

MAJOR IN SOIL AND CROP SCIENCES, SOIL ECOLOGY CONCENTRATION

Requirements Effective Fall 2018

Freshman

		AUCC	Credits
AGRI 192	Orientation to Agricultural Systems		1
Select one from the following:			3
AREC 202	Agricultural and Resource Economics (GT-SS1)	3C	
AREC 240/ECON 240	Issues in Environmental Economics (GT-SS1)	3C	
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
MATH 155	Calculus for Biological Scientists I (GT-MA1)	1B	4
PHIL 110	Logic and Critical Thinking (GT-AH3)	3B	3
SOCR 100	General Crops		4
Total Credits			31

Sophomore

CHEM 245	Fundamentals of Organic Chemistry		4
CHEM 246	Fundamentals of Organic Chemistry Laboratory		1
GEOL 120	Exploring Earth - Physical Geology (GT-SC2)	3A	3
GEOL 121	Introductory Geology Laboratory (GT-SC1)	3A	1
LAND 220/LIFE 220 or LIFE 320	Fundamentals of Ecology (GT-SC2) Ecology	3A	3
PH 121	General Physics I (GT-SC1)	3A	5
SOCR 240	Introductory Soil Science		4
SPCM 200	Public Speaking		3
Select one course from the following:			3
STAT 201	General Statistics (GT-MA1)	1B	
STAT 301	Introduction to Applied Statistical Methods		
STAT 307	Introduction to Biostatistics		
Arts and Humanities (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities)			3
Total Credits			30

Junior

BC 351	Principles of Biochemistry		4
CO 301B or JTC 300	Writing in the Disciplines: Sciences (GT-CO3) Strategic Writing and Communication (GT-CO3)	2	3
Select one course from the following:			3-4
NR 319	Geospatial Applications in Natural Resources		
NR 322	Intro. to Geographic Information Systems		

SOCR 377	Geographic Information Systems in Agriculture		
SOCR 322	Principles of Microclimatology		3
SOCR 440	Pedology		4
Diversity and Global Awareness (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#diversity-global-awareness)		3E	3
Historical Perspectives (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#historical-perspectives)		3D	3
Technical Electives (select from list below)			6
Total Credits			29-30
Senior			
SOCR 421	Agroecosystem Management	4A,4B,4C	4
SOCR 455	Microbiomes of Soil Systems		3
SOCR 456	Soil Microbiology Laboratory		1
SOCR 470	Soil Physics		3
SOCR 471	Soil Physics Laboratory		1
SOCR 486 or 487	Practicum Internship		1-3
SOCR 492	Preparing for Impact--Your Career Journey	4A	1
Technical Electives (select from list below)			10-13
Total Credits			29-30
Program Total Credits:			120

Soil Ecology Technical Electives Department List

Code	Title	Credits			
Group 1: Ecology Technical Electives			SOCR 330	Principles of Genetics	3
BSPM 308	Ecology and Management of Weeds	3	SOCR 341	Microbiology for Sustainable Agriculture	1
BSPM 526/BZ 526	Evolutionary Ecology	3	SOCR 350	Soil Fertility Management	3
BSPM 570	Chemical Ecology	3	SOCR 351	Soil Fertility Laboratory	1
BSPM 571	Techniques in Chemical Ecology	1			
BZ 348/MATH 348	Theory of Population and Evolutionary Ecology	4			
BZ 450	Plant Ecology	4			
BZ 471	Stream Biology and Ecology	3			
BZ 561	Landscape Ecology	3			
ESS 353	Global Change Impacts, Adaptation, Mitigation	3			
F 311	Forest Ecology	3			
FW 555	Conservation Biology	3			
MIP 432/ESS 432	Microbial Ecology	3			
MIP 433/ESS 433	Microbial Ecology Laboratory	1			
NR 220	Natural Resource Ecology and Measurements	5			
RS 478	Ecological Restoration	3			
Group 2: Specialization Technical Electives					
BSPM 424/BZ 424	Principles of Systematic Science	3			
BZ 212	Animal Biology-Invertebrates	4			
BZ 223	Plant Identification	3			
BZ 333	Introductory Mycology	4			
MIP 300	General Microbiology	3			
MIP 302	General Microbiology Laboratory	2			
MIP 450	Microbial Genetics	3			
RS 420	Grass Taxonomy	3			