



COLLEGE OF NATURAL SCIENCES, FORESTRY, AND AGRICULTURE

Forest Operations, Bioproducts and Bioenergy

WHY STUDY FOREST OPERATIONS, BIOPRODUCTS AND BIOENERGY AT THE UNIVERSITY OF MAINE?

The efficient and environmentally acceptable management, harvesting, and transportation of timber and biomass for the manufacture of products (e.g. lumber, paper and wood composites) and energy are vital to meet society's increasing need for sustainable resources. Maine has more forests than the rest of New England combined, and a well-developed cluster of industrial forests and processing facilities for the production of bioproducts and bioenergy that are in demand worldwide. This provides students with the exposure to a wide variety of real world experiences.

UMaine's Forest Operations, Bioproducts and Bioenergy (FBB) Program is designed to address major challenges to the industry: the efficient and environmentally acceptable growth, management, extraction and transportation of forest resources and the efficient and economical use of the forest resource through the conversion to sustainable materials and energy. The interdisciplinary program combines coursework, laboratory experience, and fieldwork with faculty expertise in forest ecology, forest management and wood science, with an emphasis in business administration.

Training in a forest setting begins the first semester with access to the university's 1,270-acre Demeritt Forest. In addition, the nearby Penobscot Experimental Forest and other properties owned and managed by the university provide nearly 13,000 acres of living laboratories for forest resource education and research. Extensive indoor laboratory facilities are used for undergraduate education and research. Excellent ties with research units at the university (Advanced Structures and Composites Center, the Forest Bioproducts

Research Institute, and the Center for Sustainable Forestry) provide employment opportunities for interested students to learn cutting-edge science while gaining practical skills. Nearby, large areas of public and private, industrial and nonindustrial woodland provide more opportunities.

WHAT CAN I DO WITH A DEGREE IN FOREST OPERATIONS, BIOPRODUCTS AND BIOENERGY?

We prepare our graduates for careers in industrial and consulting forestry, and in the administration and supervision of wood processing facilities. Specific career areas include forest land management, forest road planning and design, harvest planning and administration, management of forest bioproducts and bioenergy plant operations, and technical sales and marketing. Opportunities also exist for graduate education at the M.S. and Ph.D. levels in the areas of forest operations, wood science and forest management.

OUR UNDERGRADUATE PROGRAM

The interdisciplinary B.S. in forest operations, bioproducts and bioenergy at the University of Maine addresses the challenge of balancing demand for wood-based products with sustainable practices by providing students with a relevant combination of coursework, hands-on experiences, faculty expertise and mentoring to build teamwork and communication skills. The program aims to develop individuals who have: the knowledge and abilities to better manage timber resources and forest operations in an environment of increasing public scrutiny and environmental concern; an understanding of the processes and challenges related to the efficient and environmentally acceptable harvest and conversion of forest resources to bioproducts and bioenergy; and an appreciation for the business principles and the associated local, regional and global

UMaine's ADVANTAGE

- More than \$400,000 in annual scholarships
- Accredited degrees by the Society of American Foresters, and the Society of Wood Science and Technology
- The oldest continuously accredited undergraduate forestry program in the U.S.
- Opportunities for internships with industry leaders
- Hands-on outdoor experience with the latest technology (i.e., GPS, LiDar)
- NEBHE agreement gives students from Connecticut, Rhode Island, Vermont and Massachusetts a substantial discount in tuition when they are enrolled in the program

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To apply: **umaine.edu**



Connect with us:
umaine.edu/socialnetwork

ABOUT UMAINE

The University of Maine, founded in Orono in 1865, is the state's premier public university. It is among the most comprehensive higher education institutions in the Northeast and attracts students from across the U.S. and more than 73 countries. It currently enrolls 11,286 total undergraduate and graduate students who can directly participate in groundbreaking research working with world-class scholars. The University of Maine offers doctoral degrees in 35 fields, representing the humanities, sciences, engineering and education; master's degrees in roughly 70 disciplines; 90 undergraduate majors and academic programs; and one of the oldest and most prestigious honors programs in the U.S. The university promotes environmental stewardship on its campus, with substantial efforts aimed at conserving energy, recycling and adhering to green building standards in new construction. For more information about UMaine, visit umaine.edu.

explore

*Bachelor of Science in
Forest Operations, Bioproducts
and Bioenergy*

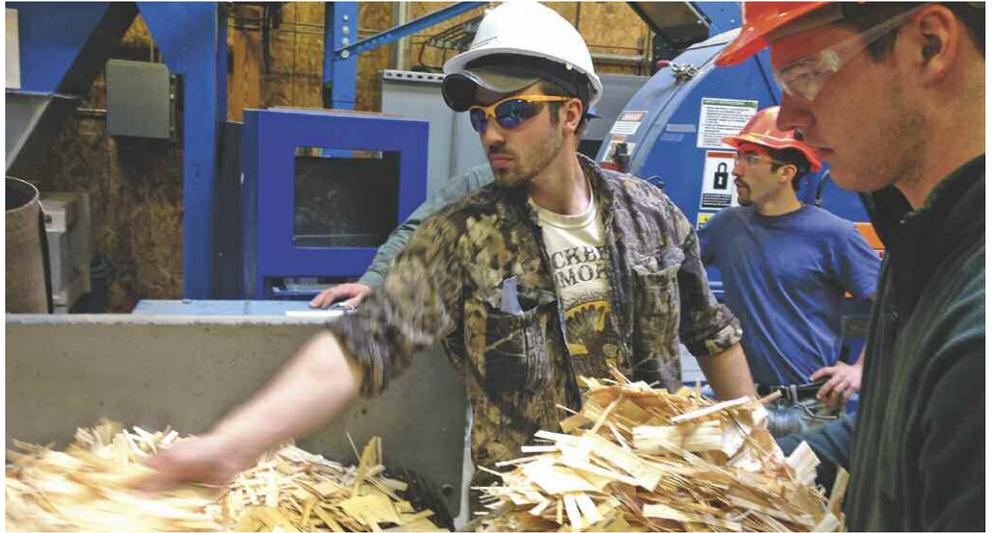
*Minors in
Forest Ecosystem Science
Forest Products
Forest Recreation Management*

*Graduate Certificate in
Advanced Engineered Wood
Composites*

*Master of
Forestry*

*Master of Science in
Forest Resources*

*Ph.D. in
Forest Resources*



markets. Our educational goal is to produce professionals with strong abilities to assess and communicate the technical foundations and life-cycle impacts associated with how forest-based materials can be sustainably produced for a variety of applications, ranging from traditional wood products to emerging bioproducts and bioenergy systems. The B.S. in forest operations, bioproducts and bioenergy is accredited by the Society of American Foresters and the Society of Wood Science and Technology.

OUR GRADUATE PROGRAM

Our graduate students work closely with leading experts in their field and conduct research in Maine's North Woods, in state-of-the-art laboratories or at a number of locations around the world. Nearly all of our graduate students are financially supported with graduate assistantships and paid tuition. Students may choose from a range of specialties, including forest operations and engineering; bioproducts and technology; wood composites and forest-based biofuels.

OUR FACULTY

UMaine's School of Forest Resources faculty is known as a source of objective scientific information. They have an international reputation for cutting-edge research innovation, and are committed to educating the next generation of leaders on forest resources issues. In a typical year, our faculty receives \$2.5 million in research grants and authors over 40 papers in peer-reviewed journals. They also provide leadership regionally and nationally to professional organizations.

OPPORTUNITIES TO EXCEL

Undergraduates in forest operations, bioproducts and bioenergy have an opportunity to study, interact and conduct research and fieldwork with graduate students from around the world. Students work closely with active faculty researchers who explore and extend the latest knowledge in forest science. Alumni have donated over \$16 million in more than 60 named scholarship funds and faculty endowments. Students are encouraged to join the UMaine chapter of the Society of American Foresters, Forest Products Society and the Woodsmen's Team. They also have opportunities to attend conferences and meetings of the Society of American Foresters and the Society of Wood Science and Technology. Special recognition includes the university chapter of the national forest resources honor society, Xi Sigma Pi. Summer work and internships are readily available for students. The professional experience and contacts gained through summer activities provide a real advantage when our graduates apply for jobs. An annual forest resources job fair also provides students an opportunity to find internships and jobs.

HOW DO I APPLY?

Visit umaine.edu for an application, as well as information about academics and life at UMaine.

