

## SECONDARY EDUCATION - BIOLOGY

Effective Fall 2013

Students seeking Secondary Education Certification in Biology must declare majors in both Biology (BA) and Secondary Education (Biology) and complete the full Biology (BA) course sequence as well as the Secondary Education Professional Course and Certification requirements. Students must consult their advisers in both departments each semester regarding course selection and other certification requirements.

A total of 123-126 credits are required to earn a Bachelor of Science in Education degree with specialization in Biology. Required courses include:

### Required by Biology for Sec. Ed. Major (51 credits)

BIOLOGY.114 Concepts in Biology I  
BIOLOGY.115 Concepts in Biology II  
BIOLOGY.242 Biology of Microorganisms  
BIOLOGY.271 Cell Biology  
BIOLOGY.332 Genetics  
BIOLOGY.333 Molecular Biology  
BIOLOGY.351 Ecology  
BIOLOGY \_\_\_\_ Physiology Requirement (472, 474, 477, 478, or 480)  
BIOLOGY.479 Physiology Lab  
CHEM.115 Chemistry for the Sciences 1  
CHEM.116 Chemistry for the Sciences 2  
CHEM.230 Fundamentals of Organic Chemistry  
PHYSICS.111 Introduction to Physics I

### Electives (6 credits from Biology)

BIOLOGY \_\_\_\_ One Biology Field Course Required (Select one from BIOLOGY 200, 252, 253, 263, 452, 457, or 459.)  
BIOLOGY.430 Evolution (Strongly Recommended) or one from the following list et al

### Partial List of Other Electives Offered (see advisor for others)

BIOLOGY.200 Dendrology  
BIOLOGY.211 Invertebrate Zoology  
BIOLOGY.212 Vertebrate Zoology  
BIOLOGY.222 Comparative Biology of Plants  
BIOLOGY.233 Human Genetics  
BIOLOGY.252 Field Zoology  
BIOLOGY.253 Freshwater Biology  
BIOLOGY.263 Field Botany  
BIOLOGY.331 Embryology

### Required by Education (40 credits)

COMMSTUD.103 Public Speaking or COMMSTUD.104 Interpersonal Communication  
EDFOUND.204 Educational Technology  
EDFOUND.206 Teachers, Schools & Society  
EDFOUND.251 Psychological Foundations of Ed

EDFOUND.291 Principles of Teaching  
 EDFOUND.311 Classroom Meas. & Assessment  
 EDFOUND.406 Multicultural Education  
 EDFOUND.427 Classroom Mgt. & Eff. Discipline  
 EDFOUND.497 Student Teaching: 1st Experience  
 EDFOUND.498 Student Teaching: 2nd Experience  
 PROFSTUD.320 PDS (replaces EDFOUND.311 & SECED.453)  
 PSYCH.101 General Psychology  
 SECED.453 Teaching of Science in Sec

**Required by PDE (27 credits)**

ENGLISH.101 Foundations of College Writing I  
 ENGLISH \_\_\_\_ Literature (151, 152, 156, 226, 227, 236, 237, 246, or 247)  
 MATH.141 Introduction to Statistics  
 MATH \_\_\_\_\_ A second college-level math course  
 PROFSTUD.494 ELL Strategies  
 PSYCH.212 Adolescent Psychology  
 SPECED.101 Introduction to Except Individuals  
 SPECED.275 Linking Assessment  
 SPECED.358 Methods of Instr Stud with Disabilities

**Meeting General Education Goals:**

Credit toward General Education Goals is met with General Education Points (GEPs). Courses can offer a maximum of 4 GEPs. Some courses offer GEPs toward more than one General Education Goal. The range of courses awarding GEPs, and the degree to which major requirements and general education requirements may be satisfied simultaneously, will change as more courses are approved for General Education credit. See [www.bloomu.edu/mycore](http://www.bloomu.edu/mycore)

Course Number	Course Title	GEPs
<b>***Goal 1: Communication; minimum 7 GEPs, from minimum of 3 disciplines.</b>		
COMMSTUD.103/104	Public Speaking or Interpersonal Communication	3
EDFOUND.291	Principles of Teaching	2
ENGLISH.101	Foundations of College Writing I	3
<b>*Goal 2: Information Literacy; minimum 2 GEPs</b>		
EDFOUND.204	Educational Technology	3
<b>**Goal 3: Analysis, Quantitative Reasoning, &amp; Problem Solving; minimum 5 GEPs, from minimum of 2 disciplines.</b>		
BIOLOGY.114	Concepts in Biology I	1
CHEM.115	Chemistry for the Sciences 1	1
MATH.141	Introduction to Statistics	3
<b>**Goal 4: Cultures &amp; Diversity; minimum 5 GEPs, from minimum of 2 disciplines.</b>		
EDFOUND.291	Principles of Teaching	1
EDFOUND.406	Multicultural Education	2
SPECED.101	Intro to Exceptional Individuals	2
<b>**Goal 5: Natural Sciences; minimum 5 GEPs, from minimum of 2 disciplines; any 3-credit course with 3 GEPs for Goal 5 can replace CHEM.100.</b>		
BIOLOGY.114	Concepts in Biology I	3

CHEM.115	Chemistry for the Sciences I	3
<b>**Goal 6: Social Sciences; minimum 5 GEPs, from minimum of 2 disciplines.</b>		
EDFOUND.206	Teachers, Schools, and Society	1
PSYCH.101	General Psychology	3
SPECED.275	Linking Assessment	1
<b>**Goal 7: Humanities; minimum 5 GEPs, from minimum of 2 disciplines; Select MUSIC 101 or THEATRE 102 or 103 to complete this goal.</b>		
ENGLISH ____	Literature (151, 152, 156, 226, 227, 236, 237, 246, 247, or 257)	2
MUSIC.101 or THEATRE.102/103	Music Listening or Introduction to Theatre or Theatre Appreciation	3
<b>*Goal 8: Second Language Competency; minimum 2 GEPs; Select one of the two options.</b>		
ASLTERP.155	American Sign Language 1	2
_____ 102	Competency test or any second language 102 level	
<b>*Goal 9: Physical Activity &amp; Health; minimum 2 GEPs.</b>		
<b>*Goal 10: Responsible Citizenship; minimum 2 GEPs.</b>		
EDFOUND.406	Multicultural Education	1
SPECED.101	Intro to Exceptional Individuals	1

\*GEPs for this goal may come from just 1 discipline. \*\*GEPs must come from at least 2 disciplines. \*\*\*GEPs must come from at least 3 disciplines.

### **Additional Notes on the Secondary Education Major:**

**Admission Packet, for Admission into the Teacher Education Program:** due by 60 credits, signed by your Education advisor and submitted to Teacher Education Admission Packets Coordinator. Forms and information available from Education Studies.

- Eligible test scores:** After April 2, 2012: **PAPA (Pre-service Academic Performance Assessment)**  
www.pa.nesinc.com: Reading, score of 220 Writing, score of 220 Math, score of 220  
**or Praxis I:** Academic Skills Assessment if taken on or before April 2, 2012 (and retakes until April 2, 2014):  
Reading, score of 172 Writing, score of 173 Mathematics, score of 173
- Cumulative GPA of 3.0, with a C or better** in all professional education and specialization courses.
- 6 credits of college-level math and 6 credits in English composition and literature**
- Completion of early field experience:** five days/30 hours, non-credit, w/ appropriate diversity in contexts: forms required
- Two recommendations** from Teacher Education faculty: standardized form required
- Professional liability insurance** (available through PSEA, at www.PSEA.org.)
- Tuberculosis Screening** results, from a test taken within the last two years (likely repeated before student teaching).
- A resume** that follows the sample format: format available from Education Studies
- Criminal checks:** Act 34 (Criminal Record Check) Act 151 (Child Abuse History Check)  
Act 114 FBI Clearance: register at www.pa.cogentid.com; register under Department of Education; fingerprinting available at BU bookstore. Clearances are valid for 1 year for one year: will need to repeat before student teaching

**Student Teaching—Placement Card and Eligibility Packet:**

- **Student Teaching Placement Card**—intent to student teach:  
    **for fall** student teaching, due **by February**  
    **for spring** student teaching, due **by September**
- **Student Teaching Eligibility Packet:** Download checklist and forms from the Student Teaching tab under Student Resources on the College of Education homepage.
- **Student Teaching Eligibility Packet is due**, signed by your Education advisor, to the Student Teaching Placement Office:  
    **April 1** for fall student teaching  
    **October 1** for spring student teaching