

BS in Natural Resource Science and Management

Degree Program Description

The Natural Resource Science and Management degree addresses the science, art, and craft of creating, managing, using, conserving, and repairing natural and human-dominated ecosystems, in a sustainable manner, to meet desired societal goals. The degree has elements that belong to the biological, physical, social, political, and managerial sciences that are applied to conserving plant and animal species in forests, grasslands, rivers and streams, and urban areas. The degree also develops students' skills in working with diverse groups of people. Students with degrees in Natural Resource Science and Management work as fisheries biologists, foresters, interpreters, naturalists, and wildlife biologists for state and federal agencies, nature centers and museums, and consulting firms.

Students pursuing a Natural Resource Science and Management degree must individualize their degree by choosing one of four emphasis areas. The Forest Resources emphasis prepares students to manage forests to protect wildlife habitats and the environment while meeting the ever-growing demand for wood products. The Human Dimensions emphasis trains students to apply social sciences to address questions about how people's attitudes, knowledge, values, and behaviors impact the management of our natural resources. The Fisheries and Wildlife Science emphasis focuses upon the development of skills in the conservation of wildlife habitat, the protection of endangered species, and the management of wild animal populations. The Terrestrial Ecosystem emphasis allows students to combine interests in wildlife management and forestry to conserve biodiversity and satisfy the needs of society for renewable natural resources using the practice of ecosystem management.

Major Program Requirements

Students earning a Bachelor of Science in Natural Resource Science and Management are required to complete all University general education (<https://catalog.missouri.edu/academicdegreerequirements/generaleducationrequirements/>), University graduation, (<https://catalog.missouri.edu/academicdegreerequirements/universityrequirements/>) and degree requirements, including selected foundational courses, which may fulfill University general education requirements.

Students majoring in Natural Resource Science and Management must select one of the following emphasis areas:

- Forest Resources (<https://catalog.missouri.edu/collegeofagriculturefoodandnaturalresources/naturalresourcesciencemanagement/bs-natural-resource-science-management-emphasis-forest-resources/>)
- Fisheries and Wildlife Science (<https://catalog.missouri.edu/collegeofagriculturefoodandnaturalresources/naturalresourcesciencemanagement/bs-natural-resource-science-management-emphasis-fisheries-wildlife-sciences/>)
- Human Dimensions (<https://catalog.missouri.edu/collegeofagriculturefoodandnaturalresources/naturalresourcesciencemanagement/bs-natural-resource-science-management-emphasis-human-dimensions/>)

- Terrestrial Ecosystems (<https://catalog.missouri.edu/collegeofagriculturefoodandnaturalresources/naturalresourcesciencemanagement/bs-natural-resource-science-management-emphasis-terrestrial-ecosystems/>)

Foundational Courses		20-26
MATH 1100	College Algebra	3-5
or MATH 1160	Precalculus Mathematics	
MATH 1400	Calculus for Social and Life Sciences I (or higher)	3-5
or MATH 1500	Analytic Geometry and Calculus I	
ATM_SC 1050	Introductory Meteorology	3-4
or PHYSCS 1210	College Physics I	
SOIL 2100 & SOIL 2106	Introduction to Soils and Soil Science Laboratory ^{FR and TE} emphasis areas MUST take Soil 2100 and Soil 2106	4-5
or GEOL 1100	Introduction to the Earth with Laboratory	
CHEM 1400 & CHEM 1401	College Chemistry I and College Chemistry I Laboratory	4
ABM 1041	Applied Microeconomics	3
or ABM 1042	Applied Macroeconomics	
or ABM 2070	Environmental Economics and Policy	
or ABM 2070W	Environmental Economics and Policy - Writing Intensive	
or ECONOM 1014	Principles of Microeconomics	
or ECONOM 1015	Principles of Macroeconomics	
Degree Program Requirements		42-43
STAT 2500	Introduction to Probability and Statistics I	3
or ABM 2225	Statistical Analysis	
NAT_R 1070	Ecology and Conservation of Natural Resources	3
or ENV_SC 1100	Introduction to Environmental Science	
or BIO_SC 1060	Basic Environmental Studies	
or BIO_SC 1030	General Principles and Concepts of Biology with Laboratory	
PRST 3231	Interpretation of Natural and Cultural Resources ^{HD} emphasis area MUST take PRST 3231	3
or ENV_SC 4024	Foundations of Environmental Education	
BIO_SC 1200	General Botany with Laboratory	4-5
or PLNT_SCI 1500	Fundamental Biology of Plants	
FOREST 2151	Dendrology	4
NAT_R 4110	Natural Resource Biometrics	4
F_W 4600W	Ecosystem Management - Writing Intensive	3
NAT_R 2325	Introduction to Geographic Information Systems	3
or GEOG 3040	Introduction to Geographic Information Systems GIS	
NAT_R 4353	Natural Resource Policy/Administration ^{HD} emphasis area MUST take either NAT_R 4353 or ENV_SC 4400W	3
or ENV_SC 4400W	Environmental Law, Policy, and Justice - Writing Intensive	
or PRST 3230	Outdoor Recreation Policy	
FOREST 4320	Forest Ecology	5
or BIO_SC 3650	General Ecology	
NAT_R 4940	Natural Resources Science and Management Internship	3

or F_W 4950	Undergraduate Research in Fisheries and Wildlife	
or FOREST 4950	Forestry Undergraduate Research	
F_W 4650	Natural Resource Planning and Management (Capstone)	4
Emphasis Area Requirements		40-43

Behavioral or Social Science	3	
	15	14-16
Total Credits: 120-125		

Semester Plan

Below is a sample semester plan for the B.S. in Natural Resource Science and Management. A student's actual plan may vary due to emphasis area, course choices, course availability, and transfer courses. Please consult with your advisor prior to registering for courses.

First Year			
Fall	CR	Spring	CR
BIO_SC 1200 or PLNT_SCI 1500	5	Emphasis Area Course	3-4
MATH 1100	3	CHEM 1400	3
NAT_R 1070	3	CHEM 1401	1
ATM_SC 1050	3	ENGLISH 1000	3
SSC 1150	2	NAT_R 2325	3
	16		13-14

Second Year					
Fall	CR	Spring	CR	Summer	CR
FOREST 2151	4	SOIL 2100	3	NAT_R 4950 or 4940	3
Emphasis Area Course	3-4	PRST 3231	3		
Missouri State Law Gen Ed Requirement	3	Emphasis Area Course	3		
STAT 2500	3	Humanities & Fine Arts	3		
Approved Econ Course	3	Humanities & Fine Arts	3		
	16-17		15		3

Third Year			
Fall	CR	Spring	CR
SOIL 2106	2	Emphasis Area Course	3
MATH 1400	3	Emphasis Area Course	3-4
FOREST 4320	5	Emphasis Area Course	3
NAT_R 4110	4	Emphasis Area Course	2
		Humanities Gen Ed	3
	14		14-15

Fourth Year			
Fall	CR	Spring	CR
F_W 4600W	3	NAT_R 4353	3
Emphasis Area Course	3	F_W 4650	4
Emphasis Area Course	3	Emphasis Area Course	3-5
Emphasis Area Course	3	Emphasis Area Course	4