

FOREST TECHNOLOGY (FORT)

Course numbers with the # symbol included (e.g. #400) have not been taught in the last 3 years.

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.

Equivalent(s): FORT 261

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. Special Fee.

Equivalent(s): FORT 266

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. Prereq: permission of instructor or FORT #461 and FORT 463. 2 lec/1 4-hr lab. Special Fee.

Equivalent(s): FORT 270

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.

Equivalent(s): FORT 290

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

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. Prereq: FORT 463 or permission. 1 lec/1 4-hr lab. Special Fee.

Equivalent(s): FORT 264, FORT 464

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

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. Prereq: FORT #461 or instructor permission. 2 lec/1 4-hr lab. Special Fee.

Equivalent(s): FORT 272

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

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. Special Fee.

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. Special Fee.

Equivalent(s): FORT 276, FORT 476

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. Special Fee.

Equivalent(s): FORT 277

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

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. Special Fee.

Equivalent(s): FORT 279, FORT 479

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

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.

Equivalent(s): FORT 292

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.

Equivalent(s): FORT 297