

College of Natural Sciences, Forestry & Agriculture

Contact

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Admission Requirements

(In years as established by the college)

A high school diploma with the following specific courses:

- 4 English
- 2 Algebra I & II
- 1 Geometry
- 1/2 Trigonometry (*strongly recommended*)
- 2 Lab Science (*biology & chemistry or physics*)
- 2 History/Social Studies
- Academic electives (*to equal at least 17 total credits*)

To ensure current mathematical skills, students should take a mathematics course during their senior year of high school.

Major Requirements

- 70 credits Forest Resources
- 12 credits Wood Science & Technology
- 9 credits Communications (*English, writing, speech*)
- 12 credits Sciences & Mathematics
- 6 credits Business Administration
- 15 credits GED Designated Electives
- 6 credits Free Electives

130 Minimum total credit hours required for graduation

Program Description

The efficient and environmentally acceptable management, extraction, and transportation of timber for the manufacture of paper, wood composites, and solid wood products is a major challenge to one of the region's most important industries. The interdisciplinary Bachelor of Science in Forest Operations Science (FSC) at the University of Maine addresses this challenge by combining course work and faculty expertise in forest management, wood science, forest engineering, and introductory business administration. The program aims to develop individuals (a) with the knowledge and abilities to better manage timber resources and forest operations in an environment of increasing public scrutiny and environmental concern; (b) with an understanding of the processes and challenges related to the efficient and environmentally acceptable harvest and primary processing of timber resources; and (c) with an appreciation for the local, regional, and global competition for forest product raw materials and markets. Graduates of the program will develop critical and analytical knowledge and skills related to the efficient, safe, and environmentally compatible conduct and management of forest operations, as well as a thorough understanding of the timber production cycle from the forest to the mill. Recognizing the significance of the forest products industries to society, as well as the opportunities for professional employment of highly trained and broadly educated college graduates, the FSC program is designed to provide students with relevant and marketable knowledge and proficiencies in subject areas essential to the conduct of forest operations from the forest to the wood yard, including timber harvest planning and administration; forest road planning and construction; timber appraisal and acquisition; and forest management, wood science, forest engineering, and entrepreneurship in the overall context of a broad education in the liberal arts. The result is a program addressing the science, management, business, and processing of timber resources. The Forest Operations Science Program is accredited by the Society of American Foresters and the Society for Wood Science and Technology.

Career Opportunities

Graduates of the FSC program will be prepared for careers in industrial and consulting forestry, as well as in the administration and supervision of wood processing facilities. Specific career areas include: harvest planning and administration, forest road planning and design, wood appraisal and procurement, and mill supervision and wood products marketing. Opportunities also exist for graduate education at both the M.S. and Ph.D. levels in the areas of forest operations science, wood science, and forest management.

General Education Requirements*

- ENG 101 College Composition
- 18 credits Human Values & Social Context area (*a single course may satisfy more than 1 sub-category, but a total of 18 credits must be completed*)
 - Western Cultural Tradition
 - Social Context & Institutions
 - Cultural Diversity & International Perspectives
 - Population & the Environment
 - Artistic & Creative Expression
- 2 courses Designated Writing Intensive (*1 must be within the major*)
- 2 courses Biological or Physical Sciences (*must include at least 1 laboratory course*)
- 1 course Ethics (*emphasis on discussion of ethical issues in 1 course or series of courses*)
- 6 credits Mathematics (*including statistics & some computer science, only 3 credits in computer science can count toward this requirement*)
- 1 capstone An approved experience in which the student integrates the components of his or her undergraduate training to perform at a professional level. The capstone experience is usually completed during the senior year in consultation with the student's academic advisor.

**All UMaine students must complete these general education requirements, which are counted in the total credit hours required for graduation and may be contained in the Major Requirements previously listed.*

Specialized Information

Under the New England Regional Student Program, administered through the New England Board of Higher Education, the Bachelor of Science degree in Forest Operations Science is open to applicants who reside in Connecticut, Massachusetts, Rhode Island, or Vermont for reduced tuition (in-state tuition plus 50 percent).

Graduate Study

The School of Forest Resources offers a Doctor of Philosophy degree in Forest Resources, a Master of Science in Forest Resources, and a non-thesis Master of Forestry program. The Master of Forestry is accredited as a first degree in Forestry for students with a prior B.A. or B.S. degree in another discipline. Most of the Forestry faculty are involved in active research programs and offer graduate research assistantships in their areas of specialty. Graduate teaching assistantships are also available for qualified students.

Curriculum for B.S. in Forest Operations Science*

Semester 1	Credits	Semester 2	Credits
FTY 101 (Intro Forest Resources)	1	FTY 105 (Intro For. Meas.)	3
FTY 107 (Forest Vegetation)	4	FTY 104 (Stat. Inf. For. Mgt.) or MAT 232	3
FES 100 (Intro to Forest Biology)	4	ECO 100 (Intro to Economics)	3
PHY 111 (General Physic I)	4	MAT 126 (Calculus)	4
ENG 101 (College Composition)	3	Elective	3
Total	16	Total	16

May Term: FTY 241 (Field Practice) 3

Semester 3		Semester 4	
FTY 208 (Forest Surveying/Mapping)	3	FSC 301 (Forestry Mechanization)	3
WSC 212/213 (Intro Wood Sci./Wood ID)	4	FTY 266 (Advanced Forest Measurements)	3
Business Elective	3	FTY 206 (Photo./Remote Sensing)	3
CHY 121/123 (Chemistry I)	4	PSE 140 (Applied GIS)	3
Communications Elective	3	Elective	4
Total	17	Total	16

Semester 5		Semester 6	
FSC 401 (Timber Harvesting)	3	FSC 300 (Forest Products Protection)	4
FTY 457 (Forest Watershed Mgmt.)	3	FTY 444 (Forest Resource Economics)	3
FES 408 (Silviculture)	3	WSC 425 (Mechanical Properties of Wood)	3
FES 409 (Forest Ecol./Silviculture Lab)	2	FTY 480 (Applied GIS)	4
FES 407 (Forest Ecology)	3	Business Elective	3
Total	14	Total	17

Semester 7		Semester 8	
FSC 403 (Forest Roads)	3	FSC 408 (For. Ops. Planning & Analysis)	3
FTY 476 (Forest Management I)	3	FSC 405 (Timber Appraisal & Acquisition)	2
WSC 314 (Wood Processing)	4	WSC 410 (Mill Tour)	1
Electives	6	FTY 440 (Marketing)	3
		FTY 446 (Forest Resources Policy)	3
		Electives	3
Total	16	Total	15

Total Credits: 130

*Note: Some courses are taught biennially.

Academic Programs 2008-2009

Please refer to the web site (<http://factsheets.umaine.edu/>) for the most updated version of the fact sheets.

This fact sheet is intended for informational purposes only and is subject to change.