

What is Forestry at Virginia Tech?

Jay Sullivan - Professor and Department Head

I receive a lot of questions around the theme of what forestry education looks like at Virginia Tech today. Given the many curriculum changes driven by the university and through our own attempts to improve our program, that certainly is a fair question. Over the years the most profound university curriculum changes have included a reduction in overall credit hours allowed for any major at Virginia Tech and an increase in the general education requirements for all students, and we ourselves have responded to the growing call for greater “soft” skills.

Through the changes, we have always sought to retain our core strengths while constantly looking for opportunities to expand our offerings into appropriate areas such as urban forestry, water resources, environmental data science, and the study of how humans interact with the environment. In all of our programs, traditional or not, we’ve sought to establish foundational knowledge of the underlying sciences (i.e., biology, chemistry, physics, and social sciences), which we utilize in our courses to build understanding of forests and environmental systems that are near to our hearts. We add to those basic and applied sciences our characteristic emphasis on hands-on field/experiential/professional work. We further pride ourselves in building our students’ problem-solving skills through analysis and design of solutions to real-world situations, examination of case studies, and capstone experiences. Most important, though, is that we continue to maintain a faculty and staff culture of dedication to students and teaching.

If all of that doesn’t sound much different than when you were in school, that might be because it isn’t. Certainly, we’ve had to be creative at times to fit everything in with the additional constraints we face, and we have exceptional advising to help our students navigate the complex curriculum. However, what we valued when you were in school, we still value: preparing our students to be the next generation of practitioners, problem solvers, and leaders in the world that they will face upon graduation and beyond.

A corollary to my original question is one that I also hear frequently: “Did you get rid of spring camp?” In fact, we eliminated our off-campus spring camp program more than 10 years ago due to the constraints placed increasingly upon our students to complete their degree programs in a timely fashion. The off-campus spring camp semester was so rigid that it ultimately became a hardship for students to work it into their complex schedules, especially for our transfer students, and our enrollment had declined substantially. Since that change, our enrollment has increased nearly 2.5 times. Notably, we were able to retain, and even slightly increase, the number of field hours our students experience through an intensive Blacksburg-based field lab experience.

Above all, I want to assure you that forestry education is alive and well at Virginia Tech, and we are confident you will see that when you hire our students, of whom we continue to be so proud!



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2019 FREC Annual Report

Research Grants

\$5.6 million/year for the past 5 years

DARPA

NASA - Land and Land-Use Change

NSF - Coupled Natural-Human Systems

USDA - Agricultural Research Service

USDA - Forest Service

USDA - NIFA

USGS

Virginia Department of Forestry

Achieved and accommodated a 78% overall undergraduate enrollment increase in the past five years, with all majors achieving and maintaining a viable enrollment.

#1

Forestry program
in the U.S. for the
4th consecutive year
(2017, 2018, 2019, 2020)
collegefactual.com



COLLEGE OF NATURAL
RESOURCES AND ENVIRONMENT
FOREST RESOURCES AND
ENVIRONMENTAL CONSERVATION
VIRGINIA TECH.



Undergraduates - Fall 2019

330 students, ~40% female, ~10% ethnically UR

-B.S. Forest Resources and Environmental Conservation, with majors in:

- Environmental Conservation and Society (20%)
- Environmental Informatics (9%)
- Environmental Resource Management (31%)
- Forestry (Forest Resource Management, Forest Operations and Business, Urban Forestry) (26%)

-B.S. Water: Resources, Policy, and Management (14%)



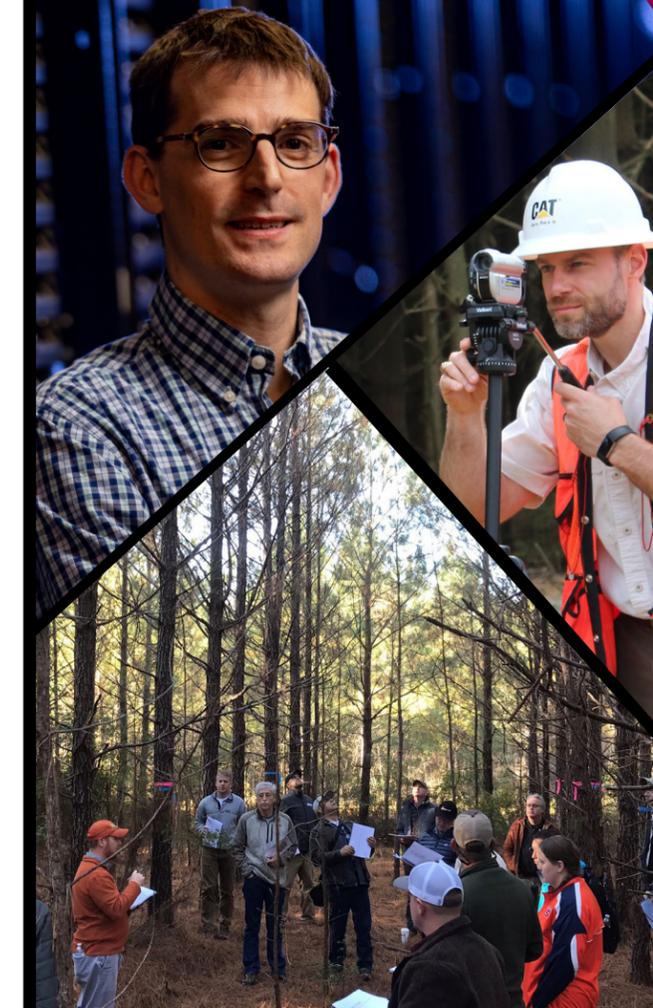
Research Areas

- Agroforestry/Forest Farming
- Ecosystem Science, Management, Climate/Carbon
- Forest Biology, Silviculture, Soils, Fire
- Forest Biometrics and Geomatics
- Forest and Resource Economics, Policy, Management
- Forest Genetics and Biotechnology
- Forest Operations and Business
- Human Dimensions of Natural Resources
- Natural Resources Recreation
- Urban Forest Ecology and Management
- Water Resources

Research:

External research grant awards of \$4.554 million (calendar year 2019 – OSP Awards database) or \$5.175 million (calendar year 2019 – Elements). Granting agencies include: NSF, USDA NIFA, NASA, DARPA, USDA Forest Service, American Chestnut Foundation, and others.

92 refereed journal articles/journal articles (data generated from VT Elements 1/1/2019-12/31/2019).



Graduate Programs

(~50 students) – Ph.D., M.S., M.F.



Industrial Centers

Forest Productivity Cooperative (FPC)

Forest Modeling Research Cooperative (FMRC)

Center for Environmental Applications in Remote Sensing (CEARS)

Studies Abroad

- Costa Rica
- UNFCCC Conference of Parties
- Panama
- Brazil (under development)



Extension/Outreach:

Virginia Forest Landowner Education

Approximately 1,400 forest landowners, professionals, and others attended VFLEP programs, with more than 55,000 acres represented.

Virginia Forest Landowner Update

4 issues sent to 7,200 landowners, 12 e-newsletters sent to 4,900 subscribers.

Virginia SHARP Logger Program

Approximately 150 owner/operators reached.

Geospatial Education Program

110 students taught.

Virginia Master Naturalist Program

Approximately 2000 active volunteers contributing 150,000 hours of service to Virginia.

Agroforestry/Forest Farming

Approximately 500 program participants, primarily forest landowners.

Urban Forestry

Education programming to 200 professionals in the green industry.