

B.S. IN BIOLOGY

2005-06

General Education Requirements

NAME _____

Writing	Credits	Grade
ENGL 101 Writing & Rhetoric I (C grade or better required)		
ENGL 200 Writing & Rhetoric II (C grade or better required; must complete 24 credits before enrolling)		

Writing Intensive: 2 WI or 4 (0.5) WI courses, for a total of two full units, at least one WI or 2 x (.05) WI courses must be in the major. See Approved List A.		

Math & Statistics: Prerequisites in parentheses		
MATH 151 Pre-calculus (MATH 141 or placement)		
STAT 210 Basic Practice of Stat (Math 131 or placement)		
STAT course above 210 or MATH 200		

Ethical Principles: Select a course from Approved List C.		

General Chemistry: A grade of "C" or better is required in each course		
CHEM 101 General Chemistry I (Prerequisite of CHEM 100 or placement and corequisite of MATH 151 or placement)		
CHEZ 101L General Chemistry I Lab (Pre/Corequisite of CHEM 101)		
CHEM 102 General Chemistry II (Prerequisite CHEM 101)		
CHEZ 102L General Chemistry II Lab (Pre/Corequisite of CHEM 102, prerequisite CHEZ 101 L)		

Visual & Performing Arts: Select 2-3 credits from Approved List E.	Credits	Grade

Literature: Select a literature course from Approved List F.		

Civilization: Select 1 course from each area listed (9 credits total) but no more than 6 credits in any one discipline OR take two 4-credit interdisciplinary courses (8 credits total) that combine elements of each area.		
Historical and Cultural Origins: 1 course from Approved List G.		
American (U.S.) Studies: 1 course from Approved List H.		
Global Studies: 1 course from Approved List I.		

Foreign Language: Must demonstrate competency through 102 level by course or placement test.		
101 level		
102 level		

Human Behavior: Select 2 courses in different disciplines from Approved List J.		

Urban Environment: Select 1 from Approved List K.		

 Has VCCS Associate Degree _____

College of Humanities & Sciences – Approved Lists

Approved List A – Written Communications

(See course descriptions in the bulletin for any prerequisites.)

Writing

UNIV 111 Focused Inquiry I
UNIV 112 Focused Inquiry II
ENGL 200 Writing and Rhetoric Workshop II
(Taken in sophomore year.)

Writing intensive courses

African American Studies

AFAM 408 Seminar in African-American Studies

Anthropology

ANTH 301/BIOL 341 Human Evolution
ANTH 302 Archeological Theory
ANTH 303 Archeological Methods and Research Design
ANTH 315 Anthropological Field Methods & Research Design
ANTH/INTL 348 South American Ethnography
ANTH/INTL 349 Rethinking a Continent: Latin America
ANTH/INTL 350 Rethinking a Continent: Europe
ANTH/RELS/INTL 425 Religion, Magic and Witchcraft

Biology

BIOL 300 Biotechniques Laboratory (.5 WI credit)
BIOL 309 Entomology (.5 WI credit)
BIOZ 310L Laboratory in Genetics (.5 WI credit)
BIOZ 312L Invertebrate Zoology Laboratory (.5 WI credit)
BIOZ 317L Ecology Laboratory
BIOL 320 Biology of the Seed Plant (.5 WI credit)
BIOZ 321L Plant Development Laboratory
BIOL 341/ANTH 301 Human Evolution
BIOL 392 Introduction to Research
BIOL 445 Neurobiology and Behavior (.5 WI credit)
BIOL 514 Stream Ecology (.5 WI credit)
BIOL 518 Plant Ecology (.5 WI credit)
BIOL 522 Evolution and Speciation
BIOL 541/BNFO 541 Laboratory in Molecular Genetics (.5 WI credit)

Chemistry

CHEZ 303L Physical Chemistry Laboratory I
CHEZ 409L Instrumental Analysis Laboratory

Criminal Justice

CRJS/ENGL 302 Legal Writing
CRJS/HSEP 330 Legal and Constitutional Issues in Homeland Security and Emergency Preparedness
CRJS 358 Lawyer's Role in the Justice System
CRJS 480 Senior Seminar

Economics

ECON 302 Macroeconomic Theory

English

ENGL 301 English Studies: Reading Literature
ENGL/CRJS 302 Legal Writing
ENGL 303 Writing in the Workplace
ENGL 304 Advanced Writing
ENGL/MGMT 327 Business and Technical Report Writing
ENGL/RELS 361 The Bible as Literature
ENGL/ENVS 385 Nature Writing
ENGL 490 Senior Seminar in English (any topic)

Environmental studies

ENVS/ENGL 385 Nature Writing
ENVS 490 Research Seminar in Environmental Studies

French

FREN 300, 301 Advanced Grammar and Writing

Forensic science

FRSC 365 Forensic Microscopy
FRSC 375 Forensic Evidence, Law and Criminal Procedures

German

GRMN 301 Advanced Grammar and Writing

Geography

GEOG/INTL 303 World Regions
GEOG /URSP 306 Urban Economic Geography

History

HIST 300 Introduction to Historical Study
HIST 369 American Constitutional and Legal Development
HIST 490 Seminar in History (any topic)

Homeland Security and Emergency Preparedness

HSEP/CRJS 330 Legal and Constitutional Issues in Homeland Security and Emergency Preparedness
HSEP 490 Senior Seminar

Humanities and sciences

HUMS 591 Special Topics: Arts in Contemporary Britain (summer course only)

Interdisciplinary science

INSC 301 Investigatory Mathematics and Science

International studies

INTL/GEOG 303 World Regions
INTL/ANTH 348 South American Ethnography
INTL/ANTH 349 Rethinking a Continent: Latin America
INTL/ANTH 350 Rethinking a Continent: Europe
INTL/POLI 365 International Political Economy
INTL/RELS/NMNS 372 Global Women's Spirituality

INTL/RELS 409 Modern Islamic Thought and Global Trends

INTL/RELS/PHIL 412 Zen Buddhism

INTL/ANTH/RELS 425 Religion, Magic and Witchcraft

INTL/RELS 441 Islamic Mysticism: the Sufis

INTL/POLI 468 Seminar in Comparative Foreign Policy

INTL 490 Seminar in International Issues

Life sciences

LFSC/PSYC 307 Community Solutions: Multiple Perspectives

Mass communications

MASC 203 Writing for Mass Media
MASC 333 Public Relations Writing
MASC 363 Introduction to Broadcast Writing
MASC 392 Advertising Copywriting
MASC 403 Advanced Reporting
MASC 404 Specialized Project Reporting
MASC 475 Capital News Service

Mathematics

MATH 490 Mathematical Expositions
MATH 530 The History of Mathematics
MATH 531 Expositions in Modern Mathematics

Management/Business

MGMT/ENGL 327 Business and Technical Report Writing

Operations Research

OPER/STAT 490 Communications in Statistics and Operations Research

Philosophy

PHIL 301 Mind and Reality
PHIL 302 Reason and Knowledge
PHIL 303 Philosophy of Language
PHIL 320 Philosophy of Law
PHIL 335 Social and Political Philosophy
PHIL/INTL/RELS 412 Zen Buddhism
PHIL 490 Seminar in Philosophy

Physics

PHYS 450 Senior Physics Laboratory

Political science

POLI/WMNS 316 Women and the Law
POLI 341, 342 History of Political Thought
POLI/INTL 365 International Political Economy
POLI/INTL 468 Seminar in Comparative Foreign Policy
POLI 490 Senior Seminar

Psychology

PSYC/LFSC 307 Community Solutions: Multiple Perspectives
PSYC 317 Experimental Methods

Religious studies

RELS/ENGL 361 The Bible as Literature
RELS/WMNS 371 Islam and Women
RELS/WMNS/INTL 372 Global Women's Spirituality
RELS/INTL 409 Modern Islamic Thought and Global Trends
RELS/PHIL/INTL 412 Zen Buddhism
RELS/INTL/ANTH 425 Religion, Magic and Witchcraft
RELS/INTL 441 Islamic Mysticism: the Sufis
RELS 490 Seminar in Religious Studies

Sociology

SOCY 402 Sociological Theory
SOCY 436 Work and Management in Modern Society

Spanish

SPAN 300, 301 Advanced Grammar and Writing

Statistics and Operations Research

STAT/OPER 490 Communications in Statistics and Operations Research

Urban studies

URSP/GEOG 306 Urban Economic Geography

Women's studies

WMNS/POLI 316 Women and the Law
WMNS/RELS 371 Islam and Women
WMNS/INTL/RELS 372 Global Women's Spirituality
WMNS 401 Topical Senior Seminar

Approved List B – Math & Statistics

(See course descriptions in the bulletin for any prerequisites.)

MATH 131 Introduction to Contemporary Mathematics

MATH 151 Precalculus Mathematics

MATH 200 Calculus with Analytic Geometry

STAT 208 Statistical Thinking

STAT 210 Basic Practice of Statistics

STAT 212 Concepts of Statistics (for science majors only)

Approved List C – Ethical Principles

(See course descriptions in the bulletin for any prerequisites.)

International studies

INTL 341/RELS 340 Global Ethics and the World's Religions

Mass communications

MASC 290 Ethical Problems in Mass Media

Philosophy

PHIL 211 History of Ethics
PHIL 212 Ethics and Applications
PHIL 213 Ethics and Health Care

PHIL 214 Ethics and Business

Political science

POLI 107 Political Theory

Religious studies

RELS 340/INTL 341 Global Ethics and the World's Religions

Sociology

SOCY 445 Medical Sociology

Approved List D – Natural Sciences

(See course descriptions in the bulletin for any prerequisites.)

Biological sciences

BIOL 101 Biological Concepts
BIOZ 101L Biological Concepts Laboratory
BIOL/ENVS 103 Environmental Science
BIOZ/ENVS 103L Environmental Science Laboratory
BIOL 151 Introduction to Biological Science I (for biology and other science majors)
BIOZ 151L Introduction to Biological Science Laboratory I (for biology and other science majors)
BIOL 152 Introduction to Biological Science II (for biology and other science majors)
BIOZ 152L Introduction to Biological Science Laboratory II (for biology and other science majors)

Physical sciences

Chemistry

CHEM 101 General Chemistry (for science majors)
CHEZ/FRSZ 101L General Chemistry Laboratory (for science majors)
CHEM 110 Chemistry and Society
CHEZ 110L Chemistry and Society Laboratory
CHEM 112 Chemistry in the News

Forensic Science

FRSZ/CHEZ 101L General Chemistry Laboratory (for science majors)

Physics

PHYS 101 Foundations of Physics
PHYZ 101L Foundations of Physics Laboratory
PHYS 103 Elementary Astronomy
PHYZ 103L Elementary Astronomy Laboratory
PHYS 107 Wonders of Technology
PHYS 202 General Physics (for science majors)
PHYS 208 University Physics II (for science majors)

Approved List E – Visual & Performing Arts

A. Basic-level courses designed specifically for non-arts majors.

Art education

ARTE 301-302 Art for Elementary Teachers
ARTE 408 Two-dimensional Art Experiences
ARTE 409 Three-dimensional Art Experiences

Art foundation

ARTF 121-122 Introduction to Drawing

Dance and choreography

DANC 171, 172 Tai Chi
DANC 183,184 Introduction to Modern Dance Technique
DANC 313 Dance in World Cultures

Interior design

IDES 103-104 Introductory Studio Course

Music

MHIS 105 Introduction to Writing Music
MHIS 243 Music Appreciation

Sculpture

SCPT 209 Introduction to Sculpture

Theatre

THEA 107, 108 Introduction to Stage Performance

B. Basic-level courses open to both art and non-art majors.

African American studies

AFAM/DANC 121, 122 Tap Technique I
AFAM/DANC 126, 127 African-Caribbean Dance
AFAM/MHIS 250 Introduction to African-American Music
AFAM/THEA 303 Black Theatre
AFAM 350/MHIS 350/INTL 370 Studies in the Music of the African Continent and Diaspora

Art history

ARTH 103, 104 Survey of Western Art
ARTH 207 Introduction to Non-Western Art
ARTH 270, 271 History of the Motion Picture

Crafts

CRAF 201-202 Metalsmithing
CRAF 211-212 Jewelry
CRAF 221 Woodworking Techniques
CRAF 241 Ceramics: Handbuilding
CRAF 242 Ceramics: Wheelthrowing
CRAF 251, 252 Introduction to Glassworking
CRAF 261, 262 Beginning Textiles

College of Humanities & Sciences – Approved Lists

Dance and choreography

DANC 103-104 Survey of Dance History
DANC 105-106 Improvisation
DANC 114, 214, 314, 414 Summer Dance Workshop
DANC/AFAM 121, 122 Tap Technique I
DANC/AFAM 126, 127 African-Caribbean Dance I
DANC 133-134 Introduction to Ballet Technique I and II
DANC 141, 142 Ballroom Dancing
DANC 243 Dynamic Alignment
DANC 291 Topics in Dance
DANC 313 Dance in World Cultures

Fashion design and merchandising

FASH 240 Survey of the Fashion Industry I

Interior design

IDES 103-104 Introductory Studio Course

International studies

INTL 370/AFAM 350/MHIS 350 Studies in the Music of the African Continent and Diaspora

Music

APPM 300-level Private Instruction: Principal and Secondary Performing Mediums
APPM 370 Large Ensembles (auditions required for all sections)
APPM 390 Small Ensembles (auditions required for all sections)
MHIS 120 Introduction to World Musical Styles
MHIS/AFAM 250 Introduction to African-American Music
MHIS 350/INTL 370/AFAM 350 Studies in the Music of the African Continent and Diaspora

Theatre

THEA 103 Stagecraft
THEA 211-212 Introduction to Drama
THEA 229 Introduction to Lighting Design
THEA/AFAM 303 Black Theatre

C. Advanced-level courses open to both arts and non-arts majors. Some require special permission/audition.

Dance and choreography

DANC 221, 222 Tap Technique II
DANC 319, 320 Video/Choreography Workshop

Approved List F – Literature

English

ENGL 201 Western World Literature I
ENGL 202 Western World Literature II
ENGL 203 British Literature I
ENGL 204 British Literature II
ENGL 205 American Literature I
ENGL 206 American Literature II
ENGL 211 Contemporary World Literature
ENGL 215 Readings in Literature
ENGL 216 Readings in Narrative
ENGL/WMNS 236 Women in Literature
ENGL 241 Shakespeare's Plays
ENGL 291 Topics in Literature

Women's studies

WMNS/ENGL 236 Women in Literature

Approved List G – Historical & Cultural Origins

African American studies

AFAM/HIST 105 Survey of African History I
AFAM/HIST 106 Survey of African History II

Anthropology

ANTH 105/INTL 104 Introduction to Archaeology
ANTH/GEOG 312 History of Human Settlement

Foreign language

FRLG/INTL 203 Language and Identity

Geography

GEOG/ANTH 312 History of Human Settlement

History

HIST 101 Survey of European History I
HIST 102 Survey of European History II
HIST/AFAM 105 Survey of African History I
HIST/AFAM 106 Survey of African History II
HIST 107 Survey of East Asian Civilizations I
HIST 108 Survey of East Asian Civilizations II
HIST 109 Survey of Latin American History I
HIST 110 Survey of Latin American History II

International studies

INTL 104/ANTH 105 Introduction to Archaeology

INTL/FRLG 203 Language and Identity
INTL/RELS 311 Religions of the World I
INTL/RELS 312 Religions of the World II

Italian

ITAL 391/HUMS 491 Perugia Study Abroad

Philosophy

PHIL 103 Ancient Greek and Medieval Western Philosophy
PHIL 104 Modern Western Philosophy

Religious studies

RELS/INTL 311 Religions of the World I
RELS/INTL 312 Religions of the World II

Approved List H – American Studies

American studies

AMST 394 Perspectives in American Studies

Foreign language

FRLG/INTL 204 Language and Groups in the United States

History

HIST 103 Survey of American History I
HIST 104 Survey of American History II

International studies

INTL/FRLG 204 Language and Groups in the United States

Political science

POLI 103 U.S. Government

Religious studies

RELS 334 Religion in Contemporary America

Approved List I – Global Studies

Anthropology

ANTH/INTL 455 Anthropology of Development and Globalization (INTL 101 prerequisite)

Geography

GEOG/INTL 303, 304 World Regions

International studies

INTL 101 Human Societies and Globalization
INTL/POLI 105 International Relations
INTL/MASC 151 Communications Technology and Global Society
INTL/ GEOG 303, 304 World Regions

Mass communications

MASC/INTL 151 Communications Technology and Global Society

Political science

POLI/INTL 105 International Relations
POLI 109 Comparative Politics
POLI/INTL 365 International Political Economy

Sociology

SOCY/INTL 330 Global Societies: Trends and Issues
SOCY 430 Politics, Power and Ideology

Approved List J – Human Behavior

Anthropology

ANTH/INTL 103 Introduction to Anthropology
ANTH/INTL 348 South American Ethnography (ANTH 103 prerequisite)
ANTH/INTL 349 Rethinking a Continent: Latin America (ANTH 103 prerequisite)

Economics

ECON 101/INTL 102 Introduction to Political Economy
ECON 203 Introduction to Economics

Geography

GEOG 102 Introduction to Human Geography

Homeland Security and Emergency Preparedness

HSEP 101 Homeland Security and Emergency Preparedness

International studies

INTL 102/ECON 101 Introduction to Political Economy
INTL/ANTH 103 Introduction to Anthropology
INTL/ANTH 348 South American Ethnography (ANTH 103 prerequisite)
INTL/ANTH 349 Rethinking a Continent: Latin America (ANTH 103 prerequisite)

Mass communications

MASC 101 Mass Communications

Psychology

PSYC 101 Introduction to Psychology

Social Science

SOCS 340 Human Sexuality

Sociology

SOCY 101 General Sociology
SOCY 340 Self and Society

Women's studies

WMNS 201 Introduction to Women's Studies

Approved List K – Urban Environment

All courses designated as "service learning" fulfill this requirement. (See course descriptions in the bulletin for any prerequisites.)

Anthropology

ANTH/GEOG 312 History of Human Settlement
ANTH 450/ENGL 454/INTL 454 Cross-cultural Communication

Criminal justice

CRJS 181 Justice System Survey
CRJS 305 Policing Theories and Practice
CRJS 352 Crime and Delinquency Prevention
CRJS 468 Economic and Organized Crime
CRJS 491 Topics in Criminal Justice: Youth in Corrections/Service Learning (only this topic)

Economics

ECON/URSP 321 Urban Economics

English

ENGL 454/INTL 454/ANTH 450 Cross-cultural Communication

Environmental science

ENVS 491 Topics in Environmental Studies: Ecology of Urban Environments (only this topic)

French

FREN 301 Advanced Grammar and Writing

Foreign language

FRLG 345/URSP 350/INTL 345 Great Cities of the World
FRLG 490 Foreign Languages Urban Internship

Geography

GEOG/URSP 302 Land Use Capability
GEOG/URSP 306 Urban Economic Geography
GEOG/ANTH 312 History of Human Settlement
GEOG/INTL/URSP 340 World Cities Outside of North America

Humanities and sciences

HUMS 391 Special Topics in the Humanities and Sciences: Science Education in the Urban Environment (only this topic)

International studies

INTL/URSP/GEOG 340 World Cities Outside of North America
INTL 345/FRLG 345/URSP 350 Great Cities of the World
INTL 454/ANTH 450/ENGL 454 Cross-cultural Communication

Mass communications

MASC 303 General Assignment Reporting
MASC 403 Advanced Reporting
MASC 404 Specialized Project Reporting
MASC 439 Public Relations Campaigns
MASC 464 Advance Television Newsgathering

Philosophy

PHIL 340 Philosophy for Children

Physics

PHYS 291 Topics in Physical Science: Physics Outreach - Richmond Elementary Schools (only this topic)

Political science

POLI 321 City Politics

Psychology

PSYC 491 Topics in Psychology: Youth in Corrections/Service Learning (only this topic)
PSYC 493 Fieldwork: Urban Environment (only this topic)
PSYC 493 Fieldwork: Mentoring Children at Risk (only this topic)

Social work

SLWK 422 Social Welfare Legislation and Services

Sociology

SOCY 302 Contemporary Social Problems
SOCY 327 Urban Sociology
SOCY 391 Topics in Sociology: Youth in Corrections/Service Learning (only this topic)

Spanish

SPAN 402 Language Issues in the Spanish-speaking World

Teacher Education

TEDU 101 Introduction to Teaching

Urban studies

URSP 116 Introduction to the City
URSP 245 Housing and Community Revitalization
URSP 261 Design of the City
URSP/GEOG 302 Land Use Capability
URSP 304 Urban Social Systems
URSP/GEOG 306 Urban Economic Geography
URSP 315 The Evolution of American Cities
URSP 316 Urban Life in Modern America
URSP/ECON 321 Urban Economics
URSP/GEOG/INTL 340 World Cities Outside of North America
URSP 350/INTL 345/FRLG 345 Great Cities of the World