



B.S. in Biological Sciences: Biology Education Major (FIUteach) Fall 2025

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 | 4 | |
| PHY 2048L | General Physics Lab I | 1 | |
| PHY 2049 | Physics with Calculus II | 4 | |
| PHY 2049L | General Physics Lab II | 1 | |
| MAC 2311 | Calculus I | 4 | |
| MAC 2312 | Choose 1 option Calculus II | | |
| OR Statistics I and II | OR STA 2023 - Statistical Methods STA 3123 - Statistics for Behavioral and Social Sciences II *Consult with academic advisor to discuss the possibility of substituting this course with other approved Statistics courses. | 4 OR 6 | |
| SMT 2661* AND SMT 2662* | Step 1: Inquiry Approaches to Teaching Mathematics and Science (Prerequisite: Freshman/Sophomore standing) | 1 | |
| OR SMT 2044* | Step 2: Inquiry-Based Lesson Design in Mathematics and Science (Prerequisite: SMT 2661) | 1 | |
| | 1 & 2 Combined: Inquiry-Based Approaches and Lesson Design for Teaching Mathematics and Science (Prerequisite: Junior/Senior standing) | 2 | |

**Note: Calculus I and Statistics I together do not satisfy the requirement
STUDENTS WHO TAKE STATISTICS I AND II MUST ALSO COMPLETE CALCULUS I**

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) | | | |
| BSC 3848* | Science and Career Literacy (Prerequisites: BSC 2010 and BSC 2011) | 1 | |
| 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 | |
| *For students falling in catalog years prior to Fall 2024, BSC 4931- Senior Seminar (prerequisites PCB 3043+3063+4023+4674) can substitute BSC 3848. Discuss with your Academic Advisor. | | | |
| 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, and Adolescent Development in Mathematics and Science (F, S) | 3 | |
| SCE 4194 | Perspectives in Science and Math Education (GL) (Spring) | 3 | |
| SMT 4301* | Classroom Management and Interactions in STEM (Prerequisites: SMT 3100) (F, S) | 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* | Educational Assessment and Project-Based Instruction in Mathematics and Science (Prerequisites: SMT 4301) (F, S) | 3 | |
| SCE 4944* | Student Teaching (Spring/Fall) | 6 | |

*Course requires 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