interesting phenomena. Computers available for modeling psychological processes and for data analysis include terminals tied to the Computing Center and several minicomputers in the department's laboratories. Additional facilities in nearby institutions are used for the attainment of research and teaching objectives.

**DEGREE: BACHELOR OF ARTS
MAJOR: PSYCHOLOGY****CURRICULUM CREDITS*****UNIVERSITY REQUIREMENTS**

ENGL 110 Critical Reading and Writing	3 ¹
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content.#	3 ¹⁻⁴

COLLEGE REQUIREMENTS*Skill Requirements*

<i>Writing:</i>	3 ^{3,4}
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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 ^{1,4}
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Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Mathematics:

MATH 114 Elementary Mathematics and Statistics	3 ¹
(designed for students who do not intend to continue the study of mathematics)	

or

MATH 115 Pre-Calculus	3
(designed for students who intend to continue the study of mathematics)	

or

One of the following:	
MATH 221 Calculus I	3
MATH 241 Analytic Geometry and Calculus A	4

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

<i>Group A</i>	12 ^{1,4}
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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 ^{1,4}
----------------------	-------------------

The study of culture and institutions over time. Twelve credits representing at least two areas.

<i>Group C</i>	12 ^{1,4}
----------------------	-------------------

Empirically based study of human beings and their environment. Twelve credits representing at least two areas.

<i>Group D</i>	13 ^{1,4}
----------------------	-------------------

The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory.

MAJOR REQUIREMENTS**Within the Department**

PSYC 201 General Psychology	3 ¹
PSYC 309 Measurement and Statistics†	3 ¹⁻²
PSYC 415 History and Systems of Psychology†††	3 ⁴

One of the following four courses:

PSYC 301 Personality†≠	3 ¹⁻²
PSYC 303 Introduction to Social Psychology†≠	3
PSYC 325 Child Psychology†≠	3
PSYC 334 Abnormal Psychology†≠	3

One of the following four courses:≠

PSYC 350 Developmental Psychology††≠	3 ²⁻³
PSYC 370 Research in Personality††≠	3
PSYC 380 Psychopathology††≠	3
PSYC 390 Social Psychology††≠	3

Two of the following four courses:

PSYC 310 Sensation and Perception††	3 ²⁻³
PSYC 312 Learning and Motivation††	3
PSYC 314 Brain and Behavior†	3
PSYC 340 Cognition††	3

Two courses at or above the 400 level	6 ¹⁻⁴
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however, PSYC 466 and 468 may not be used to fulfill this requirement.

Three credits of any Psychology course	3 ²⁻⁴
(except PSYC 301, 303, 325 and 334)	

ELECTIVES*Electives*

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF	124
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**DEGREE: BACHELOR OF ARTS
MAJOR: PSYCHOLOGY EDUCATION****CURRICULUM CREDITS*****UNIVERSITY REQUIREMENTS**

ENGL 110 Critical Reading and Writing	3 ¹
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content.#	3 ¹⁻⁴

COLLEGE REQUIREMENTS*Skill Requirements*

<i>Writing:</i>	3 ^{3,4}
-----------------------	------------------

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., ¹freshman year, ²sophomore year, etc.

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 26.

†A course may be applied toward both the major requirements and a breadth requirement, but credits are counted only once toward the total credits for graduation.

††Prerequisite: PSYC 201.

†††Prerequisite: PSYC 201 and PSYC 309 (Measurement and Statistics).

††††Prerequisite: Students must have completed the 300 level course requirements.

≠Note the following restrictions:

If PSYC 350 is used for the major, PSYC 325 may not be used; If PSYC 370 is used for the major, PSYC 301 may not be used.

If PSYC 380 is used for the major, PSYC 334 may not be used; If PSYC 390 is used for the major, PSYC 303 may not be used.

If both courses in one of the above pairs are taken, only the lower numbered course will count toward the 30 credits required for the major. However, both courses in each pair may be counted toward the 124 credit minimum for the Bachelor of Arts degree.

Foreign Language: 0-12¹⁻⁴
Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Mathematics:

MATH 114 Elementary Mathematics and Statistics 3¹
(designed for students who do not intend to continue the study of mathematics)

or

MATH 115 Pre-Calculus 3
(designed for students who intend to continue the study of mathematics)

or

One of the following:

MATH 221 Calculus I 3

MATH 241 Analytic Geometry and Calculus A 4

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

Group A 12¹⁻⁴

Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.

Group B 12¹⁻⁴

The study of culture and institutions over time. Twelve credits representing at least two areas.

Group C 12¹⁻⁴

Empirically based study of human beings and their environment. Twelve credits representing at least two areas.

Group D 13¹⁻⁴

The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory.

MAJOR REQUIREMENTS

Within the Department

PSYC 201 General Psychology 3¹

PSYC 309 Measurement and Statistics† 3¹⁻²

PSYC 415 History and Systems of Psychology††† 3⁴

One of the following four courses:

PSYC 301 Personality†≠ 3¹⁻²

PSYC 303 Introduction to Social Psychology†≠ 3

PSYC 325 Child Psychology†≠ 3

PSYC 334 Abnormal Psychology†≠ 3

One of the following four courses:≠

PSYC 350 Developmental Psychology††≠ 3²⁻³

PSYC 370 Research in Personality††≠ 3

PSYC 380 Psychopathology††≠ 3

PSYC 390 Social Psychology††≠ 3

Two of the following four courses:

PSYC 310 Sensation and Perception†† 3²⁻³

PSYC 312 Learning and Motivation†† 3

PSYC 314 Brain and Behavior† 3

PSYC 340 Cognition†† 3

*Superior figures indicate year or years in which the course is normally taken, i.e., ¹freshman year, ²sophomore year, etc.

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 26.

†A course may be applied toward both the major requirements and a breadth requirement, but credits are counted only once toward the total credits for graduation

††Prerequisite: PSYC 201.

†††Prerequisite: PSYC 201 and PSYC 309 (Measurement and Statistics).

††††Prerequisite: Students must have completed the 300 level course requirements.

≠Note the following restrictions:

If PSYC 301 is taken, PSYC 370 may not be counted for the major; If PSYC 303 is taken, PSYC 390 may not be counted for the major.

If PSYC 325 is taken, PSYC 350 may not be counted for the major; If PSYC 334 is taken, PSYC 380 may not be counted for the major.

If both courses in one of the above pairs are taken, only the lower numbered course will count toward the 30 credits required for the major. However, both courses in each pair may be counted toward the 124 credit minimum for the Bachelor of Arts degree.

Two courses at or above the 400 level 6¹⁻⁴

however, PSYC 466 and 468 may not be used to fulfill this requirement.

Three credits of any Psychology course 3²⁻⁴
(except PSYC 301, 303, 325 and 334)

Within the College

Twenty-four credits in the following social sciences with at least three credits in each department:

Anthropology course 3¹⁻⁴

Economics course 3¹⁻⁴

Geography course 3¹⁻⁴

History course 3¹⁻⁴

Political Science course 3¹⁻⁴

Sociology course 3¹⁻⁴

Six additional credits selected from the departments listed above 6¹⁻⁴

Professional Studies

EDST 201 Education and Society 3¹⁻⁴

EDST 304 Educational Psychology – Social Aspects 3¹⁻⁴

EDST 305 Educational Psychology – Cognitive Aspects 3¹⁻⁴

HIST 491 Planning a Course of Instruction 3⁴

HIST 493 Seminar: Problems in Teaching History and 3⁴
Social Sciences

EDST 420 Reading in the Content Areas 1¹⁻⁴

EDDV 400 Student Teaching 9⁴

ELECTIVES

Electives

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF 124

Students in the University Honors Program may major in psychology. In addition to the general requirements for a major, specific requirements for those in the Honors Program may be obtained from the department or the Honors Program office.

REQUIREMENTS FOR A MINOR IN PSYCHOLOGY

A minor in psychology requires 18 credits including PSYC 201; PSYC 309; one course chosen from PSYC 301, 303, 325, or 334; one course chosen from PSYC 310, 312, 314, or 340; one course chosen from PSYC 350, 370, 380, or 390; AND any three credits in psychology (with the following restrictions):

If PSYC 301 is taken, PSYC 370 may not be counted for the minor.

If PSYC 303 is taken, PSYC 390 may not be counted for the minor.

If PSYC 325 is taken, PSYC 350 may not be counted for the minor.

If PSYC 334 is taken, PSYC 380 may not be counted for the minor.

SOCIOLOGY

Undergraduate courses in sociology acquaint students with the sociological point of view, a distinct way of looking at social phenomena. They contribute to students' understanding of social behavior and the setting in which it occurs. Thus, they include the study of social relationships, groups, organizations and institutions, communities, and societies.

The major in sociology combines a liberal arts foundation with extensive interdisciplinary study. For those students who are interested, it complements this study with on-the-job experiences in professional organizations. These experiences are tailored to meet individual career interests.

Careers available to students with undergraduate degrees have changed dramatically in the past decade. Some occupations have become glutted with qualified applicants, while others are expanding rapidly and need new, competent professionals. Currently, many sociology students see expanding opportunities in such areas as urban planning, health services, public administration, social work, and social services.

The undergraduate program in sociology, therefore, provides its majors with several options. In addition to pursuing a regular major in sociology, students may choose to specialize in any of six concentrations: 1) pre-graduate school preparation, 2) social welfare, 3) applied urban studies, 4) health services, 5) law and society, and 6) data analysis. In addition, a student may earn a secondary school teaching credential through the sociology education major. The concentrations, the sociology education major, and the regular major are described below.

DEGREE: BACHELOR OF ARTS

MAJOR: SOCIOLOGY

CURRICULUM

CREDITS*

UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing	3 ¹
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #	3 ¹⁻⁴

COLLEGE REQUIREMENTS

Skill Requirements

Writing:	3 ^{3,4}
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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 ¹⁻⁴
Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.	

Mathematics:

MATH 114 or MATH 170 Elementary Mathematics and Statistics ..	3 ¹
(designed for students who do not intend to continue the study of mathematics)	

or

MATH 115 or MATH 171 Pre-Calculus	3
(designed for students who intend to continue the study of mathematics)	

or

One of the following:

MATH 221 Calculus I	3
MATH 241 Analytic Geometry and Calculus A	4

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

Group A	12 ¹⁻⁴
Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.	

Group B	12 ¹⁻⁴
The study of culture and institutions over time. Twelve credits representing at least two areas.	

Group C	12 ¹⁻⁴
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.	

Group D	13 ¹⁻⁴
The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory.	

MAJOR REQUIREMENTS

Within the Department

SOCI 201 Introduction to Sociology	3 ¹⁻⁴
SOCI 301 Introduction of Sociological Research	3 ¹⁻⁴
SOCI 312 Theories of Society	3 ¹⁻⁴
Seven Sociology courses	21 ¹⁻⁴
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	15 ¹⁻⁴
the adviser, normally from among the following departments: Economics, Black American Studies, Criminal Justice, Geography, History, Philosophy, Political Science and International Relations, Psychology, and Statistics	

ELECTIVES

Electives

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF	124
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*Superior figures indicate year or years in which the course is normally taken, i.e., ¹freshman year, ²sophomore year, etc.

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 26.

†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

ENGL 110 Critical Reading and Writing 3¹
 Three credits in an approved course or courses stressing 3¹⁻⁴
 multicultural, ethnic, and/or gender-related content.#

COLLEGE REQUIREMENTS

Skill Requirements

Writing: 3^{3,4}

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: 0-12¹⁻⁴

Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Mathematics:

MATH 114 or MATH 170 Elementary Mathematics and Statistics 3¹
 (designed for students who do not intend to continue the study of mathematics)

or

MATH 115 or MATH 171 Pre-Calculus 3
 (designed for students who intend to continue the study of mathematics)

or

One of the following:

MATH 221 Calculus I 3

MATH 241 Analytic Geometry and Calculus A 4

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

Group A: 12¹⁻⁴

Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.

Group B: 12¹⁻⁴

The study of culture and institutions over time. Twelve credits representing at least two areas.

Group C: 12¹⁻⁴

Empirically based study of human beings and their environment. Twelve credits representing at least two areas.

Group D: 13¹⁻⁴

The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory.

MAJOR REQUIREMENTS

Within the Department

SOCI 201 Introduction to Sociology 3¹⁻⁴

SOCI 301 Introduction of Sociological Research 3¹⁻⁴

SOCI 312 Theories of Society 3¹⁻⁴

Two Sociology courses at the 600 level 6¹⁻⁴

SOCI 605 Data Collection 3¹⁻⁴

or

SOCI 612 Development of Sociological Theory 3

Any four additional Sociology courses 12¹⁻⁴

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 3¹⁻⁴

Four courses from Group C chosen with the approval of the student's adviser. 12¹⁻⁴

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: SOCIOLOGY
CONCENTRATION: SOCIAL WELFARE

CURRICULUM CREDITS*

UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing 3¹

Three credits in an approved course or courses stressing 3¹⁻⁴
 multicultural, ethnic, and/or gender-related content.#

COLLEGE REQUIREMENTS

Skill Requirements

Writing: 3^{3,4}

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: 0-12¹⁻⁴

Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Mathematics:

MATH 114 or MATH 170 Elementary Mathematics and Statistics 3¹
 (designed for students who do not intend to continue the study of mathematics)

or

MATH 115 or MATH 171 Pre-Calculus 3

(designed for students who intend to continue the study of mathematics)

or

One of the following:

MATH 221 Calculus I 3

MATH 241 Analytic Geometry and Calculus A 4

or

Successful performance on the college proficiency exam.

*Superior figures indicate year or years in which the course is normally taken, i.e., ¹freshman year, ²sophomore year, etc.

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 26.

†A course may be applied toward both the major requirements and a breadth requirement, but credits are counted only once toward the total credits for graduation.

Breadth Requirements† (See page 80)

<i>Group A</i>	12 ¹⁻⁴
Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.	
<i>Group B</i>	12 ¹⁻⁴
The study of culture and institutions over time. Twelve credits representing at least two areas.	
<i>Group C</i>	12 ¹⁻⁴
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.	
<i>Group D</i>	13 ¹⁻⁴
The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory.	

MAJOR REQUIREMENTS**Within the Department**

SOCI 201	Introduction to Sociology.....	3 ¹⁻⁴
SOCI 301	Introduction of Sociological Research.....	3 ¹⁻⁴
SOCI 312	Theories of Society.....	3 ¹⁻⁴
SOCI 341	Welfare and Society.....	3 ¹⁻⁴
SOCI 348	Theories of Social Work Practice.....	3 ¹⁻⁴
Any five courses in Sociology, the following are recommended.....		15 ¹⁻⁴
SOCI 202	Social Deviance.....	3
SOCI 204	Urban Communities.....	3
SOCI 303	Juvenile Delinquency.....	3
SOCI 304	Criminology.....	3
SOCI 305	Social Class and Inequality.....	3
SOCI 308	The Family.....	3
SOCI 346	Sociology of Aging.....	3
SOCI 361	Race, Power and Social Conflict.....	3
SOCI 448	Community Based Treatment.....	3
No more than 12 credits at the 200 level. At least 6 credits must be at the 400 level or higher.		
SOCI 441	Social Welfare Practicum and Seminar.....	4 ¹⁻⁴
This course is required but does not count as part of the thirty Sociology credits for the major.		

Within the College

Eleven additional credits of related work are required and may include the following:

POSC 411	Politics and Poverty.....	3 ¹⁻⁴
PSYC 301	Personality.....	3 ¹⁻⁴
PSYC 322	Psychology of Adjustment.....	3 ¹⁻⁴
PSYC 325	Child Psychology.....	3 ¹⁻⁴
PSYC 334	Abnormal Psychology.....	3 ¹⁻⁴
EDDV 374	Experiential Education.....	3
IFST 235	Survey in Child and Family Services.....	3

or

Other courses chosen with the approval of the adviser.

ELECTIVES*Electives*

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF 124

DEGREE: BACHELOR OF ARTS
MAJOR: SOCIOLOGY
CONCENTRATION: APPLIED URBAN STUDIES

CURRICULUM**CREDITS*****UNIVERSITY REQUIREMENTS**

ENGL 110	Critical Reading and Writing.....	3 ¹
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content#		3 ¹⁻⁴

COLLEGE REQUIREMENTS*Skill Requirements*

<i>Writing:</i>	3 ^{3,4}
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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 ¹⁻⁴
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Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Mathematics:

MATH 114 or MATH 170	Elementary Mathematics and Statistics.....	3 ¹
(designed for students who do not intend to continue the study of mathematics)		

or

MATH 115 or MATH 171	Pre-Calculus.....	3
(designed for students who intend to continue the study of mathematics)		

or

One of the following:

MATH 221	Calculus I.....	3
MATH 241	Analytic Geometry and Calculus A.....	4

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

<i>Group A</i>	12 ¹⁻⁴
Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.	
<i>Group B</i>	12 ¹⁻⁴
The study of culture and institutions over time. Twelve credits representing at least two areas.	
<i>Group C</i>	12 ¹⁻⁴
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.	
<i>Group D</i>	13 ¹⁻⁴
The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory.	

MAJOR REQUIREMENTS**Within the Department**

SOCI 201	Introduction to Sociology.....	3 ¹⁻⁴
SOCI 301	Introduction of Sociological Research.....	3 ¹⁻⁴
SOCI 312	Theories of Society.....	3 ¹⁻⁴
SOCI 204	Urban Communities.....	3 ¹⁻⁴

*Superior figures indicate year or years in which the course is normally taken, i.e., ¹freshman year, ²sophomore year, etc.

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 26.

†A course may be applied toward both the major requirements and a breadth requirement, but credits are counted only once toward the total credits for graduation.

SOCI 210 Population Problems 3¹⁻⁴
 Four Sociology courses 12¹⁻⁴
 No more than 12 credits at the 200 level. At least 6 credits must be at the 400 level or higher.

SOCI 402 Urban Studies Practicum and Seminar 4¹⁻⁴
 This course is required but does not count as part of the thirty Sociology credits for the major.

Within the College

Eleven additional credits of related work are required and may include the following:

POSC 355 Urban Politics 3¹⁻⁴
 GEOG 325 Urban Geography 3
 POSC 355 Urban Politics 3
 HIST 459 U.S. Urban History 3
 POSC 452 Problems in Urban Politics 3
 ECON 393 Urban Economics 3
 ARTH 324 Modern Architecture 3
 CRJU 455 The Ecology of Crime 3

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: HEALTH SERVICE

CURRICULUM

CREDITS*

UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing 3¹
 Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content.# 3¹⁻⁴

COLLEGE REQUIREMENTS

Skill Requirements

Writing 3^{3,4}

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: 0-12¹⁻⁴

Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Mathematics:

MATH 114 or MATH 170 Elementary Mathematics and Statistics .. 3¹
 (designed for students who do not intend to continue the study of mathematics)

or

MATH 115 or MATH 171 Pre-Calculus 3
 (designed for students who intend to continue the study of mathematics)

or

One of the following:

MATH 221 Calculus I 3
 MATH 241 Analytic Geometry and Calculus A 4

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

Group A 12¹⁻⁴
 Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.

Group B 12¹⁻⁴
 The study of culture and institutions over time. Twelve credits representing at least two areas.

Group C 12¹⁻⁴
 Empirically based study of human beings and their environment. Twelve credits representing at least two areas.

Group D 13¹⁻⁴
 The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory.

MAJOR REQUIREMENTS

Within the Department

SOCI 201 Introduction to Sociology 3¹⁻⁴
 SOCI 301 Introduction of Sociological Research 3¹⁻⁴
 SOCI 312 Theories of Society 3¹⁻⁴
 SOCI 310 Sociology of Health Care 3¹⁻⁴
 SOCI 311 Hospitals 3¹⁻⁴
 And five additional Sociology courses 15¹⁻⁴
 (SOCI 341 and 348 recommended for those interested in medical social work)

No more than 12 credits at the 200 level. At least 6 credits must be at the 400 level or higher.

SOCI 410 Health Services Practicum and Seminar 4¹⁻⁴
 This course is required but does not count as part of the thirty Sociology credits for the major.

Within the College

Related Work

Eleven additional credits of related work are required and will be selected in consultation with the student's adviser. Departments offering courses filling the needs of health concentration students include Anthropology, Business Administration, Center for Science and Culture, Economics, Individual and Family Studies, Philosophy, Psychology, and Women's Studies.

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., ¹freshman year, ²sophomore year, etc.

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 26.

†A course may be applied toward both the major requirements and a breadth requirement, but credits are counted only once toward the total credits for graduation.

DEGREE: BACHELOR OF ARTS
MAJOR: SOCIOLOGY
CONCENTRATION: LAW AND SOCIETY

CURRICULUM **CREDITS***

UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing	3 ¹
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content.#	3 ¹⁻⁴

COLLEGE REQUIREMENTS

Skill Requirements

<i>Writing:</i>	3 ^{3,4}
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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 ¹⁻⁴
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Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Mathematics:

MATH 114 or MATH 170 Elementary Mathematics and Statistics (designed for students who do not intend to continue the study of mathematics)	3 ¹
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or

MATH 115 or MATH 171 Pre-Calculus (designed for students who intend to continue the study of mathematics)	3
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or

One of the following:

MATH 221 Calculus I	3
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MATH 241 Analytic Geometry and Calculus A	4
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or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

<i>Group A</i>	12 ¹⁻⁴
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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 ¹⁻⁴
----------------------	-------------------

The study of culture and institutions over time. Twelve credits representing at least two areas.

<i>Group C</i>	12 ¹⁻⁴
----------------------	-------------------

Empirically based study of human beings and their environment. Twelve credits representing at least two areas.

<i>Group D</i>	13 ¹⁻⁴
----------------------	-------------------

The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory.

MAJOR REQUIREMENTS

Within the Department

SOCI 201 Introduction to Sociology	3 ¹⁻⁴
SOCI 301 Introduction of Sociological Research	3 ¹⁻⁴
SOCI 312 Theories of Society	3 ¹⁻⁴

SOCI 345 Sociology of Law	3 ¹⁻⁴
SOCI 456 Lawyers and Society	3 ¹⁻⁴

Any five other courses in Sociology

Suggested courses for the study of family/gender include:

SOCI 202 Social Deviance	3
SOCI 303 Juvenile Delinquency	3
SOCI 307 Sociology of Sex Roles	3
SOCI 308 The Family	3
SOCI 330 Population, Law and Society	3

Suggested courses in the organization/work area:

SOCI 327 Sociology of Organizations	3
SOCI 330 Population, Law and Society	3
SOCI 355 Computers, Ethics and Society	3
SOCI 428 Corporate Crime	3
SOCI 450 Political Sociology	3

No more than 12 credits at the 200 level may be counted toward the major. At least 6 credits must be at the 400 level or higher.

SOCI 495 Law and Society Practicum and Seminar	4 ¹⁻⁴
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This course is required but does not count as part of the thirty Sociology credits for the major.

Within the College

Related Work

Twelve credits from the following courses are recommended:

CRJU 320 Introduction to Criminal Law	3
CRJU 347 The Jury	3
CRJU 357 Seminar in the Police	3
CRJU 425 Criminal Law and Social Policy	3
CRJU 467 Contemporary Debates	3
POSC 402 Civil Liberties I	3
POSC 406 Civil Liberties II	3
POSC 404 The Judicial Process	3
POSC 405 Constitutional Law	3
PHIL 201 Introduction to Political and Legal Philosophy	3
PHIL 446 Philosophy of Law	3
HIST 301 The Worker in American Life	3
HIST 309 American Business, Government and Society	3

A second writing course in any department

A course in oral communication is suggested

ELECTIVES

Electives

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF 124

DEGREE: BACHELOR OF ARTS
MAJOR: SOCIOLOGY
CONCENTRATION: DATA ANALYSIS

CURRICULUM **CREDITS***

UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing	3 ¹
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content.#	3 ¹⁻⁴

*Superior figures indicate year or years in which the course is normally taken, i.e., ¹freshman year, ²sophomore year, etc.

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 26.

†A course may be applied toward both the major requirements and a breadth requirement, but credits are counted only once toward the total credits for graduation.

COLLEGE REQUIREMENTS

Skill Requirements

Writing: 3^{3,4}

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: 0-12¹⁻⁴

Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Mathematics:

MATH 114 or MATH 170 Elementary Mathematics and Statistics .. 3¹
(designed for students who do not intend to continue the study of mathematics)

or
MATH 115 or MATH 171 Pre-Calculus 3
(designed for students who intend to continue the study of mathematics)

or
One of the following:
MATH 221 Calculus I 3
MATH 241 Analytic Geometry and Calculus A 4

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

Group A: 12¹⁻⁴

Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.

Group B: 12¹⁻⁴

The study of culture and institutions over time. Twelve credits representing at least two areas.

Group C: 12¹⁻⁴

Empirically based study of human beings and their environment. Twelve credits representing at least two areas.

Group D: 13¹⁻⁴

The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory.

MAJOR REQUIREMENTS

Within the Department

SOCI 201 Introduction to Sociology 3¹⁻⁴
SOCI 301 Introduction of Sociological Research 3¹⁻⁴
SOCI 312 Theories of Society 3¹⁻⁴
SOCI 401 Advanced Sociological Methods 3¹⁻⁴
SOCI 411 Techniques of Demographic Analysis 3¹⁻⁴
SOCI 414 Data Analysis 3¹⁻⁴

Any five other courses in Sociology 15¹⁻⁴

No more than 12 credits at the 200 level may be counted toward the major. At least 6 credits must be at the 400 level or higher.

SOCI 412 Practicum 4

This course is required but does not count as part of the thirty-three Sociology credits for the major.

Within the College

Related Work

STAT 201 Introduction to Statistics I** 3
STAT 202 Introduction to Statistics II** 3

Nine additional credits chosen from the following:

CISC 100 Introduction to Digital Computer Programming 3
GEOG 250 Computer Methods in Geography 3
GEOG 470 Computer Cartography 3
HIST 268 Seminar: Nature and Verification of Historical Evidence 3
PHIL 320 Experience, Knowledge, Reality 3
PHIL 244 Ethical Issues in Scientific Research 3
ECON 422 Introduction to Econometrics 3
STAT 418 Sampling Methods 3
STAT 420 Data Analysis and Nonparametric Statistics 3

ELECTIVES

Electives

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF 124

DEGREE: BACHELOR OF ARTS MAJOR: SOCIOLOGY EDUCATION

CURRICULUM

CREDITS*

UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing 3¹
Three credits in an approved course or courses stressing 3¹⁻⁴
multicultural, ethnic, and/or gender-related content.#

COLLEGE REQUIREMENTS

Skill Requirements

Writing: 3^{3,4}

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: 0-12¹⁻⁴

Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Mathematics:

MATH 114 or MATH 170 Elementary Mathematics and Statistics .. 3¹
(designed for students who do not intend to continue the study of mathematics)

or
MATH 115 or MATH 171 Pre-Calculus 3
(designed for students who intend to continue the study of mathematics)

or
One of the following:
MATH 221 Calculus I 3

*Superior figures indicate year or years in which the course is normally taken, i.e., ¹freshman year, ²sophomore year, etc.

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 26.

†A course may be applied toward both the major requirements and a breadth requirement, but credits are counted only once toward the total credits for graduation.

**Required.

MATH 241 Analytic Geometry and Calculus A	4
or	
Successful performance on the college proficiency exam.	
<i>Breadth Requirements</i> † (See page 80)	
<i>Group A</i>	12 ¹⁻⁴
Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.	
<i>Group B</i>	12 ¹⁻⁴
The study of culture and institutions over time. Twelve credits representing at least two areas.	
<i>Group C</i>	12 ¹⁻⁴
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.	
<i>Group D</i>	13 ¹⁻⁴
The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory.	

MAJOR REQUIREMENTS

Within the Department

SOCI 201 Introduction to Sociology	3 ¹⁻⁴
SOCI 301 Introduction of Sociological Research	3 ¹⁻⁴
SOCI 312 Theories of Society	3 ¹⁻⁴
Seven Sociology Courses	21 ¹⁻⁴
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 ¹⁻⁴
Anthropology course	3
Economics course	3
Geography course	3
History course	3
Political Science course	3
PSYC 201 General Psychology	3 ¹⁻⁴
Six additional credits selected from the departments listed above	6 ¹⁻⁴

Professional Studies

EDST 201 Education and Society	3 ¹⁻⁴
EDST 304 Educational Psychology – Social Aspects	3 ¹⁻⁴
EDST 305 Educational Psychology – Cognitive Aspects	3 ¹⁻⁴
EDST 420 Reading in the Content Areas	1 ¹⁻⁴
HIST 491 Planning a Course of Instruction	3 ⁴
HIST 493 Seminar: Problems in Teaching History and Social Sciences	3 ⁴
EDDV 400 Student Teaching	9 ⁴

CREDITS TO TOTAL A MINIMUM OF 124

Field Experience: One important feature of the program is a field experience in the applied urban studies, social welfare, health services, law and society, and data analysis concentrations. Each field experience involves placement of students in various organizations and departments related to their area of interest, including city offices and agencies, hospitals and other health care organizations, human services and welfare agencies, and law offices and research bureaus. These field placement programs are offered during the winter session and involve four hours of pass/fail course credit. This credit

is considered part of the student's related studies requirement.

Over a five-week period students are placed in the field between 120 and 180 hours, depending upon the nature of the work and the need of the student. In addition, students in each field placement meet in a two-hour weekly seminar (for five weeks) to discuss and analyze their experiences.

Advantages of the Program

1. While all students will receive a B.A. degree in sociology, this program provides preprofessional training within selected areas of the student's choice.
2. The program offers future job-related experience with academic supervision and for academic credit.
3. It includes certification of these concentrations by the department, which may be beneficial in obtaining employment.
4. It offers increased flexibility for the student by allowing choices among various focused, directed concentrations.

REQUIREMENTS FOR A MINOR IN SOCIOLOGY

The minor in sociology requires SOCI 201 plus 15 credits in sociology, with at least 9 credits at or above the 300 level. SOCI 301 or 312 is required or an equivalent course in another social science discipline, such as PSYC 309, 405, ECON 422, 426, STAT 205, POSC 302, 434 or 435.

CRIMINAL JUSTICE

The Criminal Justice Program within the Department of Sociology and Criminal Justice 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 including sociology, psychology, political science, and law.

At the University of Delaware, a degree in criminal justice is viewed as a general liberal arts degree. The curriculum, therefore, emphasizes the importance of repre-

†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.

sentative courses in the arts and humanities, mathematics, and science. Consequently, graduating criminal justice majors will have achieved the skills and breadth of knowledge expected of well educated men and women in a complex and pluralistic society.

An integral component of the Criminal Justice curriculum 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 are encouraged to discuss with the faculty how the field experience program might be adapted to fit their individual needs and contribute to their career goals.

DEGREE: BACHELOR OF ARTS MAJOR: CRIMINAL JUSTICE

CURRICULUM CREDITS*

UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing	3 ¹
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #	3 ¹⁻⁴

COLLEGE REQUIREMENTS

Skill Requirements

Writing	3 ^{3,4}
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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 ¹⁻⁴
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Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Mathematics:

MATH 114 or MATH 170 Elementary Mathematics and Statistics (designed for students who do not intend to continue the study of mathematics)	3 ¹
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or

MATH 115 or MATH 171 Pre-Calculus (designed for students who intend to continue the study of mathematics)	3
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or

Any mathematics course (MATH) at or above the 200 level except MATH 251 and MATH 252 (Math for Elementary School I and II)

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

Group A	12 ¹⁻⁴
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Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.

Group B	12 ¹⁻⁴
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The study of culture and institutions over time. Twelve credits representing at least two areas.

Group D	13 ¹⁻⁴
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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

CRJU 110 Introduction to Criminal Justice	3 ¹⁻²
CRJU 201 Problems of Law Enforcement	3 ¹⁻²
CRJU 202 Problems of Criminal Judiciary	3 ¹⁻²
CRJU 203 Problems of Corrections	3 ¹⁻²
Criminal Justice courses at the 300 or 400 level	18 ³⁻⁴

Within the College

SOCI 201 Introduction to Sociology	3 ¹⁻²
SOCI 301 Introduction of Sociological Research	3 ²⁻⁴
POSC 105 American Political Systems	3 ¹⁻²
PSYC 201 General Psychology	3 ¹⁻²

One of the following four courses:

PSYC 301 Personality	3 ²⁻⁴
PSYC 303 Introduction to Social Psychology	3 ²⁻⁴
PSYC 325 Child Psychology	3 ²⁻⁴
PSYC 334 Abnormal Psychology	3 ²⁻⁴

One of the following three courses:

POSC 402 Civil Liberties I	3 ³⁻⁴
POSC 405 Constitutional Law of the United States	3 ³⁻⁴
POSC 406 Civil Liberties II	3 ³⁻⁴

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
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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).

*Superior figures indicate year or years in which the course is normally taken, i.e., ¹freshman year, ²sophomore year, etc.

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 26.

†A course may be applied toward both the major requirements and a breadth requirement, but credits are counted only once toward the total credits for graduation.

THEATRE

The B.A. in Theatre Production is designed for those students who are interested in learning about the production areas of the theatre, i.e., Costume Production, Stage Management and Technical Production, and who desire the opportunity to explore these production areas through the prescribed course work and laboratory experiences of a major. Students' practical experiences in the production areas described above will include participating in the production of plays of the Professional Theatre Training Program.

The Professional Theatre Training Program (PTTP) confers the Master of Fine Arts degree. 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 Theatre Department also offers a theatre minor designed to deepen the student's appreciation of the theatre as a liberal art. The courses are designed to give the student a foundation in the viewing of theatre, as well as the art and craft of the theatre. Students interested in performance opportunities should contact one of the amateur theatre groups on campus: E-52, Harrington Theatre Arts, or the Bacchus Theatre Players.

DEGREE: BACHELOR OF ARTS MAJOR: THEATRE PRODUCTION

CURRICULUM CREDITS*

UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing	3 ¹
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content.#	3 ¹⁻⁴

COLLEGE REQUIREMENTS

Skill Requirements

<i>Writing:</i>	3 ^{3,4}
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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 ¹⁻²
Completion of the intermediate-level course (107 or 112) in a	

given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Mathematics:

MATH 114 Elementary Mathematics and Statistics	3 ¹
(designed for students who do not intend to continue the study of mathematics)	

or

MATH 115 Pre-Calculus	3
(designed for students who intend to continue the study of mathematics)	

or

One of the following:

MATH 221 Calculus I	3
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MATH 241 Analytic Geometry and Calculus A	4
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or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

<i>Group A</i>	12 ^{1,4}
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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 ^{1,4}
----------------------	-------------------

The study of culture and institutions over time. Twelve credits representing at least two areas.

<i>Group C</i>	12 ^{1,4}
----------------------	-------------------

Empirically based study of human beings and their environment. Twelve credits representing at least two areas.

<i>Group D</i>	13 ^{1,4}
----------------------	-------------------

The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory.

MAJOR REQUIREMENTS

Within the Department

THEA 102 Introduction to Performance	3 ¹
THEA 104 Introduction to Theatre	3 ¹
THEA 200 Introduction to Theatre Production	3 ^{1,2,3}
THEA 202 Introduction to Theatre Design	3 ^{1,2,3}
THEA 203 Introduction to Costuming for the Stage	3 ^{1,2,3}
THEA 310 Theatre Practicum for Majors	4 ⁴

Twelve credits from the following:

(select three 4 credit courses with 0 credit LAB each)

THEA 300 Fundamentals of Scenery Construction	4 ^{2,3,4}
THEA 301 Fundamentals of Property Construction	4 ^{2,3,4}
THEA 302 Fundamentals of Stage Lighting	4 ^{2,3,4}
THEA 303 Fundamentals of Scene Painting	4 ^{2,3,4}
THEA 304 Fundamentals of Audio for the Theatre	4 ^{2,3,4}
THEA 305 Fundamentals of Costume Construction for the Stage	4 ^{2,3,4}
THEA 306 Fundamentals of Patternmaking for the Stage	4 ^{2,3,4}
THEA 307 Fundamentals of Draping for the Stage	4 ^{2,3,4}
THEA 308 Fundamentals of Costume Crafts	4 ^{2,3,4}
THEA 309 Fundamentals of Stage Management	4 ^{2,3,4}

Within the College

Six credits from the following:

ENGL 208 Introduction to Drama	3 ^{2,3}
ENGL 324 Shakespeare	3 ^{2,3}

or

Other courses as approved by adviser.

*Superior figures indicate year or years in which the course is normally taken, i.e., ¹freshman year, ²sophomore year, etc.

†This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 26.

‡A course may be applied toward both the major requirements and a breadth requirement, but credits are counted only once toward the total credits for graduation.

ELECTIVES*Electives*

After required courses are completed sufficient elective credits must be taken to meet the minimum credit requirement for the degree. Additional credits in the major may be taken, not to exceed a total of 45 credits in the major.

CREDITS TO TOTAL A MINIMUM OF **124**

MINOR

THEA 104 Introduction to Theatre	3
THEA 226 Fundamentals of Acting	3
Theatre Electives at the 200 level	6
Theatre Electives at the 300 level	6
TOTAL CREDITS	18

ELECTIVES FOR NON-MAJORS

Many Theatre courses are on the list of approved courses for fulfilling the general education requirements in the College of Arts and Science. The following Theatre courses fulfill group requirements:

Group A: 102, 104, 106, 200, 202, 203, 206, 410

Group B: 341, 342, 343, 344, 345, 346

In addition, the Theatre Department offers general electives in dance, acting, voice, speech, mime and production practicum.

SCHOOL OF LIFE AND HEALTH SCIENCES

The life and health sciences express the unity of the living world and the individual's place in it. The life sciences are advancing rapidly with profound implications for future society in such areas as recombinant DNA technology, immunology and genetics. Medical technology and physical therapy represent the application of basic biological principles to the prevention and treatment of human disease and malfunction.

The curriculum of the school aims to make today's developing concepts in the life and health sciences accessible to students and to create an environment in which faculty and students can make significant original contributions to these understandings.

Each undergraduate program in life sciences is designed to meet intellectual needs as well as to prepare students for subsequent professional or vocational training. Men and women interested in various fields of biology and related activities will find challenging and flexible undergraduate programs. Many interests call for graduate study or specialized professional training beyond four years of college work; these include human and veteri-

nary 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, pre dental, and preveterinary students. Most of these preprofessional students choose this major because of their interest in the life sciences.

DEGREE: BACHELOR OF ARTS
MAJOR: BIOLOGICAL SCIENCES

CURRICULUM CREDITS*

UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing	3 ¹
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content.#	3 ^{1,4}

COLLEGE REQUIREMENTS*Skill Requirements*

<i>Writing:</i>	3 ^{3,4}
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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 ^{1,4}
Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.	

*Superior figures indicate year or years in which the course is normally taken, i.e., ¹freshman year, ²sophomore year, etc.

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 26.

Mathematics:

MATH 114 Elementary Mathematics and Statistics 3¹
(designed for students who do not intend to continue the study of mathematics)

or
MATH 115 Pre-Calculus 3
(designed for students who intend to continue the study of mathematics)

or
One of the following:
MATH 221 Calculus I 3
MATH 241 Analytic Geometry and Calculus A 4

or
Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

Group A 12^{1,4}

Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.

Group B 12^{1,4}

The study of culture and institutions over time. Twelve credits representing at least two areas.

Group C 12^{1,4}

Empirically based study of human beings and their environment. Twelve credits representing at least two areas.

Group D 13^{1,4}

The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory.

MAJOR REQUIREMENTS**Within the Department**

BISC 207 Introductory Biology I 4¹
BISC 208 Introductory Biology II 4¹
BISC 303 Genetic and Evolutionary Biology 4³

At least two of the following courses:

BISC 301 Molecular Biology of the Cell 4^{2,3}
BISC 302 General Ecology 3^{2,3}
BISC 306 General Physiology 4^{2,3}

Biology electives at the 300 level or above (must include one 600-level course other than Independent Study) 13-14^{2,4}

Within the College

CHEM 103 General Chemistry 4¹
CHEM 104 General Chemistry 4¹

CHEM 321 Organic Chemistry 3²

CHEM 325 Organic Chemistry Laboratory 1²

CHEM 322 Organic Chemistry 3²

CHEM 326 Organic Chemistry Laboratory 1²

or
CHEM 213 Elementary Organic Chemistry 4

CHEM 214 Elementary Biochemistry 3

CHEM 216 Elementary Biochemistry Laboratory 1

PHYS 201 General Physics 4³

PHYS 202 General Physics 4³

MATH 221 Calculus I 3²

ELECTIVES**Electives**

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF 124

BIOTECHNOLOGY

The Bachelor of Science degree in Biological Sciences with a concentration in biotechnology is a four-year program offered by the School of Life and Health Sciences. The program emphasizes laboratory courses/experiences in various aspects of molecular, cellular, and physical biosciences. It is intended for students who hope to be employed in a laboratory setting after graduation and for those who will be continuing their education at the graduate level.

During the first two years at the University, students interested in biotechnology generally take the same courses as those pursuing a B.A. degree in biological sciences. At any time during these two years, students can declare *interest* in biotechnology (BBT); however, they are not admitted into the program until the fall semester of the third year. Students apply for admission in the spring of the sophomore year. Admission is limited to 10 students per class. A grade-point index (GPI) of 2.5 is required.

Eligibility for admission to the junior year of the BBT program will be based on the following criteria:

1. Minimal cumulative index; first three semesters — 2.5
2. Minimal index in the sciences; first three semesters — 2.5
3. A grade of C or better in BISC 207, BISC 208, BISC 301 and BISC 371 (or other bio course if BISC 371 is not taken).
4. Within the pool of eligible applicants, admission into the program will be determined by academic achievement, and priority will be given to full-time University sophomores with a stated interest in obtaining employment in biotechnology or in pursuing a graduate degree in a related discipline.

The following courses are recommended. Some courses are not available each year, so careful planning is strongly suggested.

DEGREE: BACHELOR OF SCIENCE**MAJOR: BIOLOGICAL SCIENCES****CONCENTRATION: BIOTECHNOLOGY****CURRICULUM****CREDITS*****UNIVERSITY REQUIREMENTS**

ENGL 110 Critical Reading and Writing 3¹
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content# 3^{1,4}

COLLEGE REQUIREMENTS**Skill Requirements**

Writing: 3^{3,4}

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., ¹freshman year, ²sophomore year, etc.

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 26.

†A course may be applied toward both the major requirements and a breadth requirement, but credits are counted only once toward the total credits for graduation.

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^{1,4}
Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Mathematics:

MATH 114 Elementary Mathematics and Statistics 3¹
(designed for students who do not intend to continue the study of mathematics)

or

MATH 115 Pre-Calculus 3
(designed for students who intend to continue the study of mathematics)

or

One of the following:

MATH 221 Calculus I 3

MATH 241 Analytic Geometry and Calculus A 4

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

A total of twenty-one credits from Groups A, B, and C 21^{1,4}
is required with six credits in each group. The six credits from each group could be from the same department.

Group A

Understanding and appreciation of the creative arts and humanities.

Group B

The study of culture and institutions over time.

Group C

Empirically based study of human beings and their environment.

MAJOR REQUIREMENTS

Within the Department

Introductory Courses:

BISC 207	Introductory Biology I	4 ¹
BISC 208	Introductory Biology II	4 ¹
BISC 371	Introduction to Microbiology	4 ²
BISC 301	Molecular Biology of the Cell	4 ²
BISC 303	Genetic and Evolutionary Biology	4 ³
BISC 305	Cell Biology	4 ^{3,4}
BISC 604	Recombinant DNA Laboratory	4 ⁴
BISC 653	Recent Advances in Molecular Biology	2 ^{3,4}

Two advanced lecture/laboratory combinations selected from the following three groups:

I

BISC 492	Human and Mammalian Cytogenetics	3 ^{3,4}
BISC 493	Mammalian Cytogenetics Laboratory	3 ^{3,4}

II

BISC 471/BISC 671	Immunobiology	3 ^{3,4}
BISC 601	Immunochemistry	3 ^{3,4}

III

BISC 667	Informational Macromolecules Laboratory	4 ^{3,4}
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Two courses selected from the following:

BISC 467/BISC 667	Computer Applications in Biology	4 ^{3,4}
BISC 602	Molecular Biology of Animal Cells	3 ^{3,4}
BISC 608	Genetic Toxicology	3 ^{3,4}

BISC 617	Laboratory Techniques for Electron Microscopy	3 ^{3,4}
BISC 654	Biochemical Genetics	3 ^{3,4}
BISC 658	Developmental Genetics	3 ^{3,4}
BISC 667	Plant Cell Biology	3 ^{3,4}
BISC 650	Bacterial Physiology	3 ^{3,4}
BISC 673	Topics in Immunogenetics	3 ^{3,4}
BISC 679	Virology	3 ^{3,4}
BISC 693	Human Genetics	3 ^{3,4}
BISC 667	Gene Control: Antibody Genes, HIV-1	3 ^{3,4}

Within the College

CHEM 103	General Chemistry	4 ¹
CHEM 104	General Chemistry	4 ¹
CHEM 321	Organic Chemistry	3 ²
CHEM 322	Organic Chemistry	3 ²
CHEM 325	Organic Chemistry Laboratory	1 ²
CHEM 326	Organic Chemistry Laboratory	1 ²
CHEM 527	Introductory Biochemistry	3 ^{3,4}
or		
CHEM 641 and CHEM 642	Biochemistry	6
PHYS 201	General Physics	4 ³
PHYS 202	General Physics	4 ³
MATH 221	Calculus I	3 ¹

ELECTIVES

Electives

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree. BISC 444 is encouraged but not required.

CREDITS TO TOTAL A MINIMUM OF 124

DEGREE: BACHELOR OF ARTS

MAJOR: BIOLOGICAL SCIENCES EDUCATION

CURRICULUM CREDITS*

UNIVERSITY REQUIREMENTS

ENGL 110	Critical Reading and Writing	3 ¹
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #		3 ^{1,4}

COLLEGE REQUIREMENTS

Skill Requirements

Writing:	3 ^{3,4}
----------	------------------

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^{1,4}
Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Mathematics:

MATH 114	Elementary Mathematics and Statistics	3 ¹
(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., ¹freshman year, ²sophomore year, etc.

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 26.

†A course may be applied toward both the major requirements and a breadth requirement, but credits are counted only once toward the total credits for graduation.

MATH 115 Pre-Calculus	3
(designed for students who intend to continue the study of mathematics)	
or	
One of the following:	
MATH 221 Calculus I	3
MATH 241 Analytic Geometry and Calculus A	4
or	
Successful performance on the college proficiency exam.	
<i>Breadth Requirements†</i> (See page 80)	
<i>Group A</i>	12 ¹⁻⁴
Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.	
<i>Group B</i>	12 ¹⁻⁴
The study of culture and institutions over time. Twelve credits representing at least two areas.	
<i>Group C</i>	12 ¹⁻⁴
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.	
<i>Group D</i>	13 ¹⁻⁴
The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory.	

MAJOR REQUIREMENTS**Within the Department**

BISC 207 Introductory Biology I	4 ¹⁻⁴
BISC 208 Introductory Biology II	4 ¹⁻⁴
BISC 301 Molecular Biology of the Cell	4 ¹⁻⁴
BISC 303 Genetic and Evolutionary Biology	4 ¹⁻⁴
BISC 302 General Ecology	3 ¹⁻⁴
or	
BISC 306 General Physiology	4 ¹⁻⁴
Biology courses (must include one 600-level course other than in Independent Study)	13-14 ¹⁻⁴

Within the College

CHEM 103 General Chemistry	4 ¹⁻⁴
CHEM 104 General Chemistry	4 ¹⁻⁴
CHEM 213 Elementary Organic Chemistry	4 ¹⁻⁴
or	
CHEM 321 Organic Chemistry	3
and	
CHEM 325 Organic Chemistry Laboratory	1
CHEM 214 Elementary Biochemistry	3 ¹⁻⁴
and	
CHEM 216 Elementary Biochemistry Laboratory	1 ¹⁻⁴
PHYS 201 General Physics	4 ¹⁻⁴
PHYS 202 General Physics	4 ¹⁻⁴
MATH 221 Calculus I	3 ¹⁻⁴
GEOL 105 General Geology	4 ¹⁻⁴
Geology Elective	3-4 ¹⁻⁴

Professional Studies

EDST 201 Education and Society	3 ¹⁻⁴
EDST 304 Educational Psychology – Social Aspects	3 ¹⁻⁴
EDST 305 Educational Psychology – Cognitive Aspects	3 ¹⁻⁴
EDST 420 Reading in the Content Areas	1 ¹⁻⁴
SCEN 491 Science Materials and Approaches	4 ⁴
EDDV 400 Student Teaching	9 ⁴

CREDITS TO TOTAL A MINIMUM OF 124

A grade of C must be obtained in all biology courses that are used to satisfy the requirements for the degree. Within the school, an Honors degree and Honors courses are available for interested and qualified students. Many opportunities exist for research experience with a faculty member. There are also research opportunities in clinically related areas in conjunction with the Medical Center of Delaware. In addition, an opportunity for teaching experience exists.

During the freshman year, biological science majors for the B.A. degree ordinarily take courses in chemistry, English, foreign language, and mathematics. The minimal mathematics requirement is one semester of calculus.

Recommended electives include further work in computer science, mathematics, and the physical sciences. Students should consider their objectives and abilities and consult their advisers to select wisely from the variety of advanced courses and electives available.

Up to 4 credits of BISC 266, 366, 466, or 666 may be counted toward the 33 credits required for the major. Some 600-level courses in other departments may be counted toward the major.

Students not majoring in biological science who have some academic maturity in the sciences or engineering and an interest in biology are advised to elect BISC 207 or 208, perhaps followed by other core courses or other courses more appropriate to their professional interests.

Students planning to major in biology with the purpose of teaching science in secondary schools must identify themselves and plan their programs with the faculty adviser for secondary education as early in their academic careers as possible.

REQUIREMENTS FOR A MINOR IN BIOLOGY

The required courses are BISC 207, 208; two courses from BISC 301, 302 (or 321), 303, 371, 306 (or 406, 416); CHEM 103, 104 (or 101, 102), and 213 (or 321, 325); plus the necessary prerequisites for any of these courses. Nursing majors may satisfy the chemistry requirement by taking CHEM 104, 105 and 106.

Since all of the BISC courses above apply to the major in biological sciences, as well as to the minor, students will retain all of these credits if they switch to the major during the course of their degree program, so long as a grade of C has been obtained in these courses.

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

†A course may be applied toward both the major requirements and a breadth requirement, but credits are counted only once toward the total credits for graduation.

students who are Delaware residents will be accepted for admission to Jefferson Medical College. A portion of the clinical training of these students takes place in the Medical Center of Delaware. Procedures for application to this program may be obtained from the office of the associate director of the School of Life and Health Sciences.

Cooperative Education Program

Through the cooperation of area businesses, industry, and government agencies, students may integrate their academic study with practical work experience. Especially beneficial to students wishing to join the work force after obtaining their bachelor's degree, participation in the Co-op Program offers students an opportunity to explore abilities and career interests before graduation, to complement their formal education with opportunities for learning not available in the regular classroom, to apply theoretical academic knowledge to real work situations, and to obtain practical work experience prior to entering the job market, giving them a "jump" on the competition.

Co-op positions are available during any semester, including winter and summer sessions, for academic credit. Students register for BISC 444 (1-9 credit hours). Credits earned in this pass/fail course count toward graduation but not toward the 33 credit hours needed for the major in biological sciences. Placements vary from part to full time and may be salaried or on a volunteer basis.

Information about this program may be obtained from the Career Planning and Placement Office.

MEDICAL TECHNOLOGY

The Medical Technology Program at the University of Delaware is accredited by the Committee on Allied Health Education and Accreditation of the American Medical Association in cooperation with the National Accrediting Agency for Clinical Laboratory Sciences. The four-year B.S. degree curriculum offers an undergraduate professional education designed to prepare students for career entry and/or graduate study in medical technology and related areas. Approximately two-thirds of all medical technologists work in hospital laboratories. Others are employed in pharmaceutical companies, industrial medical laboratories, public health agencies, private laboratories, health-related research laboratories, or college-level teaching. Due to the national shortage of certified medical technologists, numerous job opportunities are available with excellent starting salaries.

During the first two years at the University, students interested in medical technology should take courses in the basic sciences and liberal arts, including prerequisite courses in biology and chemistry. The professional and clinical courses in the third and fourth year include a final period of supervised clinical education in the Medical Center of Delaware and other affiliated institutions. One required Winter Session is included in the B.S. curriculum.

Freshmen or transfer students may be admitted to the University with a declared interest in medical technology. Students will be evaluated for admission to the Medical Technology Program after completion of the prerequisite courses. Priority will be given to full-time University sophomores.

Class size is limited to 26 medical technology majors, and any interested student should talk with a Program faculty member as early as possible.

Eligibility for admission to the junior year of the Medical Technology Program will be based on the following criteria:

1. Minimal cumulative index; first four semesters 2.0
2. Minimal index computed from specified courses in biological sciences and chemistry, including laboratories: BISC 207, 208, 371, 406-416, and CHEM 103, 104, 213, and 214-216. Grade-point index in these courses 2.0
3. Completion of at least 62 credits, including the courses listed above.
4. Within the pool of eligible students, admission to the major courses will be determined by academic achievement. All applicants will be evaluated by the Medical Technology Admissions Committee.

The following course sequence is recommended. These courses may be subject to change, so it is essential that students meet regularly with their faculty advisers.

Anna P. Ciulla, *Director, Associate Professor*: Office: 049 McKinly Laboratory
Telephone: (302) 831-2849

DEGREE: BACHELOR OF SCIENCE MAJOR: MEDICAL TECHNOLOGY

CURRICULUM	CREDITS*
UNIVERSITY REQUIREMENTS	
ENGL 110 Critical Reading and Writing	3 ¹
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #	3 ^{1,4}
COLLEGE REQUIREMENTS	
<i>Skill Requirements</i>	
<i>Writing:</i>	3 ^{3,4}
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., ¹freshman year, ²sophomore year, etc.

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 26.

words to be submitted for extended faculty critique of both composition and content. This course must be taken in a student's junior or senior year. Appropriate writing courses are normally designated in the semester's Registration Booklet.

Mathematics:

MATH 114 Elementary Mathematics and Statistics 3¹
(designed for students who do not intend to continue the study of mathematics)

or

MATH 115 Pre-Calculus 3
(designed for students who intend to continue the study of mathematics)

or

One of the following:

MATH 221 Calculus I 3

MATH 241 Analytic Geometry and Calculus A 4

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

Group A 6^{1,2}

Understanding and appreciation of the creative arts and humanities.

Group B 6^{1,2}

The study of culture and institutions over time.

Group C 6^{1,2}

Empirically based study of human beings and their environment.

MAJOR REQUIREMENTS

Within the Department

MEDT 100	Introduction to Medical Technology	1 ¹
MEDT 372	Diagnostic Parasitology	2 ³
MEDT 376	Clinical Virology and Immunology	2 ³
MEDT 378	Clinical Laboratory Computer Applications	2 ³
MEDT 400	Urinalysis and Body Fluids	3 ³
MEDT 401	Clinical Physiological Chemistry I	4 ³
MEDT 411	Clinical Physiological Chemistry I Laboratory	2 ³
MEDT 404	Hematology I	2 ³
MEDT 414	Hematology I Laboratory	1 ³
MEDT 406	Medical Microbiology	3 ³
MEDT 416	Medical Microbiology Laboratory	2 ³
MEDT 410	Principles of Medical Technology Education	1 ³
MEDT 402	Medical Mycology	1 ⁴
MEDT 412	Medical Mycology Laboratory	1 ⁴
MEDT 403	Clinical Physiological Chemistry II	3 ⁴
MEDT 413	Clinical Physiological Chemistry II Laboratory	2 ⁴
MEDT 418	Medical Technology Senior Seminar	1 ⁴
MEDT 405	Hematology II	2 ⁴
MEDT 415	Hematology II Laboratory	2 ⁴
MEDT 409	Immunohematology	1 ³
MEDT 419	Immunohematology Laboratory	1 ³
MEDT 407	Diagnostic Microbiology	2 ⁴
MEDT 417	Diagnostic Microbiology Laboratory	2 ⁴
MEDT 420	Immunohematology II	1 ⁴
MEDT 421	Immunohematology II Laboratory	1 ⁴
MEDT 470	Medical Technology Clinical Education	3 ⁴
MEDT 471	Seminar: Medical Technology Laboratory Management	1 ⁴
MEDT 473	Clinical Chemistry Practicum	3 ⁴
MEDT 475	Clinical Hematology	3 ⁴
MEDT 477	Clinical Microbiology	3 ⁴
MEDT 479	Clinical Immunohematology	3 ⁴

Within the College

Related Work

BISC 207	Introductory Biology I	4 ¹
BISC 208	Introductory Biology II	4 ¹
BISC 406	Human Physiology	3 ²
BISC 416	Human Anatomy and Physiology Laboratory	1 ²
BISC 371	Introduction to Microbiology	4 ²
BISC 471	Introductory Immunology	3 ³
CHEM 103	General Chemistry	4 ¹
CHEM 104	General Chemistry	4 ¹
CHEM 213	Elementary Organic Chemistry	4 ²
CHEM 214	Elementary Biochemistry	3 ²
CHEM 216	Elementary Biochemistry Laboratory	1 ²
or		
CHEM 321	Organic Chemistry	3
CHEM 322	Organic Chemistry	3
CHEM 325	Organic Chemistry Laboratory	1
CHEM 326	Organic Chemistry Laboratory	1

ELECTIVES

Electives

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF 130

During the clinical rotation period (winter and spring terms of the senior year), students should plan for the possibility of 1) added expense for transportation and uniforms and 2) living off-campus at the clinical site for a five-week rotation when the commuting distance is deemed excessive by program standards (the University subsidizes housing costs in these situations).

A minimal grade of *C* is required in each MEDT course in the medical technology major.

PHYSICAL THERAPY

Prephysical therapy (undergraduate) students are admitted to the University as "physical therapy interest" and follow a program of study leading to a baccalaureate degree with a major in one of the traditional disciplines (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.

†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.

MAJORS IN AREA STUDIES

Students who may wish a broader course of study than that offered by the departmental major have the option of fulfilling their concentration requirements through area studies. Three area programs leading to majors—Comparative Literature, International Relations and Latin American Studies—are described below.

COMPARATIVE LITERATURE

The aim of the program in comparative literature is to allow students to study literature in an international and intercultural relationship, across boundaries of nation and language. Comparative literature embraces the study of literary themes, forms, movements and relations, as well as the interrelations of literature and other disciplines. The program offers the student the opportunity, with the aid of an adviser, to construct a program reflecting individual areas of interest.

Students majoring or minoring in comparative literature must have a command of at least one foreign language at the advanced elective level. It is strongly recommended that majors pursue a second foreign language at least through the intermediate level. Students planning to go on to graduate work in comparative literature would be well advised to include work in a classical language in their program. Majors are expected to make use of their command of foreign languages in comparative literature courses.

In addition to the courses designed specifically for students specializing in comparative literature, the program offers a number of courses in cooperation with other departments (English, Foreign Languages and Literatures, Anthropology, Philosophy, etc.); these courses should be of interest to most students.

DEGREE: BACHELOR OF ARTS MAJOR: COMPARATIVE LITERATURE

CURRICULUM	CREDITS*
UNIVERSITY REQUIREMENTS	
ENGL 110 Critical Reading and Writing	3 ¹
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content.#	3 ^{1,4}
COLLEGE REQUIREMENTS	
<i>Skill Requirements</i>	
Writing:	3 ^{3,4}
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^{1,4}

Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.

Mathematics:

MATH 114 Elementary Mathematics and Statistics 3¹
(designed for students who do not intend to continue the study of mathematics)

or

MATH 115 Pre-Calculus 3
(designed for students who intend to continue the study of mathematics)

or

One of the following:

MATH 221 Calculus I 3

MATH 241 Analytic Geometry and Calculus A 4

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

Group A 12^{1,4}

Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.

Group B 12^{1,4}

The study of culture and institutions over time. Twelve credits representing at least two areas.

Group C 12^{1,4}

Empirically based study of human beings and their environment. Twelve credits representing at least two areas.

Group D 13^{1,4}

The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory.

MAJOR REQUIREMENTS

Within the Department

CLMT 202 Biblical and Classical Literature 3^{1,4}

(ENGL 205 or 206 or CLMT 316 may be substituted with adviser's approval)

CLMT 207 Great Writers of the Western World: 1100-1700 3^{1,4}

CLMT 208 Great Writers of the Western World: 1650-1950 3^{1,4}

CLMT 484 Literary Criticism 3⁴

Comparative Literature courses or courses in related fields approved by the adviser. 6^{1,4}

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^{1,4}

ELECTIVES

Electives

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF 124

*Superior figures indicate year or years in which the course is normally taken, i.e., ¹freshman year, ²sophomore year, etc.

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 26.

†A course may be applied toward both the major requirements and a breadth requirement, but credits are counted only once toward the total credits for graduation.

**REQUIREMENTS FOR
THE MINOR IN COMPARATIVE LITERATURE**

- I. Core courses in comparative literature (6 credits)
Two of CLMT 202, 207, or 208
- II. Foreign literature courses (6 credits)
Advanced elective-level courses studied in the original text.
- III. Advanced English or Advanced CLMT course (3 credits)
- IV. Approved related area course (3 credits)

INTERNATIONAL RELATIONS

This interdepartmental program of study includes courses in political science, economics, history, sociology, anthropology, and geography. The student follows a curriculum that is specifically oriented toward gaining an understanding of the various problems arising among nations.

Various career opportunities are open to students of this program, such as those with U.S. government departments, U.S. Foreign Service, international organizations, U.S. Information Agency, the intelligence community, international programs of a variety of research groups, academic positions, or international business.

Students changing their major to international relations must have completed POSC 240 with a grade of C or better and completed at least 12 additional hours of university courses. Students must have a minimum of a 2.3 average to change their major to international relations. Students transferring to the major from outside the University of Delaware will have their transcripts evaluated by the director on a case-by-case basis.

**DEGREE: BACHELOR OF ARTS
MAJOR: INTERNATIONAL RELATIONS****CURRICULUM****CREDITS*****UNIVERSITY REQUIREMENTS**

ENGL 110 Critical Reading and Writing	3 ¹
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content.#	3 ¹⁻⁴

COLLEGE REQUIREMENTS*Skill Requirements*

<i>Writing:</i>	3 ^{3,4}
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 ¹⁻⁴
Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.	

Mathematics:

MATH 114 Elementary Mathematics and Statistics	3 ¹
(designed for students who do not intend to continue the study of mathematics)	
or	
MATH 115 Pre-Calculus	3
(designed for students who intend to continue the study of mathematics)	
or	

One of the following:

MATH 221 Calculus I	3
MATH 241 Analytic Geometry and Calculus A	4
or	

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

<i>Group A</i>	12 ¹⁻⁴
Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.	
<i>Group B</i>	12 ¹⁻⁴
The study of culture and institutions over time. Twelve credits representing at least two areas.	
<i>Group C</i>	12 ¹⁻⁴
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.	
<i>Group D</i>	13 ¹⁻⁴
The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory.	

MAJOR REQUIREMENTS**Within the Departments**

<i>Anthropology</i>	
Six credits chosen from the following courses:	6 ¹⁻⁴
ANTH 222 Technology and Culture	3
ANTH 225 Peasant Societies	3
ANTH 230 Peoples of the World	3
ANTH 231 Personality and Culture	3
ANTH 245 The Novel as Ethnography	3
ANTH 255 Applied Anthropology	3
ANTH 260 Sociocultural History of Africa	3
ANTH 265 High Civilizations of the Americas	3
ANTH 269 Early Civilizations of the Old World	3
ANTH 325 Peoples of Europe	3
ANTH 327 Peoples of the Caribbean	3
ANTH 330 Development and Underdevelopment	3
ANTH 331 Anthropology in Film	3
ANTH 333 Peoples of Africa	3
ANTH 337 South American Indians	3
ANTH 368 Anthropology of Slavery	3
ANTH 370 Culture of Food Production and Economic Development	3
ANTH 375 Peoples and Cultures of Modern Latin America	3
ANTH 377 Ecological Anthropology	3
ANTH 380 Peoples and Cultures of Mexico and Central America	3
ANTH 401 The Idea of Race	3

*Superior figures indicate year or years in which the course is normally taken, i.e., ¹freshman year, ²sophomore year, etc.

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 26.

†A course may be applied toward both the major requirements and a breadth requirement, but credits are counted only once toward the total credits for graduation.

ANTH 363	Women in Cross Cultural Perspective	3
ANTH 473	Comparative Political Systems	3
<i>Economics</i>		
ECON 151	Introduction to Microeconomics	3
ECON 152	Introduction to Macroeconomics	3
ECON 340	International Economic Relations	3
Three credits chosen from the following courses:		3 ¹⁻⁴
ECON 305	Capitalism and Socialism: Comparative Economic Systems	3
ECON 311	Economic Growth and Development Policy	3
ECON 341	Environment of Multinational Corporations	3
ECON 405	The Planned Economies	3
ECON 411	Economics of Growth and Development	3
ECON 443	International Monetary Economics	3
<i>Geography</i>		
Three credits chosen from the following courses:		3 ¹⁻⁴
GEOG 102	Human Geography	3
GEOG 120	World Regional Geography	3
GEOG 203	Cultural Geography	3
GEOG 210	Economic Geography	3
GEOG 226	Geography of Latin America	3
GEOG 227	Historical Geography of Europe	3
GEOG 236	Conservation: Global Issues	3
GEOG 460	Women in International Development	3
<i>History</i>		
Six credits chosen from the following courses:		6 ¹⁻⁴
HIST 101	Western Civilization to 1648	3
HIST 102	Western Civilization 1648 to the Present	3
HIST 134	History of Africa	3
HIST 135	Latin America to 1830	3
HIST 136	Latin America Since 1830	3
HIST 137	East Asian Civilization: China	3
HIST 138	East Asian Civilization: Japan	3
HIST 207	The World in Our Time	3
HIST 208	Leaders of the Twentieth Century	3
HIST 209	War and Society to 1775	3
HIST 210	War and Society Since 1775	3
HIST 248	Africa Under Colonial Rule	3
HIST 249	History of South Africa	3
HIST 264	The Jewish Holocaust 1933-1945	3
HIST 267	Pan Africanism	3
HIST 285	The Atomic Age	3
HIST 306	History of American Foreign Policy	3
HIST 330	Peasants and Revolution in Africa	3
HIST 334	History of Mexico	3
HIST 351	Europe in Crisis: 1919-1945	3
HIST 352	Contemporary European Society	3
HIST 357	Russian History to 1801	3
HIST 358	Russian History: 1801-1917	3
HIST 359	Soviet Russia: 1917-Present	3
HIST 364	Modern Germany: 1870-1945	3
HIST 367	Africa Since 1960	3
HIST 373	Modern Ireland: 1534-Present	3
HIST 374	History of England to 1715	3
HIST 375	History of England: 1715 to the Present	3
HIST 376	English Legal and Constitutional History	3
HIST 391	History of Modern China	3
HIST 392	History of Modern Japan	3
HIST 430	Twentieth-Century Latin American Revolutions	3
HIST 467	Race, Class, and Revolution in South Africa	3
HIST 474	Studies in English History	3
HIST 475	Seminar in Modern European History	3
HIST 477	Studies in Latin American History	3
HIST 479	Studies in Asian History	3
<i>Political Science</i>		
POSC 240	Introduction to International Relations	3 ¹⁻⁴
Twelve credits chosen from the following courses:		12 ¹⁻⁴
POSC 270	Comparative Politics	3
POSC 310	European Governments	3

POSC 311	Politics of Developing Nations	3
POSC 312	East Asian Political Systems	3
POSC 313	American Foreign Policy	3
POSC 314	Making United States Foreign Policy	3
POSC 333	Communism, Fascism and Democracy	3
POSC 334	Liberalism and Conservatism	3
POSC 365	Model United Nations	3
POSC 372	East European Political Systems	3
POSC 377	Arab-Israeli Politics	3
POSC 408	International Organization	3
POSC 409	Contemporary Problems of World Politics	3
POSC 412	Foreign Policy of the Soviet Union	3
POSC 414	Problems in American Foreign Policy	3
POSC 415	Force and World Politics	3
POSC 416	Transnational Relations and World Politics	3
POSC 426	Latin American Political Systems	3
POSC 427	Politics in China	3
POSC 428	Politics in Japan	3
POSC 430	Comparative Administration	3
POSC 431	Latin American Politics: Countries	3
POSC 432	Political Systems of the Soviet Union	3
POSC 433	African Political Systems	3
POSC 442	Problems of Western European Politics	3
POSC 443	China and the World	3
POSC 444	Seminar in World Politics	3
POSC 445	Human Rights	3
POSC 448	Theories of International Relations	3
POSC 450	Problems of Latin American Politics	3
POSC 463	International Institutions	3
POSC 477	Politics of the Arab World	3
POSC 651	Communist Political Thought	3

Sociology

SOCI 201	Introduction to Sociology	3 ¹⁻⁴
Three credits chosen from the following courses:		3 ¹⁻⁴
SOCI 210	Population Problems	3
SOCI 306	Personality and Social Systems	3
SOCI 320	Personality and Politics	3
SOCI 350	Political Sociology	3
SOCI 360	Sociology of Religion	3
SOCI 361	Race, Power and Social Conflict	3
SOCI 380	Development and Modernization	3
SOCI 460	Women in International Development	3

Other

Three credits chosen from the following courses:		3 ¹⁻⁴
Any course included in the previous listing		3
Literature course in a foreign area		3
STAT 201	Introduction to Statistics I	3
PHIL 102	Introduction to Philosophy	3
PHIL 201	Social and Political Philosophy	3
PHIL 202	Contemporary Moral Problems	3
PHIL 204	World Religions	3
PHIL 309	Indian Religion and Philosophy	3
PHIL 310	Chinese Religion and Philosophy	3
COMM 320	Analysis of Intercultural Communication	3
Course in a second foreign language		3
ARSC 127	Shaping of the Modern World	3

Electives

After required courses are completed sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF 124

51 2/3

LATIN AMERICAN STUDIES

The major in Latin American Studies is designed to give students a comprehensive picture of Latin American history, politics, geography, anthropology, language and literature. The program is interdisciplinary and allows certain freedom in individualizing the selection of courses to meet students' interests and needs.

Many career opportunities are open to students who major in Latin American Studies. Graduates of the program can work in governmental services and other fields in which it is important to work with Latin American topics. There is also employment in research and teaching, libraries, public relations, public administration, journalism and publishing. In addition, Latin American Studies graduates will have an unusually good background for advanced study in international business or international law.

DEGREE: BACHELOR OF ARTS

MAJOR: LATIN AMERICAN STUDIES

CURRICULUM

CREDITS*

UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing	3 ¹
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content.†	3 ¹⁻⁴

COLLEGE REQUIREMENTS

Skill Requirements

<i>Writing:</i>	3 ^{3,4}
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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 ¹⁻⁴
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Completion of the intermediate-level course (107 or 112) in Spanish. Students with four or more years of high school work in Spanish may attempt to fulfill the requirement by taking the exemption examination.‡

Mathematics:

MATH 114 Elementary Mathematics and Statistics	3 ¹
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(designed for students who do not intend to continue the study of mathematics)

or

MATH 115 Pre-Calculus	3
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(designed for students who intend to continue the study of mathematics)

or

One of the following:

MATH 221 Calculus I	3
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MATH 241 Analytic Geometry and Calculus A	4
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or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

<i>Group A</i>	12 ¹⁻⁴
Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.	
<i>Group B</i>	12 ¹⁻⁴
The study of culture and institutions over time. Twelve credits representing at least two areas.	
<i>Group C</i>	12 ¹⁻⁴
Empirically based study of human beings and their environment. Twelve credits representing at least two areas.	
<i>Group D</i>	13 ¹⁻⁴
The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory.	

MAJOR REQUIREMENTS

Within the College

Required courses:

ANTH 265 High Civilizations in the Americas	3
ANTH 375 Peoples and Cultures of Modern Latin America	3

or

ANTH 380 Peoples and Cultures of Mexico and Central America	3
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GEOG 226 Geography of Latin America	3
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HIST 135 Latin America to 1830	3
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HIST 136 Latin America since 1830	3
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POSC 426 Latin American Political Systems	3
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SPAN 212 Latin American Civilization and Culture	3
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SPAN 303 Survey of Latin American Literature I	3
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or

SPAN 304 Survey of Latin American Literature II	3
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and

One of the following seven courses:	3
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ANTH 323 Prehistory of South America	
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ANTH 327 Peoples of the Caribbean	
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ANTH 337 South American Indians	
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ANTH 338 Arts and Crafts of Native Latin America	
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HIST 334 History of Mexico	
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HIST 430 Latin American Revolution	
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HIST 477 Studies in Latin American History	
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One of the following two courses:	3
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POSC 431 Latin American Politics: Countries	
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POSC 450 Problems in Latin American Politics	
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One of the following four courses:	3
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SPAN 203 Spanish Reading and Composition	
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SPAN 415 Latin American Literature in its Political Context	
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SPAN 430 Latin American Novel and Cinema	
--	--

SPAN 443 Mexican Literature	
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Suggested Course:

ECON 311 Economic Growth and Development	3
(Prerequisites: ECON 151, ECON 152)	

ELECTIVES

Electives

After required courses are completed sufficient elective credits must be taken, in consultation with the student's academic adviser, to meet the minimum credit requirement for the degree.

Study Abroad

Latin American Studies majors should plan to attend a semester or winter session at a Latin American site.

CREDITS TO TOTAL A MINIMUM OF	124
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*Superior figures indicate year or years in which the course is normally taken, i.e., ¹freshman year, ²sophomore year, etc.

†This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 26.

‡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.

‡Completion of PORT 107 is also highly recommended.

MINORS IN AREA STUDIES

BLACK AMERICAN STUDIES

Black American Studies focuses on the study of Black Americans and their ancestry. The program is designed to present a comprehensive study of the origins, conditions, and experiences of Black Americans using the perspectives and techniques of various disciplines in the humanities and social sciences. As a study of human beings, Black American Studies deals with human issues, seeking to relate specific problems to the major value systems in this country and the world. Integrated with other disciplines in all appropriate phases of education, Black American Studies has meaning for present life and is useful for future learning or coping situations. The program serves as a catalyst for multi-ethnic and cultural understanding.

Although a major in Black American Studies is not available, special arrangements within the Bachelor of Arts in Liberal Studies degree program are possible. A minor in Black American Studies is available for those students wishing to pursue related careers in this area.

Black American Studies is an interdisciplinary program with its basic content in the social sciences and humanities. The program involves regular course offerings that deal with historic, cultural, and social phenomena of people of African descent. Students from diverse disciplines utilize Black American Studies courses to fulfill general requirements as well as to supplement their majors. The interdisciplinary and multidisciplinary nature of the program allows flexibility for students seeking the relationships between their respective majors and Black American Studies.

REQUIREMENTS FOR A MINOR IN BLACK AMERICAN STUDIES

Students applying for the minor in Black American Studies must have completed at least one semester of full-time study at the University with a grade-point average of at least 2.1. The courses for the minor program are BAMS 110, 304, 306, and one BAMS elective at or above the 300 level with the approval of an adviser.

Alternative arrangements for a minor in Black American Studies are available but must be approved in advance by a program adviser and the director. Students may arrange alternative course selections, provided that at least 15 of the 18 credits toward the minor carry BAMS designations, that no more than 6 credits of the 18 differ from the basic program, and that at least 9 credits of the program are at or above the 300 level.

Advanced students who have shown the potential for doing research in a particular area may participate in independent study and special projects on an individual or group basis. Suggested prerequisites for advanced classes in Black American Studies include BAMS 110, 205 and 206.

IRISH STUDIES

A student may minor in Irish Studies by earning 15 credits in recommended courses, all at or above the 300 level. Required courses include ENGL 351 and HIST 373. For further information, contact Professor Bonnie Scott at (302) 831-6230.

LATIN AMERICAN STUDIES

Purpose. This is an interdisciplinary program designed to provide graduates with an organized focus for their interests in Latin America. The program is designed to enhance, rather than substitute for, a student's disciplinary major.

Program Requirements. A minimum of 18 credits is required from the following courses, selected from at least four departments.

HIST 135, 136, 334, 430, 477

GEOG 226

SPAN 212, 303, 304, 415, 430, 441, 443

ANTH 265, 323, 327, 330, 337, 338, 375, 380

POSC 426, 431, 450

Language Requirement. In addition to the 18-credit minimum, students must complete SPAN 107 or demonstrate equivalent proficiency on the placement test. Equivalent competence in Portuguese will be allowed. The study of both languages is strongly encouraged.

Study Abroad. Latin American Studies minors should plan to attend a semester or winter session at a Latin American site.

Substitutions may be made for the above specified courses, with permission from the Coordinator of the Latin American Studies Program, and only so long as the same disciplinary distribution is maintained.

INTERDISCIPLINARY PROGRAMS

THE CENTER FOR SCIENCE AND CULTURE

The Center for Science and Culture is an interdisciplinary teaching and research unit of the College of Arts and Science.

Ideas and methods of the humanities, the sciences, and social sciences are employed to study the social, philosophical, historical and cultural significance of science and technology.

The center offers an interdisciplinary instructional program in the social, cultural, and humanistic aspects of the sciences and their applications. Open to the entire student body, the center curriculum is primarily team-taught by faculty representing a wide range of the humanities, the social sciences, and the sciences. Courses provide a unique vehicle to inform students in various sciences about the social and cultural dimensions of their fields. This effort also instructs students of the humanities and social sciences concerning the nature and significance of the scientific professions. Group credit in the humanities and social sciences is available for most Center courses.

Two academic minors are offered. The minor in Medical Humanities is an organized curriculum of study with an emphasis on the relationship between various humanistic inquiries and the practice of medicine. The minor in Science, Technology, and Society is a program of study in the various ways that science and technology interact with and impact modern society.

The Center is also the academic home of the Medical Scholars Program. This innovative program is a cooperative venture between the University of Delaware and Jefferson Medical College. The program is designed to combine undergraduate pre-medical education with professional medical school and post-graduate medical training.

Seminars and lectures are also sponsored in areas of current interest in the fields represented by its faculty. The Center promotes advanced research on the interrelations of science, technology, and culture by University faculty. The center disseminates research information and results through its publication series.

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 coordinator, the student elects a program of coordinated courses in art history, chemistry, and studio art. Since the University of Delaware is one of a very few universities in this country with a graduate program in art conservation, students benefit from this unique opportunity to take special courses in art materials and techniques and to intern with the conservation staff at the Winterthur Museum or other nearby conservators.

DEGREE: BACHELOR OF ARTS

MAJOR: TECHNOLOGY OF ARTISTIC AND HISTORIC OBJECTS

CURRICULUM

CREDITS*

UNIVERSITY REQUIREMENTS

ENGL 110 Critical Reading and Writing	3 ¹
Three credits in an approved course or courses stressing multicultural, ethnic, and/or gender-related content #	3 ¹⁻⁴

COLLEGE REQUIREMENTS

Skill Requirements

<i>Writing:</i>	3 ^{3,4}
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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 ¹⁻⁴
Completion of the intermediate-level course (107 or 112) in a given language. Students with four or more years of high school work in a single foreign language may attempt to fulfill the requirement in that language by taking an exemption examination.	

Mathematics:

MATH 114 Elementary Mathematics and Statistics	3 ¹
(designed for students who do not intend to continue the study of mathematics)	

or

MATH 115 Pre-Calculus	3
(designed for students who intend to continue the study of mathematics)	

or

One of the following:	
MATH 221 Calculus I	3
MATH 241 Analytic Geometry and Calculus A	4

or

Successful performance on the college proficiency exam.

Breadth Requirements† (See page 80)

<i>Group A</i>	12 ¹⁻⁴
Understanding and appreciation of the creative arts and humanities. Twelve credits representing at least two areas.	

<i>Group B</i>	12 ¹⁻⁴
The study of culture and institutions over time. Twelve credits representing at least two areas.	

<i>Group C</i>	12 ¹⁻⁴
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., ¹freshman year, ²sophomore year, etc.

#This requirement may be fulfilled through a course taken to complete major, group, breadth, or elective requirements. See page 26.

†A course may be applied toward both the major requirements and a breadth requirement, but credits are counted only once toward the total credits for graduation.

Group D 13¹⁻⁴

The study of natural phenomena through experiment and analysis. A minimum of thirteen credits representing at least two areas including a minimum of one course with an associated laboratory.

MAJOR REQUIREMENTS**Within the College***Art and Art Conservation:*ART 244 Photography I 3¹⁻⁴

One of the following four courses:

ART 250 Sculpture I 3¹⁻⁴ART 254 Ceramics I 3¹⁻⁴ART 260 Metals I 3¹⁻⁴ART 273 On Loom Weaving I 3¹⁻⁴ARTC 685 Color Mixing and Matching 3¹⁻⁴

ARTC 682 Studio Materials and Techniques of Drawing in the West 3

ARTC 688 Studio Materials and Techniques of Painting I 3

or

ARTC 689 Studio Materials and Techniques of Painting II 3¹⁻⁴ARTC 690 Studio in the Materials and Techniques of Printmaking I 3¹⁻⁴

ARTC 466 Conservation Internship at Winterthur 6

*Art History*Twenty-four credits in Art History as follows: 24¹⁻⁴

ARTH 208 Greek and Roman Art 3

or

ARTH 207 Origins of Art 3

ARTH 210 Art of the Middle Ages 3

ARTH 212 High Renaissance and Mannerist Art 3

or

ARTH 211 Early Renaissance Art 3

ARTH 214 Baroque Art 3

ARTH 216 American Art 3

or

ARTH 380 Oriental Art 3

ARTH 315 Modern Art I: Nineteenth Century 3

ARTH 316 Modern Art II: Twentieth Century 3

ARTH 401 Literature, Theory and Methods of Art History 3

*Chemistry*Twenty to twenty-three credits in Chemistry as follows: 20-23¹⁻⁴

CHEM 103 General Chemistry 4

CHEM 104 General Chemistry 4

or

CHEM 111 General Chemistry 3

CHEM 112 General Chemistry 3

or

CHEM 119 Quantitative Chemistry I 2

CHEM 120 Quantitative Chemistry II 3

CHEM 220 Quantitative Analysis 3

CHEM 221 Quantitative Analysis Laboratory 1

CHEM 321 Organic Chemistry 3

CHEM 325 Organic Chemistry Laboratory 1

CHEM 322 Organic Chemistry 3

CHEM 326 Organic Chemistry Laboratory 1

ELECTIVES*Electives*

After required courses are completed, sufficient elective credits must be taken to meet the minimum credit requirement for the degree.

CREDITS TO TOTAL A MINIMUM OF 124**WOMEN'S STUDIES**

This program is designed to foster in students a knowledge of the rich heritage, challenges, and problems of women. In addition to being a unique field with its own philosophy, methodology, and materials, Women's Studies provides the impetus toward reexamining each of the traditional scholarly disciplines to identify and correct misinformation and unexamined assumptions about "women's place" in human history. In so doing, men's lives have also been looked at in new and more humanistic ways, thus enhancing an awareness of the interplay of gender, race, and class.

The Women's Studies program offers several introductory core courses, upper-division courses in a variety of disciplines, seminars, and colloquia. There is also an internship that gives students the chance to integrate what they have learned in the Women's Studies classroom with the practical competencies that can only be gained from actual experience in work settings. Both the courses and internship explain and expand exciting areas of scholarship and knowledge that have largely been excluded from the traditional disciplines.

The program offers both a minor and, through the Liberal Studies degree program, an individually designed major. For B.A.L.S.-Women's Studies major requirements, students should see the B.A.L.S. requirements and make an appointment with the director of Women's Studies to discuss the Women's Studies content within these requirements. Both the major and the minor can benefit students by helping to clarify personal and career goals; preparing them for specific careers that require expertise in women's roles and needs; and providing valuable intellectual training.

REQUIREMENTS FOR A MINOR IN WOMEN'S STUDIES

A minimum of 18 credit hours is required, which must include the following: WOMS 201, at least one course satisfying the A&S General Education Group A or B requirement, no more than two experimental courses (x67), and an additional 6 credits in WOMS courses at or above the 300 level. A minimum grade of C is required in each course.

Students may enter the program at any time. No minimum grade-point average is required to begin, but students must not be on probation at the time. To join the program, students need the permission of the director, who must also approve any waiver or substitution of requirements.

LEGAL STUDIES

The law is an essential topic in philosophic, social science, and public policy inquiry. Courses that are substantially concerned with law are available in a variety of disciplines including political science, sociology, philosophy, history, business, communication, economics, and psychology. This program, which allows students to minor in Legal Studies, provides students with the opportunity to explore the law from an interdisciplinary perspective within the framework of the liberal arts curriculum.

The program supplies coherence and guidance in the study of law in at least four ways. First, each Legal Studies minor is provided with an adviser who guides the student in constructing a coherent program. Second, the minor provides students with an opportunity to examine legal phenomena from a variety of discipline perspectives. Third, the program offers both a substantive introduction to law and an interdisciplinary introductory course in legal studies. Finally, it offers an interdisciplinary culmination by way of a senior seminar that will require a research paper.

This program is designed for any undergraduate student who is interested in examining the law from a variety of perspectives. Legal studies is not a "pre-law" program, and it does not offer para-legal training. It is, however, a suitable minor for those who plan to pursue professional training.

In addition to offering a minor in Legal Studies, the program offers faculty seminars, lectures, and films.

REQUIREMENTS FOR A MINOR IN LEGAL STUDIES

CURRICULUM	CREDITS
POSC 380 Introduction to Law (offered in 1991-92)	3
LEST 301 Introduction to Legal Studies (offered in 1992-93)	3
Three courses from the following list. At least two of these courses must be from outside the requirements of the student's major and outside his or her major department. These two courses must be chosen from two different departments.	9
<i>Accounting</i>	
ACCT 350 Business Law	3
ACCT 351 Business Law	3
ACCT 352 Law and Social Issues in Business	3
<i>Communication</i>	
COMM 365 Legal Issues of the Mass Media	3

Criminal Justice

CRJU 202	Problems of Criminal Judiciary	3
CRJU 203	Problems of Corrections	3
CRJU 320	Introduction to Criminal Law	3
CRJU 346	Psychology and the Law (same as PSYC 346)	3
CRJU 347	The Jury: Guilty or Not Guilty	3
CRJU 375	Criminal Procedure	3
CRJU 425	Criminal Law and Social Policy	3
CRJU 428†	Corporate Crime (same as SOCI 428)	3
CRJU 450	Prisoners and the Law	3
CRJU 456	Lawyers and Society (same as SOCI 456)	3

Economics

ECON 306	Public Choice (same as POSC 306)	3
ECON 360	Government and Business	3
ECON 408	Economics of Law	3
ECON 461	Industrial Organization and Antitrust	3
ECON 463	Economics of Regulation	3

History

HIST 309	Business, Government and Society	3
HIST 376	English Legal and Constitutional History	3

Philosophy

PHIL 202	Contemporary Moral Problems	3
PHIL 308	Justice and Equality	3
PHIL 446	Philosophy of Law	3

Political Science and International Relations

POSC 306	Public Choice (same as ECON 306)	3
POSC 380	Introduction to Law	3
POSC 402†	Civil Liberties I	3
POSC 404	Judicial Processes	3
POSC 405†	Constitutional Law of the United States	3
POSC 423	Congress and Public Policy	3
POSC 413-40	Problems in American Government: Gender, Sex and Law	3

Psychology

PSYC 346	Psychology and the Law (same as CRJU 346)	3
PSYC 347	The Jury: Guilty or Not Guilty (taken with CRJU 347)	3

Sociology

SOCI 330	Population, Law and Society	3
SOCI 345†	Sociology of Law	3
SOCI 428†	Corporate Crime (same as CRJU 428)	3
SOCI 456	Lawyers and Society (same as CRJU 456)	3

Women's Studies

WOMS 413	Gender, Sex, and American Law (same as POSC 413)	3
LEST 401	Senior Seminar (offered 1992-93)	3

†A course that is usually filled by majors or by students fulfilling major requirements.