BIOLOGY MINOR

Learning Goals and Objectives

**Goal 1:** Students will gain a fundamental understanding of cell structure and function, the organization of biological systems, and the evolution of biological diversity.

1.1 Students will understand basic mechanisms of evolutionary change and the diversity of life.

1.2 Students will understand basic concepts of molecular, classical, and population genetics, and basic biochemical processes in living organisms.

1.3 Students will understand basic concepts of how organisms interact with their abiotic and biotic environment.

**Goal 2.** Students will develop basic skills in experimental design and the presentation of scientific information.

2.1 Students will gain basic skills in data reduction, analysis, presentation, and the operation of basic laboratory equipment.

2.2 Students will be able to develop cogent written and oral presentations of scientific content.

The minor in biology requires completion of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM 120</td>
<td>General Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHM 125</td>
<td>General Chemistry II</td>
<td>3</td>
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<tr>
<td>CHM 120L</td>
<td>General Chemistry Lab I</td>
<td>2</td>
</tr>
<tr>
<td>CHM 125L</td>
<td>General Chemistry Lab II</td>
<td>2</td>
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<tr>
<td>BIO 101</td>
<td>Bio I: Cells</td>
<td>4</td>
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<tr>
<td>BIO 102</td>
<td>Bio II: Genetics</td>
<td>4</td>
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<tr>
<td>BIO 201</td>
<td>Bio III: Organismic Biology</td>
<td>4</td>
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</tbody>
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Select three additional courses from at least two of the following groups:

**Group A: Cell Structure and Function**
- BIO 402 Advanced Cell Biology
- BIO 404 Biochemistry
- BIO 410
- BIO 411 Molecular Genetics
- BIO 416 Microbiology
- BIO 421 Molecular&Cellular Biophysics
- BIO 424 Biotechnology
- BIO 428 Histopathology
- BIO 430 Neurological Disorders

**Group B: Systemic Organization**
- BIO 405 Biomechanics
- BIO 407
- BIO 412 Neurobiology
- BIO 413 Plant Physiological Ecology
- BIO 415 Immunology
- BIO 417 Systemic Physiology
- BIO 425 Bacterial Pathogenesis

**Group C: Evolution and Diversity of Life**
- BIO 401 Animal Behavior
- BIO 409 Ecology
- BIO 406 Comparative Anatomy
- BIO 414 Plant Systematics
- BIO 419 Invertebrate Zoology
- BIO 420 Bioinformatics
- BIO 422 Applied&Environ Microbio
- BIO 423 Evolution
- BIO 426 Fermentation Science
- BIO 429 Environmental Science