Why Choose Biology Education?
Biology teachers guide students in discovering the marvelous logic, efficient simplicity and the design behind a myriad of complex events in nature. The technological revolution has added an infectious new excitement to the lessons of biology. Biology education today provides access to new knowledge, helping people understand how things happen in the natural and physical environment.

Graduates are prepared to teach in high schools and also have the necessary basic preparation to enter a career in industry or pursue an advanced degree in science. One semester of directed teaching at the secondary level is required. A teaching minor is also required.

Professional Opportunities
Biology education is a four-year curriculum that may be selected as a major. A teaching minor also is required. You cannot have a biology teaching minor with this teaching major. Successful completion of the program leads to recommendation for a Michigan secondary provisional certificate. The program is designed to take full advantage of the unusual, hands-on Ferris instructional capabilities in developing both teaching and subject matter competency. Students receive the broad background in classroom, laboratory and field training essential to be effective teachers.

Admission Requirements
High school students and transfer students with 29 credit hours or less must possess a high school grade point average of 2.25 (on a 4.0 scale) or an ACT composite score of 15. Transfer students with 30 credit hours or more must possess a 2.0 cumulative GPA. Students transferring into the program with completed majors or minors must have the appropriate GPA as established by each department. Consult individual program description for other admission requirements.

Teacher Certification Requirements
As required by the State of Michigan to receive teacher certification, all teacher candidates must: (1) pass the Michigan Basic Skills Test, (2) pass the pedagogy tests in their subject area majors and minors, and (3) have a 2.50 minimum GPA to receive teacher certification in Michigan. These state requirements are in addition to the FSU graduation requirements of your individual program.

Graduation Requirements
The biology education program leads to a Bachelor of Science degree through the School of Education, College of Education & Human Services. Graduates must complete all of FSU's general education, biology, and education requirements. Professional education requirements include a semester of directed student teaching. Consult individual program description for other graduation requirements.

A 2.50 GPA is required for successful completion of the Biology major.

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 121</td>
<td>General Biology I  *Z</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 122</td>
<td>General Biology 2  *Z</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 205</td>
<td>Human Anatomy/Physiology*Z</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 218</td>
<td>Microbial Ecology *Z</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 341</td>
<td>Natural History of Invertebrates*Z</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 342</td>
<td>Vertebrate Natural History*Z</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 351</td>
<td>Field Botany*Z</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 353</td>
<td>Plant Physiology*Z</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 375</td>
<td>Principles of Genetics*Z</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 442</td>
<td>Ecology*Z</td>
<td>3</td>
</tr>
</tbody>
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Level I
Related Requirement (3 hours required)
CHEM 124 Intro to Organic & Biochemistry*Z  3

Recommended Electives (3-4 hours required)
BIOL 340 Evolution * WZ  3
BIOL 344 Entomology*Z  3
BIOL 347 Environmental Conservation*Z  3
BIOL 349 Medical Parasitology*Z  3
BIOL 370 Developmental Biology*Z  4
BIOL 373 Cell Biology*Z  3

Level II
Recommended Electives (3-4 hours required)
EDUC 251 Life Span Human Growth & Dev  3
EDUC 206 Ed Tech in Sec Classrooms  3
EDUC 289 Principles of Teaching and Learning  3

Professional Education Sequence

Level III
Note: Prior to admission to the Teacher Education Program and Level II courses, students must pass all sections of the Basic Skills Test, complete all Professional Education Prerequisite courses with a minimum of 2.5 GPA, with no grade lower than a C (2.0), have a 2.5 cumulative GPA, and meet all other program requirements. Students may have no more than two repeats in Level I coursework.

EDUC 303 School, Work & Society  3
EDUC 308 Teaching Strategies for SPED/Diverse Pop  3
EDUC 339 Instructional Planning and Practice  2
EDUC 430 Instruct Delivery & Evaluation  4
EDUC 439 Instructional Theory into Practice  2
EDUC 443 Teaching Reading/Secondary Areas  3
Biology Education • Bachelor of Science

Note: Prior to student teaching and professional seminar (Level III courses), students must obtain the appropriate GPA for their major/minor as established by each department, earn an overall GPA of 2.75 in the professional education courses, have a 2.5 cumulative GPA, and meet all other program requirements.

EDUC 491  Secondary Directed Teaching  12
EDUC 499  Professional Seminar          2
TOTAL                                            40

NOTE: STUDENTS MUST OBTAIN THE APPROPRIATE GPA FOR THEIR MAJOR/MINOR AS ESTABLISHED BY EACH DEPARTMENT. A 2.75 GPA IS REQUIRED IN THE PROFESSIONAL EDUCATION COURSE SEQUENCE. A 2.50 CUMULATIVE GPA IS ALSO REQUIRED BEFORE STUDENT TEACHING. NOTE: Though faculty advisors are responsible for advising students regarding degree requirements, it is the student who is ultimately responsible for choosing the correct courses and for following the correct program.