



MINOR in Natural Resources Conservation

Conserving Earth's biological diversity and safeguarding the benefits or "ecosystem services" that functioning ecosystems provide to humans are two major objectives of natural resources conservation. In this minor, students learn about the ecology of terrestrial and aquatic ecosystems, and how these systems can be managed to conserve biodiversity and protect ecosystem functions while providing sustainable benefits to society. The minor is designed to introduce students from a variety of other disciplines related to global conservation issues, and to provide them with the knowledge and tools essential for wise stewardship of natural resources. This minor may aid students in developing their own personal commitment to environmental stewardship and sustainability, making career choices, and broadening their options for graduate school and future employment. **A minimum of 15 credits is required.**

I. Only one course from this list may be counted toward the minor (optional):

- NRC 100 Environment and Society (4 cr-fall, Gen Ed "SI")
- NRC 126 Insects and Society (4 cr-spring, Gen Ed "BS")
- NRC 185 Sustainable Living: Solutions for the 21st Century (4 cr-spring, Gen Ed "I")

II. Two courses from this list must be taken:

- NRC 225 Forests & People (3cr-spring)
- NRC 232 Principles of Arboriculture (3cr-fall)
- NRC 260 Fish Conservation & Mgt (3cr-fall)
- NRC 261 Wildlife Conservation (3cr-spring)

III. Take at least two courses from the following lists:

A. Forest Conservation & Urban Forestry

- NRC 270 Forest Ecology & Conservation (3cr-spring even yrs)
- NRC 290C Trees and Sustainability (3cr-fall)
- NRC 305 Commercial Arboriculture (3cr-fall)¹
- NRC 310 Community Forestry (3cr-spring)^{1*}
- NRC 521 Timber Harvesting (3cr-fall odd yrs)
- NRC 526 Silviculture (4cr-spring odd yrs)
- NRC 534 Forest Measurements (4cr-fall odd yrs)^{2*}
- NRC 540 Forest Resources Management (4cr-spring)*
- NRC 541 Urban Forest Management (3cr-fall)
- NRC 590A Advanced Arboriculture (3cr-spring odd yrs)
- NRC 597PE Applied Plant Ecology & Conservation (3cr-spring odd yrs)

B. Conservation Policy/Human Dimensions

- NRC 409 Natural Resources Policy & Administration (3cr-spring)*
- NRC 576 Water Resources Management (3cr-fall even yrs)
- NRC 579 Cree Culture, Natural Resources and Sustainability (3cr-spring)*
- NRC 590TP Adapting to Climate Change: Theories, Policy, & Action (3cr-spring even yrs)

Course prerequisites:

¹ NRC 232

² Statistics of some kind

* Starred courses may have additional restrictions. Contact instructor to inquire. Permission is not guaranteed.





C. Wildlife & Fisheries Ecology & Conservation

- NRC 563 Wetlands, Wildlife Ecology and Management (*3cr-spring*)
- NRC 564 Wildlife Habitat Management (*4cr-fall*)^{3*}
- NRC 565 Wildlife Population Dynamics & Management (*4cr-fall*)^{2*}
- NRC 570 Fish Ecology (*4cr-spring even yrs*)
- NRC 571 Fisheries Science & Management (*4cr-spring odd yrs*)²
- NRC 580 Conservation Genetics (*3cr- fall odd years*)⁴
- NRC 597CB Conservation and Animal Behavior (*3cr-fall*)*

D. Water Resources

- NRC 528 Forest and Wetland Hydrology (*3cr-fall*)*
- NRC 578 Watershed Science and Management (*3cr-spring*)
- NRC 590AE Aquatic Ecology (*4cr-fall even yrs*)
- NRC 597W Wetlands Assessment and Field Techniques (*3cr-spring odd yrs*)

E. Environmental Resources

- NRC 252 Fundamentals of Applied Ecology (*3cr-spring*)⁵
- NRC 297R Renewable Energy and Sustainability (*3cr-fall*)
- NRC 390E Evolution and Conservation (*3cr-spring*)
- NRC 490S Sustainable Systems: Evaluating Local Solutions (*4cr-spring*)*
- NRC 566 Restoration Ecology (*3cr-spring*)
- NRC 568 Wetland Soils (*2cr-spring odd yrs*)
- NRC 575 Case Studies in Conservation (*3cr-spring*)
- NRC 577 Ecosystem Modeling & Simulation (*3cr-fall odd yrs*)
- NRC 585 Introduction to GIS (*4cr-fall & spring*)*
- NRC 586 Stewardship of Conserved Land (*3cr-fall*)
- NRC 587 Digital Remote Sensing (*3cr-spring even yrs*)
- NRC 590C Clean Energy and Climate Policy in Massachusetts (*3cr-spring*)*
- NRC 590GC Global Change Ecology (*3cr-fall odd yrs*)
- NRC 590IE Invasion Ecology (*3cr-fall even yrs*)
- NRC 592B Readings in GIS (*3cr-fall even yrs*)
- NRC 597GW WebGIS (*3cr-spring odd yrs*)⁶
- NRC 597LP Land Protection Tools & Techniques (*3cr-spring*)

During the semester in which you complete your minor requirements see the NRC Chief Undergraduate Advisor, Lena Fletcher, Holdsworth Hall 302A (lfletche@eco.umass.edu), to make it official.

Course prerequisites:

² Statistics of some kind

³ NRC 261 Wildlife Conservation

⁴ NRC 390E or BIO 280

⁵ Biology 110 or 151

⁶ NRC 585 or equivalent

* Starred courses may have additional restrictions. Contact instructor to inquire. Permission is not guaranteed.

revised 1/18

