



COLLEGE OF AGRICULTURE AND LIFE SCIENCES
AGRICULTURAL AND
APPLIED ECONOMICS
VIRGINIA TECH®

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OVERVIEW

<https://aaec.vt.edu/About.html>



Top 10% worldwide

<https://aaec.vt.edu/people/faculty.html>



30 faculty members

Research:

- Publish in top journals
- Journal editors
- Multimillion-dollar grants

Teaching:

- National teaching awards

<https://aaec.vt.edu/academics/graduate.html>



- 20 ~ 30 students
- From all over the world

OVERVIEW

Four main areas of specialization

Environment and Natural Resource Economics

Climate-smart agricultural practices and precision technologies, remote sensing image data in weather risk and environment, climate change adaptation, water quality, carbon offset, credit programs, USDA environmental quality incentives program.

Development and International Trade

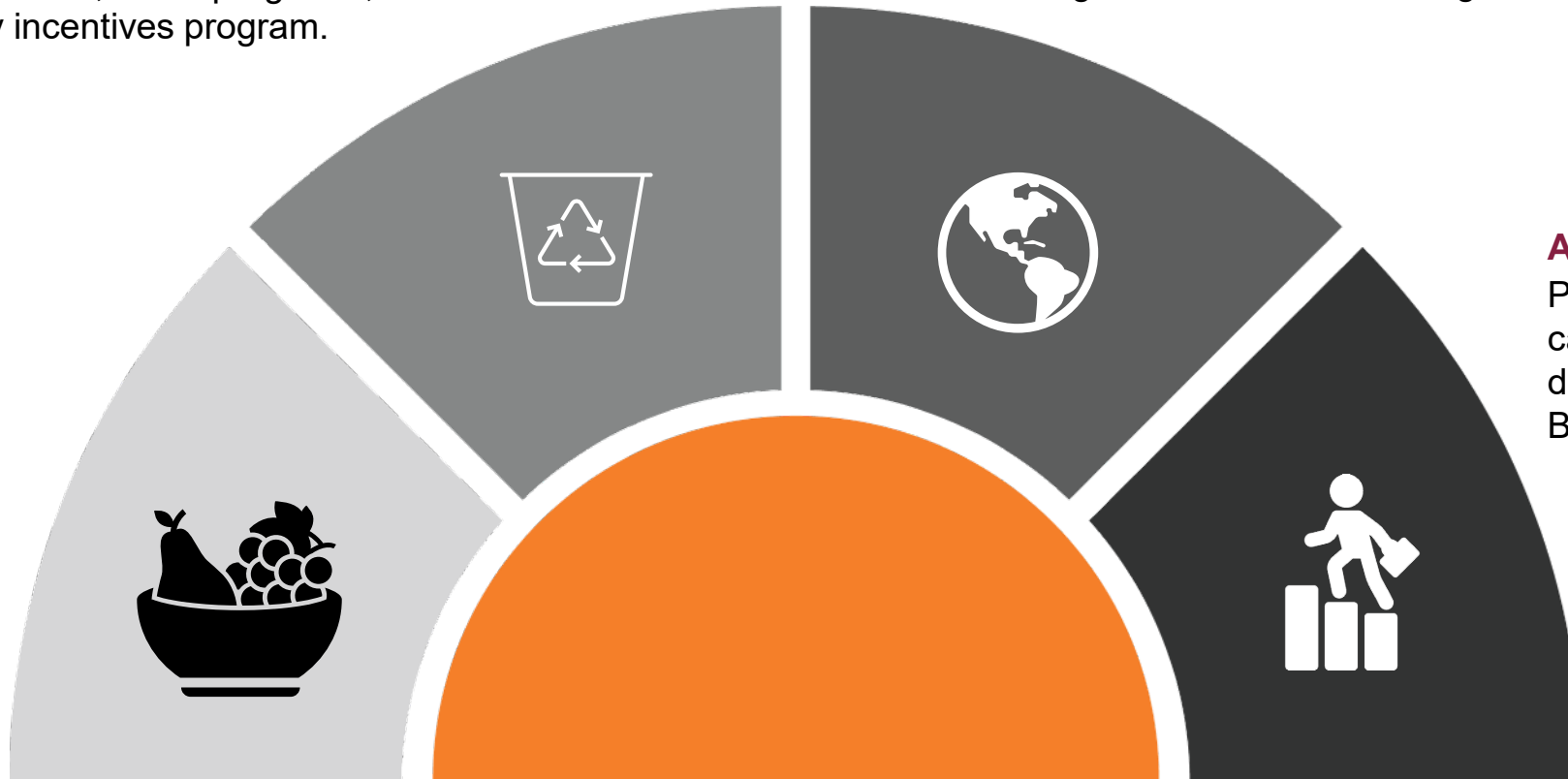
Agricultural technology adoption, World Trade Organization, bilateral and regional free trade agreements, tariffs, agricultural market structures, displacement of population due to conflicts and climate change, climate's impact on global food trade, exchange rates, and economic growth.

Food and Health Economics

Food security, Supplemental Nutrition Assistance Program (SNAP), food waste, food safety regulations, determinants of diet quality, and health disparities.

Applied Econometrics

Panel data, time series, causal inference, big data, machine learning, Bayesian.



OVERVIEW

Five main research areas



Agribusiness, Risk Management, and Policy



Environmental and Natural Resource Economics



Food and Health Economics



International Development and Trade



Rural and Regional Development

In addition to our main research areas, our faculty also conduct research in the following areas:

- Applied econometrics
- Aquaculture
- Commodity marketing
- Energy and public economics
- Economics of human migration and immigration
- Entrepreneurship and small business
- Labor economics
- Real estate economics and management and law and land use/agribusiness law



PROGRAM HIGHLIGHTS – DEGREE DESIGN

Joint degree with Economics

- Rigorous training in theory and method
- Domain expertise in Agricultural and Applied Economics
- Variety of advanced field courses
- STEM Major – 3 years of OPT for foreign students

Core Courses:

- Mathematical Economics
- Micro theory series (2)
- Macro theory series (2)
- Econometrics series (3)

Field Courses:

- Choose 2 fields among the 4 specialization areas
- Each field requires 2 field courses + 1 elective



PROGRAM HIGHLIGHTS – DEGREE DESIGN

2nd Year Paper

- Replaces the qualifying exam

Preliminary Exam

- Oral defense of dissertation proposal

Dissertation

- Oral defense of dissertation



PROGRAM HIGHLIGHTS – DEGREE DESIGN

Flexible Dual-Track Curriculum:

- Traditional Track
 - Core courses in 1st yr
 - Field courses in 2nd and 3rd yrs + Research
 - Research in 4th yr +
- Research-first Track
 - Core + Field courses + Research starting in 1st yr
 - Core courses spread out over the first two to three years.
 - Personalized curriculum design



PROGRAM HIGHLIGHTS – DEGREE DESIGN

Professional Development Course (AAEC 6004)

- Provide professional guidance starting in the 2nd year
- Presentation skills
- Discussion skills
- How to write a paper?
- How to present a paper well?
- How to write a good referee report?
- Job market packet review.
- Job market mock interview.
- Job market practice.

PROGRAM HIGHLIGHTS – ENRICHMENT

Centers and Programs

International Trade Center

- Focus on trade policies

Kohl Center

- Focus on machine learning causal inference and its applications.

Commodity Investment by Students (COINS)

- The only student-managed commodity fund in the United States. COINS invests real money and conducts live trading.

Data Science for the Public Goods (DSPG)

- Using data science to inform policymakers





PROGRAM HIGHLIGHTS – Enrichment

Academic Employment Track

- - Future Professoriate Graduate Certificate
- - VA Community College System Teaching Fellow

Interdisciplinary Graduate Education Program

- Offer certificates in areas like remote sensing and global change.

Exchange Program

- With the University of Innsbruck, Austria.

Alliance to Advance Climate-Smart Agriculture

- \$80 million grant from the United States Department of Agriculture to pilot a program that will pay producers to implement climate-smart practices on farms of all sizes and commodities.



PROGRAM HIGHLIGHTS – Funding Opportunities

Research Assistant or Teaching Assistant

- **Stipend:** Around \$2,800 a month
- **Tuition:** Covered
- **Health Insurance:** Covered at 88%
- **Contract:** 12 months for the first year; 9-month contract for others, with competitive summer funding



ADMISSION REQUIREMENTS

Minimum Requirements:

1. GRE Scores (Verbal- 30th percentile, Quantitative- 50th percentile)
2. TOEFL score of at least 90 for foreign students (6.5 IELTS)
3. GPA: 3.0 for the last two years of undergraduate study
4. Letters of Recommendation (minimum of three)
5. Match your interests with the program's interest, as assessed by your Statement of Purpose

Preferred Qualifications:

1. Strong research interest in one of the program areas.
2. Strong math background: statistics, differential and integral calculus, analytic geometry, and matrix algebra.
3. Research experience with data and proficiency in statistical software.



Ph.D. CAREER OUTCOMES

<https://aaec.vt.edu/academics/graduate/job-placement.html>

Academia

- Assistant Professor, Arizona State University
- Assistant Professor, Ohio State University
- Assistant Professor, Huazhong University of Science and Technology
- Assistant Extension Professor, the University of Minnesota
- Research Associate, University of Wisconsin-Madison
- Post Doc Scholar, UC Davis

Research Institute

- Research Agricultural Economist, Economic Research Service at USDA
- ORISE Research Fellow, U.S. Environmental Protection Agency (EPA).

Industry

- Data Scientist at eBay
- Quantitative Analytics Associate at Key Bank
- Principal Associate – Quantitative Analyst at Capital One
- Data Scientist at Google

UNIVERSITY OVERVIEW

Main campus: Blacksburg, Virginia

- 150+ graduate degree programs
- 38,000 total students
- 7,000 graduate students
- 2600 acres

U.S. News Ranking

- #47 in Best National Universities
- #23 in Top Public Universities

<https://www.vt.edu/about/rankings.html>



BLACKSBURG CAMPUS



- Campus surrounded by beautiful mountains and award-winning landscaping
- Dining: Ranked No. 8, Best Campus Food, "Best of 389 Colleges: 2023 Edition," The Princeton Review



LIFE IN BLACKSBURG

- Free Blacksburg Transit around campus and Blacksburg, plus a new transportation hub on campus
- Bike friendly
- Great sports culture and award-winning recreation facilities

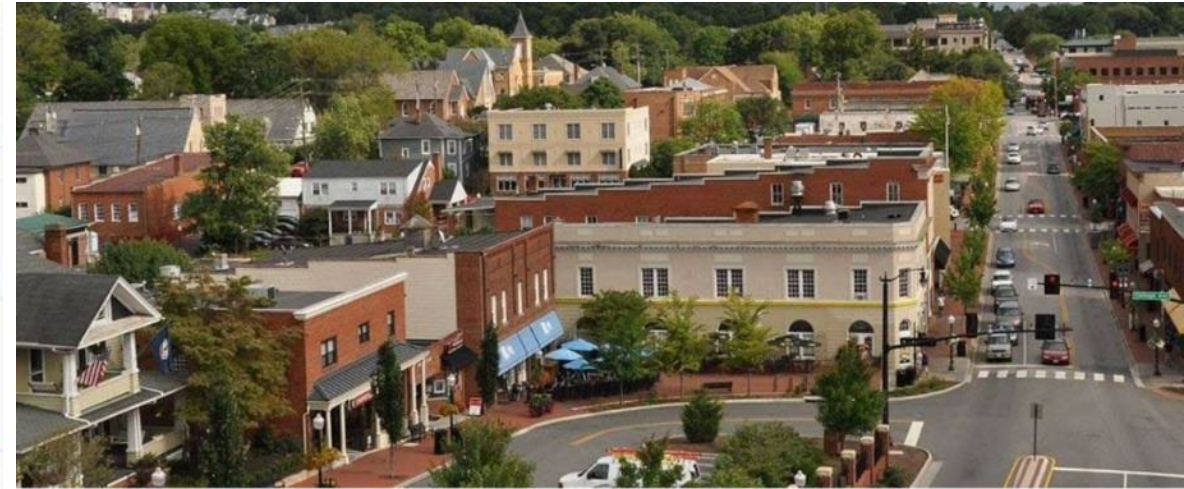


LIFE IN BLACKSBURG

- Safe campus and town
- Affordable housing, on average \$600 – \$1,000 per person

<https://offcampus.vt.edu>

Property Name	Price Range	Bedrooms
Highlands of Huckleberry Ridge	\$1,575 - \$1,835	1-3 Beds
Fouridge Apartment Homes	\$1,399 - \$1,099	1-3 Beds
Terrace View	\$745 - \$1,425	1-4 Beds
Park 27	\$975 - \$1,680	1-4 Beds
Clover Valley Phase II	\$750 - \$900	1-3 Beds
Windsor Hills Apartments	\$1,092 - \$2,789	500sq - 3 Beds
The Summit at Uplown	\$890 - \$945	2-4 Beds



Blacksburg Named Top Ten Safest College Town

September 3, 2019 / 0 Comments / In Accolade, Live Here, Montgomery County / by Onward NRV

Blacksburg, VA – SafeWise names Blacksburg ninth safest college town in America.

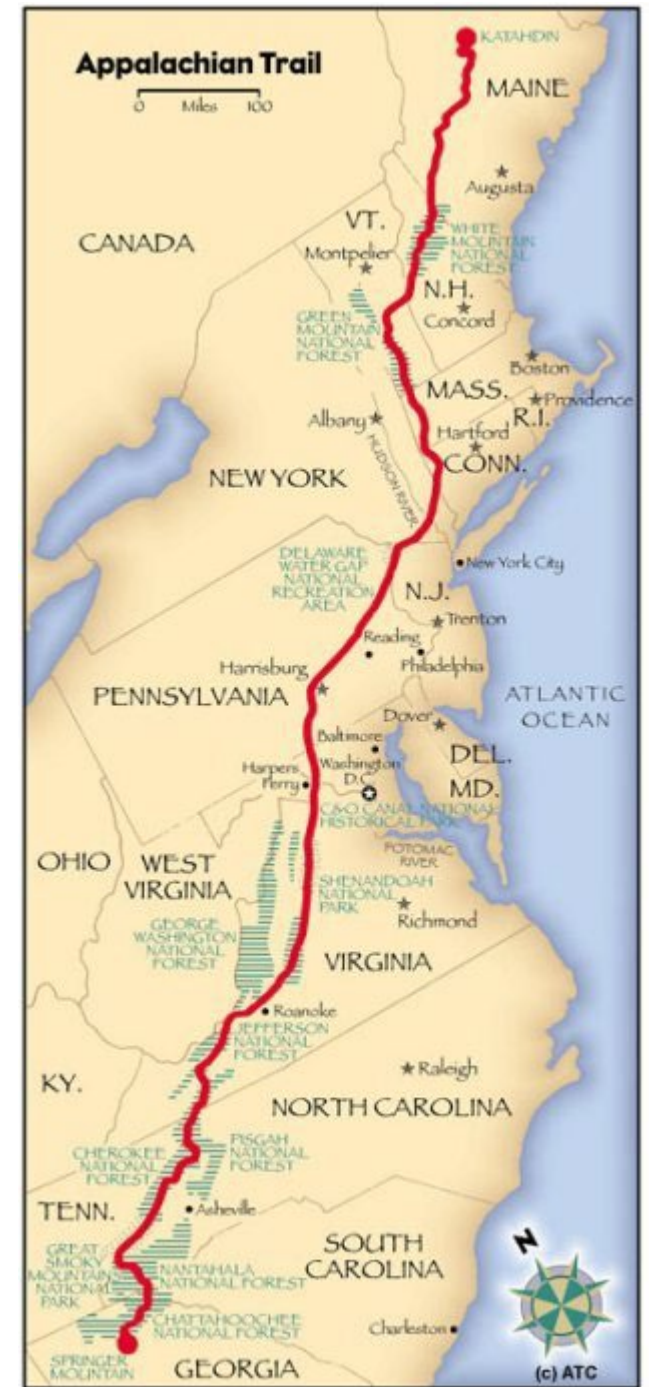
Each year SafeWise assesses the safety of college towns by analyzing the number of violent crimes and property crimes in each area. Violent crimes include murder, rape, robbery, and aggravated assault while property crimes, which were only considered if there was a tie in violent crime rate, are burglary, larceny, motor vehicle theft, and arson. Blacksburg moved up 13 spots this year as a result of cutting the number of violent crimes nearly in half to 0.53 per 1,000, 3.96 below national average. Property crimes also decreased to 7.46 per 1,000, 19.65 below national average. This improved safety climate is in part due to the ongoing relationship between Blacksburg police and the Virginia Tech police force. The two departments signed a memorandum of understanding allowing them to share jurisdiction and resources including radio and security camera access.

Blacksburg is only one of two cities in the Commonwealth of Virginia that made the Top 50 list.

LIFE IN BLACKSBURG: Mild Weather



LIFE IN BLACKSBURG: Surrounding areas



The Appalachian Trail from Maine to Georgia

MORE INFORMATION

- **Campus Virtual Visit**

<https://www.vt.edu/admissions/undergraduate/visit/virtual-vt-visit.html>

- **Campus Photo Tour**

<https://www.vt.edu/admissions/undergraduate/visit/campus-photo-tour.html>

- **Graduate School Visit Information**

<https://graduateschool.vt.edu/admissions/visit-us.html>

Application

- Admission Deadline: January 15, 2025
- To apply to our program, choose **Economics: Agriculture** option
- Application fee (\$75) waived for qualifying events

https://graduateschool.vt.edu/admissions/tuition-and-costs/Application_Fees.html

- How to Apply:

<https://graduateschool.vt.edu/admissions/how-to-apply.html>