

MAJOR IN SOIL AND CROP SCIENCES, PLANT BIOTECHNOLOGY CONCENTRATION

Requirements Effective Fall 2023

Freshman

		AUCC	Credits
AGRI 100	Contemporary Agricultural Systems		1
BZ 120	Principles of Plant Biology (GT-SC1)	3A	4
CHEM 111	General Chemistry I (GT-SC2)	3A	4
CHEM 112	General Chemistry Lab I (GT-SC1)	3A	1
CHEM 113	General Chemistry II		3
CHEM 114	General Chemistry Lab II		1
CO 150	College Composition (GT-CO2)	1A	3
LIFE 102	Attributes of Living Systems (GT-SC1)	3A	4
LIFE 103	Biology of Organisms-Animals and Plants (GT-SC1)	3A	4
MATH 117	College Algebra in Context I (GT-MA1)	1B	1
MATH 118	College Algebra in Context II (GT-MA1)	1B	1
MATH 124	Logarithmic and Exponential Functions (GT-MA1)	1B	1
SOCR 100	General Crops		4
SOCR 193	Pathways to Success		1
Total Credits			33

Sophomore

AREC 202	Agricultural and Resource Economics (GT-SS1)	3C	3
CHEM 245	Fundamentals of Organic Chemistry		4
CHEM 246	Fundamentals of Organic Chemistry Laboratory		1
MATH 125	Numerical Trigonometry (GT-MA1)	1B	1
SOCR 171/HORT 171	Environmental Issues in Agriculture (GT-SS3)	1C	3
SOCR 210	Microbiome Roles in a Sustainable Earth (GT-SC2)	3A	3
SOCR 221	Cropping Systems Field Experience		1
SOCR 240	Introductory Soil Science		4
Select one course from the following:			3
AGRI 116/IE 116	Plants and Civilizations (GT-SS3)	1C	
AGRI 270/IE 270	World Interdependence-Population and Food (GT-SS3)	1C	
Select one course from the following:			2-3
FSHN 125	Food and Nutrition in Health		
FSHN 150	Survey of Human Nutrition		
Advanced Writing (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#adadvanced-writing)		2	3
Arts and Humanities (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities)		3B	3

Total Credits

31-32

Junior

AGED 210	History of Agriculture in the United States	3D	3
BC 351	Principles of Biochemistry		4
BZ 310	Cell Biology		4
SOCR 330	Principles of Genetics		3
Select two groups from the following:			6-7
Group A:			
BSPM 302	Applied and General Entomology		
BSPM 303A or 303B	Entomology Laboratory: General Entomology Laboratory: Horticultural		
Group B:			
BSPM 308	Ecology and Management of Weeds		
Group C:			
BSPM 361	Elements of Plant Pathology		
Select one course from the following:			3-4
BSPM 450	Molecular Plant-Microbe Interaction		
BZ 331	Developmental Plant Anatomy		
ESS 405/SOCR 405	Global Agriculture and Environmental Change		
HORT 476	Environmental Plant Stress Physiology		
Select one course from the following:			3
STAT 301	Introduction to Applied Statistical Methods		
STAT 307	Introduction to Biostatistics		
Upper Division Electives			3
Total Credits			29-31

Senior

BZ 360	Bioinformatics and Genomics		4
BZ 440	Plant Physiology		3
BZ 441	Plant Physiology Laboratory		2
SOCR 335	Applied Plant Genetics		3
SOCR 460/HORT 460	Plant Breeding and Biotechnology	4A,4B,4C	3
SOCR 486	Practicum	4C	1
SOCR 492	Preparing for Impact--Your Career Journey	4A,4C	1
Arts and Humanities (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities)			3B
Upper Division Electives ¹			5-8
Total Credits			25-28
Program Total Credits:			120

¹ Select enough elective credits to bring the program total to a minimum of 120 credits, of which at least 42 must be upper-division (300- to 400-level).