**PLANT BIOTECHNOLOGY, BS**

for the degree of Bachelor of Science Major in Plant Biotechnology

**department website:** https://cropsciences.illinois.edu/

**department 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/

With a degree in Plant Biotechnology you can help feed billions sustainably, improve our planet’s health, and make a direct impact on agriculture and the world. Advance plant breeding and plant improvement by learning critical skills in molecular biology, genetics, and genomics.

Plant Biotechnology is a part of our daily lives in applications such as developing nutritionally enhanced foods, enabling sustainable agricultural production, and engineering plants for industrial and medical purposes.

The plant biotechnology major provides an interdisciplinary curriculum integrating the science and practice of crop production through courses in molecular biology, genetics and genomics, biochemistry, plant protection, data analysis and more.

**General Education Requirements**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>RHET 105 &amp; CMN 101</td>
<td>Writing and Research and Public Speaking</td>
<td>6 to 7</td>
</tr>
<tr>
<td>CMN 111 &amp; CMN 112</td>
<td>Oral &amp; Written Comm I and Oral &amp; Written Comm II</td>
<td>3 to 4</td>
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</tbody>
</table>

**Cultural Studies**

- Western/Comparative Cultures
- Non-Western Cultures
- US Minority Cultures

**Quantitative Reasoning I**

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

**Quantitative Reasoning II**

- CPSC 241 Intro to Applied Statistics

**Natural Sciences and Technology**

- CHEM 102 General Chemistry I
- & CHEM 103 General Chemistry Lab I
- CHEM 104 General Chemistry II
- & CHEM 105 General Chemistry Lab II

**Humanities and the Arts**

- 6

**Social and Behavioral Sciences**

- 7 to 8
  - ACE 100 Introduction to Applied Microeconomics

**Total Hours for Gen Ed Requirements**

- 46-50

**Code** | **Title** | **Hours**
---|---|---
ACES 101 | Contemporary Issues in ACES or ACES 200 ACES Transfer Orientation | 0 to 2

**Major Requirements**

**Non-Departmental Core Requirements**

- 11
  - IB 103 Introduction to Plant Biology
  - IB 150 Organismal & Evolutionary Biol
  - MCB 450 Introductory Biochemistry

**Crop Sciences Core Requirements**

- 13-14
  - CPSC 102 Foundational Skills in Crop Sciences
  - CPSC 112 Introduction to Crop Sciences
  - CPSC 382 Organic Chem of Biol Processes

**Internship or Research/Thesis (choose one):**

- 2-3
  - CPSC 393 Crop Sciences Internship
  - or HORT 393 Horticulture Internship
  - CPSC 395 Undergrad Research or Thesis
  - or HORT 395 Undergrad Research or Thesis
  - or PLPA 395 Undergrad Research or Thesis

**Biotechnology Requirements**

- 13-14
  - CPSC 261 Biotechnology in Agriculture
  - CPSC 265 Genetic Engineering Lab
  - CPSC 352 Plant Genetics
  - CPSC 452 Advanced Plant Genetics
  - or CPSC 453 Principles of Plant Breeding

**Plant Protection and Data Analysis Requirements**

- 6-7
  - Select two of the following:
    - 6
      - CPSC 226
      - CPSC 266 Data in Biology and Agriculture
      - CPSC 270 Applied Entomology
      - PLPA 204

**Major Electives**

- 8
  - Choose from any 300- or 400-level CPSC, HORT, or PLPA courses, excluding: CPSC 393, HORT 393, CPSC 395, HORT 395 & PLPA 395.

**Total Hours**

- 126

Information listed in this catalog is current as of 02/2022