

# ECOLOGICAL RESTORATION AND RESOURCE MANAGEMENT MAJOR, B.S.

Course	Title	Credits
<b>Required Courses</b>		
ECORES 1010	Introduction to Ecological Restoration and Resource Management	3
GEOLOGY 1140 or GEOLOGY 3130	Physical Geology Geology for Engineers	3-4
CHEMISTRY 1240 or CHEMISTRY 1450	General Chemistry II Chemistry for Engineers	4/5
SCSCI/ENVHORT 1240	Introduction to Plant Science	3
BIOLOGY 1650	The Unity of Life	5
BIOLOGY 1750	The Diversity of Life	5
MATH 1830	Elementary Statistics	3
SCSCI 2230	Soils	4
ECORES 3020	Restoration Revegetation	3
SCSCI 3200 or SCSCI 4350	Integrated Pest Management Soil and Water Conservation	3
BIOLOGY 3450	Ecology and Evolution	3
ECORES 3410	Wetland Ecology, Restoration and Management	3
ENVSS 3570 or SCSCI 2260	Fire Ecology Crop Production and Agroecology	3
ECORES 3880	Environmental Law	3
SCSCI 3350 or SCSCI 4370	Soil Fertility and Fertilizers Physical Properties of Soils	3
ECORES 3750	Ecological Restoration and Resource Management Internship	3-6
SCSCI 3310	Agronomy, Horticulture and Ecological Restoration Seminar	1
<b>GIS/Remote Sensing - Select one of the following:</b>		<b>3-4</b>
ENVSS 3230	Geographic Information Systems	
ENVSS 3520	Remote Sensing of the Environment	
CIVILENG 4630	Geographic Information Systems	
<b>Select 6 credits from the following (quantitative inventory, monitoring, and assessment):</b>		<b>6</b>
AGET 3950	Soil and Water Conservation Engineering	
BIOLOGY 2420	Fundamentals of Biological Investigations	
BIOLOGY 3460	Ecological Methods and Research	
CIVILENG 2630	Elements of Surveying	
SCSCI 3340	Soil Nutrient Management	
SCSCI 3360	Applied Agricultural Hydrology	
SCSCI 4380 or SCSCI 4390 or ENVHORT 3370	Undergraduate Research in Soil Science Undergraduate Research in Crop Science Undergraduate Research in Environmental Horticulture	
SCSCI 3410	Regional Geomorphology and Soil Classification	
<b>Students may choose a minor or one of the emphases below.</b>		
<b>Total Credits</b>		<b>60-69</b>

## BIOLOGICAL EMPHASIS

Course	Title	Credits
<b>Required Courses</b>		
Select 18 credits from the following:		18
ANSCI 3130	Animal and Food Microbiology	
BIOLOGY 1350	General Botany	

BIOLOGY 2450	Fungi, Algae and Bryophytes
BIOLOGY 2640	Invertebrate Zoology
BIOLOGY 3030	Ornithology
BIOLOGY 3130	Amphibians and Reptiles of Wisconsin
BIOLOGY 3230	Mammalogy
BIOLOGY 3240	Microbiology
BIOLOGY 3650	Plant Communities of Wisconsin
BIOLOGY 3550	Morphology and Evolution of Vascular Plants
BIOLOGY 3750	Freshwater Biology
BIOLOGY 4530	Plant Pathology
ENVHORT 2280	Woody Landscape Plants
ENVHORT 3230	Turfgrass Management
ENVHORT 3240	Herbaceous Plants
ENVHORT 3300	Fruit and Vegetable Crop Management
SCSCI 2260 or ENVSS 3570	Crop Production and Agroecology <sup>1</sup> Fire Ecology
SCSCI 3210	Principles of Plant Physiology and Biochemistry
SCSCI 3260	Seed and Grain Crops
SCSCI 4250	Weed Science
SCSCI 4320	Forage Crops
SCSCI 4340	Plant Physiology
SCSCI 4360	Soil Microbiology
SCSCI 4530	Plant Pathology

**Total Credits****18**

<sup>1</sup> SCSCI 2260 may not count toward the Biological Emphasis if used in the Ecological Restoration and Resource Management Major.

## TECHNICAL/PHYSICAL EMPHASIS

Course	Title	Credits
<b>Required Courses</b>		
COMPUTER 1830 or CIVILENG 2220	Microcomputer Applications Civil and Environmental Engineering Computer Applications	3
GENENG 1320 or AETM 1230	Engineering Computer Graphics Technical Drafting	2-3
MATH 2530 or MATH 2450	Trigonometry and Analytic Geometry Precalculus	3
<b>Pick 12 Credits from the following:</b>		<b>12</b>
AGET 3950	Soil and Water Conservation Engineering <sup>1</sup>	
CHEMISTRY 3130	Environmental Chemistry	
CHEMISTRY 3110	Environmental Chemistry Lab	
CIVILENG 3020	Construction Engineering	
CIVILENG 3740	Geotechnical Engineering I	
CIVILENG 4030	Construction Equipment	
ENGLISH 3000	Technical Writing	
ENVENG 3340	Environmental Engineering	
ENVENG 4300	Hydrology	
ENVENG 4310	Groundwater Hydrology	
ENVENG 4410	Wastewater Treatment and Management	
ENVHORT 3270	Landscape Design	
ENVHORT 3320	Sustainable Landscape Management	
ENVHORT 3360	Greenhouse Operation and Management	
ENVSS 3240	Meteorology	

ENVSS 3140	Global Landforms
ENVSS 3720	Advanced Remote Sensing
ENVSS 4330	Advanced Geographic Information Systems
PHYSICS 1050	Principles of Physics
PHYSICS 1350	Introductory Physics I
PHYSICS 2240	General Physics I
SCSCI 3350	Soil Fertility and Fertilizers <sup>2</sup>
or SCSCI 4370	Physical Properties of Soils

**Total Credits****20-21**

<sup>1</sup> AGET 3950 may not count toward the Physical/Technical Emphasis if used in the Quantitative Inventory, Monitoring, and Assessment major requirement.

<sup>2</sup> SCSCI 3350 may not count toward the Technical/Physical Emphasis if used in the Ecological Restoration and Resource Management Major.