

# ENVIRONMENTAL SCIENCE AND SUSTAINABILITY B.S. - RESOURCE CONSERVATION

The Resource Conservation concentration provides students with the flexibility to design their own emphasis or to focus more generally on natural resource management and conservation. Students in this concentration complete the ESS core as well as the math, biology, and GIS courses outlined below, and then work with their faculty advisor to select additional coursework based on their interests and professional goals.

## Bachelor of Science - Environmental Science and Sustainability; Resource Conservation Concentration General Education Requirements

Information regarding these requirements can be found in the General Education Section (<http://catalog.umt.edu/academics/general-education-requirements/>) of the catalog.

### Summary

Code	Title	Hours
Lower-Division Required Courses		17-19
<b>Resource Conservation Concentration Requirements</b>		
Core Courses		9-11
Required Courses		36
Additional Requirements in Area of Emphasis		10
Ecology		3
Ethics		3
Policy		3
Social Science		3
Experiential Learning Requirement		
Advanced Writing Requirement		
<b>Total Hours</b>		<b>84-88</b>

Degree Specific Credits: 84-88

Required Cumulative GPA: 2.0

### Lower-Division Required Courses

Note: NRSM 110 will not be required if students declare the major with 60+ credits.

Code	Title	Hours
<b>Complete the following courses:</b>		
NRSM 110	First Year Seminar in Environmental Science and Sustainability	1
NRSM 121S	Environmental Science and Sustainability	3
<b>Complete one of the following:</b>		<b>3-4</b>

GPHY 111N Intro to Physical Geography: Climate, & GPHY 112N Landforms, and Vegetation and Intro to Physical Geography Laboratory: Climate, Landforms, and Vegetation

NRSM 211N Soils and Water & NRSM 212N and Ecology, Physics and Taxonomy of Soils

#### Oral Communication - Complete one of the following courses:

COMX 111A	Introduction to Public Speaking	3
or THTR 120A	Introduction to Acting I	

#### Statistics Requirement - Complete one of the following courses:

FORS 201	Forest Biometrics	
STAT 216	Introduction to Statistics	
WILD 240	Intro to Biostatistics	

#### Chemistry - Complete the following course:

CHMY 121N	Introduction to General Chemistry	4
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**Total Hours** 17-19

Minimum Required Grade: C-

## Resource Conservation Concentration Requirements

Rule: Complete all of the following subcategories.

### Core Courses

Code	Title	Hours
<b>Mathematics Requirement - Complete one of the following:</b>		<b>3-4</b>
M 115	Probability and Linear Mathematics	
M 121	College Algebra	
M 122	College Trigonometry	
M 151	Precalculus	
M 162	Applied Calculus	

#### Biology Requirement - Complete one of the following:

BIOB 160N	Principles of Living Systems	
BIOB 170N	Principles of Biological Diversity	
BIOE 172N	Introductory Ecology	
BIOO 105N	Introduction to Botany	

#### Complete the following course:

FORS 250	Intro to GIS for Forest Mgt	3
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**Total Hours** 9-11

Minimum Required Grade: C-

### Required Courses

Code	Title	Hours
<b>Complete 36 credits of courses with the following course prefixes:</b>		<b>36</b>
FORS - Forestry		
GPHY - Geography		
NRSM - Natural Resource Management		
PTRM - Parks, Tourism, and Recreation Management		

WILD - Fish, Wildlife Science & Management	
<b>Total Hours</b>	<b>36</b>

Minimum Required Grade: C-

### Additional Requirements in Area of Emphasis

**Note:** Alternatively, students can take two semesters of a foreign language or otherwise demonstrate foreign language proficiency.

Code	Title	Hours
<b>Complete 10 credits of courses with the following course prefixes:</b>		<b>10</b>
BIOE	Biology, Ecological	
BIOO	Biology, Organismal	
CHMY	Chemistry	
ENSC	Environmental Science	
ENST	Environmental Studies	
FORS	Forestry	
GEO	Geosciences	
M	Mathematics	
NRSM	Natural Resource Management	
PHSX	Physics	
WILD	Fish, Wildlife Science & Management	
<b>Total Hours</b>		<b>10</b>

Minimum Required Grade: C-

### Ecology

Code	Title	Hours
<b>Complete one of the following:</b>		<b>3</b>
BIOE 447	Ecosystem Ecology	
FORS 330	Forest Ecology	
FORS 333	Fire Ecology	
<b>Total Hours</b>		<b>3</b>

Minimum Required Grade: C-

### Ethics

Code	Title	Hours
<b>Complete one of the following courses:</b>		<b>3</b>
NRSM 349E	Climate Change Ethics and Policy	3
NRSM 389E	Ethics and Sustainability	3
<b>Total Hours</b>		<b>9</b>

Minimum Required Grade: C-

### Policy

Code	Title	Hours
<b>Complete one of the following courses:</b>		<b>3</b>
NRSM 422	Natural Resource Policy and Administration	
NRSM 427	Water Policy	
NRSM 428	Climate Policy	

WILD 410	Wildlife Policy & Biopolitics	
<b>Total Hours</b>		<b>3</b>

Minimum Required Grade: C-

### Social Science

Code	Title	Hours
<b>Complete one of the following courses:</b>		<b>3</b>
NRSM 326	Climate and Society	
NRSM 379	Collaborations in Natural Resource Decisions	
NRSM 475	Environment & Development	
PTRM 300	Recreation Behavior	
<b>Total Hours</b>		<b>3</b>

Minimum Required Grade: C-

### Experiential Learning Requirement

Code	Title	Hours
<b>Complete one of the following courses:</b>		<b>3</b>
BIOE 342	Field Ecology	
BIOE 400	Aquatic Microbial Ecology	
BIOE 416	Alpine Ecology	
BIOE 439	Stream Ecology	
BIOE 440	Conservation Ecology	
BIOE 451	Landscape Ecology	
BIOE 453	Lake Ecology	
BIOE 458	Forest and Fire Ecology	
ENST 427	Social Issues: The Mekong Delta	
ENST 437	Climate Change: Mekong Delta	
FORS 130	Introduction to Forestry Field Skills	
FORS 440	Forest Stand Management	
GPHY 385	Field Techniques	
NRSM 115	First Year Seminar in Field Studies in Conservation	
NRSM 273	Wilderness and Civilization Field Studies	
NRSM 298	Internship	
NRSM 345	Watershed Dynamics and Management Issues	
NRSM 398	Internship	
NRSM 495	Ecosystem Science and Restoration Practicum	
NRSM 498	Internship	
NRSM 499	Senior Thesis	
PTRM 150	First Year Seminar in Parks, Tourism, and Recreation Management	
PTRM 345X	Sustaining Human Society & Natural Environment	
PTRM 418	Winter Wilderness Field Studies	
PTRM 484	Capstone in Parks, Tourism, and Recreation Management	

WILD 374	Hunter Check Station
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<b>Total Hours</b>	<b>3</b>
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Minimum Required Grade: C-

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### Advanced Writing Requirement

Code	Title	Hours
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<b>Complete three of the following courses:</b>	<b>9</b>
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BIOE 428	Freshwater Ecology	
BIOE 447	Ecosystem Ecology	
FORS 330	Forest Ecology	
FORS 341	Timber Harvesting & Roads	
FORS 347	Multiple Resource Silviculture	
FORS 349	Practice of Silviculture	
FORS 440	Forest Stand Management	
FORS 499	Senior Thesis	
NASX 403		
NRSM 326	Climate and Society	
NRSM 349E	Climate Change Ethics and Policy	
NRSM 379	Collaborations in Natural Resource Decisions	
NRSM 389E	Ethics and Sustainability	
NRSM 462	Rangeland Ecology	
NRSM 465	Foundations of Restoration Ecology	
NRSM 475	Environment & Development	
NRSM 495	Ecosystem Science and Restoration Practicum	
NRSM 499	Senior Thesis	
PTRM 300	Recreation Behavior	
WILD 410	Wildlife Policy & Biopolitics	

<b>Total Hours</b>	<b>9</b>
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Minimum Required Grade: C-