

Admission Requirements For This Major

1. New freshmen admitted to USU in good standing qualify for admission to this major.
2. Transfer students from other institutions or other USU majors need at least a 2.5 total GPA for admission to the Forestry major in good standing. Special attention will be given to the amount of, and performance in, prerequisite math and science courses.

The Program

Forestry majors at Utah State University work to gain the knowledge and skills they will need to manage public or private forests for a wide variety of resources: timber, recreation, water, biological diversity, and more. The goal of the Department of Wildland Resources is to provide America's future foresters with the broadest possible understanding of the biological, physical, economic, political, and social environment that they will be working in as forestry professionals.

Students begin their college careers by building the academic foundation for future professional courses. The first two years are devoted to studying biology and chemistry, math and statistics, and writing. The first two years are also when students take most of their University Studies courses; several of these also fulfill departmental requirements. Transfer students who have completed their general education requirements elsewhere may need to take additional lower-division courses to be ready for professional courses.

Professional courses in forestry are taken mainly by juniors and seniors. They include several classes in forest biology and ecology, as well as economics and management. Students also take courses that introduce them to related natural resource topics, such as range, wildlife, and watershed management.

The formal requirements for a Forestry major, together with University Studies requirements, are outlined in this program guide, which students are urged to read carefully and discuss with their academic advisor. The Forestry major is an intensive campus-based program designed with the expectation that students will acquire additional practical experience through various summer internship opportunities coordinated within the College of Natural Resources. Furthermore, undergraduate students are encouraged to join the Forestry Club, which is Utah State University's student chapter of the Society of American Foresters. The club provides enjoyable opportunities for getting acquainted with the forestry profession.

Career Opportunities

Forestry majors typically find work in private companies, such as private consulting firms or the timber industry; in federal agencies, such as the USDA Forest Service or Bureau of Land Management; or with forestry offices at other levels of government. Foresters may work as silviculturists; timber sale administrators; fire, insect, or disease control specialists; or, with advanced training, researchers and teachers. Employment opportunities may be further enhanced by obtaining a master's degree in this field.

Degrees and Programs Offered Through This Department

- Conservation and Restoration Ecology:** Bachelor of Science (BS)
- Forestry:** BS, Master of Science (MS), and Doctor of Philosophy (PhD)
- Rangeland Resources:** BS
- Range Science:** MS and PhD
- Wildlife Science:** BS
- Wildlife Biology:** MS and PhD
- Ecology:** MS and PhD
- Natural Resources:** Master of Natural Resources (MNR)

Academic Advisement

All students should contact their academic advisor for assistance with course selection, program planning, and meeting graduation requirements. If they do not know who their advisor is, students should contact the Department of Wildland Resources (NR 206) or the College of Natural Resources Academic Service Center (NR 120).

Graduation Requirements: BS Degree in Forestry

Minimum University Requirements*

Total credits	120
Grade point average (most majors require higher GPA)	2.00 GPA
Credits of C- or better	100
Credits of upper-division courses (#3000 or above)	40
USU credits	30
(20 of which must be upper division, including 10 required by major)	
Completion of approved major program of study	See department
Credits in minor (if required by department)	12
Credits in American Institutions (ECN 1500; HIST 1700, 2700, or 2710; POLS 1100; or USU 1300)	3
University Studies requirements	See below

*Colleges and departments may require more credits or a higher GPA. See requirements on this sheet.

University Studies Requirements for Forestry Major

Note: Approved University Studies courses and requirements are listed in the *General Catalog*. The most current listings are shown online at: <http://www.usu.edu/generalcatalog/>

General Education Requirements (30-34 credits)

Competency Requirements (9-10 credits)

- Communications Literacy (CL1 and CL2) (6 credits)**
- ENGL 1010 (CL1) (3 credits) or satisfactory AP, CLEP, IBO, ACT, or SAT score
- AND**
- ENGL 2010 (CL2) (3 credits) or satisfactory IBO score

Quantitative Literacy (QL) (3-4 credits)

- MATH 1050 (4 credits)
- OR**
- MATH 1100 (3 credits)
- OR**
- Satisfactory AP, CLEP, IBO, ACT, or SAT score

Computer and Information Literacy (0 credits)

Passing grade on six computer and information literacy related examinations. Students must pass all six examinations before earning 37 USU semester credits. (Effective Spring Semester 2010, students must fulfill this requirement prior to enrolling in ENGL 2010.)

Breadth Requirements (18-20 credits)

Select at least one approved course from each of the following six categories: **American Institutions (BAI)**, **Creative Arts (BCA)**, **Humanities (BHU)**, **Life Sciences (BLS)**, **Physical Sciences (BPS)**, and **Social Sciences (BSS)**. (CLEP or AP credit may be used.) At least two of the six breadth courses must be University Studies courses with a **USU prefix** (excluding USU 1000, 1010, 1100, 3330, 4900, and 6900). BIOL 1620 (BLS) and CHEM 1110 (BPS), 1120 (BPS), or 1220 (BPS) may be used toward this requirement. ENVS 2340 (BSS) is recommended.

Exploration Requirement (3-4 credits)

Choose an additional class from one of the following General Education categories: QL, BAI, BCA, BHU, BLS, BPS, or BSS. Since MATH 1050 and 1100 are both required for the Forestry major, one of these courses will fulfill the Quantitative Literacy requirement and the other will fulfill the Exploration requirement.

Depth Education Requirements

Communications Intensive (CI) (2 courses)

WATS 3700 and WILD 5420 will meet this requirement.

Quantitative Intensive (QI) (1 course)

STAT 2000 or 3000 will meet this requirement.

Depth Course Requirements (4 credits minimum, including 2 credits minimum completed in each of two courses)

Complete at least 2 credits in approved 3000-level or above courses from each of the following two categories: **Humanities and Creative Arts (DHA)** and **Social Sciences (DSS)**. ENVS 4000 (DSS) may be used toward this requirement. PHIL 3510 (DHA) is recommended.

Forestry Major (90 credits)

All courses required for the major must be taken on an *A-B-C-D-F* basis. A grade of C- or better is required for all WILD courses used to meet the requirements for a major in Forestry. The grade point average for all courses taught by the College of Natural Resources must be 2.5 or higher.

A. General Science Foundation Courses (34 credits) Credits

- BIOL 1610 Biology I (F) 4
- BIOL 1620 (BLS)¹ Biology II (Sp) 4
- MATH 1050 (QL) College Algebra (F,Sp,Su) 4
- MATH 1100 (QL) Calculus Techniques (F,Sp,Su) 3
- SOIL 3000 Fundamentals of Soil Science (F) 4
- STAT 2000 (QI) Statistical Methods (F,Sp) (3 cr) **or**
- STAT 3000 (QI) Statistics for Scientists (F,Sp,Su) (3 cr) 3
- NR 2220 General Ecology (F,Sp) 3

Select one of the following chemistry series (9 credits):

General Chemistry Series

- CHEM 1110 (BPS) General Chemistry I (F,Sp) 4
- CHEM 1115 General Chemistry Laboratory (F,Sp) 1
- CHEM 1120 (BPS) General Chemistry II (Sp) 4

Chemistry Principles Series

- CHEM 1210 Principles of Chemistry I (F,Sp) 4
- CHEM 1215 Chemical Principles Laboratory I (F,Sp) 1
- CHEM 1220 (BPS) Principles of Chemistry II (F,Sp,Su) 4

B. Departmental Common Courses (24 credits)

- WILD 2000 Introduction to Wildland Resources (F,Sp) 1
- WILD 3600 Wildland Plant Ecology and Identification (F) 4
- WILD 3610 Wildland Animal Ecology and Identification (F) 4
- WILD 3800 Wildland Ecosystems (Sp) 3
- WILD 3810 Plant and Animal Populations (Sp) 3
- WILD 4750 (CI) Monitoring and Assessment in Natural Resource and Environmental Management (F) 3
- WILD 4850 Vegetation and Habitat Management (F) 3
- WILD 4910 Assessment and Synthesis in Natural Resource Science (Sp) 3

C. Degree Program Courses (32 credits) Credits

- ENVS 3000 Natural Resources Policy and Economics (F) 4
- ENVS 3300 Fundamentals of Recreation Resources Management (F) . . . 3
- ENVS 4000 (DSS) Human Dimensions of Natural Resource Management (F) 3
- WATS 3700 (CI) Fundamentals of Watershed Science (Sp) 3
- WATS 4930 Geographic Information Systems (F) 4
- WILD 5350 Wildland Soils (Sp) 3
- WILD 5420 (CI) Forest and Shade Tree Pathology (Sp) 3
- WILD 5700 Forest Assessment and Management (Sp) 3
- WILD 5710 Wildland Disturbance: Ecology and Management (F) 3
- WILD 5750 Applied Remote Sensing (F) 3

D. Electives

Students may take the remainder of the 120 credits from any department. The guidelines described previously under "Breadth Requirements" and "Depth Education Requirements" should be consulted to ensure meeting University Studies Requirements.

Students who transfer to USU with an Associate of Arts (AA) or Associate of Science (AS) degree from an approved institution will have satisfied the General Education portion of the University Studies requirements, but will still need to complete the Depth Education portion.

¹University Studies designations, including (BLS), (BPS), (DSS), (CI), (QI), and (QL), indicate that these courses may be counted for University Studies requirements, as well as for the Forestry major.

Note: Students wanting to pursue federal employment should check the following U.S. Office of Personnel Management website for a listing of required coursework:

<http://www.opm.gov/qualifications/SEC-IV/B/GS0400/0460.HTM>

Forestry Major Recommended Four-Year Plan of Study

Students should meet regularly with their faculty advisor and carefully plan their academic program, keeping in mind that many upper-division courses have prerequisites and must be taken in sequence. Students following the recommended schedule listed below should be able to complete degree requirements in four years (eight semesters).

A. First Year (28 credits)

Fall Semester (14 credits)

Credits

- BIOL 1610 Biology I 4
- ENGL 1010 (CL1) Introduction to Writing: Academic Prose 3
- ENVS 2340 (BSS) Natural Resources and Society (3 cr) **or**
- Other approved Breadth Social Sciences (BSS) course (3 cr) 3
- USU 1300 (BAI) U.S. Institutions (3 cr) **or**
- Other approved Breadth American Institutions (BAI) course (3 cr) . . . 3
- WILD 2000 Introduction to Wildland Resources 1

Spring Semester (14 credits)

- BIOL 1620 (BLS) Biology II 4
- MATH 1050 (QL) College Algebra 4
- USU 1320 (BHU) Civilization: Humanities (3 cr) **or**
- Other approved Breadth Humanities (BHU) course (3 cr) 3
- USU 1330 (BCA) Civilization: Creative Arts (3 cr) **or**
- Other approved Breadth Creative Arts (BCA) course (3 cr) 3

B. Second Year (31 credits)

Fall Semester (17 credits)

- CHEM 1110 (BPS) General Chemistry I (4 cr) **or**
- CHEM 1210 Principles of Chemistry I (4 cr) 4
- ENVS 3000 Natural Resources Policy and Economics 4
- ENVS 3300 Fundamentals of Recreation Resources Management . . . 3
- MATH 1100 (QL) Calculus Techniques 3
- NR 2220 General Ecology 3

Spring Semester (14 credits)	Credits
<input type="checkbox"/> CHEM 1115 General Chemistry Laboratory (1 cr) or	
<input type="checkbox"/> CHEM 1215 Chemical Principles Laboratory I (1 cr)	1
<input type="checkbox"/> CHEM 1120 (BPS) General Chemistry II (4 cr) or	
<input type="checkbox"/> CHEM 1220 (BPS) Principles of Chemistry II (4 cr)	4
<input type="checkbox"/> ENGL 2010 (CL2) Intermediate Writing: Research Writing in a Persuasive Mode	3
<input type="checkbox"/> STAT 2000 (QI) Statistical Methods (3 cr) or	
<input type="checkbox"/> STAT 3000 (QI) Statistics for Scientists (3 cr)	3
<input type="checkbox"/> Elective course(s)	3

C. Third Year (30 credits)

Fall Semester (15 credits)	
<input type="checkbox"/> SOIL 3000 Fundamentals of Soil Science	4
<input type="checkbox"/> WILD 3600 Wildland Plant Ecology and Identification.	4
<input type="checkbox"/> WILD 3610 Wildland Animal Ecology and Identification.	4
<input type="checkbox"/> WILD 5750 Applied Remote Sensing	3

Spring Semester (15 credits)	
<input type="checkbox"/> WATS 3700 (CI) Fundamentals of Watershed Science	3
<input type="checkbox"/> WILD 3800 Wildland Ecosystems	3
<input type="checkbox"/> WILD 3810 Plant and Animal Populations.	3
<input type="checkbox"/> WILD 5350 Wildland Soils.	3
<input type="checkbox"/> Approved Depth Humanities and Creative Arts (DHA) course.	3

D. Fourth Year (31 credits)

Fall Semester (16 credits)	
<input type="checkbox"/> ENVS 4000 (DSS) Human Dimensions of Natural Resource Management	3
<input type="checkbox"/> WATS 4930 Geographic Information Systems.	4

Credits

<input type="checkbox"/> WILD 4750 (CI) Monitoring and Assessment in Natural Resource and Environmental Management	3
<input type="checkbox"/> WILD 4850 Vegetation and Habitat Management	3
<input type="checkbox"/> WILD 5710 Wildland Disturbance: Ecology and Management.	3

Spring Semester (15 credits)

<input type="checkbox"/> WILD 4910 Assessment and Synthesis in Natural Resource Science	3
<input type="checkbox"/> WILD 5420 (CI) Forest and Shade Tree Pathology.	3
<input type="checkbox"/> WILD 5700 Forest Assessment and Management	3
<input type="checkbox"/> Elective courses ²	6

²As part of these electives, it is recommended that students complete a 3-credit course having an economic emphasis.

Requirement Changes

Graduation requirements shown on this sheet are subject to change. Students should check with their faculty advisor regarding possible changes or for additional information regarding degree requirements, course sequencing, and departmental specialization options and their related coursework.

Materials for Persons with Disabilities

This requirement sheet is available in digital format, recordings, or large print upon request to the USU Disability Resource Center.

For information contact

Wildland Resources Department; Natural Resources 206;
Utah State University; 5230 Old Main Hill; Logan UT 84322-5230;
tel. (435) 797-3219; e-mail lana.barr@usu.edu; <http://www.cnr.usu.edu/wild>

Prepared by Registrar's Office, Utah State University