

Department of Biological & Environmental Sciences
Troy University
Troy, AL

Biology Education Program (Grades 6-12)
146 Semester Hours (SH)

Students Entering Fall 2012

Name: _____
 (type or print)

Date: _____
 (month/day/year)

Transfer courses accepted:

A minimum of 50 % of all degree program hours must be earned with senior college hours.

GENERAL STUDIES REQUIREMENTS: (63 SH)

		*	*	*
		R	G	E
Area I (6 SH)				
ENG 1101	Composition & Modern Eng. I	3		
ENG 1102	Composition & Modern Eng. II	3		
Area II (13 SH)				
<i>Must complete a six hour sequence in World/British/Amer. Lit. or U.S./Western Civ./World History (Area II and/or IV). A total of 6 hours from Area II and/or Area IV must be International in scope. International classes are indicated by (*)</i>				
COM 2241	Fundamentals of Speech	3		
<i>Complete (4) Semester Hours</i>				
ART 1133*	Visual Arts	2		
MUS 1131*	Music Appreciation	2		
DRA 2200	Intro to Drama	2		
<i>Complete (3) Semester Hours</i>				
ENG 2205*	World Literature before 1660	3		
ENG 2206*	World Literature after 1660	3		
ENG 2211	American Literature before 1875	3		
ENG 2212	American Literature after 1875	3		
ENG 2244	British Literature before 1785	3		
ENG 2245	British Literature after 1785	3		
<i>Complete (3) Semester Hours</i>				
CLA 2260*	Classical Mythology	3		
ENG 2205*	World Literature before 1660	3		
ENG 2206*	World Literature after 1660	3		
ENG 2211	American Literature before 1875	3		
ENG 2212	American Literature after 1875	3		
ENG 2244	British Literature before 1785	3		
ENG 2245	British Literature after 1785	3		
FRN 1101*	Introductory French I	3		
GER 1121*	Introductory German I	3		
GRK 1111*	Introductory Greek I	3		
	Crossroads: Soph. Inter.			
IDS 2200	Seminar in Creative Thinking	3		
LAT 1131*	Introductory Latin I	3		
PHI 2203	Intro. to Philosophy	3		
PHI 2204	Ethics and Modern World	3		
REL 2280*	World Religions	3		
SPN 1141*	Introductory Spanish I	3		

Area III (12 SH)

		*	*	*
		R	G	E
BIO 1100	Prin. of Biology	3		
BIO L100	Prin. of Biology Lab	1		
*CHM 1142	General Chemistry I	3		
CHM L142	General Chemistry I Lab	1		
*MTH 1125	Calculus I	4		

***Placement Test Required**

Area IV (12 SH)

Complete (3) Semester Hours

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

Complete (9) Semester Hours

ANT 2200*	Anthropology	3		
ECO 2251*	Prin. of Macroeconomics	3		
ECO 2252*	Prin. of Microeconomics	3		
GEO 2210*	World Regional Geography	3		
HIS 1101	Western Civilization I	3		
HIS 1102	Western Civilization II	3		
HIS 1111	U.S. to 1877	3		
HIS 1112	U.S. since 1877	3		
HIS 1122*	World History to 1500	3		
HIS 1123*	World History from 1500	3		
	Crossroads: Soph. Inter.			
IDS 2200	Sem. in Creative Thinking	3		
POL 2241	American National Govt	3		
POL 2260*	World Politics	3		
PSY 2200	General Psychology	3		
PSY 2210	Developmental Psychology	3		
SOC 2275	Intro. to Sociology	3		

BIOLOGY PROGRAM Biology Education Concentration -146 Semester Hours (SH)

To graduate a C average is required in each major

		* R	* G	* E
Area V (20 SH)				
IS 2241	Computer Concepts & Appl.			3
TROY 1101	University Orientation			1
BIO 1101	Organismal Biology			3
BIO L101	Organismal Biology Lab			1
CHM 1143	General Chemistry II			3
CHM L143	General Chemistry II Lab			1

Complete one sequence

PHY 2252	General Physics I			3
PHY L252	General Physics I Lab			1
PHY 2253	General Physics II			3
PHY L253	General Physics II Lab			1
<i>or</i>				
PHY 2262	Physics I with Calculus			3
PHY L262	Physics I with Calculus Lab			1
PHY 2263	Physics II with Calculus			3
PHY L263	Physics II with Calculus Lab			1

Professional Studies Required (39 SH)

EDU 3305	Microcomputers in Educations			3
EDU 3310	The Professional Educator			3
EDU 4471	Curriculum & Instr. Delivery			3
PSY 3303	Educational Psychology			3
RED 4484	Language & Literacy IV			3
SED 3346	Educational Assessment			3
SED 4400	Classroom Management			3
SED 4454	Internship Seminar in Sec. Ed.			3
SPE 3340	Diverse Learners			3
	Methods & Materials			
BIO 4481	for the Biology Major			3
	Internship in Secondary			
BIO 4474	Education (6-12)			9

Major Field Courses (23 SH)**At least 1/3 shall be upper-division course work.**(List all courses required for the teaching field)*

BIO 2220	Prin. of Cell Biology			3
BIO L220	Prin. of Cell Biology Lab			1
BIO 2229	General Ecology			3
BIO L229	General Ecology Lab			1
BIO 3320	Genetics			3
BIO L320	Genetics Lab			1
CHM 3342	Organic Chemistry I			3
CHM L342	Organic Chemistry I Lab			1
CHM 3343	Organic Chemistry II			3
CHM L343	Organic Chemistry II Lab			1
MTH 2210	Applied Statistics			3

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R G E

Complete one zoology, one botany, and one ecology course, each with corresponding lab (12 SH)

Botany (4 SH)

BIO 3325	Plant Form & Function			3
BIO L325	Plant Form & Func. Lab			1
BIO 3326	Plant Diversity			3
BIO L326	Plant Diversity Lab			1
BIO 4402	Spring Flora			4
BIO 4425	Field Botany			4

Zoology (4 SH)

BIO 3307	Invertebrate Zoology			3
BIO L307	Invertebrate Zoology Lab			1
BIO 3308	Vertebrate Zoology			3
BIO L308	Vertebrate Zoology Lab			1
BIO 4405	Entomology			2
BIO L405	Entomology Lab			2
BIO 4410	Animal Behavior			3
BIO L410	Animal Behavior Lab			1
BIO 4420	Field Vertebrate Zoology			4
BIO 4432	Comp. Vertebrate Anat.			3
BIO L432	Comp. Vertebrate Ant. Lab			1
BIO 4445	Ichthyology			3
BIO L445	Ichthyology Lab			1
BIO 4446	Herpetology			3
BIO L446	Herpetology Lab			1
BIO 4447	Ornithology			3
BIO L447	Ornithology Lab			1
BIO 4448	Mammalogy			3
BIO L448	Mammalogy Lab			1
BIO 4471	Parasitology			3
BIO L471	Parasitology Lab			1

Ecology/Environmental (4 SH)

BIO 2202	Prin. of Envir. Science			3
BIO L202	Prin. of Envir. Science Lab			1
BIO 4413	Limnology			3
BIO L413	Limnology Lab			1
BIO 4416	Microbial Ecology			3
BIO L416	Microbial Ecology Lab			1
BIO 4421	Population Ecology			3
BIO L421	Population Ecology Lab			1
BIO 4479	Environmental Assessment			3
BIO L479	Environmental Asst. Lab			1

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Physiology or molecular biology (4 SH)

		*	*	*
<i>Complete one physiology/cell/molecular course with its corresponding lab</i>		R	G	E
BIO 3347	Human Anatomy & Phy. I	3		
BIO L347	Human Anatomy & Phy. I Lab	1		
BIO 3348	Human Anatomy & Phy. II	3		
BIO L348	Human Anatomy & Phy. II Lab	1		
BIO 3372	Microbiology	3		
BIO L372	Microbiology Lab	1		
BIO 3382	Immunology	3		
BIO L382	Immunology Lab	1		
BIO 3386	Hematology	3		
BIO L386	Hematology Lab	1		
BIO 4414	Food Microbiology	3		
BIO L414	Food Microbiology Lab	1		
BIO 4430	Applied Genetics	3		
BIO L430	Applied Genetics Lab	1		
BIO 4433	Embryology	3		
BIO L433	Embryology Lab	1		
BIO 4451	Toxicology	3		
BIO L451	Toxicology Lab	1		
BIO 4480	Histology	3		
BIO L480	Histology Lab	1		
BIO 4482	Molecular Biology	3		
BIO L482	Molecular Biology Lab	1		

Upper-Level Elective (4 SH)

Complete one upper level advisor approved course with corresponding lab.

Revised 6/4/2012

SPECIAL NOTE:

Every reasonable effort to attain accuracy has been made: no responsibility is assumed for editorial, clerical, or printing errors or errors occasioned by honest mistake. Should you discover an error, it is your responsibility to report it immediately to the Departmental Office.