

# The Ranger School

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[www.esf.edu/rangerschool](http://www.esf.edu/rangerschool)

## Participating Faculty

Staff (Fire Control), BRIDGEN (Silviculture, Dendrology, Aerial Photogrammetry, Utilization, Timber Harvesting), JOHNSTON (Ecology, Forest Management, Forest Protection) SAVAGE (Forest Measurements, Recreation, Wildlife, Dendrology), WEBB (Surveying, Transportation), WESTBROOK, Director (Surveying, Leadership and Problem Solving, Water)

## Visiting Faculty

BENZEL, ROZESKI, ALLEN, SEHNERT

## About The Ranger School

In 1912, approximately 2,800 acres of land in the Adirondack Mountains were donated to the College as a site for the development of a ranger school. Since that time, The Ranger School has trained nearly 4,000 students, most of whom went on to work in a variety of forestry and surveying positions, and it has earned a national reputation for excellence. The program is administered by and is an integral part of the SUNY-ESF Department of Forest and Natural Resources Management. This unique model of a single professional faculty offering all levels of study from technical through postdoctoral emphasizes the teamwork approach to forest resource science and management espoused by the faculty.

The Ranger School curriculum educates students for careers in the areas of environmental conservation, forestry and surveying, while also providing preparation for continued education in related bachelor's degree programs. The degree of associate in applied science (A.A.S.) is awarded. Within the curriculum there are three areas of study: forest technology, land surveying technology and environmental and natural resources conservation.

Since The Ranger School is situated within a forest, some applicants may mistakenly believe that the experience is one of forest lore and wilderness survival. We strongly emphasize that the curricula demand high-quality academic achievement. Program completion requires concentrated and consistent study. Classes are scheduled from 8 a.m. to 5 p.m. Monday through Friday, with classroom and laboratory or field time equally divided. The intensity of the program normally requires a minimum of 70 hours a week of evening and weekend study, daily classes, and laboratory/field exercises. Several short trips are made during the year in connection with courses in dendrology, silviculture, forest management, forest recreation, wildlife ecology and surveying.

## Associate of Applied Science in Environmental and Natural Resources Conservation

The environmental and natural resources conservation program provides students with the scientific theory and applied skills necessary for a technical career in the environmental and natural resources sector. This program will provide students with a solid grounding in applied ecological and sociopolitical concepts, accompanied by technical training in plant and tree identification, land surveying, natural resources measurements, geospatial applications, soil and water monitoring, wildlife techniques and forest recreation.

Students interested in a baccalaureate degree should investigate the [Department of Forest and Natural Resources Management's bachelor's degree curriculum](#). Transfer is possible upon completion of the A.A.S. degree at Wanakena. Transfer into other baccalaureate programs at ESF may be possible, but students should consult with an advisor in the Undergraduate Admissions office as soon as possible. Students who may consider transferring to a baccalaureate program after graduation from the environmental and natural resources conservation program should pay close attention to the footnotes under "freshman year."

The freshman year environmental and natural resources conservation curriculum consists of general studies courses which may be taken at any accredited four-year, community, or agricultural college, or college of technology.

## Program Requirements

### First Year Required Courses (30 credits)

Completed at a college of the student's choice

COURSES	Credits
General Biology	4
Science Course (Biology, Chemistry, or Physics)	4
English with a Focus on Writing	6
Trigonometry	3
Policy/Government	3
Electives Students intending to apply to a four-year program after earning an A.A.S. degree should use electives to meet lower-division requirements	10

## Second Year Required Courses (48 credits)

COURSES		Credits
FTC 200	Dendrology	3
FTC 202	Introduction to Surveying	3
FTC 204	Introduction to Natural Resources Measurements	4
FTC 206	Forest Ecology	4
FTC 207	Forest Safety	1
FTC 208	Geographic Information Technology	3
FTC 209	Adirondack Cultural Ecology	3
FTC 211	Silviculture	4
FTC 219	Introduction to Forest Recreation	1
FTC 221	Natural Resources Management	3
FTC 223	Water Measurements	1
FTC 232	Wildlife Techniques	2
FTC 234	Wildlife Conservation	3
FTC 236	Interpretive Techniques in Forest Recreation	2
FTC 237	Introduction to Water and Soil Resources	3
FTC 238	Forest Insects and Disease	3
FTC 239	GIS Applications	2

Total minimum credits for the degree 75 credits

## Associate of Applied Science in Forest Technology

This degree provides students with knowledge of the field practice of forest management, the ability to work and communicate effectively with professional and paraprofessional personnel, and an understanding of the physical, biological and quantitative aspects that form the basis of forestry.

Graduates immediately find jobs at the technical level and are generally classified as forest technicians or forestry aides in initial employment positions. Forestry agencies and wood-using industries employ forest technicians as an important part of their forest management teams, usually as the “people on the ground” who plan and execute the field practice of forestry, normally under the supervision of a professional forester.

Students interested in a baccalaureate degree should investigate the [Department of Forest and Natural Resources Management’s bachelor’s degree curriculum](#). Transfer is possible upon completion of the A.A.S. degree at Wanakena. Transfer into other baccalaureate programs at ESF may be possible, but students should consult with an advisor in the Undergraduate Admissions office as soon as possible. Students who may consider transferring to a baccalaureate program after graduation from the forest technology program should pay close attention to the footnotes under “freshman year.”

The freshman year forest technology curriculum consists of general studies courses which may be taken at any accredited four-year, community, or agricultural college, or college of technology.

The second year of the curriculum is offered at the Wanakena Campus. Presented in a varied forest environment, the curriculum’s emphasis is on fundamental forestry knowledge and applied field training as well as the relationship between forest technology and managerial needs. About 50 percent of studies are devoted to field exercises, most of which are held at the school’s James F. Dubuar Forest. This excellent forest backdrop for the technology program provides a diverse laboratory for instructional purposes.

## Program Requirements

### First Year Required Courses (30 credits)

Completed at a college of the student’s choice

COURSES		Credits
General Biology		4
Science Course (Biology, Chemistry, or Physics)		4
English with a Focus on Writing		6

Trigonometry	3
Economics	3
Electives Students intending to apply to a four-year program after earning an A.A.S. degree should use electives to meet lower-division requirements	10

### Second Year Required Courses (48 credits)

COURSES		Credits
FTC 200	Dendrology	3
FTC 202	Introduction to Surveying	3
FTC 204	Introduction to Natural Resources Measurements	4
FTC 206	Forest Ecology	4
FTC 207	Forest Safety	1
FTC 208	Geographic Information Technology	3
FTC 210	Leadership and Forest Technology	3
FTC 211	Silviculture	4
FTC 213	Forest Inventory Practicum	2
FTC 215	Timber Harvesting	2
FTC 217	Wildland Firefighting and Ecology	2
FTC 219	Introduction to Forest Recreation	1
FTC 221	Natural Resources Management	3
FTC 223	Water Measurements	1
FTC 225	Timber Transportation and Utilization	3
FTC 234	Wildlife Conservation	3
FTC 238	Forest Insects and Disease	3

Total minimum credits for the degree 78 credits

### Associate of Applied Science in Land Surveying Technology

Many graduates of The Ranger School find the land surveying profession to be an exciting, challenging and rewarding career choice. As land values increase, technology advances, and laws and regulations become more complex, the education of land surveyors has become increasingly important. This degree was developed to address the current educational needs of the student interested in pursuing a career in surveying, as well as the needs of surveying employers. Students who choose this program will be exposed to the fundamentals of forest technology that are important to the land surveyor and will receive a more in-depth education in the area of surveying technology.

This degree was designed to provide the student with knowledge and skills in surveying measurements and computations; the ability to work and communicate effectively with professional land surveyors, survey technicians, lawyers, and the general public; an understanding of the principles and practices of surveying with particular emphasis on boundary surveying; and an understanding of land resource concepts important to the surveyor. Students graduate with an A.A.S. degree in land surveying technology.

Generally, graduates are employed by privately owned, small- to mid-size surveying firms specializing in boundary, construction, and topographic surveying. Graduates are employed as entry-level technicians performing a variety of tasks, including operating various surveying instruments, note keeping, drafting, and computer operation. Employment is also available with local, state and federal agencies such as the state Department of Transportation, state Department of Environmental Conservation, U.S. Forest Service, and Bureau of Land Management.

Two years of educational credit is given toward land surveying licensure in New York. Additional field and office experience under the direct supervision of a licensed land surveyor is needed prior to application to obtain a license.

Transfer into other baccalaureate programs at a variety of institutions is possible; however, students are encouraged to consult with the appropriate admissions office to discuss transfer options.

During the first year, students who plan on enrolling are encouraged to take small business management and additional mathematics as electives.

Given the nature of the curriculum, the availability of high-tech equipment, and the necessity of individualized instruction, entry into this area of study is limited to 15 students.

## Program Requirements

### First Year Required Courses (30 credits)

Completed at a college of the student's choice

COURSES	Credits
General Biology	4
Physics	4
English with a Focus on Writing	6
Trigonometry	3
Economics	3
Electives Students intending to apply to a four-year program after earning an A.A.S. degree should use electives to meet lower-division requirements	10

### Second Year Required Courses (45 credits)

COURSES	Credits
FTC 200 Dendrology	3
FTC 202 Introduction to Surveying	3
FTC 204 Introduction to Natural Resources Measurements	4
FTC 206 Forest Ecology	4
FTC 207 Forest Safety	1
FTC 208 Geographic Information Technology	3
FTC 210 Leadership and Forest Technology	3
FTC 223 Water Measurements	1
FTC 225 Timber Transportation and Utilization	3
FTC 251 Advanced Surveying Measurements and Computations	5
FTC 253 Surveying Law	3
FTC 255 Boundary Surveying	3
FTC 256 Subdivision Surveys	2
FTC 257 Construction and Topographic Surveys	3
FTC 259 Introduction to Computer Aided Drafting and Design	4

Total minimum credits for the degree 75 credits

## Combining Forest Technology and Forest Resources Management

There are several advantages of combining a Ranger School forest technology or environmental and natural resources associate's degree with a four-year B.S. degree in professional forestry. Ranger School graduates who go on to pursue the bachelor's degree have a solid field education as well as a managerial orientation and the deeper ecological and social understanding provided by the professional curriculum.

Students wishing to transfer from the forest technology concentration to the forest resources management program at the Syracuse campus will be admitted as juniors. They will be given credit for the summer session in field forestry. They will still have to complete some physical sciences, social sciences, and humanities requirements while in residence at Syracuse, depending on prior preparation. A maximum of 32 transfer credit hours from the sophomore year of the forest technology program will be counted toward the B.S. degree. All other requirements as set forth in the forest resources management program option must be met.

**Students contemplating subsequent transfer should concentrate their freshman year electives in the social sciences and humanities. Students should also complete the first semester in chemistry, one semester in physics, and a course in calculus prior to transferring. It is possible to be admitted without these courses, but subsequent progress in the program becomes more difficult.**

## DUAL MAJORS

Students who are pursuing the associate degree may pursue a dual major. Program requirements must be satisfied concurrently (i.e., a student cannot graduate from ESF and return later to complete coursework for a second major). Students may petition for admission to a dual major

A.A.S. degree after completing 18 credits and before 45 credits with an unambiguous GPA of 2.000 or greater (no grades of incomplete or missing grades). The diploma will state the completion of a single A.A.S. degree. The transcript will state the completion of two majors.

## **Life at Wanakena**

The Ranger School of the College of Environmental Science and Forestry is located on the banks of the Oswegatchie River near the hamlet of Wanakena, approximately 65 miles northeast of Watertown and 35 miles west of Tupper Lake. The program's buildings and its surrounding forest border on the river, which flows directly into Cranberry Lake. This managed forest, containing both hardwood and coniferous species, covers an area some three miles long with widths varying up to two miles. On two sides, state forest preserve lands bound the forest. The forest is also adjacent to several square miles of virgin timber within the Adirondack Forest Preserve.

The main building consists of a central service unit with two dormitory wings. The central unit contains classrooms, laboratories, computer room, a student lounge and kitchen, faculty offices, library, kitchen and dining hall, student exercise and recreation room, and conference room. Faculty and staff houses are nearby on the campus. Other buildings include a maintenance shop, garages, a sugarhouse, and storage buildings.

The close proximity of faculty offices and student quarters and the intensive fieldwork in the program enables students to consult easily and frequently with the faculty. The program considers this traditional close student-faculty association to be of major benefit in its educational program.

A small library of approximately 1,500 volumes consists of highly specialized materials required for the teaching and study programs of the curriculum.

Students taking the second year of the curriculum at The Ranger School are required to live in the campus dormitories. Married students may request an exception to bring their families and rent private accommodations in the vicinity. Such accommodations are not plentiful. Each married student should make rental arrangements well in advance of the registration date.

The Ranger School does not maintain an infirmary, nor does it employ a physician or nurse. There are two physicians as well as an excellent community hospital and clinic in nearby Star Lake, N.Y. In emergency situations, the program transports sick or injured students to the local physician of their choice or to the hospital. Health and accident insurance policies for students are available through Syracuse University. Application forms are available at the Syracuse University Health Center, 111 Waverly Ave., 315-443-2666. All students must show proof of health insurance coverage before reporting to the campus.

Because of the comparatively isolated location of The Ranger School, a stock of books and supplies used in connection with the program is maintained on campus for sale to students.

While in residence at The Ranger School, students are held to the general rules and regulations of the College of Environmental Science and Forestry and an additional set of Ranger School "house rules."

## **Admission**

### **Requirements**

Admission to a Ranger School associate degree program requires the following high school units: English (4 units), social science (3 units), science (2 units, including biology), mathematics (3 units, college preparatory), and electives. Technical report writing and computer science are suggested electives.

In addition to the academic requirements, all applicants must also meet the following:

1. The applicant must be strongly motivated toward a career in field forestry or surveying.
2. The applicant must be willing and able to meet the physical requirements of the program, which include walking 2 to 6 miles through forest areas, often carrying 15 to 20 pounds of equipment, and using a wide array of hand tools and power equipment.
3. The applicant's parents (if the applicant is under 18 years of age) must be fully aware of the field nature of the study program, its rigorous study-work regimen and supporting academic facilities.
4. A physician certification must be submitted. Copies of the certification form are available from The Ranger School.

Questions concerning any of these requirements should be referred to the ESF Office of Undergraduate Admissions, 106 Bray Hall, 315-470-6600.

### **Procedures**

The decision to admit any student to the forest technology, land surveying technology or environmental and natural resources conservation program rests solely with the College of Environmental Science and Forestry. Some openings in the program are filled by students who are accepted to the program under the guaranteed transfer option while still seniors in high school, contingent on successful completion of the first year of college. Remaining openings are filled by transfer students who already have attended college. Therefore, it is suggested the potential student, while still a high school senior, follow these procedures:

1. Submit a regular SUNY freshman application for the College of Environmental Science and Forestry, using Curriculum Code 620 (Forest Technology), Curriculum Code 1843 (Environmental and Natural Resources Conservation) or Curriculum Code 1825 (Land Surveying Technology). The entry date on the ESF application should be the fall following the expected completion of the first 30 credit hours.
2. Submit a regular application to that school selected for the first year of study, using Curriculum Code 620, 1843 or 1825. It is important that students gain entry on their own for the first year of studies. ESF will request information at a later date concerning what institution the student will be attending.

A limited number of outstanding students are admitted directly from high school. For further information, contact the ESF Office of Undergraduate Admissions, 106 Bray Hall, 315-470-6600.

### **Transfer Students**

Students with previous college experience or students who are currently enrolled at another college may apply for transfer. However, courses transferred for credit can be applied only to the freshman year course of study, and they must be comparable in subject matter, content, and level. All second-year courses must be taken at The Ranger School, and, therefore, a student cannot transfer any previously earned credit toward the second year. Transfer applicants must submit a recent official copy of their college transcript and a list of courses they anticipate completing prior to enrollment.

### **International Students**

Please note that international students are not eligible for admission to programs at The Ranger School, however we encourage international students to inquire about ESF's bachelor degree programs in Forest and Natural Resources Management.

### **Expenses and Financial Aid**

Costs for the first year will vary with the specific institution attended.

Estimated costs for the second year of the program at The Ranger School are as follows:

	Tuition	Board, Room	Books, Supplies
N.Y. Resident	\$5,270	\$10,380	Approx. \$2,500
Nonresident	\$14,320	\$10,380	Approx. \$2,500

### **College Fees**

The College fee is \$12.50 per semester for full-time students.

An expense of approximately \$350 for laundry and clothing should be anticipated. There is also a \$20 graduation fee, a student support services fee of \$407, a \$100 student activity fee, a transcript fee of \$10, a technology fee of \$314, and student transportation fees of \$420. There are a limited number of single dorm rooms available for an additional fee. There is also a \$100 resident deposit and a \$100 equipment deposit. The latter two fees are fully or partially refundable, depending on breakage charged to a student during the year.

### **Financial Aid**

Financial aid is available upon acceptance to the College of Environmental Science and Forestry. There are three types of financial aid: loans, scholarships or grants, and part-time employment.

More detailed information on these financial aid opportunities can be found under [Financial Aid](#) and in the publication Financial Aid and Scholarships at ESF.

### **Placement**

The Ranger School assists in placement of graduates. The excellent reputation that the graduates of The Ranger School at Wanakena have developed in all types of conservation, forestry and surveying jobs greatly assists today's graduates to find employment. Employment is common with local, state and federal forestry and land resource agencies, private forestry enterprises, and surveying firms. Positions most frequently filled by recent graduates include state forest ranger, state forest technician, forest aide, industrial forest district supervisor, timber inventory specialist, timber sales supervisor, forest surveyor, forest engineering aide, survey technician, forest protection technician, forest research technician, forest equipment salesman, tree service technician, and urban park ranger.