Natural Resources Management

Department Information

· Department Location:

School of Natural Resource Sciences, Hultz 202

· Department Phone:

701-231-5368

· Department Web Site:

www.ndsu.edu/snrs/ (http://www.ndsu.edu/snrs/)

· Credential Offered:

B.S., Minor

· Official Program Curriculum:

bulletin.ndsu.edu/undergraduate/program-curriculum/natural-resources-management/ (http://bulletin.ndsu.edu/undergraduate/program-curriculum/natural-resources-management/)

Sample Program Guide

Please note this is a sample program guide and not an official curriculum. Actual student schedules for each semester will vary depending on start year, education goals, applicable transfer credit, and course availability. Once admitted, students are encouraged to work with their assigned academic advisor on a regular basis to review degree progress.

| First Year | | | |
|--|---------|-------------------------------------|---------|
| Fall | Credits | Spring | Credits |
| BIOL 150 & 150L | | 4 BIOL 151 & 151L | 4 |
| ENGL 110 | | 3 ENGL 120 | 3 |
| NRM 150 | | 1 Hum. & Fine Arts Elective | 3 |
| NRM 225 | | 3 MATH 103 | 3 |
| RNG 136 | | 3 Wellness Gen Ed | 2 |
| | | 14 | 15 |
| Second Year | | | |
| Fall | Credits | Spring | Credits |
| CHEM 121 & 121L | | 4 EMGT, POLS, or SOC elective | 3 |
| COMM 110 | | 3 SOIL 210 | 3 |
| ECON 201 | | 3 STAT 330 | 3 |
| ENT 210 | | 3 Emphasis Core or Elective Credits | |
| RNG 213 | | 3 | |
| | | 16 | 15 |
| Third Year | | | |
| Fall | Credits | Spring | Credits |
| ENGL 321, 324, or 459 | | 3 NRM 421 | 3 |
| PHIL 215 or 225 | | 3 RNG 452 or GEOG 455 | |
| Emphasis Core or Elective Credits | | 9 Emphasis Core or Elective Credits | 9 |
| | | 15 | 15 |
| Fourth Year | | | |
| Fall | Credits | Spring | Credits |
| Emphasis Core or Elective Credits | | 15 NRM 462, RNG 462, or SOIL 462 | 3 |

| | Emphasis Core or Elective Credits | 12 |
|---|-----------------------------------|----|
| 1 | 5 | 15 |

Total Credits: 120

Natural Resources Management Emphasis Areas

Entomology

| Code | Title | Credits |
|--|--------------------------------------|---------|
| BIOL 364 | General Ecology | 3 |
| BIOL 450 | Invertebrate Zoology | 3 |
| BIOL 475 | Conservation Biology | 3 |
| ENT 350 | General Entomology | 3 |
| ENT 431 | Principles of Insect Pest Management | 3 |
| ENT 470 | Insect Ecology | 3 |
| PLSC 110 | World Food Crops | 3 |
| RNG 450 | Range Plants | 3 |
| or BIOL 461 | Plant Ecology | |
| or PLSC 380 | Principles of Plant Physiology | |
| Required 6 additional PLSC/SOIL elective credits | | 6 |
| Required 15 additional elective credits | | 15 |
| Total Credits | | 45 |

environmental sustainability, outreach, and policy

| Code | Title | Credits |
|---|---|---------|
| BIOL 364 | General Ecology | 3 |
| ECON 481 | Natural Resource Economics | 3 |
| HIST 434 | Environmental History | 3 |
| or HIST 435 | World Environmental History | |
| NRM 401 | Urban-Ecosystem Management | 3 |
| NRM 420 | Sustainable Scenarios in Natural Resources Management | 3 |
| NRM 431 | National Environmental Policy Act & Environmental Impact Assessment | 3 |
| 200-level or higher POLS, SOC, or EMGT | | 6 |
| Required 26 additional elective credits | | 26 |
| Total Credits | | 50 |

rangeland ecology

| Code | Title | Credits |
|-------------|---|---------|
| ANSC 114 | Introduction to Animal Sciences | 3 |
| BIOL 364 | General Ecology | 3 |
| BIOL 452 | Ichthyology | 3 |
| or BIOL 454 | Herpetology | |
| or BIOL 456 | Ornithology | |
| or BIOL 458 | Mammalogy | |
| BIOL 461 | Plant Ecology | 3 |
| BIOL 475 | Conservation Biology | 3 |
| or BIOL 476 | Wildlife Ecology and Management | |
| NRM 431 | National Environmental Policy Act & Environmental Impact Assessment | 3 |
| NRM 453 | Rangeland Resources Watershed Management | 3 |
| or NRM 454 | Wetland Resources Management | |
| PLSC 380 | Principles of Plant Physiology | 3 |
| RNG 450 | Range Plants | 3 |
| RNG 451 | Ecology of Fire-Dependent Ecosystems | 3 |
| | | |

| Ecological Restoration | 3 |
|---|---|
| Grazing Ecology | 3 |
| Introduction to Meteorology & Climatology | 3 |
| Soil Ecology | 3 |
| Soils and Land Use | |
| Soil Genesis and Survey | |
| Required 9 additional approved elective credits | |
| | 51 |
| | Grazing Ecology Introduction to Meteorology & Climatology Soil Ecology Soils and Land Use Soil Genesis and Survey |

rangeland livestock production

| Code | Title | Credits |
|---|---|---------|
| ANSC 114 | Introduction to Animal Sciences | 3 |
| ANSC 220 | Livestock Production | 3 |
| ANSC 223 | Introduction to Animal Nutrition | 2 |
| ANSC 357 | Animal Genetics | 3 |
| NRM 431 | National Environmental Policy Act & Environmental Impact Assessment | 3 |
| PLSC 315 | Genetics | 3 |
| PLSC 320 | Principles of Forage Production | 3 |
| PLSC 323 | Principles of Weed Science | 3 |
| RNG 450 | Range Plants | 3 |
| RNG 456 | Ecological Restoration | 3 |
| RNG 458 | Grazing Ecology | 3 |
| SOIL 217 | Introduction to Meteorology & Climatology | 3 |
| SOIL 351 | Soil Ecology | 3 |
| or SOIL 410 | Soils and Land Use | |
| or SOIL 444 | Soil Genesis and Survey | |
| Required 9 additional approved elective credits | | 9 |
| Total Credits | | 47 |

soil science

| Code | Title | Credits |
|---|--|---------|
| CHEM 240 | Survey of Organic Chemistry | 3 |
| or BIOC 260 | Elements of Biochemistry | |
| or MICR 202 & 202L | Introductory Microbiology and Introductory Microbiology Lab | |
| GEOL 105 & 105L | Physical Geology and Physical Geology Lab | 4 |
| MATH 105 | Trigonometry | 3 |
| PHYS 211 & 211L | College Physics I and College Physics I Laboratory | 4 |
| PLSC 110 | World Food Crops | 3 |
| PLSC 225 | Principles of Crop Production (or 300/400 RNG Elective) | 3 |
| PLSC 380 | Principles of Plant Physiology | 3 |
| SOIL 217 | Introduction to Meteorology & Climatology | 3 |
| SOIL 322 | Soil Fertility and Fertilizers | 3 |
| SOIL 351 | Soil Ecology | 3 |
| SOIL 410 | Soils and Land Use | 3 |
| SOIL 433 | Soil Ecohydrology and Physics | 3 |
| SOIL 444 | Soil Genesis and Survey | 3 |
| SOIL/NRM 454 | Wetland Resources Management | 3 |
| Required 6 additional approved elective credits | | 6 |
| Total Credits | | 50 |

4 Natural Resources Management

water, habitat, and environmental management

| Code | Title | Credits |
|--|---|---------|
| BIOL 364 | General Ecology | 3 |
| BIOL 475 | Conservation Biology | 3 |
| or BIOL 476 | Wildlife Ecology and Management | |
| ECON 481 | Natural Resource Economics | 3 |
| HIST 434 | Environmental History | 3 |
| or HIST 435 | World Environmental History | |
| NRM 264 | Natural Resource Management Systems | 3 |
| NRM 402 | River and Stream Resource Management | 3 |
| or NRM 454 | Wetland Resources Management | |
| or SOIL 410 | Soils and Land Use | |
| NRM 431 | National Environmental Policy Act & Environmental Impact Assessment | 3 |
| NRM 453 | Rangeland Resources Watershed Management | 3 |
| Required 26 additional approved elective credits | | 26 |
| Total Credits | | 50 |