Soil and Water Sciences Option

Freshman Year	Credits	
	Fall	Spring
ENSC 110 - Land Resources and Environmental Sciences	3	
BIOB 170IN - Principles of Biological Diversity	4	
CHMY 141 - College Chemistry I & CHMY 142 - College Chemistry I Lab	4	
WRIT 101W - College Writing I	3	
BIOB 160 - Principles of Living Systems		4
CHMY 143 - College Chemistry II & CHMY 144 - College Chemistry II Lab		4
M 161Q - Survey of Calculus		4
US Core		3
Year Total:	14	15

Sophomore Year	Credits	
	Fall	Spring
ENSC 245IN - Soils	3	
ERTH 101IN - Earth System Sciences	4	
GPHY 284 - Intro to GIS Science & Cartog	3	
Take one of the following:	3	
STAT 216Q - Introduction to Statistics		
BIOB 318 - Biometry		
STAT 332 - Statistics for Scientists and Engineers		
Univ. Core	3	
ENSC 210 - Role of Plants in the Environment		3
ENSC 260 - Evolution for Env Scientists		3
PHSX 205 - College Physics I		4
WRIT 201 - College Writing II or HONR 202IH - Texts and Critics: Knowledge & Imagination II		3
Univ. Core		3
Year Total:	16	16

Junior Year	Credits	
	Fall	Spring
ENSC 353 - Environmental Biogeochemistry	3	
ERTH 307 - Principles of Geomorphology	4	
BIOE 370 - General Ecology	3	
Take one of the following:	3	
ENSC 407 - Environmental Risk Assessment		
GPHY 329 - Environment and Society		
GPHY 402 - Water and Society		
PSCI 449 - The Politics of Climate Change		
WILD 420 - Range & Wildlife Policy and Planning		
Univ. Core	3	
CHMY 211 - Elements of Organic Chemistry & CHMY 212 - Elements of Organic Chemistry Lab		5
ENSC 311 - Fundamentals of Environmental Data Analysis		3
ENSC 468 - Ecosystem Biogeochem and Global Change		3
Take one of the following:		3
BIOM 452 - Soil & Envirnmntl Microbiology		
ENSC 460 - Soil Remediation		
Year Total:	16	14

Senior Year	Credits	
	Fall	Spring
ENSC 444 - Watershed Hydrology	3	
ENSC 454 - Landscape Pedology	3	
Take one of the following:	3	
BIOE 428 - Freshwater Ecology		
EENV 387 - Environmental Laws and Regulations		
ENSC 448 - Stream Restoration Ecology		
ENSC 461 - Restoration Ecology		
BIOE 455 - Plant Ecology (offered Spring)		
Univ. Core	3	
Directed Elective	3	
ENSC 499R - LRES Capstone		3
Directed Electives		11
Year Total:	15	14
Total Program Credits:		**120**

Directed Electives

Each student shall work closely with their faculty advisor to plan an integrated set of elective courses appropriate to their academic, professional and personal goals. Courses not on this list may be used IF considered appropriate to the student's goals AND approved by the faculty advisor as a curricular exception. Students choosing to take lower level courses (1xx/2xx) for directed electives should be sure they are meeting the university minimum requirement of 42 credits of upper level classes (3xx/4xx) for graduation.

Choose 14 Credits from the following:

AGSC 454	Agrostology	3
AGTE 252	Concepts in Precision Agriculture	3
AGTE 411	Internet of Things in Precision Agriculture	4
AGTE 422	Data Analysis and Management for Digital Agriculture	3
AGTE 444	Sensing in Agriculture	3
BIOE 375	Ecological Responses to Climate Change	3
BIOE 428	Freshwater Ecology (if not taken above)	3
BIOE 455	Plant Ecology	3
BIOM 210IN	Environmental Health Science	3
BIOM 415	Microbial Diversity, Ecology, and Evolution	3
BIOM 425	Toxicology: Science of Poisons	3
BIOM 452	Soil & Envirnmntl Microbiology	3
CHMY 311	Fundamental Analytical Chem	4
EENV 441	Natural Treatment Systems	3
ENSC 272CS	Water Resources	3
ENSC 407	Environmental Risk Assessment	3
ENSC 410R	Biodiversity Survey and Monitoring Methods	3
ENSC 443	Weed Ecology and Management	3
ENSC 445	Watershed Analysis	3
ENSC 448	Stream Restoration Ecology (if not taken above)	3
ENSC 460	Soil Remediation	3

ENSC 461	Restoration Ecology (if not taken above)	3
GEO 309	Sedimentation and Stratigraphy	4
GPHY 357	GPS Fund/App in Mapping	3
GPHY 384	Adv GIS and Spatial Analysis	3
GPHY 426	Remote Sensing	3
GPHY 429R	Applied Remote Sensing	3
GPHY 484R	Applied GIS & Spatial Analysis	3
M 172	Calculus II	4
NRSM 421	Holistic Thought/Mgmt	4
NRSM 455	Riparian Ecology & Management	3
STAT 337	Intermediate Statistics with Introduction to Statistical Computing	3
STAT 411	Methods for Data Analysis I	3

Because some of the courses are offered during alternate years, the proposed scheduling of courses in junior and senior years may need to be modified. Work with an advisor for an individual schedule.

A minimum of 120 credits is required for graduation; at least 42 of these credits must be in courses numbered 300 and above.