

2014–15

# UNIVERSITY FACTS & FIGURES



VirginiaTech  
*Invent the Future®*

2014–15

# UNIVERSITY FACTS & FIGURES

Compiled by the Office of University Relations  
Virginia Polytechnic Institute and State University

Available online at [www.vt.edu/about](http://www.vt.edu/about)

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**More facts and figures about  
Virginia Tech can be found at these websites:**

Office of Institutional Research and Effectiveness — [www.ir.vt.edu](http://www.ir.vt.edu)

Budget and Financial Planning — [www.obfp.vt.edu](http://www.obfp.vt.edu)

Virginia Tech history — [www.vt.edu/about](http://www.vt.edu/about)

Guide to library archives — <http://spec.lib.vt.edu/archives/guide>

# TABLE OF CONTENTS

## UNIVERSITY OVERVIEW

Statement of Mission and Purpose . . . . .	3
Background . . . . .	3
Enrollment . . . . .	3
Admissions . . . . .	3
Full-time Instructional Faculty . . . . .	3
Alumni . . . . .	3
Board of Visitors . . . . .	3
Instruction . . . . .	4
Research . . . . .	4
Special Academic Programs . . . . .	4
Outreach and International Affairs . . . . .	4
Off-campus Facilities . . . . .	4
University Budget . . . . .	4
Athletics . . . . .	4
Virginia Tech Foundation . . . . .	5
Extension . . . . .	5
Senior Administrative Personnel . . . . .	5
Virginia Tech's Benchmark Institutions . . . . .	6
The University Shield . . . . .	6
The University Seal . . . . .	6
Athletics Logo . . . . .	7
The Corps of Cadets Coat of Arms . . . . .	7
University Mascot . . . . .	7

## STUDENT OVERVIEW

Freshmen High School Percentage . . . . .	8
Freshmen Returning Fall Semester . . . . .	8
Freshmen SAT Percentile . . . . .	8
Freshmen Applications . . . . .	8
Top Five Freshmen Majors . . . . .	8
Top Five Freshmen Home States . . . . .	8
Residency of Undergraduate Students . . . . .	9
Total Student Enrollment by Race . . . . .	9
On-campus Enrollment Profile by Race, Gender, and College . . . . .	9
Off-campus Enrollment Profile by Race, Gender, and College . . . . .	9
Student Life . . . . .	10
Student Tuition and Fees . . . . .	11
Tuition and Fees History . . . . .	11

## FACULTY/STAFF OVERVIEW

Average Full-time Faculty Instructional Salaries . . . . .	11
Salaried Personnel . . . . .	11

## FINANCIAL OVERVIEW

General Fund Support Per Resident Student . . . . .	12
Consolidated University Operating Budget . . . . .	12
Fund Sources, University Division . . . . .	12
Virginia Tech Foundation Endowment Trends . . . . .	12

## MEASURES OF EXCELLENCE

Undergraduate . . . . .	13
Graduate . . . . .	13
Notable Awards . . . . .	13
University Rankings . . . . .	14
Research . . . . .	14
University-level Research Institutes . . . . .	15
College of Agriculture and Life Sciences . . . . .	16
College Architecture and Urban Studies . . . . .	17
College of Engineering . . . . .	18
College of Liberal Arts and Human Sciences . . . . .	19
College of Natural Resources and Environment . . . . .	20
Pamplin College of Business . . . . .	21
College of Science . . . . .	22
Virginia-Maryland College of Veterinary Medicine . . . . .	23
National Capital Region . . . . .	24
Outreach and International Affairs . . . . .	25

2014-15

# UNIVERSITY OVERVIEW

## Statement of Mission and Purpose

Virginia Polytechnic Institute and State University is a public land-grant university serving the Commonwealth of Virginia, the nation, and the world community. The discovery and dissemination of new knowledge are central to its mission. Through its focus on teaching and learning, research and discovery, and outreach and engagement, the university creates, conveys, and applies knowledge to expand personal growth and opportunity, advance social and community development, foster economic competitiveness, and improve the quality of life.

\*Mission Statement approved by the Virginia Tech Board of Visitors, 6/4/01; revised in 2006.

## Background

Dedicated to its motto, *Ut Prosim* (That I May Serve), Virginia Tech takes a hands-on, engaging approach to education, preparing scholars to be leaders in their fields and communities. As the commonwealth's most comprehensive university and its leading research institution, Virginia Tech offers more than 240 undergraduate and graduate degree programs to 31,000 students and manages a research portfolio of \$496 million. The university fulfills its land-grant mission of transforming knowledge to practice through technological leadership and by fueling economic growth and job creation locally, regionally, and across Virginia.

Founded in 1872, Virginia Tech has approximately 135 campus buildings, a 2,600-acre main campus, off-campus educational facilities in six regions, a study-abroad site in Switzerland, and a 1,800-acre agriculture research farm near the main campus. The campus proper is located in the Town of Blacksburg in Montgomery County in the New River Valley and is 38 miles southwest of Roanoke.

## Enrollment

29,173 on-campus; 82.8 percent undergraduate; 17.2 percent graduate; 57.7 percent male; 42.3 percent female. Total enrollment on and off campus is 31,224.

## Admissions

Virginia Tech received 20,897 applications for the fall 2014 freshman class. Cumulative SAT reasoning test scores had a middle range of 1170 to 1350.

## Full-time Instructional Faculty

1,427; 62 percent are tenured.

## Alumni

More than 238,000 living alumni from every state and more than 100 countries.

## Board of Visitors

A board of visitors, appointed by the governor of Virginia, is composed of 13 members, headed by a rector. Current board of visitors members are Deborah Petrine, rector; James L. Chapman IV, vice rector; Nancy V. Dye; William D. Fairchild III; Cordel L. Faulk; B. Keith Fulton; John C. Lee IV; Michael Quillen; Wayne H. Robinson; J. Thomas Ryan; Mehul P. Sanghani; Dennis H. Treacy; and Horacio A. Valeiras. The president of the state Board of Agriculture and Consumer Services (Steve Sturgis) serves as an ex-officio member. The presidents of the Faculty Senate (Bernice Hausman) and the Staff Senate (Walter D. Cook III) are also ex-officio, non-voting representatives. Each year, an undergraduate student (T. Austin Larrowe) and a graduate student (S. Ashley Francis) are selected through a competitive review process to serve as non-voting representatives to the board. Kim O'Rourke is the board secretary.

## Instruction

The university offers more than 80 bachelor's degree programs through its seven undergraduate academic colleges: Agriculture and Life Sciences (which also offers an associate degree in agricultural technology), Architecture and Urban Studies, Engineering, Liberal Arts and Human Sciences, Natural Resources and Environment, Pamplin College of Business, and Science. On the postgraduate level, the university offers approximately 160 master's and doctoral degrees through the Graduate School and a professional degree from the Virginia-Maryland College of Veterinary Medicine.

## Research

The university generated \$496 million for research programs in fiscal year 2013, ranking 40th in the nation, according to the National Science Foundation. Each year, the university receives thousands of awards to conduct research from an ever-expanding base of sponsors. Researchers pursue new discoveries in agriculture, biotechnology, information and communication technology, human health, transportation, energy management (including leadership in fuel-cell technology and power electronics), security, sustainability, and a wide range of other engineering, scientific, social science, and creative fields. This research led to 39 patents and 17 license and option agreements in fiscal year 2014.

The Virginia Tech Corporate Research Center (CRC) offers opportunities for businesses to establish close working relationships with the university and nurtures entrepreneurs pursuing new inventions and developments. Located on 230 acres adjacent to the main campus, the center consists of 29 buildings housing more than 160 companies with approximately 2,700 employees.

## Special Academic Programs

In the university's Cooperative Education Program, sophomores and juniors can alternate semesters of study with semesters of professional work. The University Honors Program helps qualified students expand their intellectual powers through special sections of regular classes, seminars, and independent study.

The Study Abroad Program consists of academic programs, tours, and independent travel, often conducted in conjunction with overseas universities and institutions. Students enrolled in the corps of cadets are eligible for the Army, Air Force, and Navy ROTC programs. Virginia Tech established its first residential college in fall 2011 and added a second in 2012. The university also offers a large variety of living-learning residential communities.

Virginia Tech is one of only three public universities in the United States to support both a military and a nonmilitary student lifestyle (the others are Texas A&M and North Georgia College and State University). Membership in the Corps of Cadets was mandatory for all able-bodied males until 1964, when it became optional. The corps preceded the federal service academies by first admitting women in 1973.

## Outreach and International Affairs

Outreach and International Affairs, which spearheads the university's outreach mission, encompasses a number of university-wide programs and facilities. These include the Steger Center for International Scholarship in Switzerland; Commonwealth Campus Centers in Southwest Virginia, Hampton Roads (Virginia Beach and Newport News), Richmond, and Roanoke; the Office of Economic Development; the Office of International Research, Education, and Development, including Education Abroad and applied research programs in developing countries; Outreach Fellows; Southside outreach programs, including the Reynolds Homestead in Patrick County; The Hotel Roanoke & Conference Center; and The Inn at Virginia Tech and Skelton Conference Center. Programs under the Office of Engagement include the Center for Organizational and Technological Advancement, Continuing and Professional Education, the Language and Culture Institute, VT Engage, and Upward Bound and Talent Search.

## Off-campus Facilities

Virginia Tech has facilities located across the commonwealth and one in Europe. These include the Marion duPont Scott Equine Medical Center in Leesburg; several locations in the Virginia Tech National Capital Region, including the newly opened Virginia Tech Research Center — Arlington; Hampton Roads Center, Virginia Beach, and Hampton Roads Center, Newport News; Virginia Tech Roanoke Center; Virginia Tech Richmond Center; and Virginia Tech Southwest Center in Abingdon. The Virginia Agricultural Experiment Station performs research on food and fiber systems at 11 agricultural research and Extension centers spread across the state. The Virginia Tech Foundation owns and maintains the Steger Center for International Scholarship in Riva San Vitale, Switzerland, which is part of the university's study-abroad program. The foundation also owns The Hotel Roanoke & Conference Center, which it uses for academic programs, continuing education, seminars, and conferences.

## University Budget

Virginia Tech's operating budget in 2014-15 is \$1.35 billion and is comprised of two state agencies — the University Division and the Cooperative Extension/Agricultural Experiment Station division — and five major programs. The state appropriates a portion of the funds, but most originates from student tuition and fees, grants and contracts, sales and services, federal sources, user fees, and other sources.

## Athletics

Virginia Tech is a member of the Atlantic Coast Conference. NCAA Division I-A men's varsity sports at Tech are football, basketball, baseball, soccer, indoor and outdoor track, swimming and diving, wrestling, tennis, golf, and cross country. Women's varsity sports are basketball, tennis, volleyball, swimming and diving, indoor and outdoor track, soccer, softball, lacrosse, golf, and cross country. An extensive intramural program offers opportunities for participation in more than 20 recreational activities. The university also participates in intramural sports and club-sports programs that allow students to compete against programs from other colleges and universities across the country.

## Virginia Tech Foundation

As of June 30, 2014, the Virginia Tech Foundation's assets and managed funds — including gifts and bequests — totaled nearly \$1.49 billion. The total endowment owned and managed by the university was \$796.4 million. Endowment value per student was \$25,816.

## Extension

Virginia Cooperative Extension is a dynamic organization that stimulates positive personal and societal change leading to more productive lives, families, farms, and forests, as well as a better environment. Extension responds to the needs of individuals, families, groups, and organizations with educational programs in three broad areas: agriculture and natural resources, family and consumer sciences, and 4-H youth development.

Extension, operated jointly in the commonwealth by Virginia Tech and Virginia State University, has been helping people improve their economic, cultural, and social well-being for 100 years. While Extension has a long history of helping make America's agricultural powerhouse more productive and economical, it also does important work in the state's urban and rural areas — from helping expectant mothers learn healthy nutritional practices to counseling families in financial distress. With offices, professionals, and volunteers positioned around the commonwealth, Extension's nonformal education benefits more than 2.6 million participants annually. Extension has touched virtually every life in the state in some way.

Extension is a product of cooperation among local, state, and federal governments in partnership with thousands of citizens who, through local Extension Leadership Councils, help design, implement, and evaluate Cooperative Extension's needs-driven programs. More than 29,500 volunteers donated 966,000 hours of their time in 2013.

## Senior Administrative Personnel

President	Timothy D. Sands
Senior Vice President and Provost	Mark G. McNamee
Vice President for Administration	Sherwood G. Wilson
Vice President for Alumni Relations	Thomas C. Tillar
Vice President for Development and University Relations	Elizabeth A. Flanagan
Vice President for Finance and Chief Financial Officer	M. Dwight Shelton Jr.
Vice President and Dean for Graduate Education	Karen P. DePauw
Vice President for Information Technology	Scott F. Midkiff
Vice President and Executive Director, National Capital Region	Steven H. McKnight
Vice President for Outreach and International Affairs	Guru Ghosh
Vice President for Research	Robert Walters
Vice President for Student Affairs	Patricia A. Perillo
Chief Executive Officer for the Virginia Tech Foundation	John E. Dooley
Dean, College of Agriculture and Life Sciences	Alan Grant
Dean, College of Architecture and Urban Studies	A. Jack Davis
Dean, College of Engineering	Richard Benson
Dean, College of Liberal Arts and Human Sciences	Elizabeth Spiller
Dean, College of Natural Resources and Environment	Paul Winistorfer
Dean, Pamplin College of Business	Robert T. Sumichrast
Dean, College of Science	Lay Nam Chang
Dean, Virginia-Maryland College of Veterinary Medicine	Cyril R. Clarke
Dean, University Libraries	Tyler Walters
University Legal Counsel	Kay Heidbreder



## Virginia Tech's Benchmark Institutions

For the purpose of salary comparisons, the State Council of Higher Education for Virginia identifies institutions with academic profiles similar to Virginia Tech's.

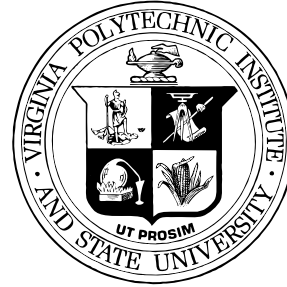
- University of California, Berkeley
- University of California, Davis
- University of Colorado, Boulder
- Cornell University, Ithaca, N.Y.
- University of Florida, Gainesville
- University of Illinois, Urbana-Champaign
- Iowa State University, Ames
- University of Maryland, College Park
- University of Michigan, Ann Arbor
- Michigan State University, East Lansing
- University of Minnesota, Twin Cities
- University of Missouri, Columbia
- North Carolina State University, Raleigh
- The Ohio State University, Columbus
- Pennsylvania State University, University Park
- University of Pittsburgh
- Purdue University, West Lafayette, Ind.
- Rutgers, The State University of New Jersey, New Brunswick
- State University of New York at Buffalo
- University of Southern California, Los Angeles
- Stony Brook University, State University of New York
- Texas A&M University, College Station
- University of Texas at Austin
- University of Washington, Seattle
- University of Wisconsin, Madison

## The University Shield

The shield embodies Virginia Tech's motto — *Ut Prosim* (That I May Serve) — by incorporating an image of the university's War Memorial Pylons, where this motto is etched in stone.

The shield's shape also reflects the collegiate heritage of all universities, and the numerals "1872" recognize the year the university was founded and reinforce the traditions of long-standing service to the Commonwealth of Virginia.

The shield was adopted in May 1991.



## The University Seal

The four quadrants of the shield on the seal depict the obverse side of the Great Seal of the Commonwealth of Virginia, the surveyor's level and leveling rod superimposed over a scroll, a partially husked standing ear of corn, and a chemical retort and graduate. Above the shield is the left side of the flaming lamp of learning with a right hand suspended above it.

The seal, created in 1896 and officially adopted by the board of visitors in 1963, has remained unchanged (with the exception of the name of the institution and the alteration of the commonwealth portion) for more than 11 decades and reflects the agricultural/mechanical emphasis in the Virginia Tech curriculum during its first century.



### Athletics Logo

The university also has an athletic logo: a streamlined "VT," which is used for sports and sports merchandise. Unveiled in 1984, the athletic logo is a composite of designs submitted by two Virginia Tech art students — Lisa Eichler, of Chesapeake, Virginia, and Chris Craft, of Roanoke, Virginia — to a competition sponsored by the university's art department. It replaced an older athletic logo that consisted of a large "V" with a "T" centered inside it (looking more like "TV"), which had debuted in 1957.



### University Mascot

The HokieBird, the university mascot, evolved from a live turkey paraded on the playing field to a hand-sewn costume with a papier-mâché head to today's professionally manufactured outfit. A costumed mascot, which eventually evolved into HokieBird, first took the field in the fall of 1962.

In 1913, Floyd Meade, a local resident nicknamed "Hard Times," who was chosen by the student body to serve as the team's mascot, trained a large turkey that he could make gobble on command at games. Although the nickname "Gobblers" had been used sporadically for about 10 years, fans and sports writers enthusiastically began to use it regularly.

The term "Hokie" was coined by O.M. Stull (Class of 1896) when he wrote the "Old Hokie" spirit yell, first used in the fall of 1896 ("Hoki, Hoki, Hoki, Hy / Techs! Techs! VPI"). Fans started calling Tech teams "Hokies" as well as "Fightin' Gobblers," but the latter nickname prevailed. In the 1980s, a football coach who didn't like the gobbler image encouraged the use of the nickname Hokies, and the two names evolved into the HokieBird.



### The Corps of Cadets Coat of Arms

Designed in 1965 by the late Col. Harry D. Temple (industrial engineering '34) when he was commanding officer of the Army's Institute of Heraldry, the coat of arms was granted to the Virginia Tech Corps of Cadets by the U.S. Army. The symbols are as follows:

- **Flaming grenade**  
preparation for war
- **Four gold stars**  
four major wars in which Tech cadets had fought before 1965 (Spanish-American War, World War I, World War II, and Korean War)
- **Laurel wreath**  
the presidential citation given to the cadet band for Spanish-American War service
- **Color red**  
strength and courage
- **Sword**  
command



# STUDENT OVERVIEW

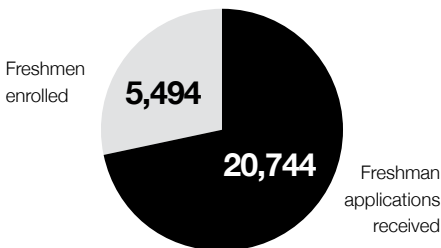
## Enrolled Freshmen in top percentage of high school class

Top 10%		41.1%
Top 25%		81.7%
Top 50%		98.7%

## Freshmen Returning Following Fall Semester

2004-2005	88.0%
2005-2006	88.6%
2006-2007	93.2%
2007-2008	91.1%
2008-2009	90.9%
2009-2010	91.9%
2010-2011	91.1%
2011-2012	92.6%
2012-2013	91.4%
2013-2014	92.8%

## Freshmen Applications



## SAT Percentile Entering Freshmen

Year	25th Percentile		75th Percentile		Average	
	Math	Verbal*	Math	Verbal*	Math	Verbal*
2006	570	530	660	630	617	584
2007	570	530	670	630	617	586
2008	570	540	670	630	618	586
2009	570	540	670	640	621	590
2010	580	540	680	640	626	591
2011	570	540	670	640	622	592
2012	570	540	680	640	625	587
2013	580	540	680	640	628	592
2014	570	540	680	640	625	590

\*Verbal is now called Critical Reading

## Most popular majors for incoming freshmen in fall 2014:

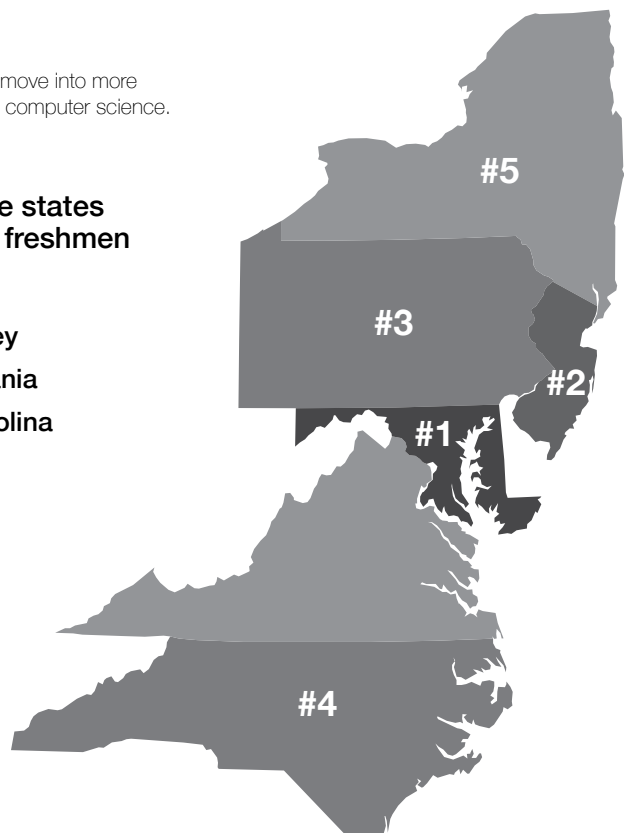
- General Engineering\*
- University Studies (undeclared)
- General Biosciences
- Business (undecided)
- Human Nutrition, Foods, and Exercise

- 36 Number of states and territories represented (including the District of Columbia)
- 40 Countries represented (excluding U.S.)

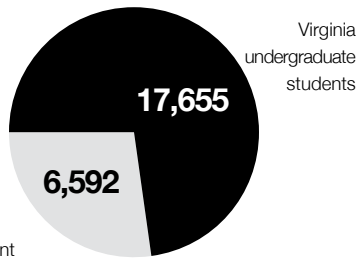
\* Non-degree major; students move into more specific disciplines, including computer science.

## Top five home states of out-of-state freshmen

1. Maryland
2. New Jersey
3. Pennsylvania
4. North Carolina
5. New York



## Residency of Undergraduate Students



Nonresident undergraduate students  
(includes 1,121 total international students)

## Percent Enrollment by Race

(Total enrollment of undergraduate, graduate, and professional students on and off campus)

9.6% Nonresident alien
3.1% Not reported
3.8% Two or more races
64.4% White students
4.0% Black or African-American students
0.1% Native Hawaiian or Pacific Islander
8.0% Asian students
4.9% Hispanic students of any race
0.1% American Indian or Alaska Native students

## 2014-15 On-campus Enrollment Profile

	Undergraduate	Graduate	Professional	Total
<b>Enrollment by Race</b>				
American Indian or Alaska Native	37	3	0	40
Asian	2,223	142	11	2,376
Black or African American	871	167	8	1,046
Hispanics of any race	1,279	138	19	1,436
Native Hawaiian or other Pacific Islander	32	1	0	33
White	16,822	2,213	364	19,399
Two or more races	1,039	76	15	1,130
Not reported	756	30	46	832
Nonresident alien	1,120	1,759	2	2,881
<b>Total</b>	<b>24,179</b>	<b>4,529</b>	<b>465</b>	<b>29,173</b>
<b>Enrollment by Gender</b>				
Men	14,036	2,667	117	16,820
Women	10,128	1,857	344	12,329
Not reported	15	5	4	24
<b>Enrollment by College</b>				
Agriculture & Life Sciences	2,572	417	0	2,989
Architecture & Urban Studies	1,347	289	0	1,636
Business	3,841	164	0	4,005
Engineering	7,412	1,803	0	9,215
Liberal Arts & Human Sciences	3,086	668	0	3,754
Natural Resources & Environment	742	198	0	940
Science	3,676	571	0	4,247
Veterinary Medicine	0	161	465	626
Intercollege	1,503	258	0	1,761

## 2014-15 Off-campus Enrollment Profile

	Undergraduate	Graduate	Professional	Total
<b>Enrollment by Race</b>				
American Indian or Alaska Native	0	1	0	1
Asian	2	130	0	132
Black or African American	2	186	0	188
Hispanics of any race	3	77	0	80
Native Hawaiian or other Pacific Islander	0	3	0	3
White	50	1,286	0	1,336
Two or more races	2	45	0	47
Not reported	8	124	0	132
Nonresident alien	1	131	0	132
<b>Total</b>	<b>68</b>	<b>1,983</b>	<b>0</b>	<b>2,051</b>
<b>Enrollment by Gender</b>				
Men	33	1,066	0	1,099
Women	31	881	0	912
Not reported	4	36	0	40
<b>Enrollment by College</b>				
Agriculture & Life Sciences	12	83	0	95
Architecture & Urban Studies	1	264	0	265
Business	4	225	0	229
Engineering	12	242	0	254
Liberal Arts & Human Sciences	23	511	0	534
Natural Resources & Environment	1	81	0	82
Science	11	2	0	13
Veterinary Medicine	0	3	0	3
Intercollege	4	572	0	576

# Student Life

## Housing and Residence Life

Students in living-learning communities: **3,907** (including the Corps of Cadets and Oak Lane).

The SERVE living-learning community provided **2,500** volunteer hours through 22 service events.

## Fraternity and Sorority Life

Number of general fraternities and sororities: **55**

Number of members: **4,387** students in spring 2014 semester, roughly 19 percent of the undergraduate population.

## Dining Services

During the 2012-13 academic year, Dining Services' Garden at Kentland Farm produced 20,000 pounds of produce that was served in Virginia Tech Dining Units. Local food made up 13.1 percent of food served as part of the program's sustainability initiative.

During the 2013-14 academic school year, Dining Services diverted 1 million pounds of waste from going into the regional landfill by composting, recycling, and implementing food diversion and tray-less dining.

Virginia Tech was named No. 1 in the Princeton Review's Best Campus Food rankings for 2015. Dining Services has consistently ranked in Princeton Review's top four best campus food spots, and previously attained the No. 1 designation in 2010 and 2008.

## Services for Students with Disabilities (SSD)

During the 2013-14 academic year, SSD implemented the online note-taking request system that resulted in a 212 percent increase in the number of requests by students. It also recruited 406 volunteer note takers who provided approximately 9,300 service hours.

## Recreational Sports

Number of club sports: **31**

Number of intramural sports: **29**

Number of students who participate in the department's sports programs: **13,000+**

Recreations Sports hosted more than **10,000** runners and walkers for the 2014 3.2 Run in Remembrance.

## Student Organizations

Number of student clubs and organizations in 2013-14: **744**

## Career Services

VT Career Outfitters provided more than 800 donated articles of clothing and accessories to 531 student recipients in need of professional clothing for career fairs, networking events, and interviews during the 2013-14 academic year.

## Schiffert Health Center

There were more than 51,000 visits to the Schiffert Health Center in 2013-14.

## Student Centers and Activities

Student Centers and Activities hosted the annual Gobblerfest involvement fair on the Drillfield, with an estimated attendance of 23,000 in 2013.

## Cranwell International Center

Cranwell International Center programs serve students, scholars, faculty, spouses, and visitors from more than 120 countries in all regions of the world. In fall 2013, there were 2,867 international students at Virginia Tech. The top countries represented by number of students included China, India, Iran, South Korea, Egypt, and Germany.

## VT Engage

VT Engage offered 14 programs in 2013-14. A total of 2,250 undergraduate students, graduate students, faculty members, administrators, and community members participated in VT Engage programs, including co-curricular engagement, community capacity building, faculty development, or curricular service learning.

**3,907**

Students in living-learning communities

**4,387**

Students in Tech's 55 fraternities and sororities, 19 percent of undergraduates

**8,902**

Undergraduate students living in residence halls

**1,080**

Students in the Corps of Cadets

**18,650**

Students with dining plans

**7.1 million**

Meals served annually by Dining Services - generating \$55 million in sales

## 2014-15 Student Tuition and Fees

	Undergraduate		Graduate		Veterinary Medicine	
	In-State	Out-of-State	In-State	Out-of-State	VA & MD Residents	Other states
Academic year tuition	\$10,088	\$25,515	\$11,656	\$23,351	\$19,269	\$44,773
Fees*	\$1,929	\$2,533	\$1,929	\$2,533	\$3,179	\$3,783
Total tuition & fees	\$12,017	\$28,048	\$13,585	\$25,884	\$22,448	\$48,556
Room & board**	\$7,924	\$7,924	\$7,924	\$7,924		
<b>Total</b>	<b>\$19,941</b>	<b>\$35,972</b>	<b>\$21,509</b>	<b>\$33,808</b>		

\* Undergraduate fees include: Technology \$69, Library \$40, Capital & Equipment (nonresident only) \$604, Student Activity \$486, Health \$388, Athletic \$282, Bus \$124, Recreational Sports \$282, Student Services \$258. Students in various disciplines also pay supplemental fees not included here.

\*\* Room and board varies depending on the student's place of on-campus residence, single or double occupancy, and the student's meal plan.

Source: Office of Budget and Financial Planning

### Combined Tuition and Fees History

Year	Undergraduate	
	In-State	Out-of-State
<b>2005-06</b>	\$6,378	\$17,837
<b>2006-07</b>	\$6,973	\$19,049
<b>2007-08</b>	\$7,397	\$19,775
<b>2008-09</b>	\$8,198	\$20,825
<b>2009-10</b>	\$8,605	\$21,878
<b>2010-11</b>	\$9,459	\$23,217
<b>2011-12</b>	\$10,509	\$24,480
<b>2012-13</b>	\$10,923	\$25,915
<b>2013-14</b>	\$11,455	\$27,211
<b>2014-15</b>	\$12,017	\$28,048

### Faculty/Staff Overview

#### Average Full-time Instructional Faculty Salaries

(Dollars in Thousands)

Rank	2009-10	2010-11	2011-12	2012-13	2013-14
Professor	\$115.9	\$116.7	\$121.7	\$122.1	\$127.0
Associate Professor	\$82.9	\$82.0	\$84.4	\$85.0	\$88.6
Assistant Professor	\$82.9	\$82.0	\$84.4	\$85.0	\$75.4
Instructor	\$45.3	\$45.0	\$46.8	\$47.6	\$50.0
All Ranks	\$87.4	\$86.2	\$89.1	\$89.4	\$92.9

**Notes:**

- The figures for this table are taken from an Integrated Postsecondary Education Data System report titled "Salaries, Tenure, and Fringe Benefits of Full-Time Instructional Faculty."
- Lecturers, research associates, and administrators above the department level are excluded.
- All salaries have been reported on an academic-year-equivalent basis. The salaries of 12-month faculty members have been converted by a factor of nine-elevenths.

#### Graduate

Year	In-State	Out-of-State
<b>2005-06</b>	\$7,977	\$12,835
<b>2006-07</b>	\$8,540	\$14,057
<b>2007-08</b>	\$8,986	\$15,351
<b>2008-09</b>	\$9,735	\$16,866
<b>2009-10</b>	\$10,228	\$17,928
<b>2010-11</b>	\$10,933	\$19,957
<b>2011-12</b>	\$11,705	\$21,723
<b>2012-13</b>	\$12,413	\$23,266
<b>2013-14</b>	\$13,023	\$24,588
<b>2014-15</b>	\$13,585	\$25,884

#### Salaried Personnel

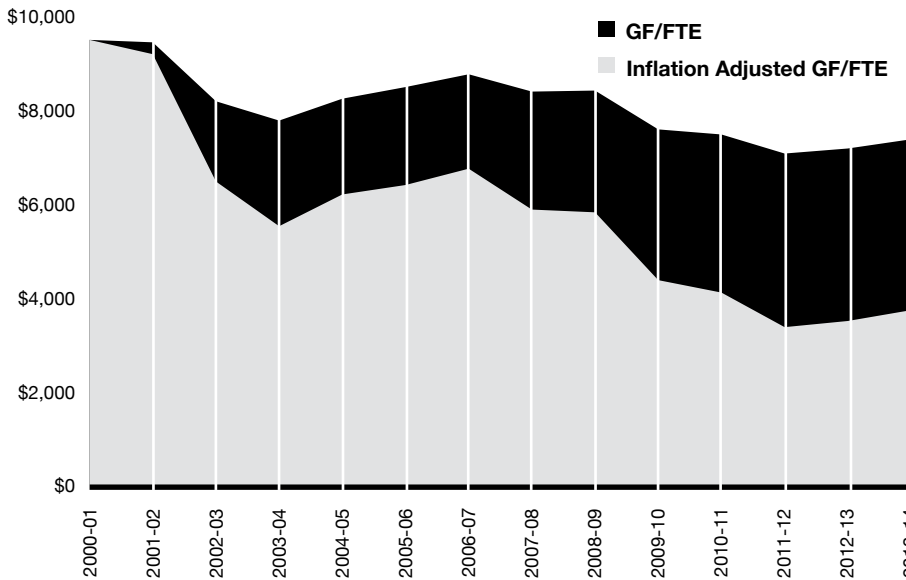
Faculty/Staff	2009-10	2010-11	2011-12	2012-13	2013-14
Full-Time Instructional Faculty	1,364	1,306	1,368	1,422	1,427
Other Faculty & Research Associates	1,913	1,826	1,954	2,083	2,263
Part-Time (instructional only)	224	273	264	249	238
Support Staff	3,603	3,461	3,449	3,509	3,519
Total Faculty & Support Staff	7,104	6,866	7,035	7,263	7,448
Percent of Instructional Faculty Tenured	62.8	61.9	61.7	61.1	62.0

**Notes:**

- Faculty data are based on full-time instructional faculty paid 50 percent or more from instructional funds.
- Percent tenured is based on full-time instructional faculty who are tenured (does not include those on tenure track).

# FINANCIAL OVERVIEW

## General Fund Support per Resident Student



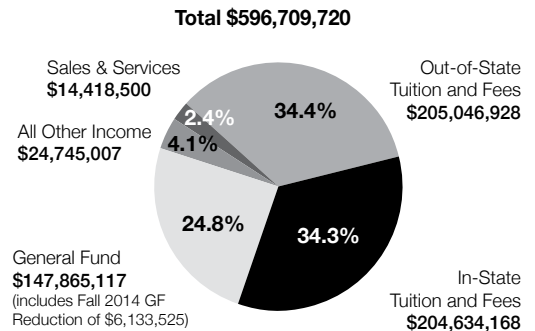
Year	Inflation Adjusted	
	GF/FTE	GF/FTE
2000-01	\$9,501	\$9,501
2001-02	\$9,429	\$9,146
2002-03	\$7,689	\$7,080
2003-04	\$7,119	\$6,314
2004-05	\$7,765	\$6,617
2005-06	\$8,108	\$6,556
2006-07	\$8,486	\$6,666
2007-08	\$7,975	\$5,955
2008-09	\$8,005	\$5,843
2009-10	\$6,859	\$4,962
2010-11	\$6,709	\$4,740
2011-12	\$6,146	\$4,270
2012-13	\$6,295	\$4,305
2013-14	\$6,567	\$4,357

## Consolidated University Operating Budget 2014-15

### Educational and General

University Division	\$596,709,720
CE/AES Division	\$82,826,004
<b>Total Educational and General</b>	<b>\$679,535,724</b>
Auxiliary Enterprises	\$294,554,992
Financial Assistance for E&G Programs	\$336,767,737
Student Financial Aid	\$19,705,847
Unique Military Activities	\$2,084,350
All Other Programs	\$4,624,417
<b>TOTAL</b>	<b>\$1,337,273,067</b>

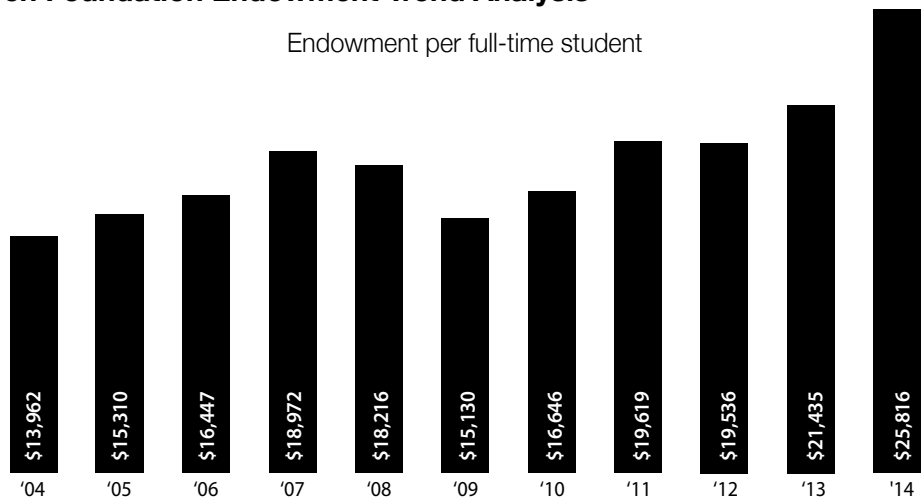
### Fund Sources, University Division



## Virginia Tech Foundation Endowment Trend Analysis

Year (as of June 30)	Market Value (\$)
2004	\$370,811,010
2005	\$408,560,308
2006	\$447,404,748
2007	\$524,731,181
2008	\$527,629,109
2009	\$451,744,223
2010	\$502,379,593
2011	\$600,647,830
2012	\$594,776,124
2013	\$660,340,421
2014	\$796,436,874

### Endowment per full-time student



# University Rankings

## MEASURES OF EXCELLENCE

### Undergraduate

U.S. News & World Report's "America's Best Colleges 2015" (fall 2014)

- Virginia Tech ranked 27th among national public universities. Among all national universities, including such private institutions as Harvard and Yale, Virginia Tech ranked 71st.
- The Virginia Tech College of Engineering undergraduate program ranked 15th in the nation among all accredited engineering schools that offer doctorates, eighth among engineering schools at public universities.
- The Pamplin College of Business ranked 39th among the nation's undergraduate business programs and 23rd among public institutions, a sizeable move up from the 2014 rankings.
- The College of Engineering's Department of Engineering Science and Mechanics ranked fifth in the nation, while the Grado Department of Industrial and Systems Engineering was sixth. Other notable placements: The Department of Biological Systems Engineering (also a part of the College of Agriculture and Life Sciences) ranked seventh. The Charles E. Via Jr. Department of Civil and Environmental Engineering's two programs ranked ninth in civil and 10th in environmental. The Bradley Department of Electrical and Computer Engineering came in at 13th for electrical and 18th for computer; the Department of Mechanical Engineering ranked 16th; and the Department of Aerospace and Ocean Engineering was 17th.

The university's undergraduate landscape architecture program in the College of Architecture and Urban Studies' School of Architecture + Design was ranked second in the nation in the 2013 America's Best Architecture & Design Schools study conducted by the journal DesignIntelligence. The school's program in industrial design ranked third, the interior design program ranked sixth, and the architecture program ranked seventh.

Money Magazine ranked Tech 42nd among its best U.S. colleges and tied for 12th among the 25 best public colleges (2014). Overall, Virginia Tech received a value grade of A- and a ranking score of 3.62 on a 4.0 scale. Money looked at the approximately 1,500 four-year colleges and universities in the United States to build its list, ultimately ranking 665 schools.

Forbes added Virginia Tech to its annual ranking of the top 25 best public colleges for the first time in summer 2014, ranking it 23rd among public institutions and 117th out of 650 national schools.

Kiplinger's Personal Finance magazine again ranked Virginia Tech among the best values in public education.

### Graduate

U.S. News & World Report's "America's Best Graduate Schools 2015" (spring 2014)

- The College of Engineering's overall graduate program rose three places to rank 21st among all schools of engineering.
- Three departments within the College of Engineering finished in the top 10 of their respective category. The Charles E. Via Jr. Department of Civil and Environmental Engineering ranked 10th among civil engineering programs, and the Grado Department of Industrial and Systems Engineering ranked eighth among industrial/manufacturing programs. The biological systems engineering department, also part of the College of Agriculture and Life Sciences, ranked eighth in the nation among biological/agricultural programs.
- The Pamplin College of Business ranked 46th among the nation's best part-time M.B.A. schools.
- The School of Education's career and technical education program ranked fourth among technical-vocational education programs.
- The public affairs program in the College of Architecture and Urban Studies' School of Public and International Affairs ranked 37th in the nation (2012 ranking).

DesignIntelligence ranked the graduate landscape architecture program second in the nation; the graduate architecture program was ranked 18th.

### Notable Awards

<b>60+</b>	Faculty with National Science Foundation CAREER Awards
<b>6</b>	Presidential Early Career Awards
<b>12</b>	Virginia Outstanding Scientist Awards
<b>3</b>	Science Museum of Virginia Lifetime Achievement award winners
<b>30</b>	State Council of Higher Education for Virginia Outstanding Faculty Awards
<b>13</b>	National Academy of Engineering members
<b>4</b>	National Academy of Sciences members
<b>5</b>	Guggenheim Fellows

# 1st

Best Campus Food  
2015 Princeton Review

# 2nd

Town-Gown  
Relations are Great  
2015 Princeton Review

# 3rd

Their Students Love  
These Colleges  
2015 Princeton Review

# 5th

Happiest Students  
2015 Princeton Review

# 5th

Best Quality of Life  
2015 Princeton Review

# RESEARCH

## General Rankings

The university was ranked by Princeton Review as one of the most environmentally responsible schools in the nation in 2014 and was named one of the Best of Green Schools by the Center for Green Schools, part of the U.S. Green Building Council.

Virginia Tech received a gold award in 2014 from Best Workplaces for Commuters for the fifth year in a row.

Virginia Tech is among the top 100 schools in PayScale.com's comparison of earnings for graduates.

Virginia Tech ranks first in the state for college license plate sales; in fact, the university ranks first, second, and third (three versions of the Tech plate are available). The Commonwealth of Virginia sells more Tech college plates than the other top 10 Virginia schools combined.

For the second time in as many years, Blacksburg was named the most family-friendly community in the country by Homes.com.

The Center for Digital Government named Blacksburg the sixth-most technologically advanced town in the nation among urban areas with a population of 30,000 to 74,999.

In 2011, Bloomberg's Businessweek ranked Blacksburg as the Best Place in the U.S. to Raise Kids. Educational and economic information, crime rates, amenities, air quality, and diversity were factors considered in the nationwide ranking.

In May 2012, the *Blacksburg-Christiansburg-Radford* Metropolitan Statistical Area made Forbes' list of the best small cities to find employment. The list was developed using statistical data from the Bureau of Labor Statistics.

See [www.vt.edu/about/index.html](http://www.vt.edu/about/index.html) for more rankings.

With a research portfolio of \$496 million in fiscal year 2013, Virginia Tech marked its 14th consecutive year of research growth.

At No. 40 nationally, Virginia Tech is the only Virginia institution in the top 50 of the National Science Foundation rankings for research expenditures. It is in the top 25 public institutions.

Virginia Tech continues to be one of the world's leaders in research involving unmanned aerial vehicles. Built upon decades of research in autonomous systems, Virginia Tech's unmanned aircraft systems test program was declared fully operational by the Federal Aviation Administration in 2014. It is one of only six federally authorized programs to conduct research to integrate unmanned aircraft into the nation's airspace. Integrating unmanned aircraft systems into the national airspace will have uses in agriculture, search-and-rescue missions, disaster response, pipeline inspections, news gathering, and wildlife management.

Virginia Tech's Center for Drug Discovery recently developed a new drug delivery system using gold nanoparticles to target anticancer drugs directly to the tumor site. This method appears to increase the effectiveness and lessen the side effects of cancer chemotherapy drugs.

The university is affiliated with two human medical schools, each with a significant research component. The Virginia Tech-Wake Forest University School of Biomedical Engineering and Sciences integrates the capabilities of the Virginia Tech College of Engineering, Wake Forest University School of Medicine, and the Virginia-Maryland Regional College of Veterinary Medicine. Virginia Tech's research includes biomechanics, cellular transport, computational modeling, biomaterials, bioheat and mass transfer, biofluid mechanics, instrumentation, ergonomics, and tissue engineering.

The Virginia Tech Carilion School of Medicine graduated its first class in spring 2014 and subsequently achieved full accreditation.

Virginia Tech has 744 faculty members devoted strictly to research — research scientists concentrating on creating new knowledge and solving problems. In addition, Virginia Tech has about 1,600 tenured and teaching faculty, many of whom conduct research.

Virginia Tech Intellectual Properties Inc. (VTIP) was established as a nonprofit corporation in 1985 to support the research mission of the university by protecting and licensing intellectual properties that result from research performed by Virginia Tech faculty and staff members and students. During fiscal year 2014, Virginia Tech Intellectual Properties licensed six startup companies, received 174 invention disclosures, processed 220 patent applications, signed 17 license and option agreements, and received 16 U.S. and 23 foreign patents.

# University-level Research Institutes

Virginia Tech has seven institutes created to grow the discovery enterprise by drawing on established strengths in engineering, science, and the life sciences:

- Fralin Life Science Institute

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- Institute for Creativity, Arts, and Technology

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- Institute for Critical Technology and Applied Science

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- Institute for Society, Culture, and Environment

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- Virginia Bioinformatics Institute

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- Virginia Tech Carilion Research Institute

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- Virginia Tech Transportation Institute

The Virginia Bioinformatics Institute and the Virginia Tech Transportation Institute are the largest research institutes.

- The Virginia Tech Transportation Institute (VTTI), with more than 400 employees and more than \$125 million in active research awards, has a mission to save lives, time, and money, and protect the environment. It is the second largest university-level transportation institute in the United States, and the largest group of driving safety researchers in the world. It celebrated its 25th anniversary of groundbreaking research in November, 2013. Facilities include the 2.2-mile, two-lane, fully instrumented Virginia Smart Road; connected-vehicle test beds in Southwest and Northern Virginia; more than 83,000 square feet of office and laboratory space; the VTTI/Center for Injury Biomechanics Crash Sled Lab; and the National Tire Research Center in Southern Virginia. Since 1996, VTTI has provided more than 1,400 student-years of funding, and more than 100 students annually gain hands-on experience at the institute to become the next generation of researchers.
- The Virginia Bioinformatics Institute, with more than 200 employees and more than \$109 million in active research awards, combines information technology, medicine, and biology to solve problems in the biomedical, environmental, and agricultural sciences. Projects include a science portal that connects pathogen databases around the world for genetic and genomic research, mathematical modeling of living organisms through systems biology to unravel the genetic mechanisms of diseases, and personalizing medicine so medical treatments can be tailored to match the patient's unique genetic makeup.
- Fralin Life Science Institute researchers investigate vector-borne disease, infectious disease, obesity, molecular plant sciences, and cancer biology. The institute was formed in August 2008.
- Sitting at the nexus of the arts, design, engineering, and science, the Institute for Creativity, Arts, and Technology is forging a pathway between transdisciplinary research and art, educational innovation, and scientific and commercial discovery. Uniquely partnered with the Center for the Arts at Virginia Tech, the institute works to foster the creative process to create new possibilities for exploration and expression through learning, discovery, and engagement.
- The Institute for Critical Technology and Applied Science is building capacity at the intersection of engineering, science, biology, and the humanities. Thrust areas include nanoscale science and engineering, nano-bio interface, sustainable energy, safe and sustainable water, national security, cognition and communication systems, renewable materials, and emerging technologies.
- The Institute for Society, Culture, and Environment strengthens the university's competitive position in the social sciences, humanities, and the arts. The institute provides organizational, technical, and financial support for targeted creative, interactive, multidisciplinary, and interdisciplinary research endeavors that address issues of social and individual transformation. The Global Issues Initiative is researching trade policies and poverty in Pakistan and the Philippines and the implications of agricultural subsidies in eight countries, among other issues.
- Since its creation in 2009, the Virginia Tech Carilion Research Institute has made significant progress in efforts to understand and address the fundamental processes of human health and disease. Research emphasis areas include brain function of children and adults in health as well as in neurological and psychiatric disorders; molecular studies of cancer and heart development; infectious diseases in children; addiction and substance abuse; development of novel neurorehabilitation strategies for traumatic brain injury, PTSD, depression, and seizure disorders; and early life educational interventions for children at risk.



# College of Agriculture and Life Sciences

## COLLEGES

Virginia Tech's agricultural research and development expenditures were ranked No. 7 in the nation based on the most recent data from the National Science Foundation.

The state legislature designated May 8, 2014, Virginia Cooperative Extension Day in honor of the 100-year anniversary of Virginia Cooperative Extension. The event was part of a yearlong celebration of the Smith-Lever Act passed by Congress on May 8, 1914, which created the Cooperative Extension Service, a state-by-state national network of educators who extend research-based knowledge to the people.

The college celebrated the grand opening of its new Human and Agricultural Biosciences Building 1, which is home to researchers from the departments of Biological Systems Engineering and Food Science and Technology. U.S. News & World Report ranked the Department of Biological Systems Engineering eighth among biological/agricultural programs in the nation. The building is the first of four slated for the new Biosciences Precinct.

Isis Kanevsky-Mullarky, an associate professor of dairy science, was honored by the White House as one of the 2013 recipients of the Presidential Early Career Award for Scientists and Engineers. The award is the highest honor bestowed by the U.S. government on outstanding scientists and engineers beginning their independent careers.

Brian Walsh, who is majoring in agribusiness and minoring in leadership and social change, was elected president of the National Future Farmers of America (FFA) Organization, a prestigious role that makes Walsh the chief motivator of 579,000 FFA students across the country.

Virginia First Lady Dorothy McAuliffe helped launch Virginia Cooperative Extension Family Nutrition Program's statewide campaign, known as "Eat Smart, Move More," a program to help low-income families make healthy food choices on a limited budget and to promote healthy, active lifestyles.

Through research and Extension efforts, the college helped elevate the state's agricultural exports to record numbers. In 2013, exports in the commonwealth reached \$2.85 billion.

David G. Schmale III, an associate professor of plant pathology, physiology, and weed science, was named one of Popular Science's 2013 Brilliant Ten, a prestigious list of international scientists, engineers, and thinkers whose innovations changed the world.

Y.H. Percival Zhang, an associate professor of biological systems engineering, developed a battery that runs on sugar and has an unmatched energy density, a discovery that could replace conventional batteries with ones that are cheaper, refillable, and biodegradable.

Two students from the college were selected to be on the Virginia Tech Board of Visitors. Austin Larrowe of Woodlawn, Va., an University Honors student majoring in applied economic management and agricultural sciences, was selected to be the undergraduate student representative. Ashley Francis, who received her undergraduate degree in human nutrition, foods, and exercise and is now a master's degree student in public health in the Virginia-Maryland College of Veterinary Medicine, is the graduate student representative.

# College of Architecture and Urban Studies

Programs in the School of Architecture

+ Design received high marks in the DesignIntelligence rankings for 2014. The undergraduate architecture program ranked fifth in the nation, and the graduate program ranked 12th. Architecture also ranked among the top in the nation for educating students on construction methods and materials. The Deans Survey ranked Virginia Tech second in the category of Most Admired Undergraduate Architecture Programs “for its emphasis on research, innovative pedagogy, and design rigor.” Based on rankings by hiring firms, the undergraduate interior design program was fifth nationally and was recognized for being among the strongest in educating students in the areas of communication, research and theory, computer applications, and cross-disciplinary teamwork. The undergraduate industrial design program ranked fourth among the top industrial design schools in the south.

The College of Architecture and Urban Studies celebrates its 50th Anniversary in 2014. When the college was established in 1964, architecture, planning, art, and building construction were all part of the curriculum — precursors to the four schools the college encompasses today. After 50 years, many of its original philosophies and disciplines still shape its highly ranked, internationally recognized programs.

The design/buildLAB for third-year architecture students continued garnering accolades, earning an AZ Award from Azure, a Canadian architecture magazine and Popular Choice in the Architecture + Urban Transformation category of the 2014 Architizer A+ Awards.

The Institute for Policy and Governance received a Governor’s Technology Award for Innovative Use of Technology in Healthcare.

Eric Standley, an associate professor in the School of Visual Arts, has continued to gain international acclaim for his laser-cut paper artwork. Standley teaches foundation of art.

Assistant Professor of Architecture Hilary Bryon was listed as a Most Admired Educator for 2014 by DesignIntelligence.

Associate Professor Ralph Buehler in the School of Public and International Affairs has been interviewed in national and international media and his research on commuter benefits and modes has been mentioned on WAMU Public Radio, Planetizen, CNN online, Climate Central, Huffington Post, and Scientific American.

A study on the effects of cell phone presence on conversations led by Shalini Misra, an assistant professor in the urban affairs and planning program in Virginia Tech’s National Capital Region, gained significant national media attention.

Christine Fiori, professor of practice and associate director of the Myers-Lawson School of Construction, presented her research on the Inca Road at the Smithsonian’s National Museum of the American Indian and served as an expert for the Science Channel’s show “Strip the City.”

# College of Engineering

In U.S. News & World Report's "America's Best Colleges 2014" survey, the college ranked 15th among all undergraduate engineering programs that also offer the Ph.D., and sixth among public universities. The magazine's "America's Best Graduate Schools 2015" survey ranked the college's graduate program 21st nationally.

Research expenditures during fiscal year 2012-13 totaled \$169.6 million, placing it 10th among engineering colleges nationally. Research spending per faculty member increased from \$230,000 in 2004-05 to \$514,000 in 2012-13. Overall, the College of Engineering is a \$250 million enterprise.

Goodwin Hall, formerly the Signature Engineering Building, which houses sensors that currently make it the most instrumented building in the world for vibrations, opened for classes in fall 2014. The 153,000-square-foot facility serves as a leading center of engineering education in Virginia. Inside, a 15,000-pound Rolls-Royce Trent 1000 jet engine hangs 15 feet above the floor of the atrium.

For fall 2005, 4,800 prospective students applied for admission to the college. By fall 2014, the number of prospectives had risen to 8,480. In 2005, the entering class was 15.6 percent female, 2.1 percent African American, and 1.8 percent Hispanic. The 2014 entering class was 25.4 percent female, and members of the underrepresented population made up 11.4 percent (numbers no longer directly correlate because students now identify with more than one segment of the population.)

With leadership from Kray Luxbacher, associate professor of mining and minerals engineering, the college is working to create a certificate, and eventually degrees, in natural gas engineering.

Through its University Technology Centers (UTC), Rolls-Royce has built a network for research and graduate education with 24 universities around the world. Until spring of 2014, the only one in the U.S. was at Purdue. Building upon Virginia Tech's partnering on the Commonwealth Center for Aerospace Propulsions Systems and the Commonwealth Center for Advanced Manufacturing, Rolls-Royce awarded UTC standing for Virginia Tech and the University of Virginia in April 2014.

Dushan Boroyevich, the American Electric Power Professor of Electrical and Computer Engineering, was one of 67 new members elected to the National Academy of Engineering for 2014. He was honored for his advancements in control, modeling, and design of electronic power conversion for electric energy and transportation.

Ali Hasan Nayfeh, University Distinguished Professor Emeritus of Virginia Tech's Department of Engineering Science and Mechanics, was named the 2014 recipient of the Benjamin Franklin Medal in Mechanical Engineering. Among previous winners of the award is Albert Einstein.

Linsey Marr, of civil and environmental engineering, received a National Institutes of Health New Innovator Award valued at \$2.28 million over five years in support of her research on influenza transmission by bioaerosols. The award is designed specifically to support unusually creative new investigators with highly innovative research ideas at an early stage of their career.

Raffaella De Vita, associate professor of engineering science and mechanics, was one of 102 researchers nationally named a recipient of the Presidential Early Career Award for Scientists and Engineers (PECASE), the highest honor bestowed by the U.S. government on science and engineering professionals in the early stages of their independent research careers. The PECASE award will enhance her ongoing CAREER award efforts studying pelvic floor disorders in American women.

# College of Liberal Arts and Human Services

An active, diverse, and vibrant contributor to the institutional whole, the College of Liberal Arts and Human Sciences comprises a broad range of academic programs and centers, including 11 departments and two schools.

Students in the college have earned Boren Scholarships and Fulbright Awards and been named USA Today All-Stars. Current faculty members include Guggenheim Award winners and Fellows in the National Endowment for the Humanities and the National Endowment for the Arts, as well as National Science Foundation CAREER Award recipients.

The School of Education's career and technical education program again ranked fourth in the nation by U.S. News & World Report in the Technical/Vocational Programs category.

The Department of Political Science was ranked 13th in the country by AC Online (Affordable-CollegesOnline) with regard to return on investment for its undergraduate majors. The apparel program's focus on new technologies, consumer-centric industry information, and internships has earned it a world ranking by *fashionschools.org*. The MFA program in creative writing has also enjoyed a top-25 ranking by *Poets & Writers Magazine*.

The public relations program in the Department of Communication is one of only 38 programs in the country with a curriculum approved by the Public Relations Society of America Board.

The college boasts five Alumni Distinguished Professors, an appointment bestowed by the university's Board of Visitors in recognition of extraordinary academic citizenship and distinguished service within the Virginia Tech community. This represents the most for any of the university's eight colleges and half the university total. They are Jacqueline Bixler, Foreign Languages and Literatures; Rosemary Blieszner, Human Development; Gary Downey, Science and Technology Studies; Tom Gardner, English; and Lucinda Roy, English.

The college has two University Distinguished Professors (UDPs) — English professor Nikki Giovanni and political science professor Tim Luke.

The college had four Guggenheim Fellows — Paul Sorrentino (English), Roger Ekirch (history), Bob Hicok (English), and Thomas Gardner (English). Guggenheim Fellows are appointed on the basis of achievement and exceptional promise.

Arguably the most recognizable name at the university, Nikki Giovanni is a world-renowned writer, poet, activist, and educator. She has received numerous NAACP Image Awards, dozens of honorary doctorates, the Rosa Parks Woman of Courage Award, and the Langston Hughes Award for Distinguished Contributions to Arts and Letters.

Bob Hicok, professor of English, continues to awe with his seventh collection, "Elegy Owed" (Copper Canyon 2013). A recipient of six Pushcart Prizes, a Guggenheim, and two NEA Fellowships, his poetry has been selected for inclusion in eight volumes of "Best American Poetry."

History professor Roger Ekirch received a fellowship from the National Endowment for the Humanities in 2013-14. Ekirch held three earlier NEH fellowships and a prestigious Guggenheim Fellowship.

Joyce Arditti, professor in the Department of Human Development, won the 2014 Outstanding Book Award from the Academy of Criminal Justice Sciences in recognition of "Parental Incarceration and the Family: Psychological and Social Effects of Imprisonment on Children."

Andrew Becker, associate professor of classical studies, was one of two Virginia Tech faculty members selected for an Outstanding Advising Award from the National Academic Advising Association.

Fred Piercy, professor of human development, was the winner of the 2013 National Council on Family Relations mentoring award.

Elizabeth Struthers Malbon, professor of religion and culture, was also selected for a national mentoring award by the Committee on the Status of Women in the Profession of the Society of Biblical Literature in November of 2013.

Erika Meitner, associate professor of English, was awarded a Fulbright; she will be teaching at Queen's University Belfast in Northern Ireland in Spring 2015.

The Air Force ROTC detachment ranked among the top 5 percent in the nation in officer production, with 28 commissioned in 2013-14, the highest total in the past three years.

Anusha Rizvi, a political science major, received the prestigious Boren Scholarship for international study in 2014-15. Rizvi will use her \$20,000 scholarship to continue her study of the Arabic language at the Qasid Arabic Institute in Amman, Jordan.

Travis Whaley, a music and German major, successfully auditioned to participate in a piano master class by Harvard music faculty member Robert Levin in November 2013. In July 2014, Whaley was the first Virginia Tech student ever accepted to compete in the International Bach Competition. Just 45 pianists are selected to compete in this prestigious event, which is held every four years.

# College of Natural Resources and Environment

The National Science Foundation has ranked the university's agricultural science and natural resources research program in the top five among the nation's universities and colleges since 2007. This ranking is inclusive of reporting from the colleges of Agricultural and Life Sciences, Natural Resources and Environment, and Veterinary Medicine.

The college's forestry, fisheries, and wildlife programs have consistently ranked among the top in the nation. In its most recent ranking of doctoral programs, the National Research Council rated Virginia Tech's graduate program in forestry as one of the country's best. The forestry program also placed in the top 100 of the World University rankings. The college's program in sustainable biomaterials is the largest of its kind in North America.

The college introduced a new major in environmental informatics. Bringing together information technology, data analysis, natural resources, geospatial science, and ecological modeling, environmental informatics enables students to explore and apply information science to the sustainable management of the natural world.

A new geography course that engages students in an intensive study of the landscape and weather of mountain environments took students to the Cascade Mountains of Washington state. Students learned not only how complex mountain topography influences the dynamics of physical systems but also a tremendous amount about personal limits, self-reliance, and outdoor leadership. A future trip is slated for rugged mountain locations in South America.

Researchers at the college's Freshwater Mollusk Conservation Center and at the Freshwater Fisheries Research Center in Wuxi, China, are continuing their long-term collaboration with the opening of a joint laboratory in Wuxi. Recent efforts include promoting freshwater mussel conservation, developing more robust and productive pearl-producing Chinese mussels, and possibly introducing a U.S. mussel to China that has the potential to produce colored pearls.

Interfaces of Global Change, a new interdisciplinary graduate education program, confronts the problem of Earth's dwindling biodiversity. Led by Associate Professor Bill Hopkins, of the Department of Fish and Wildlife Conservation, the program's over-arching goal is to bring a diverse group of people together to discuss how global changes, such as pollution, disease, and climate, interact to affect the natural world and how to address some of the most complex environmental and societal issues today.

Professor Kevin Edgar of the Department of Sustainable Biomaterials is working to identify, understand, and create new polymer additives that enhance the ability of orally administered drugs to reach the bloodstream. Improved bioavailability means a scarce and expensive drug can be used to treat more patients and with fewer side effects. Fewer doses will be required, making it easier for patients to take their drugs on time every day.

Geography instructor John Boyer continues to earn both national attention and student praise for his use of social media and his unorthodox teaching methods, such as classroom Skype sessions with world leaders. He continued to teach two courses while participating in a Semester at Sea program, connecting with students on campus via podcasts, online office hours and discussions, and mediums like Twitter and Google Hangouts.

Several college faculty garnered national honors. University Distinguished Professor Harold Burkhart was named Forest Champion of the Year by the Forest Landowners Association for making a significant contribution to the private forest landowner community. Professor Tom Fox received the Society of American Foresters' Barrington Moore Award, which recognizes outstanding achievement in biological research leading to the advancement of forestry. Associate Professor Marcella Kelly was honored with the Philadelphia Zoo's Global Conservation Leader Award for her potential to create global impact on wildlife preservation through her research on big cats. Restoration biologist Jess Jones, co-director of Virginia Tech's Freshwater Mollusk Conservation Center, received the Rachel Carson Award for Scientific Excellence from the U.S. Fish and Wildlife Service.

Graduate student Tammy Parece led and helped fund a project to install weather stations in a dozen Roanoke City schools to collect data for her research on urban agriculture. The schools are using the data across the curriculum.

Undergraduate student Mohamed Mwinyi launched the Soma Sasa Program — a nonprofit organization to provide literature and technology to his native Tanzania. The program's first goal is to build a library in Mwinyi's hometown of Boko. With the help of a number of team members, Mwinyi has been gathering books, raising awareness, collecting funds, and planning the library's physical location. Students in the college's Leadership Institute, of which Mwinyi was a participant, adopted Soma Sasa as their service-learning project and have taken on leadership roles in the organization.

# Pamplin College of Business

The Pamplin College of Business was named for two alumni, Robert B. Pamplin and his son, Robert B. Pamplin Jr., in 1986 in recognition of their lifetime accomplishments, service to Virginia Tech and especially to its college of business, and their financial support. Robert B. Pamplin, who died in June 2009 at age 97, was the retired chairman of Georgia-Pacific. Robert B. Pamplin Jr. is chairman, president, and CEO of the R.B. Pamplin Corporation of Portland, Oregon, as well as a philanthropist and author. The Pamplins' total gifts to the college exceed \$25 million.

The college offers undergraduate and graduate programs in accounting and information systems, business information technology, economics, finance, hospitality and tourism management, management, and marketing.

The college's degree programs, except for the master of information technology, are accredited by AACSB International – the Association to Advance Collegiate Schools of Business International.

Pamplin and the College of Engineering jointly deliver the master of information technology program, which is accredited by the Southern Association of Colleges and Schools.

Pamplin emphasizes technology and analysis that improve business, entrepreneurship that leads to innovation and innovative companies, international opportunities for learning and research, and an inclusive, collaborative community.

The college established two centers in 2013-14. The Center for Business Intelligence and Analytics serves as an interdisciplinary resource in this growing area to support faculty research within the college and in cooperation with other centers and academic units on campus, as well as outreach to the business community and curricular initiatives for undergraduate and graduate students.

The Center for Innovation and Entrepreneurship seeks to support curricular programs across the university in educating students about entrepreneurship and involving them in entrepreneurship activities. The center also serves as a resource for outreach to the business community and supports faculty research related to entrepreneurship, technology commercialization, and new venture formation and growth.

The college's undergraduate program ranked No. 39 overall (No. 23 among public universities), according to U.S. News & World Report. The evening M.B.A. program was ranked 46th and the master of information technology program was No. 2 in the nation, also according to U.S. News & World Report.

Christopher W. Zobel, R.B. Pamplin Professor of Business Information Technology, received a Fulbright Scholar Award to study disaster resilience. Zobel plans to use his award to develop new, more-effective approaches for measuring and monitoring the resilience and sustainability of critical infrastructure systems.

Greg Jenkins, professor of accounting and information systems, is one of three researchers who received the 2014 AAA/ Deloitte Foundation Wildman Medal Award for their study on how brainstorming meetings can help auditors detect fraud. Their study, Jenkins said, can help auditors improve their decision-making processes related to fraud detection, as it identifies best practices from high-quality brainstorming meetings.

Six Pamplin majors are routinely in the top 12 majors most sought after by recruiters visiting campus. The college's undergraduate career services staff members serve both students and employers. Recruiters from a range of business and government organizations attend the college's Business Horizons career fairs, organized each fall and spring by Pamplin undergraduates.

Through two student-run investing groups, Pamplin students manage about \$10 million of Virginia Tech's endowment. SEED (Student-managed Endowment for Educational Development) manages about \$5 million through stock investments — and is believed to be the nation's largest student-run portfolio that is managed as an extracurricular activity. BASIS (Bond And Securities Investing by Students) manages about \$5 million in bonds and other fixed-income securities — and is one of a handful of bond-only student-investor programs in the nation.

Founded in 2011, PRISM (Pamplin Re-inventing Social Media) seeks to equip students to lead the development, marketing, and measurement of the college's social media presence. Working in different functional groups, including marketing, communication, graphic design, branding, and research and analytics, the student members run Pamplin's social media channels to promote the college.

# College of Science

The Integrated Science Curriculum continues to be a gateway for science majors and a vehicle to introduce emerging degrees in nanoscience, neuroscience, computational modeling and data analytics, and systems biology. A fourth class of 34 students entered in fall 2014.

The Academy of Integrated Science, established in summer 2013, now houses two newly approved majors — computational modeling and data analytics, and nanoscience, both of which will begin to accept students in spring 2015. Approvals for two other programs, neuroscience and systems biology, are still ongoing. Among the goals of the academy are strengthening inter-departmental collaboration and fostering enhanced research opportunities in alignment with degree programs. The academy director is Professor J.P. Morgan.

Patricia Dove, University Distinguished Professor and C.P. Miles Professor of Science in the Department of Geosciences, received the Dana Medal from the Mineralogical Society of America.

Yuriko Renardy, professor of mathematics, was named a Fellow of the Society for Industrial and Applied Mathematics.

Michael Hochella, professor of geosciences, was selected as a Fellow of the International Association of GeoChemistry.

Robert Tracy, professor of geosciences, was elected a Fellow of the Geological Society of America.

Michael Fox, professor of biology, received the Jordi Folch-Pi Award from the American Society for Neurochemistry.

Deborah Kelly, professor of biology, was elected to the Royal Society of Chemistry.

Birgit Scharf, professor of biology, received a National Science Foundation CAREER award.

Robert Moore, professor of chemistry, was named as an American Chemical Society Fellow

David Kingston, professor of chemistry, was named a member of the National Institute of Complementary and Alternative Medicine, National Institutes of Health (NCCAM) Board of Scientific Advisors; and became a 50-year member of the American Chemical Society.

Edward Valeeve, professor of chemistry, received the Medal of the International Academy of Quantum Molecular Sciences.

Zhe Bao, Sarah Foltz, and Laura Schoenle Thomas, of biological sciences; Taylor Mach and Russel Snead, of chemistry; Kyle Ashley, James Dale, and Sebastian Mergelsberg, of geological sciences; and Chennan Hu, Jeong-ah Lee, and Kelly McCutcheon, of physics, were selected as Institute for Critical Technology and Applied Science doctoral Fellows.

Vicki Garcia, Sarah Foltz, and James Skelton, of biological sciences, were awarded National Science Foundation Doctoral Dissertation Improvement Grants.

Amanda Watson, psychology, received an American Psychological Association Dissertation Research Award.

Undergraduate and graduate students received more than 110 scholarships, fellowships, and awards during the College of Science's annual Celebration of Excellence Dinner and 10th Anniversary Celebration.

# Virginia-Maryland College Of Veterinary Medicine

Dr. Cyril Clarke was named dean of the Virginia-Maryland College of Veterinary Medicine in October 2013. He was previously professor and dean of Oregon State University's College of Veterinary Medicine.

The veterinary college received more than 1,400 applications for its 120 available positions for the doctor of veterinary medicine (DVM) Class of 2018, a 13 percent increase over the previous year. The college now ranks third nationally in the number of applications received.

Students in the DVM Class of 2014 achieved a 100 percent pass rate on the North American Veterinary Licensing Examination on their first attempt.

According to the latest figures from the Veterinary Information Network, the Virginia-Maryland College of Veterinary Medicine is a great value with the No. 3 most affordable in-state tuition out of the 31 veterinary schools in the United States and the Caribbean. This figure includes the cost of in-state tuition and living expenses.

The college has been making major contributions to the diversity of the veterinary profession. Since 2012, it has seen an increase of more than 50 percent in the number of students from underrepresented populations and has also had successes in male student recruitment and retention.

Researchers in the college have made considerable advancements in the area of emerging and re-emerging viruses under the direction of Dr. X.J. Meng, University Distinguished Professor. In October 2013, Meng and his colleagues tracked the origin of emergent porcine epidemic diarrhea virus to China. The Meng laboratory is also one of the leading international research centers on hepatitis E virus, which causes an estimated 20 million liver infections each year.

Dr. Siba Samal, associate dean and chair of the Department of Veterinary Medicine at the University of Maryland, was selected as the 2014 American College of Veterinary Microbiologists' Distinguished Microbiologist.

Lijuan Yuan, associate professor of virology and immunology in the Department of Biomedical Sciences and Pathobiology, received an 18-month, \$100,000 Grand Challenges Exploration grant from the Bill & Melinda Gates Foundation. The grant will support her work on vaccines against rotavirus, which annually kills more than 500,000 children under the age of 5 in developing countries.

Kathy Hosig, associate professor of population health sciences, was named a 2014 inductee into Purdue University's Department of Nutrition Science Hall of Fame.

Oklahoma State University's Center for Veterinary Health Sciences named Dr. David Panciera a recipient of its 2013 Distinguished Alumni Award. Panciera is the Anne Hunter Professor of Veterinary Medicine and an internal medicine specialist in the Department of Small Animal Clinical Sciences.

Dr. Coy Allen, assistant professor of inflammatory disease in the Department of Biomedical Sciences and Pathobiology, received the 2014 Chambers-eBioscience Award from the American Association of Immunologists.

Dr. Stephen Smith, professor of aquatic medicine and wildlife/exotic animal medicine in the Department of Biomedical Sciences and Pathobiology, was named president of the American Association of Fish Veterinarians. He also serves on the American Veterinary Medical Association's Animal Welfare Committee and was ranked by Vet Tech Colleges as one of the "15 Top Marine Vet Professors."

Research by Dr. Michelle Theus, assistant professor of molecular and cellular neurobiology in the Department of Biomedical Sciences and Pathobiology, on how the brain restores blood flow to damaged tissue following a stroke will offer new treatment clues for a leading cause of death in the United States. Theus received a three-year, \$483,000 grant from the National Institutes of Health to begin this research.

The college became one of three U.S. veterinary schools with a charter student chapter of the Women's Veterinary Leadership Development Initiative. The student chapter is dovetailing with national efforts to boost the number of female leaders in the veterinary profession. Although the majority of veterinarians and approximately 80 percent of veterinary students are women, few hold leadership roles in academia or professional associations.

Sarah Kronen, a third-year dual degree student in the doctor of veterinary medicine and master of public health programs, was elected to the board of the International Veterinary Students' Association (IVSA) as chairperson of the Standing Committee on One Health. As the inaugural recipient of the Student American Veterinary Medical Association's IVSA travel scholarship, the Ijamsville, Maryland, student represented U.S. veterinary students in Turkey and Indonesia in 2014.

Master's student Caroline Shea was awarded the 2014 James C. Bradford Memorial Student Award for her poster presentation: "Male and Female Exposures Both Contribute to Teratogenicity of QAC Disinfectants" at the 54th Annual Teratology Society Meeting: Pushing the Boundaries of Birth Defects Research. She received the top national award in the predoctoral category.

Ashley Francis, a master of public health student, was selected as the new graduate student representative to the Virginia Tech Board of Visitors.

Fourth-year DVM student John Gil won a 2014 Bayer Excellence in Communication Award for his effective client communication skills in a clinical setting.



# OTHER AREAS

## National Capital Region

Jaen Holt, director of the College of Architecture and Urban Studies' Washington-Alexandria Architecture Center and Patrick and Nancy Lathrop Professor of Architecture, and Henry Hollander, coordinator of outreach and alumni relations for the center, received the American Institute of Architects Northern Virginia Chapter Award. The award is presented in recognition of an individual or organization that has significantly inspired or influenced the architecture profession in Northern Virginia over a sustained period of time.

Gerard Toal, director of the government and international affairs program in the School of Public and International Affairs and an internationally recognized expert in critical geopolitics, received an award from the National Science Foundation to conduct research that builds upon previous research on post-Soviet unrecognized states and conflict regions.

Barbara Allen, professor and co-director of the science and technology in society graduate program, explored concepts of ethics and justice during a lecture at the National Science Foundation (NSF) in Arlington, Virginia. As guest speaker for the NSF Distinguished Lecture Series in Social, Behavioral, and Economic Sciences, Allen compared two communities in post-Hurricane Katrina during her presentation, "Beyond Ethics: Questions at the Intersection of Science, Technology, and Social Justice."

Ken Harmon Jr., an associate professor with the Grado Department of Industrial and Systems Engineering, was been appointed to the Corporate Advisory Board and Academic Council of the International Council on Systems Engineering, the first person to represent Virginia Tech in that capacity.

The Transportation Research Board of the National Academies Special Task Force on Climate Change and Energy awarded the "Best Paper on a Topic Addressing Climate Change Issues" to Ralph Buehler, associate professor, urban affairs and planning.

Sandeep Shukla, professor of electrical and computer engineering, was named an Institute of Electrical and Electronics Engineers Fellow for contributions to applied probabilistic model checking for system design. The status of Fellow is one of the most prestigious honors of the institute, bestowed upon less than one-tenth of one percent of the annual voting membership of IEEE.

Virginia Tech and the University of Kent, Brussels, partnered to offer graduate students an innovative, time-efficient way to obtain two advanced degrees in international affairs in the capital cities of the European Union and the U.S. Two Capitals, Two Masters in the government and international affairs program at the School of Public and International Affairs allows prospective students a unique opportunity to study, train, gain experience, and network in Brussels and Washington, D.C.

# Outreach and International Affairs

Continuing and Professional Education (CPE) delivered more than 250 programs that were attended by more than 20,000 participants. CPE faculty and staff hosted 17,357 participants at the Executive Briefing Center at the Virginia Tech Research Center — Arlington.

Through a cooperative agreement with the U.S. Army Education Outreach Program, Virginia Tech served as the lead organization supporting 11 national science, technology, engineering, and math programs that served nearly 32,000 participants during 2013-14.

The university's engagement team helped generate \$1.1 million in gross sales revenue for The Hotel Roanoke & Conference Center in fiscal year 2014. The facility received the prestigious Connie Award from the DoubleTree by Hilton brand. The award, named after Hilton Worldwide's founder Conrad Hilton, is awarded to the top-performing hotel of the year based on quality assurance audits measuring cleanliness, condition, and brand standards; customer satisfaction scores rating staff service; and the quality of the hotel's physical accommodations.

The Inn at Virginia Tech and Skelton Conference Center became Blacksburg's highest-ranked hotel on TripAdvisor. Preston's Restaurant, located inside The Inn at Virginia Tech, earned the Wine Spectator Award of Excellence for 2014. Jason Smith, head chef at Preston's restaurant, was the winner of the U.S. position in the IACC-Americas qualifying cook-off and participated in the International Association of Conference Centers' 11th annual Copper Skillet Cooking Competition.

Through its Intensive English Programs, TOEFL testing, special programs, and capacity-building initiatives, the Language and Culture Institute serves more than 4,800 people a year. In 2014, the institute opened a new facility in Fairfax, Virginia, and at Radford University.

The Office of Economic Development was awarded a \$500,000 University Center grant from the U. S. Commerce Department to expand its regional economic development efforts.

The TRiO programs at Virginia Tech (Upward Bound and Talent Search) annually provide services to more than 850 participants in Southwest and Central Virginia. Ninety-five percent of Upward Bound seniors and 92 percent of Talent Search seniors enrolled in college.

In the past year, the Virginia Tech commonwealth campus centers served more than 40,000 individuals through more than 270 programs. In August 2013, the university celebrated the grand opening of the Virginia Tech Hampton Roads Center in Newport News, a center jointly operated with the University of Virginia.

The Catawba Sustainability Center has partnered with the College of Agriculture and Life Sciences, Virginia Cooperative Extension, and Roanoke County to expand resources, services, and programs.

The Office of International Research, Education, and Development (OIREd) works to support the university's international mission by leading projects that raise the standard of living in more than 20 developing countries while partnering with more than 80 universities and institutions around the world. With a research grant portfolio of more than \$92 million, OIREd manages projects involving Virginia Tech faculty, students, and staff in natural resource management, integrated pest management, sustainable agriculture, watershed management, capacity-building in education, and micro-enterprise development. Current project initiatives include laying the groundwork for agricultural education at universities in developing countries, combating invasive species, developing systems for conservation agriculture around the world, and promoting a holistic suite of environmentally friendly farming techniques in West Africa, South Asia, Southeast Asia, Latin America, and the Caribbean.

OIREd also oversees Virginia Tech's Women and Gender in International Development program, ensuring that every project incorporates gender as an integral part of the work.

In 2013-14, the Global Education Office assisted with placing 1,061 Virginia Tech students in 47 countries around the world; facilitated the entry of 104 international students from 18 countries to study at Virginia Tech on exchange; and supported approximately 69 faculty members from all colleges in delivering 56 programs to 814 students. Three Virginia Tech students were named recipients of prestigious national scholarships for international education, the Boren Award and the Benjamin A. Gilman Scholarship.



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