

# DEGREE PROGRAMS AND AREAS OF STUDY

## Undergraduate Programs

- **Other Undergraduate Study Pages**

- [General Education](#)
- [Minors](#)
- [Special Academic Options](#)

ESF is authorized by the New York State Department of Education to offer undergraduate and graduate degree programs as described in this catalog. A comprehensive list of degree programs is provided below.

The Higher Education General Information Survey (HEGIS) code is the number assigned to programs registered by the commissioner of the New York State Department of Education. The Classification of Instructional Programs (CIP) Code allows the U.S. Department of Education to track educational programs for financial aid eligibility. Enrollment in programs that are not registered or otherwise approved may jeopardize a student's eligibility for certain financial aid programs.

### **Associate in Applied Science (A.A.S.)**

- [Environmental and Natural Resources Conservation](#) (HEGIS Code 5403, CIP Code 030101)
- [Forest Technology](#) (HEGIS Code 5403, CIP Code 030511)
- [Land Surveying Technology](#) (HEGIS Code 5309, CIP Code 151102)

### **Bachelor of Landscape Architecture (B.L.A.)**

- Landscape Architecture (HEGIS Code 0204, CIP Code 040601)
  - [B.L.A./M.S. Fast-Track](#) (HEGIS Code 0204, CIP Code 040601)

### **Bachelor of Science (B.S.)**

- [Aquatic and Fisheries Science](#) (HEGIS Code 0115, CIP Code 261304)
- [Biochemistry](#) (CIP Code 260202)
- [Bioprocess Engineering](#) (HEGIS Code 0905, CIP Code 140501)
- [Biotechnology](#) (HEGIS Code 0499, CIP Code 261201)
- [Chemical Engineering](#) (HEGIS Code 0906, CIP Code 140701)
- [Chemistry](#) (HEGIS Code 1905, CIP Code 400501) with options in biochemistry and organic chemistry of natural products, environmental chemistry, or natural and synthetic polymer chemistry.
- [Conservation Biology](#) (HEGIS Code 0420, CIP Code 261307)
- [Construction Management](#) (HEGIS Code 0599, CIP Code 522001) with elective concentration in sustainable construction and renewable materials.
- [Environmental Biology](#) (HEGIS Code 0420, CIP Code 261305)
- [Environmental Education and Interpretation](#) (HEGIS Code 0499, CIP Code 269999)
- [Environmental Health](#) (HEGIS Code 0420)
- [Environmental Resources Engineering](#) (HEGIS Code 0999, CIP Code 141401)
- [Environmental Science](#) (HEGIS Code 0420, CIP Code 030104) with options in renewable energy, environmental information and mapping, watershed science, health and the environment, earth and atmospheric systems science or environmental analysis.
- [Environmental Studies](#) (HEGIS Code 0420, CIP Code 030103) with options in biological science applications; environmental policy, planning and law; or environment, communication and society.

- [Forest Ecosystem Science](#) (HEGIS Codes 0114, CIP Code 261307)
- [Forest Health](#) (HEGIS Code 0114, CIP Code 030502)
- [Forest Resources Management](#) (HEGIS Code 0115, CIP Code 030501)
- [Natural Resources Management](#) (HEGIS Code 0115, CIP Code 030201)
- [Paper Engineering](#) (HEGIS Code 0999, CIP Code 144001)
- [Renewable Materials Science](#) (HEGIS Code 0999, CIP Code 144001)
- [Sustainability Management](#) (online, CIP Code 303301)
- [Sustainable Energy Management](#) (HEGIS Code 0115, CIP Code 030201)
- Undeclared Option (open to first-year students)
- [Wildlife Science](#) (HEGIS Code 0107, CIP Code 260709)

## Graduate Programs

- Graduate Study: Degrees & Options

### Chemical Engineering

(HEGIS Code 0999, CIP Code 144001)

#### M.S., M.P.S. and Ph.D. in Bioprocess Engineering

- [Bioprocess Engineering](#) (Biocatalysis and Bioreaction Engineering, Bioseparations Engineering, Bioprocess Design, Simulation and Control, Bioenvironmental Engineering, Renewable Energy and Biofuels, Biopharmaceuticals, Industrial Biological Processes, Bioprocess Engineering (M.P.S. only))

#### M.S. and Ph.D. in Paper and Biomaterials Engineering

- [Paper and Biomaterials Engineering](#) (Biocomposite Materials, Biopolymers, Bioactive Materials and Biosensors, Nanocomposites and Nanostructured Materials)

#### M.S., M.P.S. and Ph.D. in Paper Science and Engineering

- [Paper Science and Engineering](#) (Pulping and Bleaching Processes (M.S., Ph.D.), Colloidal Chemistry and Fiber Flocculation (M.S., Ph.D.), Fiber and Paper Physics (M.S., Ph.D.), Process and Environmental Systems Engineering (M.P.S., M.S., Ph.D.), Pulp and Paper Technology (M.P.S.))

#### M.P.S. in Sustainable Engineering Management

- [Sustainable Engineering Management](#) (Areas of Study include: Bioprocess Engineering, Paper Engineering)

#### M.S., M.P.S. and Ph.D. in Wood Science

- [Wood Science](#) (Topic Areas include: Engineered Wood Products and Structures (timber structure design), Tropical Timbers, Wood Anatomy and Ultrastructure, Wood Science and Technology, Wood Treatments)

### Chemistry

(HEGIS Code 1905, CIP Code 400509)

#### M.S., M.P.S. and Ph.D. in Chemistry with areas of study in:

- [Biochemistry](#)
- [Environmental Chemistry](#)
- [Organic Chemistry of Natural Products](#)
- [Polymer Chemistry](#)

## **Environmental Biology**

(HEGIS Code 0499, CIP Codes 261307)

**M.S., M.P.S. and Ph.D. in Environmental Biology with areas of study in:**

- Aquatic & Fisheries Science
- Chemical Ecology (with the Dept. of Chemistry)
- Conservation Biology
- Ecology and Evolution
- Entomology
- Environmental Biotechnology
- Indigenous Peoples & the Environment
- Microbiology
- Molecular Biology & Ecology
- Mycology & Forest Pathology
- Plant Science
- Wildlife Ecology & Management

## **Environmental Resources Engineering**

(HEGIS Code 0999, CIP Code 141401)

**M.E., M.S., M.P.S. and Ph.D. in Environmental Resources Engineering with areas of study in:**

- Ecological Engineering
- Environmental Management
- Environmental Resources Engineering
- Geospatial Information Science and Engineering
- Water Resources Engineering

## **Environmental Science**

(HEGIS Code 0420, CIP Code 030104)

**M.S., M.P.S. and Ph.D. in Environmental Science with areas of study in:**

- Climate and Energy
- Ecosystems: Land, Water and Air
- Policy, Planning, Communication and Society

## **Environmental Studies**

(HEGIS Code 0420, CIP Code 030103)

**M.S. and M.P.S. in Environmental Studies with areas of study in:**

- Environmental Communication
- Environmental Policy
- General Environmental Studies
- Graduate Certificates
  - Environmental Decision Making
  - Environmental Justice and Inequality (online)
  - Environmental Leadership (online)
  - Science and Environmental Communication and Public Relations Management (online)
- *M.P.S. in:*

- [Environmental Leadership, Justice, and Communication \(online\)](#)

## Landscape Architecture

(HEGIS Code 0204, CIP Code 040601)

### **Master of Landscape Architecture (M.L.A.) and M.S. in Landscape Architecture with areas of study in:**

- Community Design and Planning
- Cultural Landscape Studies and Conservation
- Landscape and Urban Ecology

### **Sustainable Resources Management**

(HEGIS Code 0115, CIP Code 030506)

### **M.S., M.P.S. and Ph.D. in Forest Resources Management with areas of study in:**

- [Ecology and Ecosystems](#)
- [Economics, Governance and Human Dimensions](#)
- [Forest Management & Silviculture](#)
- [Monitoring, Analysis and Modeling](#)

### **M.S. , M.P.S. and Ph.D. in Natural Resources Management (CIP Code 3.0199)**

- [Natural Resources Management](#)

### **M.S. , M.P.S. and Ph.D. in Sustainable Construction Management with areas of study in:(CIP Code 14.3301)**

- [Construction Management](#)
- [Sustainable Construction](#)

### **M.S. , M.P.S. and Ph.D. in Sustainable Energy (CIP Code 30209)**

- [Sustainable Energy](#)

### **Master of Forestry (M.F.)**

- [Forest Management and Operations](#)

### **Graduate Certificate**

- [Climate Sustainability Leadership](#)
- Graduation Rate for Undergraduate Students

Graduation rate and retention information are available on the ESF [Student Consumer Information website](#). Graduation rate data is also published annually on the federal government's College Navigator website.

