

B.S. in Biological Sciences: Biology Education Major (FIUteach)

Program Description

The (B.S.) degree in Biological Sciences with Biology Education Major offers students options. This degree in the discipline offers an enriching program in Biology and prepares students for teaching in the 21st century classroom. Graduates of this program can choose to teach Biology in grades 6-12, pursue graduate school or work in the various industries requiring a strong background in Biology.

Admission Requirements & Application

- A minimum lower-division GPA of 2.5 or better on a 4.0 scale
- Successful completion of 60 credit hours of lower-division coursework or an AA degree from an accredited institution
- A passing score on all sections of the FTCE: General Knowledge Exam (GK) (*All students must pass the General Knowledge Exam (GK) by the time they reach 72 credits in their program of study*)
- University Core Curriculum/General Education must be completed
- Major Pre-requisites (listed below) must be taken and passed with a minimum grade of C

FIU Course(s):		Credit Hours:	✓
BSC 2010	General Biology I	3	
BSC 2010L	General Biology I Lab	1	
BSC 2011	General Biology II	3	
BSC 2011L	General Biology II Lab	1	
CHM 1045	General Chemistry I	3	
CHM 1045L	General Chemistry I Lab	1	
CHM 1046	General Chemistry II	3	
CHM 1046L	General Chemistry II Lab	1	
CHM 2210	Organic Chemistry I	4	
CHM 2210L	Organic Chemistry I Lab	1	
CHM 2211	Organic Chemistry II	3	
CHM 2211L	Organic Chemistry II Lab	1	
PHY 2048	Physics with Calculus I ^{1,2}	4	
PHY 2048L	General Physics Lab I ^{1,2}	1	
PHY 2049	Physics with Calculus II ^{1,2}	4	
PHY 2049L	General Physics Lab II ^{1,2}	1	
MAC 2311	Calculus I ³	4	
MAC 2312 OR	Calculus II ³		
STA 2122 AND STA 3123	Stats for Behav Science I ³ Stats for Behav Science II ³	4 OR 6	
SMT 2661* AND SMT 2662*	Step 1: Inquiry Approaches to Teaching Mathematics and Science (Prerequisite: Freshman/Sophomore standing)	1	
OR	Step 2: Inquiry-Based Lesson Design in Mathematics and Science (Prerequisite: SMT 2661)	1	
SMT 2044*	1 & 2 Combined: Inquiry-Based Approaches and Lesson Design for Teaching Mathematics and Science (Prerequisite: Junior/Senior standing)	2	

¹Organic Chemistry sequence or Physics sequence must be taken at the Lower Division.

²Physics without Calculus I and II (PHY 2053 and PHY 2054) can be substituted Physics with Calculus I and II.

³Calculus I and II must be taken at the lower division. If Statistics I is taken it must be taken at the lower division.

Both Statistics I and II are required to replace Calculus II only. STA 3111 and STA 3112 may be substituted for STA 2122 and STA 3123.

Program of Study

The program of studies is as follows:

- Total credits:120
 - The balance of the 120 credit hour requirement for graduation should be chosen in consultation with the student's departmental and/or advisor(s)

- All courses and FTCE tests must be taken prior to Student Teaching
- All program courses must be completed with a minimum grade of “C”

Course:		Credit Hours:	✓
Upper Division Biology Education Program (13 credits)			
Required Courses (Biology Core)			
PCB 3043	Ecology (Prerequisites: BSC 2010 and BSC 2011)	3	
PCB 3063	Genetics (Prerequisites: BSC 2010)	3	
PCB 4023	Cell Biology (Prerequisites: PCB 3063 and CHM 1046)	3	
PCB 4674	Evolution (PCB 3063, PCB 3043)	3	
BSC 4931	Senior Seminar (Prerequisite: Senior standing. Prerequisites or Corequisites: PCB 3043, PCB 3063, PCB 4023, and PCB 4674)	1	
Biology Education Upper Division Electives (12 credits)			
Select one course from each of the following areas:			
3000/4000 Level	Ecology	3	
3000/4000 Level	Organismal Diversity	3	
3000/4000 Level	Physiology/Biochemistry	3	
3000/4000 Level	Structure/Development	3	
Biology Laboratory Requirement (1 credit)			
3000/4000 Level Lab	One Upper Division Lab	1	
Education Coursework (27 credits)			
SMT 3100	Knowing & Learning (Prerequisites or Corequisites SMT 2661 or SMT 2044) (Fall/Spring/Summer)	3	
SCE 4194	Perspectives in Science and Mathematics Education (GL) (Spring)	3	
SMT 4301*	Classroom Interactions (Prerequisites: SMT 3100) (Fall/Spring)	3	
RED 4325*	Subject Area Reading (Fall/Spring/Summer)	3	
TSL 4324*	ESOL Issues and Strategies for Content Teachers (GL) (Fall/Summer)	3	
BSC 3910	Research Methods in Biological Sciences (Prerequisite: SMT 2662 or SMT 2044) (Fall)	3	
SMT 4664*	Project-Based Instruction (Prerequisites: SMT 3100 and SMT 4301) (Fall/Spring)	3	
SCE 4944*	Student Teaching (Spring/Fall)	6	

*Course require field experience hours. Other courses may also have field requirements.

Student Teaching

All courses must be completed prior the start of Student Teaching and both the FTCE: Professional Exam and FTCE: Subject Area Exam must be taken, passed, and official scores received by FIU three weeks prior to Student Teaching. Students must be FULLY admitted to their program in order to apply for Student Teaching. Student may apply for Student Teaching in the Office of Field Experiences in ZEB 130 by February 1st for the Fall semester Student Teaching and June 1st for Spring semester Student Teaching.

Graduation Requirements

1. FIU cumulative GPA of 2.5 or better on a 4.0 scale
2. University Foreign Language Requirement (FLENT/FLEX) must be met
3. University Summer Enrollment Requirement must be met
4. Global Learning Requirement must be met
5. 45 semester hours must be in upper division courses
6. All program and University requirements must be met

For more information on our programs visit our websites: Secondaryed.fiu.edu or FIUteach.fiu.edu