PLANT BIOTECHNOLOGY AND MOLECULAR BIOLOGY CONCENTRATION

The plant biotechnology and molecular biology concentration provides a curriculum that prepares students for careers in biotechnology or for entrance into graduate or professional school. The basic sciences are emphasized, including a strong foundation in biology and genetics. Students are encouraged to participate in undergraduate independent study in a molecular biology laboratory. For those who wish to pursue graduate work later, adequate preparation may be obtained by suitable choices of electives within the framework of this concentration.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 102</td>
<td>General Chemistry I &amp; CHEM 103 and General Chemistry Lab I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 104</td>
<td>General Chemistry II &amp; CHEM 105 and General Chemistry Lab II</td>
<td>4</td>
</tr>
<tr>
<td>IB 150</td>
<td>Organismal &amp; Evolutionary Biol</td>
<td>4</td>
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**Plant Biotechnology and Molecular Biology Concentration Required**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>CHEM 232</td>
<td>Elementary Organic Chemistry I</td>
<td>3 or 4</td>
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<tr>
<td>CHEM 233</td>
<td>Elementary Organic Chem Lab I</td>
<td>2</td>
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<tr>
<td>CPSC 112</td>
<td>Introduction to Crop Sciences</td>
<td>4</td>
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<tr>
<td>CPSC 261</td>
<td>Biotechnology in Agriculture</td>
<td>3</td>
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<tr>
<td>CPSC 265</td>
<td>Genetic Engineering Lab</td>
<td>3</td>
</tr>
<tr>
<td>CPSC 352</td>
<td>Plant Genetics</td>
<td>4</td>
</tr>
<tr>
<td>CPSC 484</td>
<td>Plant Physiology</td>
<td>3</td>
</tr>
<tr>
<td>CPSC 498</td>
<td>Crop Sci Professional Develpmt</td>
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</tr>
<tr>
<td>MCB 450</td>
<td>Introductory Biochemistry</td>
<td>3</td>
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Select two of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>CPSC 226</td>
<td>Introduction to Weed Science</td>
<td>6</td>
</tr>
<tr>
<td>CPSC 270</td>
<td>Applied Entomology</td>
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</tr>
<tr>
<td>PLPA 204</td>
<td>Introductory Plant Pathology</td>
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Select two of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>CPSC 418</td>
<td>Crop Growth and Management</td>
<td>6-8</td>
</tr>
<tr>
<td>CPSC 452</td>
<td>Advanced Plant Genetics</td>
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</tr>
<tr>
<td>CPSC 453</td>
<td>Principles of Plant Breeding</td>
<td></td>
</tr>
<tr>
<td>CPSC 466</td>
<td>Genomics for Plant Improvement</td>
<td></td>
</tr>
<tr>
<td>HORT 421</td>
<td>Horticultural Physiology</td>
<td></td>
</tr>
<tr>
<td>HORT 442</td>
<td>Plant Nutrition</td>
<td></td>
</tr>
<tr>
<td>HORT 466</td>
<td>Growth and Dev of Hort Crops</td>
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<tr>
<td>HORT 482</td>
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</tbody>
</table>

Select one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>ANSC 100</td>
<td>Intro to Animal Sciences</td>
<td>3-4</td>
</tr>
<tr>
<td>FSHN 101</td>
<td>Intro Food Science &amp; Nutrition</td>
<td></td>
</tr>
<tr>
<td>HORT 100</td>
<td>Introduction to Horticulture</td>
<td></td>
</tr>
<tr>
<td>NRES 102</td>
<td>Introduction to NRES</td>
<td></td>
</tr>
<tr>
<td>TSM 100</td>
<td>Technical Systems in Agr</td>
<td></td>
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</table>

Three courses/groups selected from:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>IB 103</td>
<td>Introduction to Plant Biology</td>
<td>10-15</td>
</tr>
</tbody>
</table>

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

Information listed in this catalog is current as of 04/2018