

PLANT BIOTECHNOLOGY, BS

for the degree of Bachelor of Science Major in Plant Biotechnology

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.

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General Education Requirements

Code	Title	Hours
Requirement		Hours
Composition I and Speech		6 to 7
RHET 105 & CMN 101	Writing and Research and Public Speaking	
OR		
CMN 111 & CMN 112	Oral & Written Comm I and Oral & Written Comm II	
Advanced Composition		3 to 4
Cultural Studies		9
Western/Comparative Cultures		
Non-Western Cultures		
US Minority Cultures		
Foreign Language	Third Level or Above	
Quantitative Reasoning I		4 to 5
MATH 220 or MATH 221 or MATH 234	Calculus Calculus I Calculus for Business I	
Quantitative Reasoning II		3
CPSC 241	Intro to Applied Statistics	
Natural Sciences and Technology		8
CHEM 102 & CHEM 103	General Chemistry I and General Chemistry Lab I	
CHEM 104 & CHEM 105	General Chemistry II and General Chemistry Lab II	
Humanities and the Arts		6
Social and Behavioral Sciences		7 to 8
ACE 100	Introduction to Applied Microeconomics ¹	
Total Hours for Gen Ed Requirements		46-50

Code	Title	Hours
ACES Requirements		0-2
ACES 101 or ACES 200	Contemporary Issues in ACES ACES Transfer Orientation	

Major Requirements

Code	Title	Hours
Non-Departmental Core Requirements		11
IB 103	Introduction to Plant Biology	4
IB 150	Organismal & Evolutionary Biol	4
MCB 450	Introductory Biochemistry	3
Crop Sciences Core Requirements		13-14
CPSC 102	Foundational Skills in Crop Sciences	2
CPSC 112	Introduction to Crop Sciences	4
CPSC 382	Organic Chem of Biol Processes	4
Internship or Research/Thesis (choose one):		2-3
CPSC 393 or HORT 393	Crop Sciences Internship Horticulture Internship	
CPSC 395 or HORT 395	Undergrad Research or Thesis Undergrad Research or Thesis	
CPSC 395 or PLPA 395	Undergrad Research or Thesis Undergrad Research or Thesis	
CPSC 498	Crop Sci Professional Developmt	1
Biotechnology Requirements		13-14
CPSC 261	Biotechnology in Agriculture	3
CPSC 265	Genetic Engineering Lab	3
CPSC 352	Plant Genetics	4
CPSC 452 or CPSC 453	Advanced Plant Genetics Principles of Plant Breeding	3-4
Plant Protection and Data Analysis Requirements		6-7
Select two of the following:		6
CPSC 226		3
CPSC 266	Data in Biology and Agriculture	4
CPSC 270	Applied Entomology	3
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

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Sample Sequence

This sample sequence is intended to be used only as a guide for degree completion. All students should work individually with their academic advisors to decide the actual course selection and sequence that works best for them based on their academic preparation and goals. Enrichment programming such as study abroad, minors, internships, and so on may impact the structure of this four-year plan. Course availability is not guaranteed during the semester indicated in the sample sequence.

Students must fulfill their Language Other Than English requirement by successfully completing a third level of a language other than English. See the corresponding section on the Degree and General Education

Requirements page (<http://catalog.illinois.edu/general-information/degree-general-education-requirements/>).

First Year

First Semester	Hours	Second Semester	Hours
CPSC 102		2 CMN 101 or RHET 105	3
CPSC 112		4 CPSC 261	3
CHEM 102		3 MATH 234	4
CHEM 103		1 CHEM 104	3
RHET 105 or CMN 101		4 CHEM 105	1
ACES 101		2	
		16	14

Second Year

First Semester	Hours	Second Semester	Hours
Advanced Elective CPSC, PLPA or HORT course		4 CPSC 241	3
ACE 100 or ECON 102		4 CPSC 265	3
Language Other than English (3rd level)		4 IB 103	4
CPSC 270		3 General Education course	3
		Plant Protection and Data Analysis course	3
		15	16

Third Year

First Semester	Hours	Second Semester	Hours
CPSC 382		4 IB 150	4
CPSC 352		General Education course	3
Internship or Research course		3 General Education course	3
General Education course		3 Free Elective course	3
Plant Protection and Data Analysis course		3 CPSC 266	4
Free Elective course		3	
		16	17

Fourth Year

First Semester	Hours	Second Semester	Hours
CPSC 498		1 MCB 450	3
CPSC 452		3 General Education course	3
Advanced Elective CPSC, PLPA or HORT course		4 General Education course	3

General Education course	3 Free Elective course	3
Free Elective course	3 Free Elective course	3
Free Elective course	3	
		17
		15

Total Hours 126

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Crop Sciences

Crop Sciences website (<https://cropsciences.illinois.edu/>)
AW-101 Turner Hall, MC-046, 1102 S. Goodwin Ave., Urbana, IL 61801
(217) 333-3420
Crop Sciences email (cropsciences@illinois.edu)

College of Agricultural, Consumer & Environmental Sciences

College of Agricultural, Consumer & Environmental Sciences website (<https://aces.illinois.edu/>)

ACES Office of Academic Programs

128 Mumford Hall, 1301 West Gregory Drive, Urbana, IL 61801
(217) 333-3380
ACES Office of Academic Programs email (ACES-Academics@illinois.edu)

Advising

Undergraduate Advising email (ugrad@cropsciences.illinois.edu)
Graduate Advising email (grad@cropsciences.illinois.edu)
Advising website (<https://cropsciences.illinois.edu/about/contact-us/#paragraph-604>)

Admissions

ACES Undergraduate Admissions (<https://aces.illinois.edu/admissions/>)
Visit ACES email (visitACES@illinois.edu)
(217) 333-3380
University of Illinois Undergrad Admissions (<https://www.admissions.illinois.edu/>)
University of Illinois Graduate Admissions (<https://grad.illinois.edu/>)