Career and Graduate School Options

State University of New York College of Environmental Science and Forestry
Syracuse, New York
ESF graduates get jobs all over the world, in all kinds of locations and all kinds of environments. Some work in their hometowns. Others work in exotic locales in Africa, Europe or Asia. Some work in a forested wilderness area. Others work in high-tech manufacturing environments or state-of-the-art laboratory facilities. Many work in the nation’s urban centers; others in suburban and rural towns.

ESF graduates have a wealth of opportunities to pursue because the College emphasizes problem-solving and communications skills as much as it focuses on science and professional training.

In the following pages, you will find examples of many careers that ESF alumni have pursued successfully, as well as some of the graduate degree programs they have entered.

ESF’s academic program areas are affiliated with some of the largest industries in the United States. The U.S. Department of Labor predicts that job opportunities for our graduates will continue to grow. You can prepare for a career that will change the world by choosing ESF.

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### Job Titles for Recent ESF Graduates

#### Chemistry
- Air Quality Specialist
- Analytic Chemist
- Biochemist
- Chemical Engineer
- Chemical Marketing Representative
- Chemical Research Engineer
- Environmental Analyst
- Environmental Chemist
- Environmental Inspector
- Field Chemist
- Hazardous Material Specialist
- Hazardous Waste Engineer
- Hazardous Waste Site Manager
- Industrial Hygienist
- Laboratory Supervisor
- Medical Lab Researcher
- Natural Products Chemist
- Organic Chemist
- Pesticide Residue Chemist
- Pharmaceutical Chemist
- Pollution Analyst
- Pollution Control Specialist
- Polymer Chemist
- Product Development Chemist
- Public Interest Chemist
- Quality Assurance Chemist
- Radiation Protection Specialist
- Research Biochemist
- Research Chemist
- Technical Service Representative
- Toxicologist
- Water and Air Quality Analyst

#### Environmental and Forest Biology
- Agricultural Extensionist
- Agriculture Researcher
- Agronomist
- Air Pollution Control Analyst
- Animal Ecologist
- Animal Physiologist
- Animal Scientist
- Aquatic Biologist
- Aquatic Ecologist
- Assistant Professor
- Associate Zoo Director
- Biology Teacher
- Biometrician
- Bioprocess Associate
- Botanist
- Clinical Laboratory Investigator
- Coastal Zone Resources Specialist
- Commercial Fisherman
- Conservation Biologist
- Conservation Educator
- Cooperative Extension Agent
- Cytologist
- Ecological Inventory Researcher
- Ecological Modeler
- Entomologist
- Environmental Analyst
- Environmental Conservation Officer
- Environmental Consultant
- Environmental Education Specialist
- Environmental Protection Specialist
- Fish and Wildlife Ecologist
- Fish Farmer
- Fish Hatchery Manager
- Fish Pathologist
- Fisheries Biologist
- Forest Entomologist
- Game Biologist
- Geneticist
- Horticulturist
- Ichthyologist
- Industrial Hygienist
- Insect Control Examiner
- Invasive Plant Specialist
- Laboratory Animal Supervisor
- Landscape Ecologist
- Limnologist
- Mammalogist
- Marine Resources Specialist
- Microbiologist
- Mycologist
- Oceanographic Ecologist
- Ornithological Field Researcher
- Ornithologist
- Park Naturalist
- Pesticide Investigator
- Physician
- Plant Breeder
- Plant Pathologist

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U.S. Department of Labor Projections for Employment Growth 2010-2020

<table>
<thead>
<tr>
<th>Job Category</th>
<th>2010-2020 Growth</th>
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<tbody>
<tr>
<td>Biochemists</td>
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<td>Construction Managers</td>
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<td>Environmental Engineers</td>
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<td>Environmental Scientists***</td>
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<tr>
<td>Forest Resources Managers</td>
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<tr>
<td>Landscape Architects</td>
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<td>Surveyors</td>
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Legend:  □  up to 5%  □  6 to 14%  □  15 to 20%  □  21% or more

*Includes Animal/Plant/Wildlife Scientists
**Includes Paper/Bioprocess Engineers
***Includes Environmental Health Scientists

On the cover: NASA Earth Observatory image by Robert Simmon, using Suomi NPP VIIRS data provided courtesy of Chris Elvidge (NOAA National Geophysical Data Center).
Success Stories

Joe Martens
Resources Management, M.S. ’81

“ESF is what brought me to New York state in the first place,” said Joe Martens, “and it had a profound influence on my career and life path.”

A native of Connecticut, Martens has called New York home ever since he came to ESF for graduate school and then went to Albany for an internship with the state assembly to complement the work in his master’s degree program.

His ESF experience led him to positions in government and nonprofit agencies and to an appointment by Governor Andrew Cuomo as commissioner of the New York State Department of Environmental Conservation (DEC) in 2011.

With a career dedicated to protecting and improving the environment, and with substantial responsibility for shaping government policies, Martens worked to help the state solve some serious environmental issues in areas such as hydraulic fracturing, invasive species, water quality and flood control.

Regarding hydraulic fracturing, Martens feels New York is “in a good spot” in the national debate on the method of extracting natural gas through deep, horizontal wells. A recent three-year study recommended stringent requirements for hydraulic fracturing, and public input was sought to formulate New York’s regulations.

It’s issues such as hydraulic fracturing (commonly known as hydrofracking) that ESF graduates are well prepared to help New York — and the world — face in the future, according to Martens. As the leader of the DEC, Martens brought a solid understanding of both environmental issues and the way state government works.

“ESF is poised like no other College to put people in positions of critical importance around the world. ESF students are trained in issues that will be important in our time,” he said.

While the environmental challenges for the state are immense, Martens said he enjoyed the fact that his work put him in contact with many colleagues at the state and federal levels who are also ESF alumni. “I experience this wherever I go. People are proud to tell me they went to ESF when I see them,” he said.

Prior to leading the DEC, Martens was president of the Open Space Institute (OSI), a non-profit organization dedicated to protecting scenic, natural, and historic landscapes to ensure public enjoyment, conserve habitats, and sustain community character. More than 100,000 acres in New York have been protected through OSI’s direct acquisition and conservation easements.
Howard “Bud” Ris  
Landscape Architecture, M.L.A., ’75

In the early ’70s, the environmental movement was gaining momentum, and Howard “Bud” Ris was eager to be a part of the promised changes. “A new consciousness about man’s role as a steward of the planet was taking hold. Landscape architects had a huge role to play, and we all left ESF eager to take on this new responsibility,” Ris said.

After leaving ESF and attaining senior positions in a consulting firm and various government agencies, Ris joined the Union of Concerned Scientists (UCS), headquartered in Cambridge, Mass., a nonprofit partnership of scientists and citizens combining scientific analysis, innovative policy development and effective citizen advocacy to achieve practical environmental solutions.

By the time he retired 22 years later as president, Ris had helped the organization expand from a handful of scientists focused on nuclear arms control and national energy policy to a multi-issue environmental organization tackling a range of public policy issues from climate change to biotechnology and invasive species. Ris’ UCS successes include enacting legislation that resulted in the introduction of hybrid cars; improving safety standards for nuclear facilities around the nation; enacting tax incentives for renewable energy which have allowed alternate technologies to gain solid footing; and mobilizing the scientific community to demonstrate consensus on the need for action on climate change.

After leaving UCS, Ris became a senior fellow at the World Economic Forum in Geneva, Switzerland where he was a key figure in debates on such issues as global warming.

He returned to the States in 2005 to take the helm of the New England Aquarium in Boston, Mass., as president and CEO. He spent the last nine years revitalizing Boston’s popular aquarium and marine conservation organization before retiring from that post in 2014.

It is to ESF’s George Curry that Ris attributes his ability to break complex issues into smaller components and arrive at a solution. “Professor Curry was a very instrumental figure in my life. He taught me that no problem was too big to solve, and he gave me the skills — and the confidence — to do it.”

“In those early days of the graduate program in the School of Landscape Architecture, there was a great sense of idealism - a lot of it inspired by our principal mentor, Professor Curry. He helped us understand where the profession of landscape architecture fit into the larger scheme of things — especially how the natural world and human society intersect — and how we could make the world a better place.”
Ranger School – A.A.S. Forest Technology, Surveying and Conservation Programs
Arboriculturist
Arborist
Assistant Forest Ranger
Biotechnician
Civil Technician
Conservation Technician
Entomology Research Assistant
Environmental Technician
Fish and Wildlife Technician
Forest Consultant
Forest Technician
Forestry Contractor
Land Surveyor
Lumber Buyer
Lumber Grader
Park Ranger
Parks and Recreation Specialist
Procurement Forester
Recreation Technician
Soil/Water Technician
Surveyor (Construction & Forest)
Timber Cruiser
Timber Inventory Technician
Vegetative Control Supervisor
Wetland Ecologist

Landscape Architecture
Adirondack Park Project Specialist
Architectural Estimator
CADD Operator
City Planner
Coastal Zone Resource Specialist
Community Planner
Design Associate
Engineering Draftsman
Environmental Planner
Environmental Project Manager
GIS Mapper
Highway Landscape Architect
Historic Preservation Architect
Historic Preservation Officer
Horticultural Specialist
Junior Environmental Designer
Land Use Planner
Land Use Planning Supervisor
Landscape Architect
Landscape Contractor
Landscape Designer

Employment Sectors for Recent ESF Graduates
- Business and Industry: 60%
- Not-for-Profit: 20%
- Government: 20%

Ana Maria Menezes
Environmental and Natural Resources, Ph.D., ’08

Growing up in Mozambique, Ana Maria Menezes decided she would find a career that allowed her to speak — and seek justice — for those whose voices are not heard by people in positions of power.

A Fulbright Scholarship brought her to ESF, where she earned her Ph.D. in environmental and natural resources in 2008. She focused on artisanal fisheries. At the same time, she studied public administration at the nationally ranked Maxwell School of Citizenship and Public Affairs at Syracuse University.

After graduation from ESF, Menezes headed to Washington, D.C., and a position with the United Nations’ Food and Agricultural Organization, where she and her colleagues researched solutions to a potential global fish crisis.

Menezes is a full-time consultant for the U.N. Environmental Programme, working on environmental mainstreaming and adaption to climate change. She describes her job as strengthening the environmental knowledge of decision-makers and supporting the integration of environmental considerations in the development of governmental policy, and supporting local environmental plans through the participatory processes.

“The best thing I got from ESF was improving my analytical skills and the exposure to different ways of looking at the same thing,” Menezes said. “The interaction with other people and their experiences around the world is priceless if one wants not only to be a good researcher but to excel in his/her profession and as a human being.”

Don Moore
Environmental and Forest Biology, B.S. ’76, Ph.D. ’01

Don Moore thought he knew a major conservation problem when he saw one. Then he started working with Polar Bears International, an organization dedicated to stewardship of the world’s largest land predator.

“I’ve worked on conservation problems that I thought were big and compared to this, they were small,” said Moore, expressing his concern about global climate change and the effect it’s having on the habitat of polar bears.

Moore is the director of animal care at the Smithsonian National Zoo in Washington, D.C., where he is responsible for creating conservation and animal management plans for the zoo.

Animal care scientists are “the front line for getting information out to the public,” he said. They design complex zoo habitats and provide interpretation and conservation education.

Moore also serves as a scientific advisor to Polar Bears International, a non-profit organization that works toward the worldwide conservation of the polar bear and its habitat. He said focusing on polar bears helps highlight the need for conservation. He offers simple ways for people to help save the Arctic ecosystem and in turn the polar bear. “Turn off lights and televisions. Reduce garbage and consumption, recycle, reduce your carbon footprint. Save energy and save polar bears.”
Holly Andersen  
Construction Management, B.S., ’01

Being a woman in the construction field can be challenging, but 2001 ESF graduate Holly Andersen has a construction management position that she not only loves but that puts her professional know-how to the test.

As the sole construction project manager in Bennington College's lively planning office, Andersen has spent the last several years helping reshape the college's Vermont campus. In her role, she plans and oversees all projects involving capital construction, from blueprint, through the actual building process, to project completion and close out.

Recently Andersen helped Bennington College take a big step toward its long-range goal of carbon neutrality. Through a partnership with Efficiency Vermont, a nonprofit state energy organization, the college reduced its energy usage by 12.4 percent in two years.

Communicating face-to-face whenever possible and making sure that faculty and staff members are informed not only of a project’s design intent but also when to expect disruptions to their normal routines — such as noisy construction activities — we are some of strategies she likes to use, she said.

“The skills I gained at ESF have been critical,” she said. “My professors taught me the fundamentals of working with teams and the ability to communicate throughout a project.”

Her advisors at ESF also helped her get an internship with Northeast Construction Company during the summer of 2000 that played a huge role in helping Andersen realize she wanted to dedicate her career to construction and planning. The internship experience gave Andersen a sense of what it would be like to work in construction full-time, she said - everything from wearing work boots to interacting with other professional construction workers, designers, and owners.

“I can’t imagine having a more fun job,” Andersen said. “I get to work with amazing people and help make Bennington better every day. On any given day I can go from a priority-setting meeting with the president, to uncovering a steam leak in a ditch, to a planning session with faculty and staff members, to inspecting work needed in a mechanical room or up on a roof. I love it.”

Examples of Employers Hiring ESF Graduates

Abbott Labs
Adirondack Park Agency
Albany Molecular Research
AmGen
American Museum of Natural History
Appleton Papers, Inc.
ARCADIS
AT&T
Atlantic Testing Labs Inc.
Bank of America
Blasland, Bouck & Lee, Inc.
Boise Cascade Corp.
Bristol-Myers Squibb Company
Calgon Corp.
Camp, Dresser & McKee
Carborundum Corp.
Centex Homes
Champion International Corp.
City of Syracuse
Clough, Harbor & Associates
Continental Can Corp.
Corning Inc.
C&S Engineers
CH2M Hill
CS Environmental Labs
Cummings Nature Center
Defense Mapping Agency
Diamond Shamrock
Domtar Paper
Doris Duke Charitable Foundation
Dow Chemical
e2e Materials LLC.
Eastman Kodak Co.
Eastern Mountain Sports
edr Companies
Energy Answers Corp.
Environmental Defense Fund
Finch Pruyn Inc.
Fairfax County School District
Federal Paper Board Co.
Fisher Landscape Associates
Fleetwood Homes Inc.
Florida Department of Forestry
Forecon Inc.
General Electric Corp.
Genesee Land Trust
Georgia Pacific Corp.
Goulds Pumps Inc.
Greenpeace
IBM
Idaho Department of Fish and Game
Haden Stanziale
Hanford Pharmaceuticals
Hayner Hoyt Corporation
Hercules Inc.
Hueber-Breuer Construction
International Paper Co.
International Telephone & Telegraph Co.
James River Corp.
John Deere Corp.
Kimberly-Clark Corp.
Land Design North
LeChase Construction Services
Marcal Paper Co.
Marine Science Consortium
Mead Westvaco
Mobile Chemical Co.
Monsanto Company
Mt. State Surveying Co.
National Grid
National Park Service
National Science Foundation
New York Botanical Gardens
New York City Planning Department
New York City Parks Department
New York State Assembly
New York State Department of Environmental Conservation
New York State Department of Health
New York State Parks & Recreation
New York State Department of Transportation
New York State Power Authority
Oak Ridge National Laboratory
O’Brien & Gere Engineering
Oneida County Planning Department
Oneida Research Corp.
Osmose Wood Preserving
Owens Corning Fiberglass
Packaging Corp. of America
Potomac Electric & Power Co.
Pratt Industries
Proctor & Gamble Corp.
Purcell Construction Corp.
RockTenn/Solvay Paperboard
Saratoga Associates Inc.
Savannah River Ecology Lab
Schenectady Chemicals Inc.
Schlumbergen Inc.
SeaWorld
Seatuck Environmental Association
Stearns & Wheler Engineers
Stickley Furniture
St. Joseph’s Hospital
Landscape Architect, B.S. ’04

Wendy Andringa, a landscape architect, works at the forefront of public and residential projects in New York City and beyond, but it was her interest in designing plant- scapes in challenging growing conditions that led her to create Greenlab Studio in 2011 while working in Colorado. Because green walls are vertical structures, they present different challenges than those of traditional horizontal green roofs.

Greenlab Studio is an experimental laboratory that designs, builds and tests green walls, which are basically vertical versions of the more widely used green roof concept. “I wanted to make things and test ideas that I had,” Andringa said.

Conducting research on green walls has also helped keep her creative process fresh and active.

“When you’re spending as much time as landscape architects do in the office doing drawings, it’s good to get out of the office environment to keep your creativity active,” she said.

“Green walls are tricky,” she said. “The technology is still kind of young and there is a high failure rate that I was curious about.” Andringa began building modules and testing them, looking at issues such as drainage and how to get water to the plants. “There are a number of practical concerns,” she noted.

When Andringa returned to New York City in 2012 to work at Starr Whitehouse, she brought her research lab with her and expanded it to include more general design research.

“I think the (plantscape) research applies better in New York — there’s more practical use,” she said. “Colorado is so abundantly green, the beautiful landscape is all around you. What I’m doing applies more to urban environments.”

At Starr Whitehouse, she is an associate landscape architect leading a team of designers in creative landscape projects. She is involved in design and development of modular green infrastructure strategies to help mitigate urban stormwater issues in New York City. She also teaches public workshops that create awareness of the need for stormwater mitigation through green walls and green roofs.

During her time at ESF, Andringa had no idea she would branch off in the direction she eventually followed. “I knew I was going to work in New York City and I never thought I’d leave, but I’m so glad I did. I’m so glad I took that opportunity (to move to Colorado),” she said.

“Going out of your comfort zone puts you in a different mindset where you’re willing to try different things,” she said. “I was in a new environment with what seemed like unlimited space and resources so I just did it.”

### Some Graduate Schools Attended by ESF Students

- Albany Law School
- American University
- Boston College Law School
- Boston University
- Brown University
- Clemson University
- Columbia University
- Cornell University
- Duke University
- Georgetown University Law School
- Johns Hopkins University
- Kansas State Veterinary Medicine
- Massachusetts Institute of Technology
- Michigan State University
- New York Medical College
- North Carolina State University
- Northeastern Law School
- Northwestern University
- Ohio State Veterinary Medicine
- Oklahoma State University
- Oregon State University
- Pace University Law School
- Pennsylvania State University
- Princeton University
- Purdue University
- Rensselaer Polytechnic Institute
- Rochester Institute of Technology
- Rutgers University
- SUNY-Albany
- SUNY-Binghamton
- SUNY-Buffalo
- SUNY-ESF
- SUNY-Stony Brook
- SUNY-Upstate Medical University
- Syracuse University
- Temple University-Dentistry
- Texas A&M University
- University of Arizona
- University of California (Spain)
- University of Bergan (Norway)
- University of California at Berkeley
- University of Cincinnati
- University of Colorado
- University of Connecticut
- University of Delaware
- University of Florida
- University of Georgia
- University of Idaho
- University of Illinois
- University of Kansas
- University of Maine
- University of Maryland
- University of Massachusetts
- University of Michigan
- University of Minnesota
- University of Montana
- University of Nevada
- University of New Hampshire
- University of North Carolina
- University of Notre Dame
- University of Pennsylvania
- University of Rhode Island
- University of Rochester
- University of Southern California
- University of Tennessee
- University of Vermont
- University of Victoria (Canada)
- University of Waterloo (Canada)
- University of Wisconsin
- Vanderbilt University
- Vermont Law School
- Virginia Polytechnic Institute
- West Virginia University
- Yale University
For Admissions information, contact:
Office of Undergraduate Admissions
SUNY College of Environmental Science and Forestry
Gateway Center
1 Forestry Drive
Syracuse, New York 13210
315-470-6600 Fax: 315-470-6933

For more information on ESF Careers, contact:
Office of Career and Counseling Services
SUNY College of Environmental Science and Forestry
110 Bray Hall
1 Forestry Drive
Syracuse, New York 13210
315-470-6660 Fax: 315-470-4728