FOREST TECHNOLOGY (FORT)

Students in the forest technology (FORT) program are uniquely prepared for careers in forestry, 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) (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; a new sawmill and Forest Industries Training Center (FITC); logging equipment; technologically advanced navigation, data collection, and analysis equipment; and a faculty with vast field experience in the subject areas and who are dedicated to teaching.

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

Programs

- Forest Technology (A.A.S.)

Courses

Forest Technology (FORT)

FORT #466 - Forest Surveying and Mapping
Credits: 0 or 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.
Equivalent(s): FORT 266
Grade Mode: Letter Grading
Special Fee: Yes

FORT 470 - Applied Silviculture
Credits: 0 or 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. 2 lec/1 4-hr lab.
Equivalent(s): FORT 270
Grade Mode: Letter Grading
Special Fee: Yes

FORT 527 - Forest Ecology
Credits: 4
Introduces basic and applied ecology of forests, with emphasis on ecosystem processes, including water, energy, and nutrient cycles; biological interactions, including biodiversity and plant-plant, plant-animal, and plant-microbe relationships; and human impacts, including forest management, land-use/land cover-change, and changes in atmospheric chemistry.
Equivalent(s): NR 527
Grade Mode: Letter Grading
Special Fee: Yes

FORT 564 - Arboriculture
Credits: 0 or 3
Tree selection, care, and maintenance in the urban environment. Includes climbing, safety practices, pruning, hazard tree assessment, and removals. 1 lec/1 4-hr lab.
Equivalent(s): FORT 464
Grade Mode: Letter Grading
Special Fee: Yes

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.
Equivalent(s): FORT 267
Grade Mode: Letter Grading

FORT 572 - Mensuration
Credits: 0 or 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. 2 lec/1 4-hr lab.
Equivalent(s): FORT 272
Grade Mode: Letter Grading
Special Fee: Yes

FORT 573 - Management Operation & Analysis
Credits: 4
An introduction to the basic concepts of forest land management and the practical approaches to forest management planning and financial decision-making. Topics include a silviculture review; deed research and mapping; management plan preparation; multiple-use sustainable forestry; tree valuation; timber sale appraisal methods; contracting; forest taxation; and long-term cost and return analysis. Students individually prepare a comprehensive forest management plan as a semester project.
Equivalent(s): FORT 273
Grade Mode: Letter Grading
Special Fee: Yes

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.
Grade Mode: Credit/Fail Grading
Special Fee: Yes

FORT 576 - Forest Products and Wood Science
Credits: 0-4
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.
Equivalent(s): FORT 476
Grade Mode: Letter Grading
Special Fee: Yes

FORT 577 - Forest Harvesting Systems
Credits: 0 or 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.
Grade Mode: Letter Grading
Special Fee: Yes

FORT 578 - Ecology and Management of Forest Stressors
Credits: 4
An introduction to the biology and ecology of forest insects, pathogens, and invasive plants in the context of forest management. Students learn to recognize the signs and symptoms of insect and disease damage in forest trees and products. Students explore the impacts of novel invasions of pests, pathogens, and pernicious plants and evaluate adaptive management strategies. 2 lec/4 hr lab.
Equivalent(s): FORT 278
Grade Mode: Letter Grading
Special Fee: Yes

FORT 579 - Wildland Fire Ecology and Management
Credits: 4
An exploration of the historical context of wildland fire and how our changing climate and past management practices influence future fire regimes at local and national scales. This course will provide instruction in fire ecology, and prescribed fire theory and methods. Students will learn the basic knowledge of forest fire control and use and will focus on firefighting, the impacts of fire on vegetation, and the use of prescribed fire in forest and wildlife management.
Equivalent(s): FORT 479
Grade Mode: Letter Grading
Special Fee: Yes

FORT 581 - Applied Geospatial 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.
Equivalent(s): FORT 281
Grade Mode: Letter Grading

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.
Repeat Rule: May be repeated for a maximum of 8 credits.
Equivalent(s): FORT 292
Grade Mode: Letter Grading

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.
Equivalent(s): FORT 297
Grade Mode: Credit/Fail Grading

Faculty

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