

# MILLERSVILLE UNIVERSITY

Student Name: \_\_\_\_\_ Student I.D.# \_\_\_\_\_

DEGREE: BSE	<b>MAJOR REQUIREMENTS FOR A BSE DEGREE IN BIOLOGY</b>
MAJOR: BIOL	
OPTION:	

Total credit hours required: 126.0 minimum

## REQUIREMENTS AND POLICIES FOR THE BSE BIOLOGY MAJOR

### A. Policies for Admission to the Major

1. New students (freshmen and transfers) must be admitted to the Biology major by the Office of Admissions upon admission to the University.
2. Admission of Millersville University students to the Biology major (from other departments or undeclared status) requires that the student is in satisfactory standing as described in the Undergraduate Catalog. Students who were dropped from a Biology major also must satisfy the Biology Retention in the Major criteria before being readmitted to a Biology major.
3. Non-degree and continuing education students must be admitted to the Biology major by the Office of Admissions.

### 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, 343, 362, 364) required for their option.
3. The requirements stated above must be satisfied before completion of 90 Millersville University credit hours.
4. Millersville University students changing majors, or Biology majors changing options within the Biology major, must satisfy the above requirements prior to completion of 45 additional 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. Completion of all University curricular requirements, except for the Perspectives (P) course, which is waived.
2. ENGL 312, Technical Writing, is the recommended course for the Upper Level Writing Requirement under the 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.

**Note to the student:** *This form is provided as a guide. It is your responsibility to consult regularly with your adviser to be aware of changes and curriculum details which are not incorporated on this form.*

## 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
<b>REQUIRED BIOLOGY COURSES (28.0 credits)</b>				<b>REQUIRED RELATED (31.0 - 35.0 credits)</b>			
BIOL 101	Foundations of Biology	4.0	_____	<b>Chemistry (16.0 credits)</b>			
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.			
<b>BIOLOGY ELECTIVES (4.0 credits)</b>				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.				<b>Earth Sciences (3.0-4.0 credits)</b>			
BIOL _____	_____	_____	_____	ESCI* _____	_____	_____	_____
BIOL _____	_____	_____	_____	* At the 200 level or above.			
BIOL _____	_____	_____	_____	<b>Mathematics (4.0-5.0 credits)</b>			
<b>PROFESSIONAL EDUCATION (33.0 credits)</b>				MATH 160 Precalculus 4.0 _____			
<b>Foundations Bloc</b>				--- --- 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	_____
<b>EDFN 001: Prof. Bloc, Science (requires APS status)</b>				*Note: Students who might be interested in graduate school or professional school SHOULD TAKE MATH 161.			
EDFN 321	Issues in Sec. Educ.	3.0	_____	<b>Physics (8.0 - 10.0 credits)</b>			
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	_____
<b>Professional Bloc II</b>				<b>General Electives (as necessary)</b>			
EDSE 471	Differentiating Instruction	3.0	_____	_____	_____	_____	_____
EDSC 461	Student Teaching	9.0	_____	_____	_____	_____	_____
<b>Admission to Advanced Professional Studies &amp; Certification (APS)</b>				_____			
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.				_____			