
ANT 3310	(3)	Cultural Anthropology
ANT 3311	(3)	Physical Anthropology

Select at least 12 hours of additional 3000/4000-level anthropology courses as approved by your faculty adviser.

ARCHIVAL STUDIES MINOR (18 HOURS)

HIS 3360	(3)	Introduction to Archives: Theory and Issues
HIS 3362	(3)	Archival Methods and Practice
HIS 4472	(3)	Records Management
HIS 4473	(3)	Archives Practicum

Select two courses from the following including at least one at the 4000 level:

GEO/HIS3316	(3)	History of Alabama
GEO/SOC4406	(3)	Urbanism
HIS 4405	(3)	Old South
HIS 4406	(3)	New South
HIS/POL 4441	(3)	American Constitutional Develop.
HIS 4470	(3)	Oral History
HIS 4471	(3)	Local History
MGT 4471	(3)	Organizational Development
MGT 4474	(3)	Business and Society
POL 4421	(3)	Introduction to Public Administration
SOC 4433	(3)	The Community

50 · COLLEGE OF ARTS AND SCIENCES

Select one botany course

52 · COLLEGE OF ARTS AND SCIENCES

BIO 4448 (3) Mammalogy
 BIO L448 (1) Mammalogy Lab
 BIO 4471 (3) Parasitology
 BIO L471 (1) Parasitology Lab

Select 12 hours (three courses with labs) from the three categories below. At least one course must be taken from each of the three categories.

Select one ecology/environmental course with its corresponding lab:

BIO 4413 (3) Limnology	BIO 3307 (3) Invertebrate Zoology
BIO L413 (1) Limnology Lab	BIO L307 (1) Invertebrate Zoology Lab
BIO 4416 (3) Microbial Ecology	BIO 4405 (2) Entomology
BIO L416 (1) Microbial Ecology Lab	BIO L405 (2) Entomology Lab
BIO 4421 (3) Population Ecology	Botany
BIO L421 (1) Population Ecology Lab	BIO 3325 (3) Plant Form and Function
BIO 4479 (3) Environmental Assessment	BIO L325 (1) Plant Form and Function Lab
BIO L479 (1) Environmental Assessment Lab	BIO 3326 (3) Plant Diversity
	BIO L326 (1) Plant Diversity Lab

Select one physiology/cell/molecular course with its corresponding lab:

BIO 3347 (3) Human Anatomy and Physiology I	BIO 4413 (3) Limnology
BIO L347 (1) Human Anatomy and Physiology I Lab	BIO L413 (1) Limnology Lab
BIO 3348 (3) Human Anatomy and Physiology II	BIO 4479 (3) Environmental Assessment
BIO L348 (1) Human Anatomy and Physiology II Lab	BIO L479 (1) Environmental Assessment Lab
	MB 4406 (4) Marsh Ecology

Select an additional eight hours of adviser-approved BIO or MB courses.

Medical Technology Concentration:

Students must complete 28 semester hours on the Troy Campus prior to applying for an internship.

BIO 3382 (3) Immunology	Select an additional eight hours of adviser-approved BIO or MB courses.	
BIO L382 (1) Immunology Lab	<u>Medical Technology Concentration:</u>	
BIO 3386 (3) Hematology	Students must complete 28 semester hours on the Troy Campus prior to applying for an internship.	
BIO L386 (1) Hematology Lab	Lectures and their corresponding labs must be taken together.	
BIO 4414 (3) Food Microbiology	BIO 3347 (3) Human Anatomy and Physiology I	
BIO L414 (1) Food Microbiology Lab	BIO L347 (1) Human Anatomy and Physiology I Lab	
BIO 4430 (3) Applied Genetics	BIO 3348 (3) Human Anatomy and Physiology II	
BIO L430 (1) Applied Genetics Lab	BIO L348 (1) Human Anatomy and Physiology II Lab	
BIO 4433 (3) Embryology	BIO 3372 (3) Microbiology	
BIO L433 (1) Embryology Lab	BIO L372 (1) Microbiology Lab	
BIO 4451 (3) Toxicology	BIO 3382 (3) Immunology	
BIO L451 (1) Toxicology Lab	BIO L382 (1) Immunology 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		

Select 16 additional semester hours (four courses with labs) from the four above categories (botany, zoology, ecology, environmental, and physiology/cell/molecular). Guided Independent Research (BIO 4491/4492) or Guided Independent Study (BIO 4493/4494) may be taken up to six of these credits. BIO 4491 and 4493 may be mixed and taken in any sequence for up to six credits. However, the two course sequences of BIO 4491/4492 and BIO 4493/4494 may not be taken for more than six credits regardless of the mix. The 16 hours chosen should be based on the student's future plans (employment, graduate school, or professional school).

Select one course with its corresponding lab:

BIO 3386 (3) Hematology	
BIO L386 (1) Hematology Lab	
BIO 4471 (3) Parasitology	
BIO L471 (1) Parasitology Lab	

In addition to the above courses, including core courses, students must complete 33 semester hours of hospital internship MT 4400-4413 courses.

Ecology and Field Biology Concentration:

BIO 4420 (4) Field Vertebrate Zoology
BIO 4421 (3) Population Ecology
BIO L421 (1) Population Ecology Lab
BIO 4425 (4) Field Botany

BIOLOGY, PREPROFESSIONAL MAJOR (55 HOURS)
 Specialized General St.4(L(t)1.9(Geni)-)6.s .0Tw [(In addition)6.7(to)6.7

CHM L142	(1)	General Chemistry I Lab
MTH 1125	(4)	Calculus I

Area V Requirements (20 Hours)

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

Select one sequence (physics sequence not required for medical technology concentration):

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

Lectures and their corresponding labs must be taken together.

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
BIO Human TD .S Anath (0006 77 B0 D) : 0002 4 (4.0005 FD 0e .		
BIO	(1)	Tc .01 J8 2229

54 · COLLEGE OF ARTS AND SCIENCES

CHM L445	(1)	Instrumental Analysis Lab
MTH 1126	(4)	Calculus II

Select three hours of chemistry electives:

CHM 3352	(3)	Biochemistry
CHM L352	(1)	Biochemistry Lab
CHM L382	(1)	Physical Chemistry II Lab
CHM 4400	(3)	Special Topics
CHM 4403	(3)	Advanced Organic Chemistry
CHM L444	(1)	Advanced Inorganic Chemistry Lab
CHM 4491/2	(1-3)	Guided Independent Research
CHM 4493/4	(1-3)	Guided Independent Study
CHM 4499	(1)	Senior Research Seminar

CHEMISTRY MINOR (20 HOURS)

CHM 1142	(3)	General Chemistry I
CHM L142	(1)	General Chemistry I Lab
CHM 1143	(3)	General Chemistry II
CHM L143	(1)	General Chemistry II 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

Select four additional hours of advanced chemistry courses, such as

CHM 2242/L242		Analytical Chemistry and lab
CHM 3352 / L352		Biochemistry and Lab

Note: The chemistry minor requires 20 hours in addition to the hours required for a major in another discipline. For example, the biology major requires Organic Chemistry II and lab, so a student majoring in biology would need to select eight, not four, additional hours of advanced chemistry courses.

CHEMISTRY PROGRAM (51 HOURS)

PHY L410	(1)	Modern Physics Lab
SCI 3335	(3)	Physical Geology
SCI L335	(1)	Physical Geology Lab
SCI 3336	(3)	Principles of Astronomy

COMPUTER SCIENCE PROGRAM (48 HOURS)			
Specialized General Studies Requirements			
Area III			
MTH	1125	(4)	Calculus I, in lieu of MTH 1110

Select one of the following concentrations:

Biology Concentration:

BIO 2229	(3)	General Ecology
BIO L229	(1)	General Ecology Lab
BIO 3347	(3)	Anatomy & Physiology I
BIO L347	(1)	Anatomy & Physiology I Lab
BIO 3348	(3)	Anatomy & Physiology II
BIO L348	(1)	Anatomy & Physiology II Lab
BIO 3372	(3)	Microbiology
BIO L372	(1)	Microbiology Lab

Select one botany course with corresponding lab (four hours).

Select one zoology course with corresponding lab (four hours).

Chemistry Concentration:

CHM 2242	(3)	Analytical Chemistry
CHM L242	(1)	Analytical Chemistry Lab
CHM 3343	(3)	Organic Chemistry II
CHM L343	(1)	Organic Chemistry II Lab
CHM 3352	(3)	Biochemistry
CHM L352	(1)	Biochemistry Lab
CHM 3381	(3)	Physical Chemistry I
CHM L381	(1)	Physical Chemistry I Lab

Select a minimum of eight semester hours of coursework from the following:

CHM 3382	(3)	Physical Chemistry II
CHM L382	(1)	Physical Chemistry II Lab
CHM 4403	(3)	Advanced Organic Chemistry
CHM 4444	(3)	Advanced Inorganic Chemistry
CHM L444	(1)	Advanced Inorganic Chemistry Lab
CHM 4445	(3)	Instrumental Analysis
CHM L445	(1)	Instrumental Analysis Lab

Physics Concentration:

PHY 4411	(3)	Advanced Modern Physics
PHY 4459	(3)	Optics
PHY L459	(1)	Optics lab
PHY 4420	(3)	Mechanics
PHY 4430	(3)	Electromagnetic Fields
PHY 4495	(3)	Topics in Physics

Select eight hours of upper level physics or chemistry courses approved by the academic adviser.

COMPUTER SCIENCE MINOR (18 HOURS)

CS 2250	(3)	Computer Science I
CS 2255	(3)	Computer Science II

Select 12 semester hours of computer science courses with at least one course being at the 4000 level.

Select a four hour course/lab combination from the following: (Students must complete an eight hour sequence in chemistry or physics. Also see Area V Requirements.)

CHM 1142	(3)	General Chemistry I
CHM L142	(1)	General Chemistry I Lab
PHY 2252	(3)	General Physics I
PHY L252	(1)	General Physics I Lab

Select remaining Area III courses shown in the General Studies section of this catalog.

Area V Requirements

CS 2250	(3)	Computer Science I
MTH 1126	(4)	Calculus II
TROY 1101	(1)	University Orientation

Select a four hour course/lab combination from the following: (Students must complete an eight hour sequence in chemistry or physics. Also see Area III.)

CHM 1143	(3)	General Chemistry II
CHM L143	(1)	General Chemistry II Lab
PHY 2253	(3)	General Physics II
PHY L253	(1)	General Physics II Lab

Required Courses

CS 2255	(3)	Computer Science II
CS 3310	(3)	Foundations of Computer Science
CS 3323	(3)	Data Structures
CS 3329	(3)	Analysis of Algorithms
CS 3332	(3)	Software Engineering I
CS 3360	(3)	Concepts of Object-Oriented Programming I
CS 3365	(3)	Introduction to Computer Organization and Architectures
CS 3370	(3)	Nature of Programming Languages
CS 3372	(3)	Formal Languages and the Theory of Computation
CS 4420	(3)	Introduction to Database Systems
CS 4445	(3)	Data Communication and Networking
CS 4448	(3)	Operating Systems
MTH 2210	(3)	Applied Statistics
MTH 2215	(3)	Applied Discrete Mathematics

Select two of the following:

CS 3320	(3)	Business Systems Programming
CS 3325	(3)	Operations Research
CS 3331	(3)	Fundamentals of Artificial Intelligence
CS 3361	(3)	Concepts of Objected Oriented Programming II
CS 4401	(3)	Advanced Artificial Intelligence
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

56 · COLLEGE OF ARTS AND SCIENCES

CS 4462	(3)	Special Topics in Object-Oriented Technology
CS 4495	(3)	Special Topics in Computer Science

COMPUTER SCIENCE, APPLIED MAJOR
(36 HOURS)

Specialized General Studies Requirements

Area III

MTH 2201	(3)	Business Calculus
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Select additional Area III requirements as shown in the General Studies section of this catalog.

Area V Requirements

IS 2241	(3)	Computer Concepts and Applications
MTH 2215	(3)	Applied Discrete Mathematics
TROY 1101	(1)	University Orientation

Major Requirements

CS 2250	(3)	Computer Science I
CS 2255	(3)	Computer Science II
CS 2265	(3)	Advanced Programming I
CS 3330	(3)	Data Structures and Algorithms
CS 4420	(3)	Introduction to Database Systems
CS 4443	(3)	Web-Based Software Development
CS 4445	(3)	Data Communications and Networking
CS 4447	(3)	Systems Analysis and Design
CS 4448	(3)	Operating Systems

Select three of the following:

CS 3320	(3)	Business Systems Programming
CS 3332	(3)	Software Engineering I
CS 3347	(3)	Advanced Programming II
CS 4449	(3)	Applied Networking
CS 4451	(3)	Computer Security
CS 4495	(3)	Special Topics in Computer Science

COMPUTER SCIENCE A.S. DEGREE (60 HOURS)

Associate of Science Degree

See the academic regulations section of this catalog for additional information regarding associate degrees.

General Studies Requirements

Area I

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

Area II

Select one of the following:

ENG 2205	(3)	World Literature before 1660
ENG 2206	(3)	World Literature after 1660
ENG 2211	(3)	American Literature before 1875
ENG 2212	(3)	American Literature after 1875

Select A or B below:

A. 12 additional hours of advanced or upper-level criminal justice courses, as approved by the adviser,

ENG 4488 (3) Seminar in Professional Writing
Portfolio Design
ENG 4490 (3) Professional Writing Internship

or

B. Homeland Security Concentration. Select 12 additional hours from the following as approved by the adviser:

CJ 3335 (3) Private and Public Security Administration
CJ 4435 (3) Grant Writing
CJ 4440 (3) Terrorism
CJ 4470 (3) Criminal Justice Issues in Homeland Security
CJ 4472 (3) Cyber Crime
CJ 4488 (3) Internship (limit 1)
POL 3364 (3) State and Local Politics
POL 4422 (3) Public Policy Making

Select an additional four courses:

ENG 3320 (3) Introduction to Linguistics
ENG 3351 (3) Creative Writing I
ENG 3352 (3) Creative Writing II
ENG 4400 (3) Selected Topics
ENG 4405 (3) History of the English Language
ENG 4419 (3) Advanced Writing

ENGLISH MINOR (18 HOURS)

ENG 3341 (3) Advanced Grammar

Select one sequence:

ENG 2211 (3) American Literature before 1875
ENG 2212 (3) American Literature after 1875
or
ENG 2244 (3) British Literature before 1785
ENG 2245 (3) British Literature after 1785

CRIMINAL JUSTICE MINOR (18 HOURS)

CJ 1101 (3) Introduction to Criminal Justice

Select 15 additional hours of upper-level criminal justice courses as approved by the adviser.

Select an additional nine hours upper division English courses.

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 MINOR, CREATIVE WRITING (18 HOURS)

ENG 3351 (3) Introduction to Creative Writing

Select an additional 15 hours from the following:

ENG 3352 (3) Advanced Creative Writing I
ENG 3353 (3) Advanced Creative Writing II
ENG 3354 (3) Advanced Nonfiction Writing
ENG 3355 (3) Verse Writing
ENG 3356 (3) Forms and Theory of Fiction
ENG 4420 (3) Selected Topics in Creative Writing
ENG 4427 (3) Contemporary American Literature
ENG 4489 (3) Internship

ENGLISH MAJOR (36 HOURS)

Area V Requirements

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 Concepts and Applications
TROY 1101 (1) University Orientation

ENGLISH MINOR, PROFESSIONAL WRITING EMPHASIS (18 HOURS)

ENG 2260 (3) Introduction to Technical and Professional Writing
ENG 3345 (3) Technical and Professional Editing
ENG 3365 (3) Advanced Technical and Professional Writing
ENG 3366 (3) Professional Document Design

Major Requirements

ENG 3341 (3) Advanced Grammar
ENG 4495 (3) Senior Seminar

Select an additional six hours from the following:

ENG 3320 (3) Introduction to Linguistics
ENG 3351 (3) Creative Writing I
ENG 3352 (3) Creative Writing II
ENG 4400 (3) Selected Topics
ENG 4405 (3) History of the English Language
ENG 4419 (3) Advanced Writing
ENG 4488 (3) Seminar in Professional Writing
Portfolio Design
ENG 4490 (3) Professional Writing Internship

Select an additional 30 hours of upper division courses, at least nine of which are at the 4000 level or above.

Professional Writing Emphasis:

Students at the Montgomery Campus may select the Professional Writing Emphasis. In addition to ENG 3341, the following courses are required:

ENG 2260 (3) Introduction to Technical and Professional Writing
ENG 3345 (3) Technical and Professional Editing
ENG 3365 (3) Advanced Technical and Professional Writing
ENG 3366 (3) Professional Document Design

 ENGLISH—LANGUAGE ARTS PROGRAM
 (139 HOURS)

BIO 4479	(3)	Environmental Assessment
BIO L479	(1)	Environmental Assessment Lab
BIO 4420	(4)	Field Vertebrate Zoology (combined lecture and lab)

Students seeking Alabama teacher certification should complete the English major and the required courses for language arts, in addition to selecting education as a second major. Students should consult their advisers concerning certification requirements.

Specialized General Studies Requirements

See the general studies section of this catalog for additional information.

Area II

COM 2241	(3)	Fundamentals of Speech
DRA 2200	(2)	Introduction to Drama
ENG 2205	(3)	World Literature before 1660
ENG 2206	(3)	World Literature after 1660

Select one of the following:

ART 1133	(2)	Visual Arts
MUS 1131	(2)	Music Appreciation

Area V Requirements

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 Concepts and Apps.
COM 1101	(3)	Introduction to Communication
TROY 1101	(1)	University Orientation

Required Courses for Language Arts

COM 3342	(3)	Argumentation and Debate
COM 4441	(2)	Oral Interpretation
DRA 2211	(1)	Theatre for Youth
DRA 2245	(1)	Stagecraft Lab
DRA 3301	(2)	Acting I
DRA 4451	(3)	Directing I
ENG 3341	(3)	Advanced Grammar
ENG 3371	(3)	Literature for Young Adults
ENG 4405	(3)	History of the English Language
ENG 4478	(3)	Theory and Practice of Composition: Writing and Learning Across the Curriculum
JRN 3326	(3)	Advising Student Publications

Select 12 hours of upper division English electives, six of which must be at the 4000 level, three of which may be upper-level creative writing

 ENVIRONMENTAL SCIENCE MINOR (18-20 HOURS)

BIO 2202	(3)	Principles of Environmental Science
BIO L202	(1)	Principles of Environmental Science Lab
BIO 3328	(3)	Environmental Pollution and Control
BIO L328	(1)	Environmental Pollution and Control Lab

Select 12 hours from the following:

BIO 4451	(3)	Toxicology
BIO L451	(1)	Toxicology Lab
BIO 4452	(3)	Industrial Hygiene
BIO L452	(1)	Industrial Hygiene Lab

Environmental Science Core (32 semester hours):		SCI L233	(1)	Physical Science Lab	
BIO 2202	(3)	Principles of Environmental Science	SCI 2234	(3)	Earth and Space Science
BIO L202	(1)	Principles of Environmental Science Lab			
BIO 3328	(3)	Environmental Pollution and Control			
BIO L328	(1)	Environmental Pollution and Control Lab			
BIO 4413	(3)	Limnology			
BIO L413	(1)	Limnology Lab			
BIO 4451	(3)	Toxicology			
BIO L451	(1)	Toxicology Lab			
BIO 4452	(3)	Industrial Hygiene			
BIO L452	(1)	Industrial Hygiene Lab			
BIO 4479	(3)	Environmental Assessment			
BIO L479	(1)	Environmental Assessment Lab			

Select eight hours of advisor-approved upper-level courses in biology, chemistry or mathematics.

BIO 4488/4489/4490 (1-8) Internship in Environmental Science

GENERAL EDUCATION A.A. DEGREE (60 HOURS)

Associate of Arts Degree

See the academic regulations section of this catalog for additional information regarding associate degrees.

General Studies Requirements

Area I

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

Area II

Select one of the following:

ART 1133	(2)	Visual Arts
DRA 2200	(2)	Introduction to Drama
MUS 1131	(2)	Music Appreciation

Select one of the following:

ENG 2205	(3)	World Literature before 1660
ENG 2206	(3)	World Literature after 1660
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

Select six hours of one foreign language.

Area III

Select one of the following:

MTH 1110	(3)	Finite Mathematics
MTH 1112	(3)	Pre-calculus Algebra

Select one science course and corresponding lab:

BIO 1100	(3)	Principles of Biology
BIO L100	(1)	Principles of Biology Lab
SCI 2233	(3)	Physical Science

60 · COLLEGE OF ARTS AND SCIENCES

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 IV

Select one of the following:

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 V

IS 2241	(3)	Computer Concepts and Applications
TROY 1101	(1)	University Orientation

Additional requirements

Select any minor or ~~an~~ area of concentration.

Select additional free electives to complete a total of 60 hours.

GEOGRAPHIC INFORMATION SYSTEMS (GIS)

HISTORY MAJOR (36 HOURS)

Select one emphasis below:

American/Latin American Emphasis:

Specialized General Studies Requirements

Area IV

Select a six hour sequence in wester

LEADERSHIP STUDIES MINOR (18 HOURS)			CHM L143	(1)	General Chemistry II Lab
LDR 1100	(3)	Introduction to Leadership	Select one sequence (physics course not required for medical technology concentration):		
LDR 2200	(3)	Tools for Leaders	PHY 2252	(3)	General Physics I
LDR 3300	(3)	Leadership Theory	PHY L252	(1)	General Physics I Lab
LDR 4400	(3)	Leadership Seminar	PHY 2253	(3)	General Physics II
Select at least an additional six hours from the following:			PHY L253	(1)	General Physics II Lab
AS 3312	(3)	Air Force Leadership Studies I	or		
AS 3313	(3)	Air Force Leadership Studies II	PHY 2262	(3)	Physics I with Calculus
COM 3326	(3)	Conflict Management	PHY L262	(1)	Physics I with Calculus Lab
COM 3345	(3)	Group Discussion and Leadership	PHY 2263	(3)	Physics II with Calculus
COM 4426	(3)	Organizational Communication	PHY L263	(1)	Physics II with Calculus Lab
SED 4400	(3)	Secondary Classroom Management	Requirements for the Program		
HIS 3304	(3)	Military History of the United States	Lectures and corresponding labs must be taken together.		
HIS 3315	(3)	Vietnam War	BIO 2220	(3)	Principles of Cell Biology
HIS 3318	(3)	History of American Women	BIO L220	(1)	Principles of Cell Biology Lab
IDS 2200	(3)	Interdisciplinary Studies	BIO 2229	(3)	General Ecology
LDR 4402	(2)	Leadership Field Experiences	BIO L229	(1)	General Ecology Lab
LDR 4403	(1)	Contemporary Issues in Leadership	BIO 3320	(3)	Genetics
LDR 4444	(3-6)	Leadership Internship	BIO L320	(1)	Genetics Lab
LDR 4450	(1-6)	Leadership Service Learning	CHM 3342	(3)	Organic Chemistry I
LDR 4493-94	(1-3)	Guided Independent Study	CHM L342	(1)	Organic Chemistry I Lab
MGT 3371	(3)	Principles of Management and Organizational Behavior	CHM 3343	(3)	Organic Chemistry II
MGT 3375	(3)	Human Resources Management	CHM L343	(1)	Organic Chemistry II Lab
MGT 4472	(3)	Organizational Behavior	MTH 2210	(3)	Applied Statistics
MSL 2201	(2)	Individual Leadership Studies	Troy University Courses:		
MSL 2202	(2)	Leadership and Teamwork	BIO 3307	(3)	Invertebrate Zoology
MSL 2204	(2)	Leadership Lab	BIO L307	(1)	Invertebrate Zoology Lab
PHI 2204	(3)	Ethics and the Modern World	Select three additional upper-level adviser-approved biology courses (12 SH). Lectures and their corresponding labs must be taken together.		
POL 3340	(3)	U.S. Government – Executive Branch	Dauphin Island Sea Lab (DISL) Courses (16 semester hours). DISL courses are offered during the summer term. Students are required to take the following pre-		
POL 3364	(3)	State and Local Politics			
POL 4421	(3)	Introduction to Public Administration			
PSY 4410	(3)	Business and Industrial Psychology			
SOC 3301	(3)	Social Change in the Information Age			
SOC 3310	(3)	Minorities in U.S. Social Structure			
SS 4498	(3)	Social Science Theory			

MARINE BIOLOGY PROGRAM (55 HOURS)

Students must take courses both Troy University and Dauphin Island Sea Lab.

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 Requirements

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

MATHEMATICS MAJOR (38 HOURS)

Specialized General Studies Requirements

Area III

BIO 1100	(3)	Principles of Biology
BIO L100	(1)	Principles of Biology Lab
MTH 1125	(4)	Calculus I

Select a four hour course/lab combination from the following:

CHM 1142	(3)	General Chemistry I
CHM L142	(1)	General Chemistry I Lab
PHY 2252	(3)	General Ph

POLITICAL SCIENCE MAJOR (36 HOURS)

Area V Requirements

- | | | |
|-----------|-----|---|
| IS 2241 | (3) | Computer Concepts and Applications |
| TROY 1101 | (1) | University Orientation |
| POL 2241 | (3) | American National Government or placement in POL 2240 |
| POL 2260 | (3) | World Politics |

Major Requirements

- | | | |
|----------|-----|----------------------------------|
| POL 3300 | (3) | Foundations of Political Science |
| POL 3330 | (3) | Political Theory |

Select one of the following concentrations:

American Politics Concentration:

Select 15 hours from the following:

- | | | |
|----------|-----|--------------------------------------|
| POL 3340 | (3) | U.S. Government – Executive Branch |
| POL 3341 | (3) | U.S. Government – Legislative Branch |
| POL 3342 | (3) | U.S. Government – Judicial Branch |
| POL 3343 | (3) | American Political Processes |
| POL 3355 | (3) | Southern Politics |
| POL 3364 | (3) | State and Local Politics |
| POL 4422 | (3) | Public Policy Making |
| POL 4423 | (3) | American Foreign Policy to 1920 |
| POL 4424 | (3) | Contemporary American Foreign Policy |
| POL 4420 | (3) | Constitutional Law |
| POL 4471 | (3) | Intergovernmental Relations |

Select an additional 15 hours of upper-level (3000-4000) political science courses, as approved by your academic adviser.

International Politics Concentration:

- | | | |
|----------|------------|---------------------------------|
| POL 3351 | (3) | International Relations |
| POL 4410 | (3) | International Political Economy |
| POL 4433 | (3) | Comparative Government POL |
| POL 4740 | (3) an | |
| POL 4740 | (3) Politl | |
| POL 4762 | (3) | Politics of Southern |

science courses, as approved by your academic adviser.

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Geography Concentration:

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

Select at least 18 hours of additional 3000/4000-level courses as approved by your faculty adviser:

Leadership Concentration:

- LDR 1100 (3) Introduction to Leadership
- LDR 4400 (3) Leadership Seminar*

*Requires approval of the director of the Institute of Leadership Development

Select an additional 18 hours from the following:

- AS 3312 (3) Air Force Leadership Studies I
- AS 3313 (3) Air Force Leadership Studies II

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*Rirelopm (3) Introdor400-1ySC0056.Dr400-1alipg.3()JTJ 0 -1.26 TD 0 Tc 0 Tw ()Tj /TT8 1 Tf 0 -1.2533 TD .0004 Tc 290

66 · COLLEGE OF ARTS AND SCIENCES

GEM 3310	(3)	Land Surveying Practice
GEM L310	(1)	Boundary Retracement Seminar
GEM 3330	(3)	Advanced Measurement Analysis
GEM L330	(1)	Advanced Measurement Analysis Lab
GEM 3366	(3)	Photogrammetry and Remote Sensing
GEM L366	(1)	Photogrammetry and Remote Sensing Lab
GEM 3370	(3)	Geodesy & Geodetics
GEM L370	(1)	Geodesy & Geodetics Lab
GEM 3379	(3)	Introduction to Least Squares Adjustment
GEM L379	(1)	Introduction to Least Squares Adjustment Lab
GEM 3390	(3)	Introduction to GIS
GEM L390	(1)	Introduction to GIS Lab
GEM 3391	(3)	Applications of GIS
GEM L391	(1)	Applications of GIS Lab
GEM 4405	(3)	Route & Construction Surveying
GEM L405	(1)	Route & Construction Surveying Lab
GEM 4407	(3)	Land Development
GEM L407	(1)	Land Development Lab
GEM 4409	(3)	Hydrology
GEM L409	(1)	Hydrology Lab
GEM 4410	(3)	Introduction to Global Positions
GEM L410	(1)	Introduction to Global Positions Lab
GEM 4490	(1)	Geomatics Capstone

Select two hours below:

GEM 4499	(2)	Geomatics/GIS Projects
or		
GEM 3395	(1)	Cooperative Work Experience I, and
GEM 4496	(1)	Cooperative Work Experience II