



PLANT BIOLOGY

What YOU will learn:

Plant biologists love the science of plants! When you major in plant biology, you will learn about plants at every level—molecular, cellular, organismal, physiological, ecological and as systems. You can choose an emphasis of Biotechnology or Ecology & Management, and tailor your coursework to align with your talents and interests. Outside of the classroom you can gain analytical, technical, and organizational skills by working with a researcher; or gain public speaking, leadership, and time management skills by assisting teaching faculty in the classroom, laboratory, or greenhouse.

At the core of the plant biology major are courses in agronomy, biological sciences, biochemistry, chemistry, and mathematics. As you progress through the major, you can expect to enroll in courses covering areas like water and climate; geospatial information sciences; plant identification; plant-animal-organismal interactions; ecology and management; applied plant biology; and plant and food system management.

Career opportunities YOU will have:

A degree in plant biology will prepare you for a wide range of careers including plant breeding, genetic engineering, plant research, field biology, graduate school and more. Internships are key components of your academic experience. They allow you to explore different areas of plant biology, make connections with future employers, and experience professional work environments. Internships and employment of recent Nebraska graduates includes:

- Pioneer Sales Associate Intern, Theisen Seed LLC
- Research Assistant in Computational Biology, UNL Dept of Statistics
- Research Assistant, UNL Horticulture
- Soybean Breeding & Genetics Research Intern, UNL
- UCARE Project Intern, Grassland Ecology
- Education Coordinator, SAGE - Sustainable Agriculture Education
- Technician/Research, USDA

Why NEBRASKA for Plant Biology?

You will have access to classrooms and teaching laboratories in the Beadle Center, Manter Hall and newly remodeled Hardin Hall and Keim Hall/Plant Science Complex. Our facilities include modern multimedia classrooms and teaching labs, state-of-the-art research labs, a large number of attached and near-by greenhouses, faculty researchers in areas spanning molecular biology to ecology, core research facilities for microscopy, DNA analysis and bioinformatics, and on and off-campus grasslands, arboretums, and croplands for teaching and student research.

As a Plant Biology major, you can choose the path that best represents your interests with either a focus in biotechnology or ecology and management.

Picture yourself engaging in research similar to these current student projects: *Bioinformatic Simulation and Biological Analysis of Antiviral RNA Silencing*, *Non-Encapsidation Roles of Potyviral Coat Protein*, or *Using New DNA Technologies to Identify Fungi that Reduce Dry Bean Yields due to Root Rot*.

Donald Lee | Professor

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	COURSE NAME	HOURS
FIRST Semester	MATH 106: Calculus I (CDR F)	5
	LIFE 120: Fundamentals of Biology I (CDR B)	3
	LIFE 120L: Fundamentals of Biology I Lab (CDR BL)	1
	Language Requirement - 201 Level (CDR E)	3
	CHEM 109: General Chemistry I (ACE 4)	4
	Total Hours	16

	COURSE NAME	HOURS
SECOND Semester	BIOS 109: General Botany	4
	LIFE 121: Fundamentals of Biology II	3
	LIFE 121L: Fundamentals of Biology II Lab	1
	Language Requirement - 202 Level (CDR E)	3
	CHEM 110: General Chemistry II	4
	Total Hours	15

THIRD Semester	CHEM 251: Organic Chemistry I	3
	CHEM 253: Organic Chemistry I Lab	1
	BIOS 206: General Genetics	4
	ACE 1: Written texts/research & knowledge skills	3
	ACE 5: Humanities	3
	Total Hours	14

FOURTH Semester	BIOS 207: Ecology and Evolution	4
	STAT 218: Introduction to Statistics (ACE 3)	3
	CDR A: Written communication	3
	ACE 8: Ethics/civics/stewardship	3
	Plant Biology Option/Area of Focus	2
	Total Hours	15

FIFTH Semester	BIOC 321: Elements of Biochemistry	3
	BIOC 321L: Laboratory for Elements of Biochemistry	1
	ACE 2: Communication skills	3
	Plant Biology Option/Area of Focus	4
	Plant Biology Option/Area of Focus	3
	Total Hours	14

SIXTH Semester	Research Experience	1
	BIOS 471: Plant Systematics	4
	AGRO 325: Introductory Plant Physiology	4
	College Distribution Requirement (CDR C): Humanities	3
	Plant Biology Option/Area of Focus	3
	Total Hours	15

SEVENTH Semester	ACE 6: Social Sciences (ECON Recommended)	3
	Plant Biology Option/Area of Focus (ACE 10)	3
	Plant Biology Option/Area of Focus	3
	Elective/Minor/Secondary Major/Pre-Professional	3
	CDR D: Social Sciences	3
	Total Hours	15

EIGHTH Semester	Plant Biology Option/Area of Focus	3
	Plant Biology Option/Area of Focus	3
	Career Experience in Plant Biology	1
	ACE 7: Fine Arts	3
	Elective/Minor/Secondary Major/Pre-Professional	3
	Total Hours	16

DISCLAIMER: This document represents a sample 4-year plan for degree completion with a major of interest in the College of Arts and Sciences. Actual course selection and sequence may vary and should be discussed individually with an Academic Advisor at the college and department level.