Department of Biological and Allied Health Sciences Bloomsburg University

Name		
Enterin	g Semester	

BA BIOLOGY for BS SECONDARY ED

Revised 10/19 MDW

Concepts in Biology 1 (BIOL 114) and Concepts in Biology 2 (BIOL 115) should be taken during the freshman year; *Microbiology* (BIOL 242) and *Cell Biology* (BIOL 271) should be taken during the sophomore year. In addition to the specified courses listed on this page, the student selects 9 credit hours of approved elective courses in biology.

Chemistry and mathematics courses should be scheduled as early as possible in the program of study.

Biology Core Requirements (26 cr	hrs)	Physical Sciences Requirement (12 cr hrs)	
BIOL 114 Concepts in Biology 1 4		CHEM 115 Chem for the Sciences 1	4
BIOL 115 Concepts in Biology 2	4	CHEM 116 Chem for the Sciences 2	4
BIOL 242 Microbiology 4		CHEM 230 Fund Organic Chemistry	4
BIOL 271 Cell Biology	4	PHYS 201 Introductory Physics 1	4
BIOL 332 Genetics	3		
BIOL 351 Ecology	4		
Physiology Requirement (Select BIC AND one lecture course from among BIOL 474, 477, 478, and 480)		Mathematics Requirement (6 cr hr)	
BIOL 479 Integrated Physiology Lab with one of the following:	1	MATH 141 Introduction to Statistics	3
BIOL 472 Animal Cell Physiology	3	MATH college-level math class	3
BIOL 474 Human Physiology	3		
BIOL 477 Plant Physiology	3		
BIOL 478 Microbial Physiology	3		
BIOL 480 Comparative Animal Physiol	3		
Biology Electives (9 cr hrs from biolog	y and/or	marine science)	
BIOL 333 Molecular Biology	3		
field course from approved list	3		
biology elective	3		

Field Courses		Marine Science Courses	
BIOL 200 Dendrology	3	MARSCI 221 Marine Invertebrates	3
BIOL 252 Field Zoology	3	MARSCI 241 Marine Biology	3
BIOL 253 Freshwater Biology	3	MARSCI 250 Wetlands Ecology	3
BIOL 263 Field Botany	3	MARSCI 260 Marine Ecology	3
BIOL 452 Limnology	3	MARSCI 300 Behavior Marine Org	3
BIOL 457 Entomology	3	MARSCI 330 Tropical Invertebrates	3
BIOL 459 Ornithology	3	MARSCI 334 Marine Embryology	3
any MARSCI course	3	MARSCI 342 Marine Botany	3
Biology Elective Courses		MARSCI 343 Icthyology	3
BIOL 211 Invertebrate Zoology	3	MARSCI 344 Anat Marine Chordates	3
BIOL 212 Vertebrate Zoology	3	MARSCI 345 Marine Ornithology	3
BIOL 222 Comp Biol Plants	3	MARSCI 394 Comp Phys Marine Org	3
BIOL 233 Human Genetics	3	MARSCI 431 Ecol Marine Plankton	3
BIOL 334 Molecular Biology Lab	1	MARSCI 432 Marine Evol Ecol	3
BIOL 342 Medical Microbiology	3	MARSCI 441 Biology of Mollusks	3
BIOL 343 Immunology	3	MARSCI 464 Biol Oceanography	3
BIOL 350 Plant Pathology	3	MARSCI 470 Research Diver Meth	3
BIOL 361 Comp Vert Anatomy	3	MARSCI 490 Aquaculture	3
BIOL 364 Vertebrate Histology	3	MARSCI 491 Coral Reef Ecology	3
BIOL 390 UG Research in Biol 1	3	MARSCI 492 Marine Mammals	3
BIOL 391 UG Research in Biol 2	3	MARSCI 493 Behavioral Ecology	3
BIOL 411 Radiation Biology	3		
BIOL 420 Global Change Biology	3		
BIOL 430 Evolution	3		
BIOL 431 Developmental Biology	3	Restrictions on Courses	
BIOL 432 Microbial & Molec Genet	3	1. A maximum of 3 cr hrs of BIOL 490 may be applied as biology elective credit toward	
BIOL 435 Bioinformatics	3	the degree.	
BIOL 442 Virology	3	2. A maximum of 6 cr hrs from among BIOL 390, 391, 490, 493 and 494 may be applied	
BIOL 443 Advanced Immunology	3	as biology elective credit. *Current Topics in Biology may be repeated	
BIOL 444 Tissue Culture	3	only once if the topic is different, giving a	
BIOL 445 Pharm for Health Sciences	3	maximum of 6 credits.	
BIOL 450 Mycology	3		
BIOL 451 Conservation Biology	3		
BIOL 455 Environmental Microbiology	3		

BIOL 460 Population Biology	3
BIOL 461 Animal Behavior	3
BIOL 470 Medical Parasitology	3
BIOL 476 Neurophysiology	1
BIOL 481 Senior Biology Seminar	3
BIOL 489 Current Topics in Biology*	3
BIOL 490 Internship Biol/AHS	3
BIOL 493 Honors Indep Study 1	3
BIOL 494 Honors Indep Study 2	3

Education and Related Courses EDFOUND 204 Educational Computing & Technology 3 EDFOUND 206 Teachers, Schools, & Society 1 EDFOUND 291 Principles of Teaching 3 EDFOUND 311 Classroom Measurement & Assessment* 3 SECED 453 Teaching of Science* 3 * PROFSTUD 320 Field-Based Inclusion Practicum (6 cr) can substitute for EDFOUND 311 and SECED 453 EDFOUND 406 Multicultural Education 3 EDFOUND 427 Classroom Manage & Effective Discipline 3 Student Teaching (1st experience) EDFOUND 497 6 EDFOUND 498 Student Teaching (2nd experience) 6 SPECED 101 Intro to Individuals w/Exceptionalities SPECED 275 Linking Assessment and Instruction 3 SPECED 358 Methods of Instruction Indiv w/Disabilities 3 PROFSTUD 494 **ELL Strategies & Methods** 3 ENGLISH 101 Foundations of College English 3 **ENGLISH** literature course (151, 152, 156, 226, 227, 3 236, 237, 246, 247) PSYCH 101 General Psychology 3 PSYCH 212 Adolescent Development 3

General Education Requirements

Goal 1: Communication (7 points: 3 departments)		Goal 6: Social Sciences (5 points; 2 departments)	
ENG 101 Foundations College Writing	3	EDFND 206 Teachers, Schools, & Society	1
foreign language	1	PSYCH 101 General Psychology	3
EDFND 291 Principles of Teaching	2	SPECED 275 Linking Assess & Instruct	1
literature course	1		
Goal 2: Information Literacy (2 points; department)	1	Goal 7: Arts and Humanities (5 points; 2 departments)	
EDFND 204 Educational Technology	3	ENGLISH literature course	2
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Goal 3: Analytical and Quantitative Sk		Goal 8: Second Language (2 points; 1	
points; 2 departments)	(3) 6 1113	department)	
CHEM 115 Chem for the Sci 1	1		
BIOL 114 Concepts in Biology 1	1		
MATH 141 Intro Stats	3		
Goal 4: Cultures and Diversity (5 points departments)	s; 2	Goal 9: Healthy Living (2 points; 1 departr	ment)
EDFND 291 Principles of Teaching	1		
EDFND 406 Multicultural Education	2		
SPECED 101 Individ w/ Exceptionalities	2		
Goal 5: Natural Sciences (5 points; 2 departments)		Goal 10: Citizenship (2 points; 1 departme	,
BIOL 114 Concepts in Biology 1	3	EDFND 406 Multicultural Ed	1
CHEM 115 Chem for the Sci 1	3	SPECED 101 Individ w/ Exceptionalities	1

Credit Counting Worksheet

Course	Name	Credits	Course	Name	Credits	
Credits from page 1						
Below list	Below list all courses not listed on page 1					

Sum total of all courses must add up to 120 cr hrs or more.