

College Outreach

ESF's outreach mission is to enrich the education and professional practice of individuals and organizations that share our commitment to improving our world. ESF and its partners pursue a diverse range of programs and projects that reflect the enduring and emerging needs of society. These include credit courses, certificates and part-time degree programs; professional education programs; experiential learning programs for middle and high school students; and grant-funded projects. Practitioners, educators, and others from public, private, educational and non-profit sector organizations make up the several advisory councils that inform program strategy.

Continuing Education Units, Professional Development Hours, and other professional certification may be earned through many programs.

Programs and projects are offered for non-matriculated/non-degree participants; environmental and natural resources professionals; environmental/natural resources policy makers and those who influence policy; college/university graduate students, faculty and administrators; middle and high school educators, building and district leaders; and members of the general public who wish to pursue interests and programs to serve their needs.

Educational Outreach to Middle and High School Students and Educators

www.esf.edu/outreach/k12/

ESF offers myriad opportunities for students and teachers to participate in educational programs. Among them are:

- ESF in the High School school (details below)
- The SAGE (Sustainability and Green Entrepreneurship) Project
- ESF SCIENCE (Summer Camps Investigating Ecology in Neighborhood and City Environments)
- Summer Institute for Science Teachers
- Student science research symposia
- Environmental Challenge (middle school)
- Environmental Summit (high school)
- ESF Science Corps-partnerships and service-research projects with K-12 schools, environmental education organizations, community/neighborhood organizations, business and public organizations
- Supplemental Curriculum Materials (including *Conservation and Use of Native Plants*, *Sustainable Communities*, and *Willow Biomass: A Renewable Source of Energy*)

Professional Education Programs

www.esf.edu/outreach/pd/

In addition to new and unique programs offered each year, programs typically offered annually include:

- New York State Geographic Information Systems (GIS) Conference
- Forest Biorefinery and Sustainability: Bringing bio-based products to market
- Kiln Drying Workshop

- Green Building Conference
- Northeastern Recreation Research Symposium
- CNY American Society of Photogrammetry and Remote Sensing, New York State Remote Sensing Symposium
- New York State Stormwater Management Program workshop series
- SUNY SPARE (Solar Power as Renewable Energy) training program
- Sustainable Use of Renewable Energy (SURE) Symposium
- Certificate of Advanced Study in Bioprocessing

Professional Certification/Licensure

Fundamentals of Engineering (FE) and Professional Engineer (PE) License Exam Review Course
CEUs, PDHs, LUs and other professional certification may be earned through selected conferences and workshops

Non-matriculated undergraduate and graduate credit course registration

www.esf.edu/outreach/ce/

ESF Online distance learning courses

Late afternoon/early evening courses

Sustainable Futures: Shannon (LA)/Monteverde Institute, Costa Rica

ESF in the High School

www.esf.edu/outreach/esfhs

ESF in the High School is a program that makes it possible for qualified high school teachers and students to benefit from college mentors and credit-bearing courses. It is a school/college partnership program that enables qualified students to:

- Experience college-level coursework while still in high school;
- Understand the complex scientific and social perspectives behind the environmental issues that make headlines every day such as the relationship between energy and the environment;
- Learn about and explore diverse interests and career opportunities in environmental science, engineering, management, policy and design – and in related areas such as law, communications, technology and medicine.

ESF in the High School Courses

Courses include ESF's environmental science course, Global Environment (EFB 120, 3 college credits) and Writing and the Environment (CLL 190, 3 credits). Key environmental science themes and critical thinking skills form the basis for classroom and experiential learning activities. Global Environment's interdisciplinary approach reflects our enduring belief that all students, regardless of their specific college and career paths, will benefit from an understanding of the linkages among human social systems and biophysical systems.

Students explore the relationships between their local rural, urban, and suburban communities and the broad global context of environmental change. Opportunities abound for including course topics based on available local and regional resources as well as teacher interests, expertise, and experiences. Ultimately, we seek to develop students and citizens who have a solid

understanding of science and a sense of wonder and appreciation for the earth as a system.

EFB 120 may be taught as a half-year fall, half-year spring, or full-year course. Classes have opportunities for day field trips to ESF's main campus, regional campuses such as Wanakena in the Adirondacks, and field stations, as well as in-school presentations and demonstrations by ESF faculty, staff and students. Students and teachers receive on-site use and borrowing privileges at the ESF library. *ESF in the High School* students are held to the same academic expectations as students at SUNY ESF.

ESF in the High School Teachers

ESF in the High School teachers are qualified high school teachers who must earn an appointment as an ESF adjunct instructor. They teach their ESF in the High School course in their school as part of the high school schedule. Teachers participate in mentoring and professional development relationships with ESF faculty and educational specialists, and with other *ESF in the High School* teachers. Participating teachers and students form learning communities through which they share information, teaching/learning experiences, and related ideas and materials.

Tree Pest Information Service www.esf.edu/lfs/treepest.htm

Established in 1950, the Tree Pest Information Service is one of ESF's oldest public service endeavors. The unit focuses on insects and diseases associated with urban, forest and plantation trees. Additionally, the service provides the public with information on plants, wildlife problems and a range of household pests. Personnel respond to more than 1,000 calls and site visits each year.

The Tree Pest Information Service assists commercial concerns, forest industry, government agencies, primary and secondary schools, colleges, and the general public. It also assists in basic research and collects materials for use by agencies such as the New York State Department of Environmental Conservation and the U.S. Forest Service, as well as for the College.

The service uses the College's resources and capabilities to provide identification of various organisms, pest remediation recommendations and tree health information, and to produce and distribute technical and non-technical publications.

Wood Utilization Service www.esf.edu/cmwpe/wus/

The Wood Utilization Service is the oldest public service and demonstration effort of the College of Environmental Science and Forestry. It was established in 1913 to carry out activities which facilitate and encourage the most efficient ways to process, manufacture, market and use wood, the premier renewable, sustainable, economical and environmentally beneficial construction, building, and manufacturing material.

Services provided include advising, answering questions, consulting, and testing, and demonstrations and use of ESF's unique wood-processing and testing facilities. Typical clients include the general public, business and industry, and various government agencies and professional associations. Issues and products can range from the manufacture of high quality hardwood lumber, millwork, furniture and flooring, to the manufacture of baseball bats, utility poles, and pressure-treated lumber. Examples of recent services include assistance with the following: wood shrinkage and moisture issues in furniture

production; IPPC ISPM compliant international shipping; storage of kiln-dried lumber; wood identification; improvement of production processes and yields; preservative treatments and wood performance; wood deterioration; best kiln drying of maple, oak, pine and other species; and use of locally manufactured lumber.

College faculty and Wood Utilization Service staff are active in professional associations, such as the Empire State Forest Products Association, New England Kiln Drying Association, Lake Erie and Ontario Sawyers and Filers Association, Forest Products Society, Society of Wood Science and Technology, and the American Wood Protection Association. The Wood Utilization Service also organizes and sponsors an annual Kiln Drying Workshop: Drying Quality Lumber for Profit.