

# PLANT BIOLOGY

## (ECOLOGY AND MANAGEMENT CONCENTRATION)

3+1 degree program with UNL

Plant life exists everywhere, from the driest deserts to the wettest tropics. Vegetation covers the earth, from the finest grasses to the heartiest trees. Plants are grown for food, beautification, or other uses. They can be used to keep soil from eroding. With a Plant Biology degree, you'll get to study the cellular makeup of plants, discovering uses for them and perhaps even improving their lifespan. The Plant Biology (Ecology and Management) degree program is a partnership between Wayne State College and the University of Nebraska-Lincoln. You'll get a solid foundation in the biological sciences in your first three years at WSC (90 hours), then cap your education with exposure to experts in agronomy at UNL. This program will prepare you for future studies at the master's or doctoral level in the areas of plant molecular, cellular, and physiological biology, as well as careers in ecology, botany, rangeland management, and field biology.

## fast facts

**Credit hours:** 75 at WSC; 30 at UNL

*Students must also take 30 credit hours of General Studies courses. A total of 120 credit hours are needed to graduate from WSC. Additional majors or minors can be added to help meet graduation requirements.*

**Degree offered:** B.S. in Plant Biology (Ecology and Management) from UNL

**Department:** Life Sciences

**School:** Science, Health, and Criminal Justice

**Popular pairings:** Chemistry, Environmental Studies

## focus on results

### Skills Learned

- Plant science
- Evolutionary processes
- Biological systems and structures
- Zoology
- Molecular genetics
- General chemistry and physics
- Experimental design and data collection
- Modern lab techniques
- Statistical analysis
- Critical thinking and problem-solving
- Technical communication

### Possible Careers

- Botanist
- Field biologist
- Environmental scientist
- Ecosystem manager
- Rangeland manager
- Plant ecologist
- Plant pathologist
- Horticulturist
- Agronomist
- Genetic engineer
- Plant biochemist

### Types of Employers

- National parks and forests
- Natural resource facilities
- Wildlife preserves
- Government organizations
- Conservation societies
- Plant breeding / seed companies
- Schools, colleges, and universities
- Research facilities
- Food science companies
- Landscaping companies
- Energy or water companies

## outside the classroom

### Activities / Opportunities

- Conduct research projects
- Conferences and presentations
- Peer mentoring and tutoring
- Service-Learning
- Study Abroad

### Clubs / Organizations

- Biology Club
- The Wildlife Society



Visit [www.wsc.edu/clubs](http://www.wsc.edu/clubs) to learn more about clubs and organizations on campus.



# Courses and outcomes

2026-27 Academic Year

The following courses are required for the program of study described on this sheet. Every effort is made to ensure this information is current, but please be aware that some content may have changed. To develop a plan for registering and taking these courses, please consult the current academic catalog and your advisor.

## Program courses

For CAT 3, take MAT 180 Applied Probability and Statistics.

### Life Sciences Core Courses

BIO 110 Biology Concepts.....	4
CHE 106 General Chemistry I.....	4
PHY 321 Physics Laboratory I.....	1
Select one of the following.....	3-4
PHY 201 General Physics I (3)	
PHY 301 University Physics I (4)	

### Plant Biology Content Courses

BIO 200 Zoology.....	4
BIO 210 Experimental Plant Science.....	4
BIO 320 Molecular Genetics.....	4
BIO 325 Ecology.....	4
BIO 345 Conservation Biology.....	3
BIO 370 Introduction to Research.....	2
BIO 397 Biology Internship.....	1
BIO 425 Evolution.....	3
BIO 469 Senior Seminar in Biology.....	1
BIO 470 Research Project.....	1
CHE 107 General Chemistry II.....	4
CHE 314 Organic Chemistry I.....	4
CHE 326 Biochemistry I.....	4
EAS 110 Introduction to Meteorology.....	4
GEO 430 Geographic Information Systems.....	3
MAT 140 Calculus I.....	5
MAT 180 Applied Probability and Statistics.....	3
Upper-level BIO electives.....	9

### Clinical Year

The final (clinical) year consists of 30 credit hours taken at UNL.

## Student learning outcomes

1. Students will be able to interpret core concepts in biology
2. Students will be able to apply concepts in biology to internships and/or student research
3. Students will be able to accurately communicate core concepts in biology

## biology faculty



Visit [www.wsc.edu/life-sciences-department](http://www.wsc.edu/life-sciences-department) to learn more about the Department of Life Sciences.

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