**BIOLOGICAL SCIENCES CONCENTRATION**

The biological sciences concentration is designed for students who plan to enter a graduate study program or who want professional positions that require more science than is included in the other concentrations. Students follow a first-year program of General Education courses similar to students in other Crop Sciences concentrations. Programs for the second, third, and fourth years are planned in consultation with the student's faculty advisor, in the area of biological sciences. Students and advisors are encouraged to consult individual graduate schools for the specific entrance requirements. Although flexibility in individual course selection is a characteristic of this concentration, graduation requirements are established by selection of elective courses.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>CHEM 102 &amp; CHEM 103</td>
<td>General Chemistry I and General Chemistry Lab I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 104 &amp; CHEM 105</td>
<td>General Chemistry II and General Chemistry Lab II</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 232</td>
<td>Elementary Organic Chemistry I and General Chemistry Lab II</td>
<td>3 or 4</td>
</tr>
<tr>
<td>IB 103</td>
<td>Introduction to Plant Biology</td>
<td>4</td>
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<tr>
<td>IB 150</td>
<td>Organismal &amp; Evolutionary Biol</td>
<td>4</td>
</tr>
<tr>
<td>MCB 150</td>
<td>Molec &amp; Cellular Basis of Life</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 101</td>
<td>College Physics: Mech &amp; Heat</td>
<td>5</td>
</tr>
</tbody>
</table>

**Biological Sciences Concentration Required**

- CPSC 112 Introduction to Crop Sciences 4
- CPSC 261 Biotechnology in Agriculture or CPSC 265 Genetic Engineering Lab 3
- CPSC 352 Plant Genetics 4
- CPSC 498 Crop Sci Professional Developmt 1

Select one of the following:

- CPSC 226 Introduction to Weed Science
- CPSC 270 Applied Entomology
- PLPA 204 Introductory Plant Pathology

Select three of the following:

- CPSC 426 Weed Mgt in Agronomic Crops
- CPSC 431 Plants and Global Change
- CPSC 452 Advanced Plant Genetics
- CPSC 453 Principles of Plant Breeding
- CPSC 466 Genomics for Plant Improvement
- CPSC 473 Mgmt of Field Crop Insects
- CPSC 484 Plant Physiology or HORT 421 Agricultural Physiology
- PLPA 401 Plant Pathogenic Fungi
- PLPA 402 Phytoparasitic Nematodes
- PLPA 404 Plant Virology
- PLPA 405 Plant Disease Diagnosis & Mgmt
- PLPA 406 Phytopathology
- PLPA 407 Diseases of Field Crops

Select one of the following: 3-4

- ANSC 100 Intro to Animal Sciences

- FSHN 101 Intro Food Science & Nutrition
- HORT 100 Introduction to Horticulture
- NRES 102 Introduction to NRES
- NRES 201 Introductory Soils
- TSM 100 Technical Systems in Agr

Select one of the following: 3-5

- MCB 100 Introductory Microbiology
- MCB 101 and Intro Microbiology Laboratory
- MCB 450 Introductory Biochemistry

**Natural Science Electives** 6-9

Total ACES prescribed and elective courses must total 35 hours, of which 20 hours must be completed in residence.