

DEPARTMENT OF SOIL AND CROP SCIENCES
Concentration: Soil Ecology

Name _____ Telephone No. _____

Local Address _____

Advisor _____ Graduation Term: _____ Year _____

Degree Requirements: 120 credits, 42 upper division, 27 Soil and Crop Sciences

FRESHMAN YEAR

Semesters Offered			Credits
F S	___ AGRI 192/292	Orient. to Agri. Systems	1
F S SS	___ CHEM 111	General Chemistry I	4
F S SS	___ CHEM 112	General Chemistry I Lab	1
F S SS	___ CHEM 113	General Chemistry II	3
F S SS	___ CHEM 114	General Chemistry II Lab	1
F S SS	___ CO 150	College Composition	3
F S SS	___ PHIL 110 ¹	Log & Critical Thinking	3
F S	___ SOCR 100	General Crops	4
F S SS	___ MATH 155	Calculus for Biological Scientists I	4
F S SS	___ LIFE 102	Att of Liv Systems	4
F S	___ AREC/ECON 240 ⁴	Issues in Env. Econ.	3
	or		
F S	___ AREC 202	Agric. Economics	3
		Total	31

SOPHOMORE YEAR

Semesters Offered			Credits
F	___ LIFE 220	Fund of Ecology	3
	or		
F S	___ LIFE 320	Ecology	3
F S SS	___ GEOL 120	Exploring Earth: Physical Geology	3
F S SS	___ GEOL 121	Intro Geology Lab	1
F S SS	___ PH 121	General Physics I	5
F S SS	___ SPCM 200	Public Speaking	3
F S SS	___ CHEM 245	Fund of Organic Chem	4
F S	___ CHEM 246	Fund Organic Chem Lab	1
F S	___ SOCR 240	Intro Soil Science	4
	<i>Select one course from the following:</i>		
F S SS	___ STAT 201	General Statistics	3
F S SS	___ STAT 301	Intro to Stats Methods	3
F S SS	___ STAT 307	Intro to Biostats	3
F S SS	___ Arts/Humanities ²		3
		Total	30

JUNIOR YEAR

Semesters Offered			Credits
F S SS	___ BC 351	Principles of Biochem	4
F	___ SOCR 440	Pedology	4
S	___ SOCR 322	Principles of Micro-Climatology	3

F S SS	___ JTC 300	Prof & Tech Writing	3
	or		
F S SS	___ CO 301B	Writing the Disciplines-Science	3

	<i>Select one course from the following:</i>		
F	___ SOCR 377	GIS in Agriculture	3
F S	___ NR 319	Geospatial App in Natl. Res.	4
F S	___ NR 322	Intro GIS	4

F S SS	___ Historical Perspectives ³		3
F S SS	___ Global & Cultural Awareness ⁵		3
F S SS	___ Electives ⁶		6
		Total	29-30

SENIOR YEAR

Semesters Offered			Credits
F	___ SOCR 455	Soil Microbiology	3
F	___ SOCR 456	Soil Microbiology Lab	1
F	___ SOCR 470	Soil Physics	3
F	___ SOCR 471	Soil Physics Lab	1
F	___ SOCR 492	Seminar	1
F	___ SOCR 421	Crop & Soil Mgmt Sys. II	4
S	___ SOCR 441	Soil Ecology	3

F S SS	___ SOCR 487	Internship	1-3
	or		
F S SS	___ SOCR 486	Practicum	1-3

F S	___ Electives ⁶		10-13
		Total	29-30

¹Satisfies 3 credits of category 3B in the AUCC²Select from list of courses in category 3B in the AUCC³Select from list of courses in category 3D in the AUCC⁴Satisfies 3 credits of category 3C in the AUCC⁵Select from list of courses in category 3E in the AUCC⁶Select from technical electives

MATH 117 and MATH 118 are considered review courses; credits in these courses may not be used toward a degree in the Soil Ecology Concentration in the Soil & Crop Sciences major.

Technical Elective List – Soil Ecology

Choose 16 credits of courses so that courses are included from each of the two groups.
Most of the courses listed have prerequisites.

Group 1: Ecology Technical Electives			Credits
F	BSPM 308	Ecology and Management of Weeds	4
S (even)	BSPM 570	Chemical Ecology	3
F (odd)	BSPM/ BZ 526	Evolutionary Ecology	3
S (odd)	BSPM 571	Techniques in Chemical Ecology	2
F	BZ/MATH 348	Theory of Population and Evol. Ecology	4
S	BZ/NR 353	Global Change Ecol., Impacts & Mitigat.	3
S	BZ 450	Plant Ecology	4
F (odd)	BZ 471	Stream Biology and Ecology	3
F	BZ 561	Landscape Ecology	3
F S	F 311	Forest Ecology	3
S	FW 555	Conservation Biology	3
S	MIP 432	Microbial Ecology	3
S	MIP 433	Microbial Ecology Laboratory	1
SS	NR 220	Natural Resources Ecol. & Measurements	5
F	NR 575	Systems Ecology	4
S	RS 478	Restoration Ecology	3

Group 2: Specialization Technical Electives

S	BZ 212	Animal Biology – Invertebrates	4
F SS	BZ 223	Plant Identification	3
F	BZ 333	Introductory Mycology	4
S (even)	BZ/BSPM 424	Principles of Systemic Zoology	3
F S SS	MIP 300	General Microbiology	3
F S	MIP 302	General Microbiology Laboratory	2
F	MIP 350	Microbial Diversity	3
F	MIP 450	Microbial Genetics	3
S	RS 420	Grass Taxonomy	3
F S SS	SOCR 330	Principles of Genetics	3
S	SOCR 341	Microbiology for Sustainable Agriculture	1
F (even)	SOCR 342	Organic Soil Fertility	1
F	SOCR 350	Soil Fertility Management	3
F	SOCR 351	Soil Fertility Management Lab	1