

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

**2011-2012**

Student's Name: \_\_\_\_\_

Student's I.D. Number: \_\_\_\_\_

Entrance Date: \_\_\_\_\_

Advisor's Name: \_\_\_\_\_

<b>CORE</b>			<b>36</b>
___ ENGL	150	English Composition I	3
___ ENGL	151	English Composition II	3
___ ENGL	218	Technical Writing	3
___ ENGL	250	<b>OR 251 OR 215</b>	3
___ COPA	250	Arts & Human Experience I	3
___ COPA	251	<b>OR CINE 302</b>	3
___ HIST	150	Intro Study of History	3
___ MATH	180	College Algebra	3
___ NSET	101	Intro Natural Sciences and Engineering Technology	3
___ POLS	250	<b>OR POLS 102</b>	3
___ PSYC	150	Psychological Foundations	3
___ SOC	150	<b>OR SOC 111</b>	3

**DEPARTMENT GENERAL REQUIREMENTS 25**

Natural Sciences

___ BIOL	101	General Biology I	3
___ BIOL	102	General Biology II	3
___ BIOL	103	General Biology Lab I	1
___ BIOL	104	General Biology Lab II	1
___ CHEM	101	General Chemistry I	3
___ CHEM	102	General Chemistry II	3
___ CHEM	103	General Chemistry Lab I	1
___ CHEM	104	General Chemistry Lab II	1
___ MATH	175	Elementary Statistics	3
___ MATH	185	Trigonometry	2
___ MATH	190	Calculus I	4

<b>DEPARTMENT MAJOR REQUIREMENTS</b>			<b>35</b>
___ BIOL	205	Botany	3
___ BIOL	206	Zoology	3
___ BIOL	211	Human Biology	3
___ BIOL	216	Intro to Microbiology	4
___ BIOL	222	Intro to Genetics	4
___ BIOL	235	Introduction to Ecology	3
___ BIOL	341	Environmental Health	3
___ CHEM	221	Organic Chemistry	3
___ CHEM	222	Organic/Biochemistry	3
___ CHEM	223	Organic Chemistry Lab	2
___ PHYS	101	Physics I	3
___ PHYS	103	Physics Lab I	1

**EDUCATION DEPARTMENT REQUIREMENTS 39**

___ SPED	180	Special Education and Inclusive Practices	3
___ SPED	280	Positive Behavioral Interventions and Supports	3
___ SPED	380	Differentiated Instructional Practices in the Inclusive Classroom	3
___ EDUC	220	Family & Community Diversity	3
___ EDUC	222	Assessment & Adaptation	3
___ EDUC	228	Educational Psychology	3
___ EDUC	250	Working with English Language Learners	3
___ EDUC	321	Literacy & Learning in Secondary School	3
___ EDUC	415	Teaching in Secondary School	3
___ EDUC	425	Student Teaching Practicum	12

# Program Objectives

## B.S. Program Leading to Certification in Biological Sciences Secondary Education

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 context.
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*.

### Biological Sciences Secondary Education Course Sequence

#### Freshman Year Semester 1 (16 cr.)

ENGL	150	English Composition I
MATH	180	College Algebra
BIOL	101	General Biology I
BIOL	103	General Biology I Laboratory
COPA	250	Arts & Human Experiences I
PSYC	150	Psychological Foundations

#### Sophomore Year Semester 1 (17 cr.)

SPED	180	Special Education & Inclusion
SOC	150	Sociological Foundations
MATH	190	Calculus I
CHEM	101	General Chemistry I
CHEM	103	General Chemistry I Lab
BIOL	205	Botany

#### Junior Year Semester 1 (19 cr.)

EDUC	321	Literacy & Learn in Sec. School
ENGL	250	World Literature I
CHEM	221	Organic Chemistry
BIOL	216	Intro to Microbiology
EDUC	220	Family & Community Diversity
ENGL	218	Technical Writing

#### Senior Year Semester 1 (16 cr.)

BIOL	235	Intro. To Ecology
NSET	101	Intro. To Nat. Science & Eng. Tech
EDUC	415	Teaching in Secondary Schools
SPED	380	Differentiated Instruction Practices
PHYS	101	Physics I
PHYS	103	Physics I Lab

#### Freshman Year Semester 2 (16 cr.)

ENGL	151	English Composition II
MATH	175	Elementary Statistics
BIOL	102	General Biology II
BIOL	104	General Biology II Lab
COPA	251	Arts & Human Experiences II
EDUC	222	Assessment and Adaptations

#### \*\*\* APPLICATION TO DEPARTMENT TO BE COMPLETED

#### \*\*\*Sophomore Year Semester 2 (18 cr.)

EDUC	228	Education Psych
EDUC	250	Working with English Language Learners
MATH	185	Trigonometry
CHEM	102	General Chemistry II
CHEM	104	General Chemistry II Lab
BIOL	206	Zoology
HIST	150	Intro. Study of History

#### Junior Year Semester 2 (18 cr.)

SPED	280	Positive Behavioral Interventions
BIOL	211	Human Biology
CHEM	222	Organic/Biochemistry
CHEM	223	Organic Chemistry Lab
BIOL	222	Intro to Genetics
BIOL	341	Environmental Health

#### Senior Year Semester 2 (15 cr.)

EDUC	425	Student Teaching Practicum
POLS	250	Intro to Government Systems