

MILLERSVILLE UNIVERSITY

Student Name: _____ Student I.D.# _____

REQUIREMENTS AND POLICIES FOR THE BSE BIOLOGY MAJOR

B. Policies for Retention in the Major

1. University requirements for retention must be met.
2. All Biology majors must earn grades of C- (C minus) or higher in all core courses (BIOL 101, 211, 221, 341, 362, 364) required for their position.
3. The M M students changing majors, or Biology majors changing options at Millersville University credit hours.
Note: Students who desire to change their major to Biology must refer to the Biology department's Admission to the Major Policy. Those transferring into the major may substitute BIOL 100 for BIOL 101 if they earn a grade of B- (B minus) or higher in this course.
5. Transfer students with 60 credit hours or more must satisfy the above requirements prior to completion of 45 Millersville University credit hours. Transfer students with fewer than 60 credits should refer to the policy for all other majors (part 3 above).
6. Any students failing to meet the above requirements will be dropped from the Biology major. Students who wish to re-enter the major, must follow the requirements stipulated in part 4 above.

C. Policies for Completion of the Major

1. General Education Curriculum Requirements.
3. Admission to Advanced Professional Studies, whose several requirements include an overall GPA of 3.0, completion of a literature course in the English department, and appropriate clearances.

MAJOR SEQUENCE AND DEGREE REQUIREMENTS

Major: **BSE BIOLOGY**

Option:

Major Field Requirements: **32.0 credits**

Other Requirements: **64.0-68.0credits**

When applicable, up to six of the **REQUIRED RELATED** courses may be credited toward the Liberal Arts Core subject to normal distribution rules.

Course No.	Short Title	C.H.	Grade	Course No.	Short Title	C.H.	Grade
REQUIRED BIOLOGY COURSES (28.0 credits)				REQUIRED RELATED (31.0 - 35.0 credits)			
BIOL 101	Foundations of Biology	4.0	_____	Chemistry (16.0 credits)			
BIOL 211	Concepts of Zoology	4.0	_____	CHEM 111*	Intro Chemistry I	4.0	_____
BIOL 221	Concepts of Botany	4.0	_____	CHEM 112*	Intro Chemistry II	4.0	_____
BIOL 343	Ecology & Evolution	4.0	_____	CHEM 235	Short Course Org. Chem	4.0	_____
BIOL 362	Cell & Development	4.0	_____	CHEM 326	Biochemistry I	4.0	_____
BIOL 364	Genetics & Mol. Biology	4.0	_____	Note: CHEM 231* and CHEM 232 (total 8.0 credits) may substitute for CHEM 235.			
BIOL 375	Biometry	3.0	_____	*Must earn a C- or better in these CHEM courses before completing CHEM 235 or 232.			
BIOL 473	Methods Teach Biology	1.0	_____	Note: Students who are considering going to graduate school to earn an advanced degree in Biology SHOULD TAKE CHEM 231 and 232.			
BIOLOGY ELECTIVES (4.0 credits)				Note: Those wishing to complete a Chemistry minor must complete CHEM 265 (Quantitative Analysis) in addition to those CHEM courses listed.			
In consultation with your advisor, choose additional biology courses approved for the major to bring total biology credits to 32.0.				Earth Sciences (3.0-4.0 credits)			
BIOL _____	_____	_____	_____	ESCI*	_____	_____	_____
BIOL _____	_____	_____	_____	* At the 200 level or above.			
BIOL _____	_____	_____	_____	Mathematics (4.0-5.0 credits)			
PROFESSIONAL EDUCATION (33.0 credits)				MATH 160 Precalculus 4.0 _____			
Foundations Bloc				--- --- or --- ---			
EDFN 211	Foundation Modern Ed	3.0	_____	MATH 161	Calculus I	4.0	_____
EDFN 241	Psyc Found Teach	3.0	_____	MATH 163	Honors Calculus	5.0	_____
EDFN 001: Prof. Bloc, Science (requires APS status)				*Note: Students who might be interested in graduate school or professional school SHOULD TAKE MATH 161.			
EDFN 321	Issues in Sec. Educ.	3.0	_____	Physics (8.0 - 10.0 credits)			
EDFN 330	Instruct. Tech. Des.	3.0	_____	PHYS 131	Physics I with Algebra	4.0	_____
EDSE 340	Content Area Literacy	3.0	_____	PHYS 132	Physics II with Algebra	4.0	_____
SPED 346	Sec Students w/Disabilities	3.0	_____	--- --- or --- ---			
EDSE 435	Teaching of Science*	3.0	_____	PHYS 231	Physics I with Calculus	5.0	_____
* EDSE 435 offered in Fall semester only.				PHYS 232	Physics II with Calculus	5.0	_____
Professional Bloc II				General Electives (as necessary)			
EDSE 471	Differentiating Instruction	3.0	_____	_____	_____	_____	_____
EDSC 461	Student Teaching	9.0	_____	_____	_____	_____	_____
Admission to Advanced Professional Studies & Certification (APS)				_____			
All students enrolled in teacher preparation programs must be admitted to Advanced Professional Studies and meet Pennsylvania state requirements and university requirements prior to being enrolled in their initial advanced Professional Studies course. Students must meet additional Pennsylvania state requirements in order to be certified. Listings of Advanced Professional Studies courses and requirements are available in each department office, the Early Field Experiences office, and on the Early Experiences website.				_____			