

# Plant Biology

Plant Biology is the study of all aspects of plants including their diversity, anatomy, physiology, biochemistry, genetics, evolution, conservation, and ecology. The need for botanical expertise is rapidly increasing in response to habitat loss, species extinctions, invasive species, and global climate change. Additionally, plants provide us with food, shelter, medicines, clothing, and many other products. Thus the demand for plant biologists will never diminish. A degree in Plant Biology will provide a strong foundation for a wide range of careers in plant biology, agriculture, conservation, environmental sciences, health-related fields, and other life science disciplines.

The Plant Biology program is one of only two such programs in Illinois. Our undergraduate curriculum has a number of features that ensure our graduates' success:

1. a flexible undergraduate curriculum that includes both B.A. and B.S. degrees,
2. practical experience and training in modern skills and research techniques,
3. a high degree of personalized faculty mentoring,
4. an atmosphere where undergraduate, graduate students, and faculty interact, and
5. ample opportunities for undergraduates to participate in outreach and service.

## Bachelor of Arts (B.A.) in Plant Biology Degree Requirements

Degree Requirements	Credit Hours
University Core Curriculum Requirements <sup>1</sup>	39
Plant Biology Major Requirements	55-57
BIOL 307	3
PLB 200, PLB 300, PLB 301I, PLB 320, PLB 360, PLB 408, PLB 480 (Three hours included in the UCC Life Science hours)	23
CHEM 200 or CHEM 200H, CHEM 201, CHEM 202 or CHEM 202H (Three hours included in the UCC Physical Science hours)	2
One additional semester of physical science with laboratory at the 200-level or above from CHEM, GEOG, or PHYS	3-5
Disciplinary Electives chosen in consultation with the student's undergraduate faculty advisor	24
Options available are: General Plant Biology (default if Conservation Biology option is not chosen)	
Conservation Biology	
PLB 451	3
PLB 493A, B, or C for at least 1 credit	1

<b>Degree Requirements</b>	<b>Credit Hours</b>
ZOOL 410	3
At least 13 hours chosen from PLB 444; FOR 202, FOR 341, FOR 351, FOR 413, FOR 415, FOR 423, FOR 451; GEOG 401, GEOG 412, GEOG 428, GEOG 471; ZOOL 444	13
Additional PLB Electives	4
Additional School of Biological Sciences Academic Requirements	7-9
Mathematics - MATH 106 or MATH 108 and MATH 109; or MATH 111 (3 hours included in the UCC Mathematics hours)	1-3
Supportive Skills - CS 200B or CS 201 or CS 202; ENGL 290 or ENGL 291; MATH 282; or any two-semester foreign language sequence	6
Free Electives	15-20
<b>Total</b>	<b>120</b>

<sup>1</sup> The 39-hour requirement may be met in part by taking College of Agricultural, Life, and Physical Sciences or major requirements that are approved advanced University Core Curriculum courses.

### **Bachelor of Science (B.S) in Plant Biology Degree Requirements**

<b>Degree Requirements</b>	<b>Credit Hours</b>
University Core Curriculum Requirements <sup>1</sup>	39
School of Biological Sciences	7-9
Biological Sciences - completed with major	
Mathematics - MATH 106 or MATH 108 and MATH 109; or MATH 111 (3 hours included in the UCC Mathematics hours)	1-3
Physical Sciences - completed with major	
Supportive Skills - CS 200B or CS 201 or CS 202	
ENGL 290 or ENGL 291; MATH 282; or any two-semester sequence of a foreign language.	6
<b>Plant Biology Major Requirements</b>	<b>61-63</b>

Degree Requirements	Credit Hours
BIOL 211, BIOL 212, BIOL 213	
(3 hours included in the UCC Life Science hours)	9
BIOL 304, BIOL 305, BIOL 306, BIOL 307 (three of the four)	9
PLB 300, PLB 320, PLB 360, PLB 408, PLB 480	19
CHEM 200 or CHEM 200H, CHEM 201, CHEM 202 or CHEM 202H	
(Three hours included in the UCC Physical Science hours)	2
Three additional semesters of laboratory at the 200-level or above from Chemistry and/or Physics	12-15
MATH 141	4
Disciplinary Electives chosen in consultation with the student's undergraduate faculty advisor	16
Options available are:	
General Plant Biology	
16 credit hours and at least one course from each of the specializations listed below:	
Ecology Specialization	
BIOL 304 and BIOL 307 are required from the list above	
At least 12 credit hours chosen from: PLB 416, PLB 435, PLB 444, PLB 451, PLB 452, PLB 490	12
Additional PLB electives.	4
Molecular and Biochemical Physiology	
BIOL 305 and BIOL 306 are required from the list above.	
PLB 419	3
At least 9 credit hours chosen from PLB 400, PLB 425, PLB 427, PLB 438, PLB 471, PLB 475, PLB 476	9
Systematics and Biodiversity Specialization	

Degree Requirements	Credit Hours
BIOL 304 and BIOL 307 are required from the list above.	
At least 12 credit hours chosen from PLB 400, PLB 401, PLB 435, PLB 438, PLB 451, ZOO 405	12
Free Electives	10-14
Total	121

<sup>1</sup> The 39-hour requirement may be met in part by taking College of Agricultural, Life, and Physical Sciences or major requirements that are approved advanced University Core Curriculum courses.

## Plant Biology Minor

A general minor in plant biology consists of a minimum of 16 semester hours, selected from any plant biology offerings except PLB 115, PLB 117, PLB 360, PLB 390, PLB 490, or PLB 492.

## Plant Biology Tracked Minors

1. *Plant Biology, with emphasis in Plant Biodiversity*: Consists of 16 credit hours as outlined above, with at least two courses chosen from the following: PLB 300, PLB 401, PLB 408, PLB 451.
2. *Plant Biology, with emphasis in Plant Ecology*: Consists of BIOL 307, either PLB 300 or PLB 408, and 9 credit hours chosen from: PLB 301I, PLB 416, PLB 435, PLB 440, PLB 444, PLB 451, or PLB 490.
3. *Plant Biology, with emphasis in Plant Biotechnology*: Consists of 16 credit hours chosen from: BIOL 305, BIOL 306, PLB 217, PLB 320, PLB 330, PLB 419, PLB 425, PLB 427, PLB 433, or PLB 471.

## Technology Fee

The College of Agricultural, Life, and Physical Sciences assesses undergraduate majors a technology fee of \$4.58 per credit hour up to 12 credit hours. The fee is charged Fall and Spring semester.

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