FOREST TECHNOLOGY (FORT)

Students in the forest technology (FORT) program are uniquely prepared for careers in forest industries and natural resource management in New Hampshire and New England. Classroom lecture is supported by practical field work in each of the subject areas. The educational program in Forest Technology leading to the Associate in Applied Science degree is accredited by the Society of American Foresters (SAF) (https://www.eforester.org) (the first two-year program in the U.S. to complete the accreditation application process) and reviewed by an advisory committee representing the full spectrum of forestry organizations in the region. There is a strong emphasis on leadership, safety, communication skills, accuracy of field work, data collection, and professional presentation. Unique facilities for teaching and learning include centrally located classroom and shop facilities; 3,000+ acres of University-owned forest land (http://colsa.unh.edu/woodlands); a new sawmill and Forest Industries Training Center (FITC) (http://colsa.unh.edu/tsas/thompson-school-unh-sawmill); logging equipment; technologically advanced navigation, data collection, and analysis equipment; and a faculty with vast field experience in the subject areas dedicated to teaching.

Admissions Requirements

As stated in the Thompson School admissions requirements (http://catalog.unh.edu/archives/2018-2019/undergraduate/applied-science), applicants to the forest technology program area must present four years of college preparatory English and a minimum of two years of college preparatory science (one science being biology with a lab). Forest Technology applicants are required to have taken at least two years of college preparatory mathematics, but three years are preferred.

Curriculum Fee

Forest technology: $736[1]

[1]   This one-time curriculum fee is required to cover lab materials, specialized equipment maintenance, and transportation that are unique to the applied nature of the concentration. The curriculum fee covers the entire two-year course of study for one concentration. Any non-TSAS student may be assessed specific course fees, details of which are included in each semester's Time and Room Schedule. All fees are subject to change.

https://colsa.unh.edu/thompson-school-applied-science

Programs

- Forest Technology (A.A.S.) (http://catalog.unh.edu/archives/2018-2019/undergraduate/applied-science/programs-study/forest-technology/forest-technology-aas)

Courses

Forest Technology (FORT)

FORT 461 - Dendrology
Credits: 3
Identification and nomenclature of forest trees and shrubs which are important to the ecology and economy of the Northeastern forest. The study of forested plant relationships with other plants, animals, soil, and site regimes. 1 lec/1 2-hr lab.

FORT 463 - Forest Ecology
Credits: 3
Study the interactions of forest trees with their environment, both as individuals and as tree communities; explore environmental problems affecting plant communities; the history and classification of North American forests. Study of soils as they affect forest distribution and tree growth. Includes a series of field-based exercises used to reinforce the principles introduced in lectures.

FORT 465 - Forest Orientation Seminar
Credits: 1
Seminar to prepare first year students for study and placement in the broad area of forest technology. Focus on history and development of modern forestry systems and agencies at the state, regional and federal levels. The lives of key individuals like John Muir, Gifford Pinchot, and Aldo Leopold will help place forest management philosophies in perspective. Cr/F.

FORT 466 - Forest Surveying and Mapping
Credits: 4
Provides instruction and experience in running cruise lines and in the survey and identification of rural property lines. The focus is on field surveying techniques and problem solving of special importance to foresters. Use of magnetic survey data in rural property measurement. Skill and efficiency is developed in analyzing field survey data, plotting, lettering and finishing topographic and planimetric maps, and road plans, both manually and by Computer Assisted Drafting using multiple software applications.

FORT 470 - Applied Silviculture
Credits: 4
Silvicultural practices in the U.S. including reforestation systems. Improvement of forest stands employing the basic tending practices of weeding, thinning, and pruning. Marking of stands prior to logging operations. Prereq: permission of instructor or FORT461 and FORT 463. 2 lec/1 4-hr lab.

FORT 475 - Forestry Field Practice
Credits: 1
A week long introduction to the various components of the forest industry of the northeast. Students visit with members of the forest industry in the work-place and learn how they are interrelated. Students gain background experience that will prove beneficial in understanding their studies during their second year in the Forest Technology curriculum. One week of concentrated field study. Forest Technology majors only.

FORT 490 - NH Sustainable Forest Resource
Credits: 4
An overview of forestry in New Hampshire and the northeast. History shows how our forests have been used in the past and how they developed into what we see today. Discover the science of Forest Ecology and Silviculture and how foresters use these to manage our forests sustainably for a variety of forest products. Learn how these products are harvested, processed and used. Understand how pathogens and pests can threaten our forests. On-line course.

FORT 564 - Arboriculture
Credits: 3
Tree selection, care, and maintenance in the urban environment. Includes climbing, safety practices, pruning, hazard tree assessment, and removals. Prereq: FORT 463 or permission. 1 lec/1 4-hr lab.

FORT 567 - Leadership,Supervision&Safety
Credits: 2
Fundamentals of leadership and supervision including effective communication in the workplace and public sector are explored. Project management, personnel training and motivation, plus problem-solving and conflict resolution applied through a practical community service forestry project. Accident prevention, first aid, and CPR instruction also included. 2 lec.

FORT 569 - Wildlife Ecology &Conservation
Credits: 3
Foresters directly influence wildlife by manipulating habitat through silvicultural operations. Course focuses on the ecology of New England wildlife species with emphasis on their habitat requirements and the enhancement of habitat through silviculture and the use of best management practices. 1 lec/1 4-hr lab.

FORT 572 - Mensuration
Credits: 4
Field application of forest inventory and timber cruising techniques. Measurement of tree form, volume, quality, and defect. Growth prediction of individual trees and stands. Use of basic statistical methods as a tool in cruising. Prereq: FORT 461 or instructor permission. 2 lec/1 4-hr lab.

FORT 573 - Management Operation&Analysis
Credits: 3
Forest appraisal and valuation methods, timber sale contracts, depreciation and depletion calculations, forest taxation. Essentials of forest regulation and management planning. 2 lec/1 2-hr lab.

FORT 574 - Industrial Forest Management Tour
Credits: 1
Concentrated field experience and intensive observations of industrial, private, and federal forest holdings and facilities; emphasizing forest utilization and management operations as currently practiced in New England. One week of concentrated field study. Cr/F. Forest Technology majors only.

FORT 576 - Forest Products
Credits: 4
Basics of structure and properties of wood as a raw material. Conversion of logs to lumber at Thompson School sawmill. Lumber and log grading and measuring. Studies in processing efficiency, lumber drying, and physical plant operations. Introduction to paper, veneer, and chip products. Marketing of forest products. 2 lec/1 4-hr lab.

FORT 577 - Forest Harvesting Systems
Credits: 4
A study in harvesting methods and their relation to forest management and silviculture of the state and region. Theory and practice of conventional harvesting systems including hands-on application of techniques with a strong emphasis on protection of the environment and the safety and health of workers. Department permission for non-majors. 2 lec/4-hr lab.

FORT 578 - Forest Insects & Diseases
Credits: 2
An introduction to the role of forest insects and microorganisms in the context of managing woodlands. Students learn to recognize the signs and symptoms of insect and disease damage in forest trees and products. They study the life cycles and identify common forest insect and disease pests impacting North American tree species. Pest management methods are introduced. 1 lec/3-hr lab.

FORT 579 - Forest Fire Control and Use
Credits: 2
A study in basic fire ecology and instruction in forest fire suppression methods. Interactions of forest fuels, topography, and weather as they affect forest fire behavior. Use of controlled fire as a tool in forest and wildlife management. When appropriate, field work will include actual burning.

FORT 581 - Applied Geographic Information Systems (GIS) Techniques
Credits: 4
Geographic Information Systems (GIS) are integral to natural resource management and these technologies/software have become widespread throughout various fields. Proficiency in fundamental GIS skills is imperative for resource managers. Students will 1) develop an understanding of imagery acquisition and remote sensing systems/technologies; 2) develop skills in identification, interpretation, and mapping of land/vegetation features, including an understanding of map projection; 3) gain experience in GIS software to perform fundamental geoprocessing and mapping techniques.

FORT 591 - Independent Studies in Forest Technology/Urban Tree Care
Credits: 1-4
Students who have the ability and adequate preparation to work independently may propose a contract to design a course or research project on a topic not available through existing course offerings. The purpose of this research is to explore new areas in the student's field of study or to pursue course material in greater depth. Work is supervised by an appropriate faculty/staff member and credit varies depending on the proposed project/research. Examples include forest management, forest products, forest protection, wildlife management, or urban tree care. Permission required. Course may be repeated up to a maximum of 8 credits.

FORT 592 - Independent Studies in Forest Technology/Urban Tree Care
Credits: 1-4
Students who have the ability and adequate preparation to work independently may propose a contract to design a course or research project on a topic not available through existing course offerings. The purpose of this research is to explore new areas in the student's field of study or to pursue course material in greater depth. Work is supervised by an appropriate faculty/staff member and credit varies depending on the proposed project/research. Examples include forest management, forest products, forest protection, wildlife management, or urban tree care. Permission required. Course may be repeated up to a maximum of 8 credits.

FORT 597 - Work Experience
Credits: 0
Career-related employment (10 weeks, generally in the summer following freshman year) in a forestry, urban tree care, or other department-approved natural resources area. Cr/F.

Faculty

https://colsa.unh.edu/thompson-school-applied-science/people