**BIOLOGY (INTEGRATIVE BIOLOGY), B.S.**

This program is designed for students who desire a strong, diverse background in the biological sciences. It is designed to introduce students to the wholeness of biology through an integrative perspective of the structure and function of biological systems with strong training in information analysis. It is appropriate for students who wish to attend graduate or professional schools.

### Requirements for a Major in Biology (Integrative Biology)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 1305 &amp; BIO 1105</td>
<td>Modern Concepts of Bioscience and Modern Concepts of Bioscience Laboratory</td>
<td>4</td>
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<tr>
<td>or BIO 1405</td>
<td>Investigations of Modern Biology Concepts I</td>
<td></td>
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<tr>
<td>BIO 1306 &amp; BIO 1106</td>
<td>Modern Concepts of Bioscience, continued and Modern Concepts of Bioscience Laboratory</td>
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<tr>
<td>or BIO 1406</td>
<td>Investigations of Modern Biology Concepts II</td>
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<tr>
<td>BIO 2306 &amp; BIO 2106</td>
<td>Genetics and Genetics Laboratory</td>
<td>3</td>
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<tr>
<td>BIO 3303</td>
<td>Ecology</td>
<td>3</td>
</tr>
<tr>
<td>BIO 3366</td>
<td>Foundations of Evolutionary Biology</td>
<td>3</td>
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<tr>
<td>BIO 4001</td>
<td>Achievement Test</td>
<td>0</td>
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</tbody>
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Select one course from each distribution list:

- **Cell and Molecular Distribution List**
  - BIO 3342: Molecular Cell Biology
  - BIO 3350: Genomics and Bioinformatics
  - BIO 4301: Immunology
  - BIO 4302 & BIO 4102: General Microbiology and General Microbiology Lab
  - BIO 4306 & BIO 4106: Molecular Genetics and Genomics and Molecular Genetics and Genomics Laboratory
  - BIO 4308 & BIO 4108: Genes and Development and Genes and Development Laboratory

- **Anatomy & Physiology Distribution List**
  - BIO 3322: Human Physiology
  - BIO 3429: Comparative Chordate Anatomy
  - BIO 4317: Plant Physiology
  - BIO 4431: Comparative Vertebrate Physiology
  - BIO 4432: General Human Anatomy

- **Ecology & Evolution Distribution List**
  - BIO 3320: Climate Change Biology
  - BIO 4305: Aquatic Ecosystems
  - BIO 4365: Topics in Evolution
  - BIO 4381: Restoration Ecology

- **Science Communication Distribution List**
  - BIO 3100: Seminar in Biology

**Total Hours**: 65

1. A grade of "C" or better in all biology courses used in the major and a GPA of 2.0 or higher on all BIO courses completed.
2. A grade of "C" or better in all courses required in other fields.
3. A maximum of 3 hours of 3V9R and a maximum of 3 hours of 4V9R may be used for elective credit.

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- BIO 3103: Ecology Laboratory
- BIO 3300: Advanced Topics in Biology
- BIO 3V9R: Research
- BIO 4199: Scientific Communication
- BIO 4V04: Biology Field Studies

Seven semester hours of 3000-4000 level BIO courses **3**

**Subtotal**: 35

- CHE 1301: Basic Principles of Modern Chemistry I & CHE 1101 and General Chemistry Laboratory I
- CHE 1302: Basic Principles of Modern Chemistry II & CHE 1102 and General Chemistry Laboratory II
- CHE 3331: Organic Chemistry I
- CHE 3332: Organic Chemistry II
- CHE 3238: Organic Chemistry Laboratory
- MTH 1321: Calculus I
- MTH 1322: Calculus II or STA 2381: Introductory Statistical Methods

Select one of the following sequences:

- PHY 1408 & PHY 1409: General Physics for Natural and Behavioral Sciences I and General Physics for Natural and Behavioral Sciences II
- PHY 1420: General Physics I & PHY 1430: General Physics II
- PHY 1420 & PHY 1409: General Physics I and General Physics for Natural and Behavioral Sciences II