
AEROSPACE STUDIES MINOR (18 HOURS)

AS 3312	(3)	Air Force Leadership Studies I
AS 3313	(3)	Air Force Leadership Studies II
AS 4412	(3)	National Security Affairs/ Preparation for Active Duty I
AS 4413	(3)	National Security Affairs/ Preparation for Active Duty II

BIO 3325	(3)	Plant Form and Function	BIO 4430	(3)	Applied Genetics
BIO L325	(1)	Plant Form and Function Lab	BIO 4430	(1)	Applied Genetics Lab
BIO 3326	(3)	Plant Diversity	BIO 4433	(3)	Embryology
BIO L326	(1)	Plant Diversity Lab	BIO 4433	(1)	Embryology Lab
BIO 4402	(4)	Spring Flora	BIO 4451	(3)	Toxicology
BIO 4425	(4)	Field Botany	BIO 4451	(1)	Toxicology Lab
			BIO 4478	(3)	Cell Biology
			BIO 4478	(1)	Cell Biology Lab
			BIO 4480	(3)	Histology
BIO 3307	(3)	Invertebrate Zoology	BIO 4480	(1)	Histology Lab
BIO L307	(1)	Invertebrate Zoology Lab	BIO 4482	(3)	Molecular Biology
BIO 3308	(3)	Vertebrate Zoology	BIO 4482	(1)	Molecular Biology Lab
BIO L308	(1)	Vertebrate Zoology Lab			
BIO 4405	(3)	Entomology			
BIO L405	(1)	Entomology Lab			
BIO 4410	(3)	Animal Behavior			
BIO L410	(1)	Animal Behavior Lab			
BIO 4420	(4)	Field Vertebrate Zoology			
BIO 4432	(3)	Comparative Vertebrate Anatomy	BIO 1101	(3)	Organismal Biology
BIO L432	(1)	Comparative Vertebrate Anatomy Lab	BIO L101	(1)	Organismal Biology Lab
BIO 4445	(3)	Ichthyology	BIO 2229	(3)	General Ecology
BIO L445	(1)	Ichthyology Lab	BIO L229	(1)	General Ecology Lab
BIO 4446	(3)	Herpetology	BIO 3320	(3)	Genetics
BIO L446	(1)	Herpetology Lab	BIO L320	(1)	Genetics Lab
BIO 4447	(3)	Ornithology	BIO 3372	(3)	Microbiology
BIO L447	(1)	Ornithology Lab	BIO L372	(1)	Microbiology Lab
BIO 4448	(3)	Mammalogy			
BIO L448	(1)	Mammalogy Lab			
BIO 4471	(3)	Parasitology			
BIO L471	(1)	Parasitology Lab			

BIOLOGY MINOR (18-20 HOURS)

BIO 2202	(3)	Principles of Environmental Science
BIO L202	(1)	Principles of Environmental Science Lab
BIO 4413	(3)	Limnology
BIO L413	(1)	Limnology Lab
BIO 4416	(3)	Microbial Ecology
BIO L416	(1)	Microbial Ecology Lab
BIO 4421	(3)	Population Ecology
BIO L421	(1)	Population Ecology Lab
BIO 4479	(3)	Environmental Assessment
BIO L479	(1)	Environmental Assessment Lab

BIO 3347	(3)	Human Anatomy and Physiology I
BIO L347	(1)	Human Anatomy and Physiology I Lab
BIO 3348	(3)	Human Anatomy and Physiology II
BIO L348	(1)	Human Anatomy and Physiology II Lab
BIO 3382	(3)	Immunology
BIO L382	(1)	Immunology Lab
BIO 3386	(3)	Hematology
BIO L386	(1)	Hematology Lab
BIO 4414	(3)	Food Microbiology
BIO L414	(1)	Food Microbiology Lab

Requirements

BIO 2229	(3)	General Ecology
BIO L229	(1)	General Ecology Lab
BIO 3320	(3)	Genetics
BIO L320	(1)	Genetics Lab
BIO 3372	(3)	Microbiology
BIO L372	(1)	Microbiology Lab
CHM 3342	(3)	Organic Chemistry I
CHM L342	(1)	Organic Chemistry I Lab
CHM 3343	(3)	Organic Chemistry II
CHM L343	(1)	Organic Chemistry II Lab
MTH 2210	(3)	Applied Statistics

· Cell and Molecular Biology Concentration

BIO 3347	(3)	Human Anatomy and Physiology I
BIO L347	(1)	Human Anatomy and Physiology I Lab
BIO 3348	(3)	Human Anatomy and Physiology II
BIO L348	(1)	Human Anatomy and Physiology II Lab
BIO 4478	(3)	Cell Biology
BIO L478	(1)	Cell Biology Lab
BIO 4482	(3)	Molecular Biology
BIO L482	(1)	Molecular Biology Lab

BIO 3382	(3)	Immunology
BIO L382	(1)	Immunology Lab
BIO 4416	(3)	Microbial Ecology
BIO L416	(1)	Microbial Ecology Lab
BIO 4430	(3)	Applied Genetics
BIO L430	(1)	Applied Genetics Lab
BIO 4451	(3)	Toxicology
BIO L451	(1)	Toxicology Lab
BIO 4471	(3)	Parasitology
BIO L471	(1)	Parasitology Lab
BIO 4480	(3)	Histology
BIO L480	(1)	Histology Lab
CHM 3352	(3)	Biochemistry
CHM L352	(1)	Biochemistry Lab

· General Biology Concentration

BIO 4414	(3)	Food Microbiology
BIO L414	(1)	Food Microbiology Lab
BIO 4416	(3)	Environmental Microbiology.
BIO L416	(1)	Environmental Microbiology Lab
BIO 4430	(3)	Applied Genetics
BIO L430	(1)	Applied Genetics Lab
BIO 4432	(3)	Comparative Vertebrate Anatomy
BIO L432	(1)	Comparative Vertebrate Anatomy Lab
BIO 4433	(3)	Embryology
BIO L433	(1)	Embryology Lab
BIO 4451	(3)	Toxicology
BIO L451	(1)	Toxicology Lab
BIO 4471	(3)	Parasitology
BIO L471	(1)	Parasitology Lab
BIO 4478	(3)	Cell Biology
BIO L478	(1)	Cell Biology Lab
BIO 4480	(3)	Histology
BIO L480	(1)	Histology Lab
BIO 4482	(3)	Molecular Biology
BIO L482	(1)	Molecular Biology Lab
CHM 3352	(3)	Biochemistry
CHM L3352	(1)	Biochemistry Lab

CHEMISTRY EDUCATION

56 · COLLEGE OF ARTS AND SCIENCES

CHM L242	(1)	Analytical Chemistry Lab
CHM 3342	(3)	Organic Chemistry I
CHM L342	(1)	Organic Chemistry I Lab
CHM 3343	(3)	Organic Chemistry II
CHM L343	(1)	Organic Chemistry II Lab
CHM 3381	(3)	Physical Chemistry I

COMPUTER SCIENCE MINOR (18 HOURS)		
CS 2244	(3)	Computer Programming I
CS 2260	(3)	Computer Programming II

COMPUTER SCIENCE, APPLIED MAJOR	CJ	a
CS 3339 Tiz-1.9(cs)6.jTt i9)-374StreY 11DevCS 337		

COMPUTER SCIENCE PROGRAM (49 HOURS)

General Studies Requirements

Area III

MTH 1125 (4) Calculus I, in lieu of MTH 1110

Area V

CS 2244 (3) Computer Programming I
TROY 1101 (1) University Orientation

Required Courses:

MTH 1126	(4)	Calculus II
MTH 2215	(3)	Applied Discrete Mathematics
CS 2260	(3)	Computer Programming II
CS 2261	(3)	Foundations of Computer Science
CS 3323	(3)	Data Structures
CS 3329	(3)	Analysis of Algorithms
CS 3332	(3)	Software Engineering I
CS 3372	(3)	Formal Languages and the Theory of Computation
CS 3357	(3)	Logical Structures of Computer Design
CS 3365	(3)	Intro to Computer Organization and Architectures
CS 3370	(3)	Nature of Programming Languages
CS 4420	(3)	Introduction to Database Management Systems
CS 4445	(3)	Data Communication and Networking
CS 4448	(3)	Operating Systems
MTH 2210	(3)	Applied Statistics
CS 3325	(3)	Operations Research
CS 3331	(3)	Fundamentals of Artificial Intelligence
CS 3339	(3)	Fundamentals of Object-Oriented Programming
CS 4401	(3)	Special Topics in AI
CS 4443	(3)	Web Based Software Development
CS 4447	(3)	Systems Analysis and Design
CS 4451	(3)	Computer Security and Reliability
CS 4461	(3)	Software Engineering II
CS 4462	(3)	Special Topics in Object-Oriented Technology

Area III

HIS 1101	(3)	Western Civilization I
HIS 1102	(3)	Western Civilization II
HIS 1111	(3)	U.S. to 1877
HIS 1112	(3)	U.S. since 1877
HIS 1122	(3)	World History to 1500
HIS 1123	(3)	World History from 1500

Area IV

MTH 1125	(3)	Calculus I
----------	-----	------------

BIO 1100	(3)	Principles of Biology
BIO L100	(1)	Principles of Biology Lab
SCI 2233	(3)	Physical Science
SCI L233	(1)	Physical Science Lab
SCI 2234	(3)	Earth and Space Science
SCI L234	(1)	Earth and Space Science Lab

Area V

COM 1110	(3)	Effective Communication
IS 2241	(3)	Computer Concepts and Applications
TROY 1101	(1)	University Orientation

Area VI

CS 2244	(3)	Computer Programming I
CS 2260	(3)	Computer Programming II
CS 2261	(3)	Foundations of Computer Science Concepts
CS 3323	(3)	Data Structures
CS 3329	(3)	Analysis of Algorithms
CS 3332	(3)	Software Engineering I
CS 3357	(3)	Logical Structures
MTH 2215	(3)	Applied Discrete Mathematics

Area VII**CRIMINAL JUSTICE MINOR (18 HOURS)**

CJ 1101	(3)	Introduction to Criminal Justice
---------	-----	----------------------------------

EARTH AND SPACE STUDIES MINOR (18 HOURS)

SCI 3335	(3)	Physical Geology
SCI L335	(1)	Physical Geology Lab
SCI 3336	(3)	Astronomy
SCI 3340	(3)	Marine Science
SCI L340	(1)	Marine Science Lab
SCI 3350	(3)	Weather and Climate
SCI L350	(1)	Weather and Science Lab
SCI 4403	(3)	Conservation

ENGLISH MAJOR (36 HOURS)**Specialized General Studies Requirements*****Area V***

ENG 2211	(3)	American Literature before 1875
ENG 2212	(3)	American Literature after 1875
ENG 2244	(3)	British Literature before 1785
ENG 2245	(3)	British Literature after 1785
IS 2241	(3)	Computer

CRIMINAL JUSTICE MAJOR (36 HOURS)

Criminal justice majors are encouraged to take two semesters of Spanish or another foreign language as part of their general studies requirements.

CJ 1101	(3)	Introduction to Criminal Justice
CJ 2221	(3)	Survey of Law Enforcement
CJ 2231	(3)	Survey of Corrections
CJ 2241	(3)	Survey of Law and Criminal Procedure
CJ 3345	(3)	Criminology
CJ 3352	(3)	Constitutional Law
CJ 3375	(3)	Introduction to Social Scientific Inquiry
CJ 4499	(3)	Senior Seminar

ENGLISH MINOR (18 HOURS)

ENG 3341 (3) Advanced Grammar

ENG 2211 (3) American Literature before 1875

CHM 4445	(3)	Instrumental Analysis
CHM L445	(1)	Instrumental Analysis Lab

**ENVIRONMENTAL SCIENCE PROGRAM (55
HOURS)**

Specialized General Studies Requirements

Area III

BIO 1100	(3)	Principles of Biology
BIO L100	(1)	Principles of Biology Lab
CHM 1142	(3)	General Chemistry I
CHM L142	(1)	General Chemistry I Lab
MTH 1125	(4)	Calculus I

Area V

Area V

COM 1110	(3)	Effective Communication
IS 2241	(3)	Computer Concepts and Applications
TROY 1101	(1)	University Orientation

Area VI***Area VII***

GENERAL EDUCATION A.S. DEGREE (60 HOURS)

Area I

ENG 1101	(3)	Composition and Modern English I
ENG 1102	(3)	Composition and Modern English II

Area II

ENG 2205	(3)	World Literature before 1660
----------	-----	------------------------------

GEOGRAPHY MINOR (18 HOURS)

GEO 3300	(3)	Principles of Physical Geography
GEO 3301	(3)	Principles of Cultural Geography

GEMMATICS MAJOR (47 HOURS)**Specialized General Studies Requirements*****Area II***

ART 2201	(3)	Introductory Drawing
----------	-----	----------------------

Area III

BIO 1100	(3)	Principles of Biology
BIO L100	(1)	Principles of Biology Lab
PHY 2252	(3)	General Physics I
PHY L252	(1)	General Physics I Lab
MTH 1125	(4)	Calculus I

Area IV

ECO 2251	(3)	Principles of Macroeconomics
ECO 2252	(3)	Principles of Microeconomics

Area V

IS 2241	(3)	Computer Concepts and Apps.
TROY 1101	(1)	University Orientation
CS 2244	(3)	Computer Programming I
MTH 2210	(3)	Applied Statistics
MTH 1126	(4)	Calculus II
PHY 2253	(3)	General Physics II
PHY L253	(1)	General Physics II Lab

Major Requirements

GEM 2200	(3)	Basics of Cartography and Surveying
GEM L220	(1)	Basics of Cartography and Surveying Lab
GEM 3309	(3)	Land Parcel Administration and Law
GEM L309	(1)	Land Parcel Administration and Law Lab
GEM 3310	(3)	Land Surveying Practice
GEM L310	(1)	Boundary Retracement Lab
GEM 3330	(3)	Advanced Measurement Analysis
GEM L330	(1)	Advanced Measurement Analysis Lab
GEM 3366	(3)	Photogrammetry and Remote Sensing

- ***European/Asian/African History Emphasis***

NOTE: Students majoring in History Education may not select the Civil Rights emphasis in history.

HISTORY MAJOR (36 HOURS)

Select one emphasis below.

- **AMERICAN/LATIN AMERICAN EMPHASIS**

Area V

IS 2241	(3)	Computer Concepts and Apps.
TROY 1101	(1)	University Orientation
BIO 1101	(3)	Organismal Biology
BIO L101	(1)	Organismal Biology Lab
CHM 1143	(3)	General Chemistry II
CHM L143	(1)	General Chemistry II Lab

PHY 2252	(3)	General Physics I
PHY L252	(1)	General Physics I Lab
PHY 2253	(3)	General Physics II
PHY L253	(1)	General Physics II Lab
or		
PHY 2262	(3)	Physics I with Calculus
PHY L262	(1)	Physics I with Calculus Lab
PHY 2263	(3)	Physics II with Calculus
PHY L263	(1)	Physics II with Calculus Lab

Requirements for the Major

BIO 2229	(3)	General Ecology
BIO L229	(1)	General Ecology Lab
BIO 3320	(3)	Genetics
BIO L320	(1)	Genetics Lab
BIO 3372	(3)	Microbiology
BIO L372	(1)	Microbiology Lab
CHM 3342	(3)	Organic Chemistry I
CHM L342	(1)	Organic Chemistry I Lab
CHM 3343	(3)	Organic Chemistry II
CHM L343	(1)	Organic Chemistry II Lab
MTH 2210	(3)	Applied Statistics

BIO 3307	(3)	Invertebrate Zoology
BIO L307	(1)	Invertebrate Zoology Lab

Dauphin Island Sea Lab (DISL) Courses (16 semester hours).

DISL courses are offered during the summer term. Students are required to take the following prerequisites before attending DISL:

CHM 3342(3307)-45(.)(u14ur)6.7(D-0./TT8 1 Tf0 -1.48 TD0.0001 Tc0.489HM p)-5.26(3307)-2ditional.24 12 Tc.24 12t-1.25(er)9..24 12y ..24 12Tf

BIO

66 · COLLEGE OF ARTS AND SCIENCES

POL 4452	(3)	International Law
POL 4460	(3)	Intercultural Relations
POL 4465	(3)	Politics of the Developing World
POL 4466	(3)	Middle Eastern Politics
POL 4470	(3)	European Politics
POL 4474	(3)	Political Violence and Terrorism
POL 4476	(3)	Politics of Southeast Asia

SOCIAL SCIENCE MINOR: LEADERSHIP (18 HOURS)

