# ENVIRONMENTAL SCIENCE AND SUSTAINABILITY B.S. -ENVIRONMENTAL POLICY AND PLANNING

The Environmental Policy and Planning concentration focuses on policy and planning processes at multiple scales. Students are introduced to real-world environmental problems and the policy and planning approaches, strategies, and tools that can be used to deal with them. Coursework covers U.S. public lands, water, and wildlife policy; community, regional, and federal lands planning; conflict resolution and collaboration; markets and economic incentives; and political institutions and processes.

## Bachelor of Science - Environmental Science and Sustainability; Environmental Policy and Planning 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 |
| Environmental Policy and Planning Concentration Requirements |       |
| Required Courses   | 21    |
| Biology  | 3-4   |
| Ecology  | 3     |
| Economics  | 3     |
| Mathematics  | 3-4   |
| Planning   | 6     |
| Policy and Law   | 6     |
| Experiential Learning Requirement                            |       |
| Advanced Writing Requirement                                 |       |
| Total Hours  | 62-66 |

Degree Specific Credits: 62-66

**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 |
|----------------|-------------------------------------|-------|
| Complete the f | following courses:                  |       |
| NRSM 110       | First Year Seminar in Environmental | 1     |
|                | Science and Sustainability          |       |

| NRSM 121S                   | Environmental Science and Sustainability   | 3     |
|-----------------------------|--|-------|
| Complete one of t           | he following:  | 3-4   |
| GPHY 111N<br>& GPHY 112N    | Intro to Physical Geography: Climate,<br>Landforms, and Vegetation<br>and Intro to Physical Geography<br>Laboratory: Climate, Landforms, and<br>Vegetation |       |
| NRSM 211N<br>& NRSM 212N    | Soils and Water<br>and Ecology, Physics and Taxonomy of<br>Soils   |       |
| Oral Communicat             | ion - Complete one of the following courses:   |       |
| COMX 111A                   | Introduction to Public Speaking  | 3     |
| or THTR 120A                | Introduction to Acting I   |       |
| Statistics Require courses: | ement - Complete one of the following  | 3-4   |
| FORS 201                    | Forest Biometrics  |       |
| STAT 216                    | Introduction to Statistics   |       |
| WILD 240                    | Intro to Biostatistics   |       |
| Chemistry - Comp            | blete the following course:  |       |
| CHMY 121N                   | Introduction to General Chemistry  | 4     |
| Total Hours                 |  | 17-19 |

Minimum Required Grade: C-

# Environmental Policy and Planning Concentration Requirements

Rule: Complete all of the following subcategories.

#### **Required Courses**

| Code               | Title   | Hours |
|--------------------|---|-------|
| Complete all of th | e following courses:                            |       |
| FORS 250           | Intro to GIS for Forest Mgt                     | 3     |
| GPHY 465           | Planning Principles & Processes                 | 3     |
| NRSM 349E          | Climate Change Ethics and Policy                | 3     |
| or NRSM 389E       | Ethics and Sustainability                       |       |
| NRSM 379           | Collaborations in Natural Resource<br>Decisions | 3     |
| NRSM 422           | Natural Resource Policy and<br>Administration   | 3     |
| PSCI 210S          | Intro to American Government                    | 3     |
| PSCI 361           | Public Administration                           | 3     |
| Total Hours        |   | 21    |

Minimum Required Grade: C-

#### Biology

| Code            | Title                              | Hours |
|-----------------|------------------------------------|-------|
| Complete one of | f the following:                   | 3-4   |
| BIOB 160N       | Principles of Living Systems       |       |
| BIOB 170N       | Principles of Biological Diversity |       |
| BIOE 172N       | Introductory Ecology               |       |
| BIOO 105N       | Introduction to Botany             |       |
| Total Hours     |                                    | 3-4   |

1

Minimum Required Grade: C-

#### Ecology

| Code            | Title                  | Hours |
|-----------------|------------------------|-------|
| Complete one of | the following courses: | 3     |
| BIOE 447        | Ecosystem Ecology      |       |
| FORS 330        | Forest Ecology         |       |
| FORS 333        | Fire Ecology           |       |
| Total Hours     |                        | 3     |

Minimum Required Grade: C-

#### **Economics**

| Code            | Title                             | Hours |
|-----------------|-----------------------------------|-------|
| Complete one of | the following courses:            | 3     |
| ECNS 433        | Economics of the Environment      |       |
| FORS 320        | Forest Environmental Economics    |       |
| GPHY 323S       | Economic Geography of Rural Areas |       |
| Total Hours     |                                   | 3     |

Minimum Required Grade: C-

#### **Mathematics**

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

Minimum Required Grade: C-

#### Planning

| Code            | Title                      | Hours |
|-----------------|----------------------------|-------|
| Complete two of | the following courses:     | 6     |
| GPHY 335        | Water and Sustainability   |       |
| GPHY 466        | Environmental Planning     |       |
| PTRM 485        | <b>Recreation Planning</b> |       |
| Total Hours     |                            | 6     |

Minimum Required Grade: C-

#### **Policy and Law**

| Code                                   | Title                         | Hours |
|--|-------------------------------|-------|
| Complete two of the following courses: |                               | 6     |
| ENST 382                               | Environmental Law             |       |
| NRSM 427                               | Water Policy                  |       |
| NRSM 428                               | Climate Policy                |       |
| WILD 410                               | Wildlife Policy & Biopolitics |       |
| Total Hours                            |                               | 6     |

Minimum Required Grade: C-

### **Experiential Learning Requirement**

| Code            | Title  | Hours |
|-----------------|--|-------|
| Complete one of | the following courses:   | 3     |
| 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<br>Conservation             |       |
| NRSM 273        | Wilderness and Civilization Field Studies                          |       |
| NRSM 298        | Internship   |       |
| NRSM 345        | Watershed Dynamics and Management<br>Issues                        |       |
| NRSM 398        | Internship   |       |
| NRSM 495        | Ecosystem Science and Restoration<br>Practicum                     |       |
| NRSM 498        | Internship   |       |
| NRSM 499        | Senior Thesis  |       |
| PTRM 150        | First Year Seminar in Parks, Tourism, and<br>Recreation Management |       |
| PTRM 345X       | Sustaining Human Society & Natural<br>Environment                  |       |
| PTRM 418        | Winter Wilderness Field Studies                                    |       |
| PTRM 484        | Capstone in Parks, Tourism, and Recreation<br>Management           |       |
| WILD 374        | Hunter Check Station   |       |
| Total Hours     |  | 3     |

Minimum Required Grade: C-

### **Advanced Writing Requirement**

| Code              | Title                          | Hours |
|-------------------|--------------------------------|-------|
| Complete three of | the following courses:         | 9     |
| 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<br>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<br>Practicum  |
| NRSM 499    | Senior Thesis                                   |
| PTRM 300    | Recreation Behavior                             |
| WILD 410    | Wildlife Policy & Biopolitics                   |
| Total Hours | 9   |

Minimum Required Grade: C-