

BACHELOR OF SCIENCE PROGRAM LEADING TO CERTIFICATION IN BIOLOGICAL SCIENCES SECONDARY EDUCATION

2025-2026 Degree Requirements

Name: _____

ID Number: _____

TOTAL CREDITS FOR DEGREE: 129

UNIVERSITY CORE CURRICULUM: 42 credits

Required Fundamental Courses:

COMM 101	Oral Comm. & Pres.	3 credits	
ENGL 101	College Composition	3 credits	
UNIV 101	City-University Life	3 credits	
Senior Capstone	EDUC 432	3 credits	(Student Teaching Seminar)

Choose Thematic Core courses in the following:

Explore the World - Choice 1		3 credits	
Explore the World - Choice 2		3 credits	
Investigate Science	CHEM 101	3 credits	(General Chemistry I)
Investigate Mathematics	MATH 180	3 credits	(College Algebra)
* Interpret Creative Works		3 credits	
Understand People - Choice 1	EDUC 220	3 credits	(Family and Community Diversity)
Understand People - Choice 2	EDUC 228	3 credits	(Educational Psychology)
Succeed in Business		3 credits	
Appreciate & Apply the Arts		3 credits	
Discover Technology	EDUC 101	3 credits	(Technological Literacy)

*Interpret Creative Works class must be a literature course.

MAJOR REQUIREMENTS: 87 cr.

MATH 175 Elementary Statistics (3)	EDUC 250 Working w/ English Lang Learners (3)
CHEM 102 General Chemistry II (3)	EDUC 321 Lit & Learn in Midd/Sec (3)
CHEM 103 General Chemistry Lab I (1)	EDUC 415 Teaching in Secondary (3)
CHEM 104 General Chemistry Lab II (1)	EDUC 422 Data Driven Instruction (3)
CHEM 221 Organic Chemistry (3)	EDUC 425 Student Teaching Pract (12)
PHYS 101 Physics I (3)	SPED 180 Special Ed&Inclusive Prac (3)
PHYS 103 Physics Lab I (1)	SPED 280 Positive Behav Inter&Sup (3)
BIOL 101 General Biology I (3)	SPED 380 Diff Inst Pract Incl Clssrm (3)
BIOL 102 General Biology II (3)	
BIOL 103 General Biology Lab I (1)	
BIOL 104 General Biology Lab II (1)	
BIOL 205 Botany (4)	
BIOL 206 Zoology (4)	
NSET 130 Owner's Manual for the Human Body (3)	
BIOL 216 Intro to Microbiology (4)	
BIOL 222 Intro to Genetics (4)	
BIOL 235 Intro to Ecology (3)	
BIOL 341 Environmental Health (3)	
EDUC 150 Intro to Teaching Profession (3)	
EDUC 222 Assessment & Adaptation (3)	

TESTS FOR CERTIFICATION:

Check PDE Test Requirements:

<https://www.pa.gov/agencies/education/programs-and-services/educators/certification/certification-testing.html>

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PROGRAM OBJECTIVES

Upon successful completion of this program, a student will be able to:

1. Utilize a variety of instructional strategies.
2. Develop instructional plans and set goals based on the content to be taught/learned, knowledge of assigned students, and the instructional process.
3. Establish and maintain purposeful and equitable classroom environments.
4. Demonstrate integrity, ethical behavior, and professional conduct as stated in the *Pennsylvania Code of Professional Practice and Conduct for Educators*.