CROP SCIENCES: PLANT BIOTECHNOLOGY AND MOLECULAR BIOLOGY, BS

for the degree of Bachelor of Science Major in Crop Sciences, Plant Biotechnology and Molecular Biology Concentration

department website: https://cropsciences.illinois.edu/
department faculty: https://cropsciences.illinois.edu/people/faculty (https://cropsciences.illinois.edu/people/faculty/)
overview of college admissions & requirements: Agricultural, Consumer & Environmental Sciences (http://catalog.illinois.edu/schools/aces/academic-units/#text)
college website: https://aces.illinois.edu/

This program will no longer accept applications: Spring 2022
Please see our new major: Plant Biotechnology, BS (http://catalog.illinois.edu/undergraduate/aces/plant-biotechnology-bs/)

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.

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Coursework at or above the third level is required for graduation.

Quantitative Reasoning I
Select one of the following:

- MATH 220 Calculus
- MATH 221 Calculus I
- MATH 234 Calculus for Business I

Quantitative Reasoning II
CPSC 241 Intro to Applied Statistics
3

Natural Sciences and Technology
See Specific Concentration Requirements

Humanities and the Arts
Select from campus approved list
6

Social and Behavioral Sciences

ACE 100 Introduction to Applied Microeconomics
3-4

or ECON 102 Microeconomic Principles
3-4

Select from campus approved list.

ACES required

ACES 101 Contemporary Issues in ACES
2

Required Concentration
58-79

Concentration prescribed courses. See specific concentration requirements.

Total Hours
126

1 ACE 100 or ECON 102 are not required for the Biological Sciences Concentration.

Prescribed Courses including Campus General Education

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>RHET 105</td>
<td>Writing and Research</td>
<td>4</td>
</tr>
<tr>
<td>or equivalent - see College Composition I requirement (3 or 4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CMN 101</td>
<td>Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>Advanced Composition</td>
<td>Select from campus approved list.</td>
<td>3-4</td>
</tr>
<tr>
<td>Cultural Studies</td>
<td>Select one course from Western culture, one from non-Western culture, and one from U.S. minority culture from campus approved lists.</td>
<td>9</td>
</tr>
<tr>
<td>Foreign Language</td>
<td></td>
<td></td>
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</tbody>
</table>

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Information listed in this catalog is current as of 09/2021
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>CHEM 102</td>
<td>General Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>&amp; CHEM 103 &amp; General Chemistry Lab I</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>CHEM 104</td>
<td>General Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>&amp; CHEM 105 &amp; General Chemistry Lab II</td>
<td>4</td>
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<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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</thead>
<tbody>
<tr>
<td>CHEM 232</td>
<td>Elementary Organic Chemistry I</td>
<td>3 or 4</td>
</tr>
<tr>
<td>CHEM 233</td>
<td>Elementary Organic Chem Lab I</td>
<td>2</td>
</tr>
<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>
</tr>
<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>
<td>1</td>
</tr>
<tr>
<td>MCB 450</td>
<td>Introductory Biochemistry</td>
<td>3</td>
</tr>
</tbody>
</table>

Select two of the following:

- CPSC 226
- CPSC 270 Applied Entomology
- PLPA 204

Select two of the following:

- CPSC 418 Crop Growth and Management
- CPSC 452 Advanced Plant Genetics
- CPSC 453 Principles of Plant Breeding
- CPSC 466 Genomics for Plant Improvement
- HORT 421 Horticultural Physiology
- HORT 442 Plant Nutrition
- HORT 466

Select one of the following:

- ANSC 100 Intro to Animal Sciences
- FSHN 101 The Science of Food and How it Relates to You
- HORT 100 Introduction to Horticulture
- NRES 102 Introduction to NRES
- TSM 100 Technical Systems in Agr

Three courses/groups selected from:

- IB 103 Introduction to Plant Biology
- IB 104 Animal Biology
- MCB 100 Introductory Microbiology
- & MCB 101 and Intro Microbiology Laboratory
- MCB 150 Molec & Cellular Basis of Life

ACE 100 or ECON 102 are not required for the Biological Sciences Concentration.