

FORESTRY MAJOR (B.S.F.)

<https://colsa.unh.edu/natural-resources-environment/program/bsf/forestry-major>

Description

Forestry is an interdisciplinary profession, embracing the sustainable management of forest ecosystems for productivity, biodiversity, and health. The Forestry program's goals are to provide a solid professional preparation with a strong field component, founded in a broad general education, and with the flexibility to allow students to pursue special abilities and interests. The Bachelor of Science in Forestry (B.S.F.) degree is accredited by the **Society of American Foresters**.

Forestry graduates help manage and conserve public and private forests, addressing major environmental challenges including climate change, biodiversity protection, and sustainable resource management. They use science, planning, and geospatial technology to protect and restore forest ecosystems, ensure a sustainable forest product industry, provide wildlife habitat and recreational opportunities, and conserve soils and watersheds.

Program Mission, Goals and Objectives

The **mission** of UNH's Department of Natural Resources and the Environment, of which the Forestry Program is an integral part, is to serve as an educational center for the scholarly study of environmental and social sciences, and their application to the policy and management of natural resources from local to global scales. This is accomplished through education, research and outreach. This mission reflects UNH's larger mission to provide comprehensive, high-quality undergraduate programs and graduate programs of distinction, including a strong commitment to serving the public good and promoting the excitement of discovery among faculty and students.

The **goal** of the Forestry Program is to train natural resource professionals to sustainably manage forested landscapes for diverse objectives and in ways that balance changing social, cultural, economic, and environmental interests and priorities.

Our **educational objectives** are to:

1. Develop a strong knowledge base about the ecology and dynamics of forest ecosystems, including interactions between trees, wildlife, insects, soils, water, humans, and other ecosystem components.
2. Understand how different policies and management decisions affect forest dynamics over short to long time scales, and on different spatial scales.
3. Cultivate the necessary skills to manage forests for diverse objectives and to assess, respect, and balance the interests of different groups to achieve societal benefits.
4. Be able to critically evaluate scientific information and integrate this with professional experience and changing societal values to support adaptive management of forest resources.

Requirements

Code	Title	Credits
Requirements		
BIOL 528	Applied Biostatistics I	4

Select one of the following:		4
MATH 424B	Calculus for Life Sciences	
MATH 420	Finite Mathematics	
MATH 425	Calculus I	
NR 415	Natural Resources Field Methods	2
NR 425	Field Dendrology	4
NR 433	Wildlife Ecology	0 or 4
BIOL 409	Green Life: Introducing the Botanical Sciences	4
or BIOL 412	Introductory Biology: Evolution, Biodiversity and Ecology	4
CHEM 403	General Chemistry I	0-4
or CHEM 411	Introductory Chemistry for Life Sciences	
or PHYS 401	Introduction to Physics I	
EREC 411	Environmental and Resource Economics Perspectives	4
or ECON 402	Principles of Economics (Micro)	
NR 501	Studio Soils	4
NR 504	Freshwater Resources	4
NR 506	Forest Entomology	4
NR 527	Forest Ecology	4
NR 600	Work Experience	0
CMN 500	Public Speaking	4
or THDA 522	Storytelling, Story Theatre, and Involvement Dramatics	
NR 602	Natural Resources and Environmental Policy	4
NR 643	Economics of Forestry	4
NR 658	Introduction to Geographic Information Systems	4
FORT 579	Forest Fire Control and Use	2
NR 729	Silviculture	4
NR 757	Remote Sensing of the Environment	4
NR 782	Forest Health in a Changing World	4
or SAFS 651	Plant Pathology	
NR 745	Forest Management ¹	4
NR 749	Forest Inventory and Modeling	4
Select one of the following:		4
RMP 711	Recreation Resource Management	
TOUR 767	Social Impact Assessment	
RMP 511	Issues of Wilderness and Nature in American Society	
Total Credits		80-88

¹ NR 745 Forest Management may be used to satisfy the University's Capstone requirement. The Capstone may also be satisfied through created work or product, or some form of experiential learning (e.g., honors thesis, mentored research project, and other special student activity). Departments are responsible for certifying that graduating seniors have met the capstone requirement for their majors.

Degree Plan

Sample Course Sequence for Forestry

Course	Title	Credits
First Year		
BIOL 528	Applied Biostatistics I	4
ENGL 401	First-Year Writing	4
Select one of the following:		4
MATH 424B	Calculus for Life Sciences	
MATH 420	Finite Mathematics	
MATH 425	Calculus I	
NR 415	Natural Resources Field Methods	2
NR 425	Field Dendrology	4
NR 433	Wildlife Ecology	4

BIOL 409 or BIOL 412	Green Life: Introducing the Botanical Sciences or Introductory Biology: Evolution, Biodiversity and Ecology	4
Discovery Elective (FPA, HP, ETS, HUM, or WC)		4
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Credits		34
Second Year		
CHEM 403 or CHEM 411 or PHYS 401	General Chemistry I or Introductory Chemistry for Life Sciences or Introduction to Physics I	4
EREC 411 or ECON 402	Environmental and Resource Economics Perspectives or Principles of Economics (Micro)	4
NR 501	Studio Soils	4
NR 504	Freshwater Resources	4
NR 506	Forest Entomology	4
NR 527	Forest Ecology	4
NR 600	Work Experience	0
Oral Communications Skills Course		4
Discovery Elective (FPA, HP, HUM, ETS, or WC)		4
Credits		32
Third Year		
NR 602	Natural Resources and Environmental Policy	4
NR 643	Economics of Forestry	4
NR 658	Introduction to Geographic Information Systems	4
FORT 579	Forest Fire Control and Use	2
NR 729	Silviculture	4
NR 757	Remote Sensing of the Environment	4
NR 782 or SAFS 651	Forest Health in a Changing World or Plant Pathology	4
Discovery elective (FPA, HP, HUM, ETS, or WC)		4
Credits		30
Fourth Year		
NR 745	Forest Management	4
NR 749	Forest Inventory and Modeling	4
Select one of the following:		4
RMP 711	Recreation Resource Management	
TOUR 767	Social Impact Assessment	
RMP 511	Issues of Wilderness and Nature in American Society	
Discovery elective (FPA, HP, HUM, ETS, or WC)		4
Elective		4
Elective		4
Elective		4
Elective		4
Credits		32
Total Credits		128

course. Seniors must also satisfy the capstone experience requirement of the Discovery Program. The capstone explores areas of interest based on the integration of prior learning. The capstone requirement may be satisfied through a course (NR 745 Forest Management), created work or product, or some form of experiential learning (e.g., honors thesis, mentored research project, and other special student activity). Departments are responsible for certifying that graduating seniors have met the capstone requirement for their majors.

Student Learning Outcomes

Program Mission, Goals and Objectives

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Our educational objectives are to:

- Develop a strong knowledge base about the ecology and dynamics of forest ecosystems, including interactions between trees, wildlife, insects, soils, water, humans, and other ecosystem components.
- Understand how different policies and management decisions affect forest dynamics over short to long time scales, and on different spatial scales.
- Cultivate the necessary skills to manage forests for diverse objectives and to assess, respect, and balance the interests of different groups to achieve societal benefits.
- Be able to critically evaluate scientific information and integrate this with professional experience and changing societal values to support adaptive management of forest resources.

All forestry majors must satisfy the B.S.F. requirements and all Discovery Program requirements. Students must satisfy the Inquiry requirement of the Discovery Program by completing an Inquiry or Inquiry-attribute