

BIOTECHNOLOGY & PLANT GENOMICS

2023/2024 Four-Year Plan

This document is for planning purposes only. For official degree information, refer to Degree Audit and speak with your advisor.

YEAR 1 • FALL	PLSC 102 (F) The Science of Plants in Agriculture	3	YEAR 1 • SPRING	ELECTIVE General Education	6
	ELECTIVE Communication	2-3		STAT 251 Statistical Methods (Math 108, 143, 160 or 170)	3
	MATH 143, 160 or 170 Math Core (Test Scores/MATH 108)	3		ENGL 102 College Writing & Rhetoric (Test Scores/ENGL 101)	3
	ENGL 101 Introduction to College Writing (Test Scores, ENGL 109)	3		BIOL 115/115L Cells & Evolution of Life (CHEM 101 or 111)	4
	CHEM 111/111L Principles of Chemistry I (Test Scores/CHEM 101/MATH 143)	4		TOTAL CREDITS	16
TOTAL CREDITS	15-16				
YEAR 2 • FALL	CHEM 112/112L Principles of Chemistry II (CHEM 111)	5	YEAR 2 • SPRING	ELECTIVE General Education	3
	ELECTIVE General Education	3		CHEM 277/278 Organic Chemistry (CHEM 112)	4
	BIOL 250/255 (F) Microbiology (CHEM 111)	5		GENE 314 (S) General Genetics (BIOL 115 or 154)	3
	PLSC 207 (F, Even Years) Introduction to Biotechnology	3		ELECTIVE Biotechnology	3
	TOTAL CREDITS	16		ELECTIVE Biotechnology	4
TOTAL CREDITS	16	TOTAL CREDITS	17		
YEAR 3 • FALL	SOIL 205 The Soil Ecosystem (CHEM 111)	3	YEAR 3 • SPRING	BIOL 444 (S, Even Years) Genomics (BIOL 250)	3
	BIOL 380 (F) Biochemistry I (CHEM 112, 277)	4		PLSC 433 (S, Odd Years) Plant Tissue Culture Techniques	3
	ENGL 313 or 317 Business Writing (ENGL 102; Sophomore) or Technical Writing (ENGL 102; Junior)	3		PLSC 486 (S, Odd Years) Plant Biochemistry (BIOL 380)	3
	ELECTIVE Biotechnology	6		ELECTIVE Biotechnology	3
	TOTAL CREDITS	16		ELECTIVE General Education	3
TOTAL CREDITS	16	TOTAL CREDITS	15		
YEAR 4 • FALL	PLSC 400 Seminar	1	YEAR 4 • SPRING	PLSC 446 (S, Even Years) Plant Breeding (GENE 314)	3
	PLSC 398, 402 or 499 Internship, Research or Directed Study (variable credits) (Permission)	3		PLSC 401 (S, Even Years) Plant Physiology (PLSC 205)	3
	PLSC 488 (F) Genetic Engineering (GENE 314)	3		PLSC 440 (S) Advanced Laboratory Techniques (BIOL 250)	4
	ELECTIVE Biotechnology	3		AGED 406 or 407 Exploring International Agriculture (Junior or Senior; SOIL 205) or Global Agricultural & Life Sciences Systems	3
	ELECTIVE General Education	3		ELECTIVE Biotechnology	3
	PLP 415 (F) Plant Pathology (EPPN 154, BIOL 250, PLSC 102)	3		TOTAL CREDITS	16
TOTAL CREDITS	17				

COURSE # Course Name (Prerequisites, Co-Requisites)

F = FALL, S = SPRING

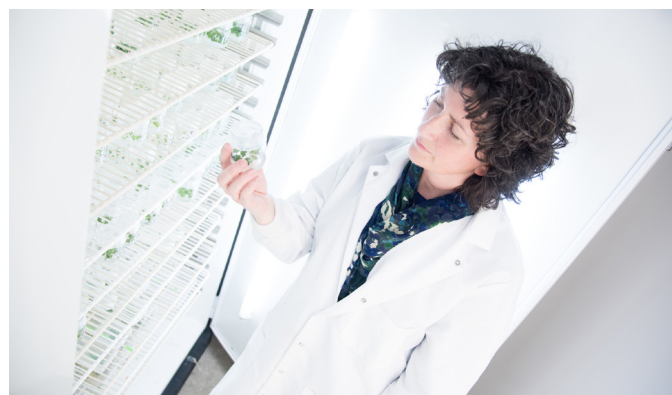


BIOTECHNOLOGY **PLANT** GENOMICS

Study and improve plant growth and development through molecular and biochemical techniques. Explore food production, fuel, fiber and landscapes to investigate how plants defend themselves or produce critical secondary metabolites.

Career **Options**

- Soil and Plant Scientist
- Molecular and Cellular Biologist
- Geneticist
- Research Scientist
- Plant Breeder
- Agronomist
- Natural Sciences Manager
- Sales Representative



Fast **Facts**

- Access to plant science farms and computer-controlled greenhouses.
- Learn advanced laboratory skills involving physiology, genetics and immunology.
- Intern with companies that regenerate potatoes or landscape plants from cells or tissues.
- Complete an independent study.
- Get involved with the Plant and Soil Science Club or Soil Stewards.
- Conduct an undergraduate research project.