



UNIVERSITY  
**FACTS & FIGURES**

2010-11

# **University Facts & Figures**

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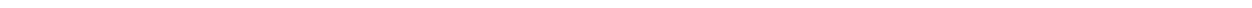
## **2010-2011**

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

Data Source: Office of Institutional Research & Effectiveness

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.irpa.vt.edu](http://www.irpa.vt.edu)
- Budget and Financial Management — [www.vt.edu/administration/vp-finance.php](http://www.vt.edu/administration/vp-finance.php)
- Virginia Tech history — [www.vt.edu/about](http://www.vt.edu/about)
- Guide to library archives — <http://spec.lib.vt.edu/archives/guide/>

**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.

# University Overview, 2010-11

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## Background

Founded in 1872 as a land-grant institution named Virginia Agricultural and Mechanical College, Virginia Tech is now a comprehensive, innovative research university with the largest number of degree offerings in Virginia, more than 125 campus buildings, a 2,600-acre main campus, off-campus educational facilities in six regions, a study-abroad site in Switzerland, and a 1,700-acre agriculture research farm near the main campus. The campus proper is located in the Town of Blacksburg in Montgomery County and is 38 miles southwest of Roanoke, in the New River Valley. Through a combination of its three missions of teaching and learning, research and discovery, and outreach and engagement, Virginia Tech continually strives to accomplish the charge of its motto: *Ut Prosim* (That I May Serve).

## Enrollment

28,687 on-campus; 82.3 percent undergraduate; 17.7 percent graduate; 57.6 percent male; 42.4 percent female. Total enrollment on and off campus is 31,006.

## Admissions

Virginia Tech received 20,083 applications for the fall 2010 freshman class. The typical student who was offered admission had a high-school grade point average of 3.96, with the middle 50 percent being between 3.71 and 4.17. The average cumulative SAT reasoning test score was 1250, with a middle range of 1160 to 1340.

## Full-time Instructional Faculty

1,364; 62.8 percent are tenured.

## Alumni

More than 215,000 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 George Nolen, rector; Michele L. Duke, vice rector; Michael Anzilotti; Frederick J. Cobb; Beverley Dalton; Douglas R. Fahl; William B. Holtzman; Calvin Donnell Jamison Sr.; Sandra Stiner Lowe; Suzanne S. Obenshain; Michael Quillen; John G. Rocovich Jr.; and James W. Severt Sr. The president of the state Board of Agriculture and Consumer Services (Paul Rogers) serves as an ex-officio member. The presidents of the Faculty Senate (Mike Ellerbrock) and the Staff Senate (Maxine Lyons) are also ex-officio, non-voting representatives. Each year, an undergraduate student (Shane McCarty) and a graduate student (Deepu George) 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 about 65 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 145 master's and doctoral degree programs through the Graduate School and a professional degree from the Virginia-Maryland Regional College of Veterinary Medicine. In addition, the Virginia Tech Carilion School of Medicine and Research Institute, a private, independent school jointly managed by the university and Carilion Health System, opened in fall 2010.

## Research

The university generated \$396.7 million for research programs in fiscal year 2009, ranking it 44th in the nation, according to the National Science Foundation. Each year, Virginia Tech receives significant external support for research, instruction, Extension, and public service projects. In the most recent fiscal year (2009-10), the university received

2,472 awards to conduct research. Support for these projects originates from an ever-expanding base of sponsors. Researchers pursue new discoveries in agriculture, biotechnology, information and communication technology, transportation, energy management (including leadership in fuel-cell technology and power electronics), and a wide range of other engineering, scientific, social science, and creative fields. This research led to 44 patents and 45 license and option agreements.

The Virginia Tech Corporate Research Center offers opportunities for businesses to establish close working relationships with the university and nurtures entrepreneurs pursuing new inventions and developments. Located on 120 acres adjacent to the main campus, the center consists of 27 buildings housing more than 140 companies with approximately 2,200 employees. In addition, development of Phase II, which will add 28 more buildings, is under way.

### **Special Academic Programs**

In our 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.

### **Outreach and International Affairs**

Outreach and International Affairs, which spearheads the university's outreach mission, encompasses a number of university-wide programs. These programs include the Center for European Studies and Architecture in Switzerland; Commonwealth Campus Centers in Southwest Virginia,

Hampton Roads, 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; southern Virginia outreach programs, including the Institute for Advanced Learning and Research in Danville and Reynolds Homestead in Patrick County; and Outreach Program Development, including the Center for Organizational and Technological Advancement, Continuing and Professional Education, Language and Culture Institute, The Hotel Roanoke & Conference Center, Outreach Program Services, Service-Learning Center, The Inn at Virginia Tech and Skelton Conference Center, and Upward Bound/Talent Search.

### **Off-campus Facilities**

Virginia Tech has facilities located across the commonwealth and one facility in Europe. These include the Marion duPont Scott Equine Medical Center in Leesburg; several locations in the Virginia Tech National Capital Region; Hampton Roads Center in Virginia Beach; Virginia Tech Roanoke Center; Virginia Tech Richmond Center; and Virginia Tech Southwest Center in Abingdon. Virginia Tech also owns and maintains the Center for European Studies and Architecture in Riva San Vitale, Switzerland, which is part of the university's study abroad program. Tech 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 2010-11 is \$1.1 billion and is distributed to two divisions: the university division and the Cooperative Extension/Agricultural Experiment Station division. 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, 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, 2010, the Virginia Tech Foundation's assets and managed funds — including gifts and bequests — totaled more than \$1 billion. The total endowment owned and managed by the university was \$502.3 million. Endowment value per student was \$16,646.

## 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 more than 95 years. And 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 non-formal education benefits more than 1 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.

## 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.



### The Corps of Cadets Coat of Arms



Designed in 1965 by Col. Harry D. Temple (IEOR '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:

The flaming grenade represents preparation for war; the four gold stars stand for the four major wars in which Tech cadets had fought before 1965 (Spanish-American War, World War I, World War II, and Korean War); the laurel wreath represents the presidential citation given to the cadet band for Spanish-American War service; the color red stands for strength and courage; and the sword represents command.

### 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.

## Virginia Tech's Benchmark Institutions

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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, Buffalo
- University of Southern California, Los Angeles
- Stony Brook University, Stony Brook, N.Y.
- Texas A&M University, College Station
- University of Texas, Austin
- The University of Washington-Seattle
- University of Wisconsin, Madison

## Senior Administrative Personnel

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President.....	Charles W. Steger
Senior Vice President and Provost.....	Mark G. McNamee
Vice President for Alumni Relations .....	Thomas C. Tillar
Vice President for Finance and Chief Financial Officer .....	M. Dwight Shelton Jr.
Vice President for Administrative Services .....	Sherwood G. Wilson
Vice President for Development and University Relations .....	Elizabeth A. Flanagan
Vice President for Information Technology.....	Earving L. Blythe
Vice President for Diversity and Inclusion.....	William T. Lewis
Vice President for Research .....	Robert Walters
Vice President for Student Affairs .....	Edward F.D. Spencer
Vice President and Executive Director for the National Capital Region .....	James Bohland
Vice President and Dean for Undergraduate Education.....	Daniel A. Wubah
Vice President for Outreach and International Affairs .....	John E. Dooley
Vice President and Dean for Graduate Education .....	Karen P. DePauw
University Treasurer and Chief Operating Officer for the Virginia Tech Foundation ....	Raymond D. Smoot Jr.
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 .....	Sue Ott Rowlands
Dean, College of Natural Resources and Environment.....	Paul Winistorfer
Dean, Pamplin College of Business .....	Richard E. Sorensen
Dean, College of Science .....	Lay Nam Chang
Dean, Virginia-Maryland Regional College of Veterinary Medicine.....	Gerhardt Schurig
Dean, University Libraries.....	Eileen Hitchingham*
.....	Tyler Walters
Dean, Virginia Tech Carilion School of Medicine.....	Cynda A. Johnson
University Legal Counsel.....	Kay Heidbreder

\* Hitchingham through Feb. 1, 2011; Walters as of March 15, 2011.

# Student Overview

## 2010-11 On-campus Enrollment Profile

	Undergraduate	Graduate	Professional	Total
<b>Enrollment by Race</b>				
American Indian or Alaska Native	56	5	0	61
Asian	1,873	159	6	2,038
Black or African American	876	177	3	1,056
Hispanics of any race	896	97	6	999
Native Hawaiian or other Pacific Islander	12	0	1	13
White	17,838	2,483	260	20,581
Two or more races	401	33	3	437
Not reported	1,176	60	90	1,326
Nonresident alien	509	1,664	3	2,176
<b>Total</b>	<b>23,637</b>	<b>4,678</b>	<b>372</b>	<b>28,687</b>

<b>Enrollment by Gender</b>				
Men	13,662	2,799	88	16,549
Women	9,975	1,879	284	12,138

<b>Enrollment by College</b>				
Agriculture & Life Sciences	2,213	359	0	2,572
Architecture & Urban Studies	1,461	362	0	1,823
Business	3,750	291	0	4,041
Engineering	6,461	1,822	0	8,283
Liberal Arts & Human Sciences	3,638	748	0	4,386
Natural Resources & Environment	578	159	0	737
Science	3,780	590	0	4,370
Veterinary Medicine	0	118	372	490
Intercollege	1,756	229	0	1,985

## 2010-11 Off-campus Enrollment Profile

	Undergraduate	Graduate	Professional	Total
<b>Enrollment by Race</b>				
American Indian or Alaska Native	1	5	0	6
Asian	1	134	0	135
Black or African American	4	212	0	216
Hispanics of any race	2	61	0	63
Native Hawaiian or other Pacific Islander	0	3	0	3
White	40	1,576	0	1,616
Two or more races	0	29	0	29
Not reported	5	89	0	94
Nonresident alien	0	157	0	157
<b>Total</b>	<b>53</b>	<b>2,266</b>	<b>0</b>	<b>2,319</b>

	Undergraduate	Graduate	Professional	Total
<b>Enrollment by Gender</b>				
Men	28	1,226	0	1,254
Women	25	1,040	0	1,065

<b>Enrollment by College</b>				
Agriculture & Life Sciences	3	59	0	62
Architecture & Urban Studies	3	325	0	328
Business	8	237	0	245
Engineering	11	262	0	273
Liberal Arts & Human Sciences	16	638	0	654
Natural Resources & Environment	1	73	0	74
Science	9	5	0	14
Veterinary Medicine	0	5	0	5
Intercollege	2	662	0	664

**Percent Enrollment by Race** (Total enrollment of undergraduate, graduate, and professional students on and off campus)

American Indian or Alaska Native students	0.2%
Asian students	7.0%
Black or African-American students	4.1%
Hispanics of any race	3.4%
White students	71.6%
Two or more races	1.5%
Not reported	4.6%
Nonresident alien	7.5%

**Residency of Undergraduate Students**

Virginia undergraduate students	17,492
Nonresident undergraduate students (includes international)	6,198
International undergraduate students	509
Undergraduate students living in residence halls	8,813

**Freshman Student Profiles**

Freshman applications received	19,981
Freshmen enrolled	5,205
Enrolled freshmen in top 10% of high school class	45.2%
Enrolled freshmen in top 25% of high school class	84.8%
Enrolled freshmen in top 50% of high school class	98.5%
2000 freshmen returning fall 2001	87.8%
2001 freshmen returning fall 2002	87.3%
2002 freshmen returning fall 2003	87.5%
2003 freshmen returning fall 2004	87.6%
2004 freshmen returning fall 2005	88.0%
2005 freshmen returning fall 2006	88.6%
2006 freshmen returning fall 2007	93.2%
2007 freshmen returning fall 2008	91.1%
2008 freshmen returning fall 2009	90.9%
2009 freshmen returning fall 2010	91.9%

## SAT Percentile Entering Freshmen

	25th Percentile		75th Percentile		Average	
	Math	Verbal*	Math	Verbal*	Math	Verbal*
2001	550	530	660	630	605	579
2002	560	530	660	630	609	579
2003	560	540	660	630	612	584
2004	560	540	660	630	611	587
2005	570	540	660	630	615	588
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

\*Verbal is now called Critical Reading

## Class of 2014 Snapshot

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

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

Number of states and territories represented: 49

Countries represented: 27

Most popular majors for incoming freshmen in fall 2010:

- General Engineering\*
- University Studies (undeclared)
- Biological Sciences
- Business (undecided)
- Human Nutrition, Food, and Exercise
- Psychology
- Animal and Poultry Science
- Communication
- Political Science
- Architecture

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

# Student Tuition and Fees 2010-11

	Undergraduate		Graduate	
	In-state	Out-of-state	In-state	Out-of-state
Academic year tuition	\$7,309	\$20,498	\$8,783	\$17,238
Fees*	\$2,150	\$2,719	\$2,150	\$2,719
Total tuition and fees	\$9,459	\$23,217	\$10,933	\$19,957
Room and board**	\$6,290	\$6,290	\$6,290	\$6,290

\*Includes academic, athletic, technology, student activity, health, bus, recreational sports, and student services fees. Out-of-state students also pay a capital and equipment fee. Engineering students also pay a supplemental fee 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.

## Veterinary Medicine (Virginia and Maryland residents)

Tuition	\$16,125
Fees*	\$3,550
Total tuition and fees	\$19,675

## Veterinary Medicine (other states)

Tuition	\$38,585
Fees*	\$4,119
Total tuition and fees	\$42,704

\*Includes academic, athletic, technology, student activity, health, bus, recreational sports, and student services fees. Out-of-state students also pay a capital and equipment fee.

Source: Office of Budget and Financial Planning

## Combined Tuition and Fees History

	Undergraduate		Graduate	
	In-State	Out-of-State	In-State	Out-of-State
2001-02	\$3,664	\$12,488	\$5,219	\$8,189
2002-03	\$4,736	\$14,352	\$6,431	\$9,666
2003-04	\$5,095	\$15,029	\$6,944	\$10,663
2004-05	\$5,838	\$16,581	\$7,512	\$11,682
2005-06	\$6,378	\$17,837	\$7,977	\$12,835
2006-07	\$6,973	\$19,049	\$8,540	\$14,057
2007-08	\$7,397	\$19,775	\$8,986	\$15,351
2008-09	\$8,198	\$20,825	\$9,735	\$16,866
2009-10	\$8,605	\$21,878	\$10,228	\$17,928
2010-11	\$9,459	\$23,217	\$10,933	\$19,957

Source: Office of Budget and Financial Planning

## Membership in the Corps of Cadets

(as of the beginning of fall session)

Year	Male	Female	Total
2001	551	136	687
2002	584	140	724
2003	614	144	758
2004	644	120	764
2005	642	104	746
2006	634	98	732
2007	618	92	710
2008	614	90	704
2009	657	112	769
2010	737	120	857

## Historical Highlights of the Corps of Cadets

- 1872: Virginia Tech established as Virginia Agricultural and Mechanical College, organized as one battalion of two companies.
- 1899: Corps petitions governor for active military service during the Spanish-American War. Bandsmen and director enlist as Regimental Band, 2nd Virginia Infantry Regiment Exposition.
- 1919: Band first called “Highty-Tighties.” Tech designated one of the nation’s “Distinguished Military Colleges.”
- 1922: Virginia Tech Corps of Cadets (VTCC) organized as regiment.
- 1923: Corps petitions governor for active military service during national rail strike.
- 1924: Corps made mandatory only for first two years.
- 1934: First Ring Dance (Class of 1935).
- 1942: VTCC organized as brigade of two regiments.
- 1953: First African-American student enrolls (Cadet Irving L. Peddrew III)
- 1958: First African-American student graduates (Cadet Charlie L. Yates).
- 1964: Corps becomes voluntary.
- 1973: Women admitted into corps of cadets except for Regimental Band and organized into L Squadron.
- 1975: Women accepted into Regimental Band.
- 1981: Cadet barracks become first co-ed dorms on campus.
- 1985: First African-American regimental commander (Derek Jeffries '86).
- 1987: First female regimental commander (Denise Shuster '88).
- 1996: VTCC Center for Leader Development is established.
- 1997: VTCC initiates Caldwell March, which becomes semi-annual event.
- 2005: First African-American female regimental commander (Christina Royal '06).

# Financial Overview

## Consolidated University Operating Budget 2010-11

(Dollars in Thousands)

### Educational and General

#### *University Division:*

General Fund	\$147,702
Tuition and Fees	\$316,919
Federal Funds	\$18,500
All Other Income	\$28,057
<b>Subtotal</b>	<b>\$511,178</b>

#### *CE/AES Division*

General Fund	\$62,406
Federal Funds	\$18,670
All Other Income	\$716
<b>Subtotal</b>	<b>\$81,792</b>

Total Educational and General	\$592,970
Auxiliary Enterprises	\$227,281
Financial Assistance Sponsored Programs	\$255,382
Student Financial Assistance	\$20,054
All Other Programs	\$5,518
<b>Total</b>	<b>\$1,101,205</b>

## Virginia Tech Foundation Endowment Trend Analysis

Year (as of June 30)	Market Value (\$)	\$ Per Student
1996	\$244,537,663	\$10,137
1997	\$285,704,195	\$11,450
1998	\$331,013,180	\$12,743
1999	\$340,243,732	\$12,916
2000	\$368,196,579	\$13,864
2001	\$359,527,534	\$13,723
2002	\$328,679,928	\$12,375
2003	\$331,311,105	\$12,523
2004	\$370,811,010	\$13,962
2005	\$408,560,308	\$15,310
2006	\$447,404,748	\$16,447
2007	\$524,731,181	\$18,972
2008	\$527,629,109	\$18,216
2009	\$451,744,223	\$15,130
2010	\$502,379,593	\$16,646

## Faculty/Staff Overview

### Average Full-Time Instructional Faculty Salaries

(Dollars in Thousands)

Rank	2005-06	2006-07	2007-08	2008-09	2009-10
Professor	\$106.4	\$110.8	\$116.2	\$116.8	\$115.9
Associate Professor	\$76.7	\$79.3	\$83.0	\$84.6	\$82.9
Assistant Professor	\$63.1	\$65.8	\$68.1	\$70.4	\$70.4
Instructor	\$40.3	\$41.6	\$43.7	\$45.5	\$45.3
All Ranks	\$81.1	\$84.1	\$87.3	\$88.0	\$87.4

#### 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.

### Salaried Personnel

Faculty/Staff	2006-07	2007-08	2008-09	2009-10	2010-11
Full-Time Instructional Faculty	1,340	1,371	1,369	1,364	1,306
Other Faculty & Research Associates	1,649	1,690	1,761	1,913	1,826
P14s (instructional only)	233	217	229	224	273
Support Staff	3,698	3,774	3,816	3,603	3,461
Total Faculty & Support Staff	6,920	7,052	7,175	7,104	6,866
Percent of Instructional Faculty Tenured	65.3	63.4	61.9	62.8	61.9

#### 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).

# Measures of Excellence

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## University Rankings

### Undergraduate

*U.S. News & World Report's "America's Best Colleges 2011" (fall 2010)*

- Virginia Tech ranks 30th among national public universities. Among all national universities, including such private institutions as Harvard and Yale, Virginia Tech ranks 69th.
- The Virginia Tech College of Engineering undergraduate program ranks 13th in the nation (tied with Northwestern University and the University of Wisconsin-Madison) among all accredited engineering schools that offer doctorates. It is seventh among engineering schools at public universities. Nine of the college's undergraduate engineering programs are ranked among the top 20 of their peer programs.
- The Pamplin College of Business undergraduate program is ranked 42nd among the nation's undergraduate business programs and 10th among public institutions. Pamplin's overall ranking places it in the top 10 percent of the approximately 524 U.S. undergraduate programs accredited by the Association to Advance Collegiate Schools of Business International.

The School of Architecture + Design's undergraduate architecture program was recognized as one of America's World-Class Schools of Architecture with highest distinction, tied with Harvard, Yale, and Columbia universities. The multidimensional ranking by *DesignIntelligence*, the only national college survey focused exclusively on design, was based on five criteria: current rankings by professional practices; historic 10-year rankings by professional practices; rankings by academic department deans and chairs; overall campus environment and student evaluations; and program accreditation.

*DesignIntelligence* also ranked the university's undergraduate landscape architecture program best in the nation.

The *Princeton Review* ranked Virginia Tech eighth nationally among public universities in its "Best Value Colleges" for 2010. *Princeton Review* selected 50 public institutions and 50 private ones for its rankings.

Virginia Tech ranks 24th nationally among public colleges and universities that offer a first-class educational experience at a bargain price, according to *Kiplinger's Personal Finance* magazine.

A *Wall Street Journal* survey of 479 employers ranked Virginia Tech 13th in the nation for preparing graduates to succeed on the job.

IEEE Spectrum ranked Virginia Tech 10th among universities for the impact of its patents. The Patent Power survey focuses on quality rather than quantity of patents.

Dining Services was ranked No. 1 in the nation for Best Campus Food in 2010, and No. 2 in 2011 by the *Princeton Review*, and No. 3 in the nation in 2010 by the *Parents and Colleges* publication.

### Graduate

*U.S. News & World Report's "America's Best Graduate Schools 2011" (spring 2010)*

- The College of Engineering's overall graduate program ranked 25th among all schools of engineering.
- Four 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 ninth

among civil engineering programs, with the environmental engineering program tying for seventh. The Grado Department of Industrial and Systems Engineering ranked fourth among industrial/manufacturing programs. The biological systems engineering department, also part of the College of Agriculture and Life Sciences, tied for seventh in the nation among biological/agricultural programs..

- The Career and Technical Education graduate program in the College of Liberal Arts and Human Sciences School of Education tied for fourth among vocational and technical specialties for the second year in a row.
- The public affairs program in the School of Public and International Affairs, College of Architecture and Urban Studies, ranked 27th in the nation.
- Three programs within the College of Science were rated among the best in the nation. In the geosciences department, the paleontology program ranked ninth and the earth sciences program ranked 28th. In the psychology department, the clinical psychology program ranked 33rd.
- The Pamplin College of Business ranked 41st among the nation's best part-time M.B.A. schools.

*DesignIntelligence* ranked Tech's graduate landscape architecture program second in the nation. It also ranked the graduate architecture and interior design programs sixth.

## General Information

With more than 23,500 undergraduate students, about 7,300 graduate students, and more than 3,100 faculty members and researchers, Virginia Tech offers more degree programs and awards more diplomas than any other university in the Commonwealth of Virginia.

Virginia Tech's fully computerized library contains more than 2.3 million volumes, an array of specialized collections, and numerous electronic databases.

Virginia Tech consistently ranks among the top 15 schools in the nation in number of patents received.

Virginia Tech is one of only three public universities in the United States to support both a military and a non-military 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.

All campus facilities, including residence halls, are connected by fiber-optic cable, providing voice, data, and video communications and high-speed, direct Internet connection. In 2004-05, Tech began offering wireless Internet connections in more than 75 different buildings, including academic buildings, student centers, dining facilities, and even the south end zone of Lane Stadium. Tech is also the visionary leader of the internationally recognized Blacksburg Electronic Village project, instituted in the early 1990s, that connected the town and campus to the world.

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.

## Research

For fiscal year 2009, Virginia Tech ranked 44th in the nation with total research and development expenditures of \$396.7 million, according to the National Science Foundation (NSF).

Each year, the university receives significant external support from an ever-expanding base of sponsors for research, instruction, and outreach projects. In fiscal year 2010, the university received 2,472 awards to conduct research.

Six research institutes have been created to draw upon established strengths and build resources:

- Fralin Life Science Institute
- Institute for Critical Technology and Applied Science
- Institute for Society, Culture, and Environment
- Virginia Bioinformatics Institute
- Virginia Tech Carilion Research Institute
- Virginia Tech Transportation Institute

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

The Virginia Tech Transportation Institute (VTTI), with almost 300 employees and \$26.7 million in research awards (many for multiple years), has a mission to save lives, time, and money for the transportation industry. Facilities include the 2.2-mile, two-lane, fully instrumented “Smart Road” and more than 51,000 square feet of office and specialized laboratory space—such as an asphalt lab, fully equipped garages, instrumentation bays, and a machine shop for working on VTTI’s vehicle fleet.

The Virginia Bioinformatics Institute (VBI), with more than 200 people and total active awards of more than \$120 million (many for more than one year), combines information technology, medicine, and biology to solve problems in the biomedical, environmental, and agricultural sciences. VBI research has contributed to public health and national safety.

The Fralin Life Science Institute is dedicated to increasing the quality, quantity, and competitiveness of life science research, education, and outreach at Virginia Tech by coalescing resources around existing and emerging strengths within the life science community. The institute invests in researchers investigating vector-borne disease, infectious disease, obesity, inflammation, and cell biology.

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. Researchers from across the university are taking advantage of the Nanoscale Characterization and Fabrication Laboratory and building collegial partnerships as they use the resources of two new buildings — one in the university’s engineering corridor and one in the life sciences corridor.

The Institute for Society, Culture, and Environment is strengthening the university’s competitive position in the social sciences, humanities, and the arts; applying the university’s technological know-how to social issues and cultural opportunities; and providing support for grant writing and aligning faculty expertise with funding sources. 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. A special-interest group is promoting community / public health research, including prioritizing regional health issues and intervention strategies.

The Virginia Tech Carilion Research Institute, created in 2009, also will advance medical science. The mission is to become a premier institute of interdisciplinary and translational research within the medical sciences, to facilitate research-based medical education, and to improve patient care through discovery and partnerships with clinicians. A new building provides state-of-the-art space and technology. Research teams are being established. The first is in the areas of neurobiology and cognitive neuroscience. Other research areas are addiction, cancer biology, cardiovascular biology, computational biology, developmental and regenerative medicine, and infectious disease and inflammation.

The six research institutes provide clients access to world-class expertise across many disciplines; to the

scientific and technical capability of specially equipped, advanced laboratories; and to students and graduates who know no boundaries when applying knowledge to invent the future.

Other areas of research achievement and ongoing investigation throughout the university's colleges and many interdisciplinary groups include high-performance computing; advanced materials; wireless telecommunication; housing; human and animal health; cognition, development, and behavior; the environment; and energy, including power electronics, biofuels, fuel cells, and solar-powered building structures. In the social sciences, scholarship and creative work include cultural expression and literature; interactions between ideas, technology, and people; and performing arts.

The university has 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 and Research Institute welcomed its first class in August 2010. Curriculum value domains are basic sciences, clinical sciences, research, and interprofessionalism. Students and clinicians will be partners in the research enterprise with the faculty of the research institute.

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 2010, 37 U.S. patents and seven foreign patents were awarded to VTIP, and 45 license and option agreements were signed. Additionally, Virginia Tech ranked 10th among universities globally in the IEEE Spectrum Patent Power Scorecards, which analyzed the strength of patent portfolios for calendar year 2009.

## Colleges

### College Of Agriculture and Life Sciences

#### *Noted Accomplishments/Honors*

Virginia Tech ranked fifth in the country with \$91 million in agriculture and natural resources research spending in 2008, according to the National Science Foundation.

A biological systems engineer has shown that it is possible to use the crude glycerol byproduct from the biodiesel industry as a carbon source to feed microalgae that produce omega-3 fatty acids. After growing the algae in the crude glycerol, researchers can use it as animal feed. This mimics a natural process in which fish — the most common source of omega-3 fatty acids for humans — eat the algae and then retain the healthful compounds in their bodies.

An international consortium of scientists led by university researchers has completed the majority of its efforts to sequence the genome of the domesticated turkey. The genetic blueprint of the domesticated turkey promises to transform avian experimental research and, ultimately, help improve the quality of this commercially important source of food, including its disease resistance and profitability.

Virginia Cooperative Extension launched the Master Food Volunteer program to educate the commonwealth's citizens about the importance of good nutrition. Utilizing an approach similar to the successful Master Gardener program, the Master Food Volunteer program uses trained volunteers to teach nutrition concepts in their communities.

Virginia Tech developed a new online master of science in life sciences degree with an option in health product risk management and an accompanying 12 credit-hour graduate certificate. The risk management program provides a thorough education in best practices and trends in risk management, enabling graduates to devise strategies to mitigate risks and help bring the safest, most-innovative products to market.

A Virginia Tech-led team, headed by a researcher in the Department of Biological Systems Engineering, has used unstable elements in biomass — in this case, poplar and pine wood — to develop stable oils that can be readily upgraded to stable biofuels. The team is producing stable bio-oils and hopes to convert them into biogasoline. Similar research to convert poultry litter into bio-oil has provided a safe and environmentally friendly solution to waste disposal.

Researchers from the Virginia Bioinformatics Institute; the Department of Plant Pathology, Physiology, and Weed Science; and other colleagues have identified a key function of a large family of virulence proteins that play an important role in the production of infectious disease by the plant pathogen *Phytophthora sojae*. *P. sojae* causes severe damage to soybean crops that results in \$1 to \$2 million in annual losses for commercial farmers in the United States and much more worldwide.

As part of the college's infectious disease research program, an entomologist has discovered (in a collaborative effort) that mosquitoes that are genetically modified to be disease-free can have all disease-free offspring if bred with disease-carriers. In addition to areas affected by yellow and dengue fever viruses, this discovery holds promise for developing countries, where mosquito-borne diseases cause 5 million deaths each year.

A plant pathologist has developed small, self-controlled planes to detect airborne pathogens above agricultural fields, an approach that combines the latest engineering technology with cutting-edge plant pathology. This research has led to evidence that airborne microorganisms employ novel biochemical processes for interacting with each other as a community of organisms in the atmosphere.

Researchers in the Department of Human Nutrition, Foods, and Exercise have been leading research projects to understand the problem of childhood obesity, especially among youth in Virginia, and they are also leading efforts to do something about it. Faculty members are working with Virginia Action for Healthy Kids, a coalition of health advocates committed to improving the health of Virginia's youth by ensuring that healthy snacks and foods are provided in vending machines, school stores, and other venues, and by promoting quality physical activity during and after school.

The Virginia High Pressure Processing Laboratory in the Department of Food Science and Technology has the largest university-based high-hydrostatic pressure unit available for research in the Americas.

A researcher in the Department of Animal and Poultry Sciences, who in 1957 began breeding lines of White Plymouth Rock chickens based on their juvenile body weight, has provided scientists with a model for exploring the molecular basis for chicken growth and reproduction. In 2010, a team of scientists used Virginia Tech's decades-old lines of high- and low-growth chickens for a breakthrough in genetic studies of animal domestication.

A researcher in the Department of Horticulture contributed a unique variety of potato that accelerated the work of the Potato Genome Sequencing Consortium to develop a blueprint for one of the world's most important food crops. The one-of-a-kind potato line allowed researchers to release a draft sequence of the potato genome ahead of schedule.

### **Outstanding Faculty**

Michael Ellerbrock, professor of agricultural and applied economics, received the university's 2010 William E. Wine Award for his exceptional teaching talent and his ability to inspire students to be engaged in learning. Each year, three faculty members at Virginia Tech receive this top teaching honor.

Gregory Evanylo, professor and Virginia Cooperative Extension specialist in the Department of Crop and Soil Environmental Sciences, received the 2010 Rufus Chaney Award from the U.S. Composting Council. The annual award from the world's leading composting industry organization recognizes an individual who has displayed excellence in compost research for at least a decade and whose research findings have significantly impacted the industry.

Carl Griffey, professor of crop and soil environmental sciences, was elected Fellow of the American Society of Agronomy. The rank of Fellow is bestowed on individuals who have made outstanding contributions to the field in the areas of research, teaching, Extension, service, or administration.

David Schmale, assistant professor of plant pathology, physiology, and weed science, received the university's 2010 Sporn Award for Excellence in Teaching Introductory Subjects. Students nominate the recipients of this award, and Virginia Tech's Academy of Teaching Excellence inducts each year's winner into its honor society.

Paul Siegel, University Distinguished Professor Emeritus of Animal and Poultry Sciences, was inducted into the American Poultry Hall of Fame for his extraordinary contributions researching and teaching poultry science for more than 60 years. This rare honor is the poultry industry's highest level of recognition.

Mary Leigh Wolfe, professor of biological systems engineering, was named a 2009 Accreditation Board for Engineering and Technology (ABET) Fellow. The award recognizes individuals who have given sustained, quality service to ABET-related professions, in general, and to education within the ABET disciplines.

Y.H. Percival Zhang, assistant professor of biological systems engineering, received the 2010 Daniel I.C. Wang Award. The award honors an accomplished young member of the biotechnology/bioengineering academic community for commitment to the journal *Biotechnology and Bioengineering* and the community it serves.

### **Student/Student Group Achievers**

Jennifer Lamb, a junior majoring in political science and agricultural and applied economics, was named a 2009 Truman Scholar, receiving a \$30,000 scholarship for graduate study. The Truman Scholarship recognizes college juniors with exceptional leadership potential who are committed to careers in public service. Only the third Truman Scholar from Virginia Tech, Lamb was one of 60 students from 55 U.S. colleges and universities chosen.

The 2009 Virginia Tech Dairy Judging Team took home top honors at the North American International Livestock Exposition in Louisville, Ky., for the second year in a row. It also ranked first at the Intercollegiate Dairy Cattle Judging Contest at the World Dairy Expo in Madison, Wis., and at the Eastern States Exposition in West Springfield, Mass. This was Virginia Tech's third win at the World Dairy Expo in the past four years.

The Virginia Tech Horse Judging Team was victorious at the American Paint Horse Association's Spring Intercollegiate Horse Judging Sweepstakes in Fort Worth, Texas. Thirty-two teams representing 21 universities across the country competed in the senior college contest, and the two teams representing Virginia Tech placed first and third.

The Virginia Tech Soil Judging Team won first place at the 50th American Society of Agronomy National Soil Judging Contest in Lubbock, Texas. This was the third time Virginia Tech team members have returned home as national champions, and the second time since 2005.

A team of undergraduate students in the Department of Biological Systems Engineering was one of 14 to win an Environmental Protection Agency People, Prosperity, and Planet award at the 6th Annual National Sustainable Design Expo. The students collaborated on their senior design projects to develop a plan for a combined riparian zone with a stream denitrifying biofilms for nitrate reduction in aquatic ecosystems.

## **College Of Architecture and Urban Studies**

### ***Noted Accomplishments/Honors***

The School of Architecture + Design's undergraduate architecture program has been recognized by *DesignIntelligence* as one of America's World-Class Schools of Architecture with highest distinction, tied with Harvard, Yale, and Columbia universities. The publication also ranked the undergraduate landscape architecture best in North America and the graduate program second.

Lumenhaus, Virginia Tech's entry in the Solar Decathlon Europe, was declared the most efficient structure in the decathlon, beating out 16 other solar houses from seven countries on three continents. Lumenhaus placed in almost all of the 10 judging categories, including tying for first in architecture, taking second in communication and social awareness, and placing third in industrialization and market viability and in lighting.

The Myers-Lawson School of Construction is partnering with the Pamplin College of Business to offer a new simultaneous degree option at the master's level. Students now have the opportunity to earn an M.B.A. alongside an M.S. in either construction engineering management or building construction in two years.

### ***Outstanding Faculty***

Anne Khademian, a professor with the Center for Public Administration and Policy in the School of Public and International Affairs, was elected a National Academy of Public Administration Fellow.

Four professors from the School of Architecture + Design were among 25 faculty members in North America named Most Admired Educators of 2010 in the 11th annual America's Best Architecture and Design Schools study by *DesignIntelligence*. They were Brian Katen, Ronald Kemnitzer, Patrick Miller, and Lisa Tucker.

In recognition of a career of excellence, Robert Dunay, the T.A. Carter Professor of Architecture and Director of the school's Center for Design Research, was named an American Institute of Architects (AIA) Fellow. Only 2 percent of the professionals in the AIA attain this distinction.

### ***Student/Student Group Achievers***

Four teams of students from the industrial design program in the School of Architecture + Design swept the five award categories at an international design competition that included professional designs. The competition was sponsored by Ardica, a clothing company focused on portable, miniaturized power- and heat-integrated apparel. In the competition, eight finalist groups, chosen from among 100 entries, were charged with designing an outdoor product that integrated the Moshi Power Pack, which is a flat, flexible battery system that weighs less than one pound. A team made up of Kyle McCrory, Patrice Hsia, and Greg Lefevere designed the first-prize winner, the "Voltage" sleeping bag. Two other Hokie teams took second and third, and Crosby Reinders won the Student Design Award.

Mary Jo Wills was confirmed by the U.S. Senate as ambassador to the Republic of Mauritius and the Republic of Seychelles. Wills, a career diplomat with more than 30 years of experience in international affairs, is a doctoral candidate at the Virginia Tech Center for Public Administration and Policy (CPAP) in the National Capital Region.

A team of five Virginia Tech students from the colleges of Architecture and Urban Studies and Engineering won first place in the Associated Schools of Construction / Associated General Contractors Region II Heavy-Civil competition in Jacksonville, Fla. The student teams were given a construction problem statement at 7 a.m. on the day of the competition and had until 8 p.m. that same day to develop a solution, an estimate, and construction schedule. The teams had to consider concrete placement, traffic control, structural steel erection, bridge construction, and conventional concrete in their solution for the fictional Port Everglades Bridge project in Fort Lauderdale, Fla.

Students from the School of Visual Arts received 19 gold and 23 silver Advertising Federation of the Roanoke Valley Student ADDY awards — including the Best in Show and Student Judges Choice Awards — and 13 District Student ADDYs.

## College Of Engineering

### *Noted Accomplishments/Honors*

Virginia Tech is the home of the commonwealth's leading College of Engineering, known in Virginia and throughout the nation for the excellence of its programs in engineering education, research, and public service. It ranks among the top five suppliers of new B.S. degrees in the United States.

In *U.S. News & World Report's* "America's Best Colleges 2010" survey, the College of Engineering's undergraduate program again ranked 13th among all accredited engineering schools and seventh among public universities. This places the college among the top 3 percent of more than 600 institutions accredited by the Accreditation Board of Engineering and Technology. Three undergraduate engineering programs rated among the top 10: aerospace engineering and civil engineering, each at 10th, and industrial engineering at fifth. Other top rankings were: chemical, 23rd; electrical, 14th; environmental, 16th; mechanical, 14th; and materials science and engineering, 15th .

The magazine's "America's Best Graduate Schools 2011" survey, released in April 2010, ranked the college's graduate program 25th among all of the nation's engineering schools and 15th among engineering schools at public universities. The survey ranked four of Virginia Tech's graduate engineering programs among the top 10 in their fields. The Charles E. Via Jr. Department of Civil and Environmental Engineering was ninth among civil engineering programs, with the environmental engineering program tying for seventh. The Grado Department of Industrial and Systems Engineering ranked fourth among industrial / manufacturing programs. The biological systems engineering department, also part of the College of Agriculture and Life Sciences, tied for seventh among biological / agricultural programs.

Virginia Tech ranked 14th among all engineering schools in terms of the number of graduate students enrolled, according to *Prism* magazine, the flagship publication of the American Society for Engineering Education.

The National Science Foundation (NSF) is a major contributor of grants to the college. Research expenditures during fiscal year 2008 (released in April 2010) totaled \$152 million, placing the college 10th in the nation among the hundreds of engineering colleges for the second year in a row, according to the NSF. The rankings measure the amount of money institutions spend on research and development. Funding for the research comes from federal agencies, private foundations, industry, and the institutions themselves.

The latest national survey released by the American Society for Engineering Education ranked the college seventh in the number of full-time teaching faculty, ninth for the number of tenured/tenure track women faculty, 10th for the number of African-American faculty, 12th for the number of Asian faculty, and seventh for the number of Hispanic faculty. The data were based on a survey of 333 engineering schools.

In 2010, the college added 12 new faculty members due to a plan the administration developed that allows it to grow in difficult economic times. Over a four-year period, the college will increase the size of the faculty from about 330 to about 350. In the past year, faculty members have received numerous national and international awards, including five new National Science Foundation CAREER Awards, bringing the college's total to an impressive 57 among current faculty members. The college also has eight current Presidential Early Career Award for Scientists and Engineers recipients.

The Signature Engineering Building advanced as the number one construction priority during fall 2009. In 2010, building plans were approved by the state's Art and Architectural Review Board. The proposed facility will be a combination of classrooms, instructional and research laboratories, and offices to house a number of engineering departments and programs. This facility will contain highly specialized laboratories that will support hands-on problem solving and active learning in the engineering disciplines.

The college entered into an innovative partnership to help the Commonwealth of Virginia attain global leadership in aerospace-related industries. The higher-education component of this partnership includes hiring exceptional faculty at all ranks in areas that will grow research and development capabilities in key technical areas. An important component of this partnership is the emerging relationship with Rolls-Royce, a leading global provider of power systems and services for the civil aerospace, defense aerospace, and marine and energy markets, to build new manufacturing facilities in Virginia. The Commonwealth Center for Aerospace Propulsion Systems is a virtual research center with projects based on the campus of Virginia Tech that will support basic and applied research in fields related to the gas turbine industry. The Commonwealth Center for Advanced Manufacturing is a research center that will be located on the new Rolls-Royce manufacturing campus in Prince George County, Va., and will focus on the acceleration of basic research into technologies that can be applied to the development of advanced manufacturing systems for a diverse range of industry sectors. Both of these research centers are a joint collaboration between Virginia Tech's College of Engineering and the School of Engineering at the University of Virginia.

Al Wicks, of the mechanical engineering department, led a team of students in designing and building four unmanned autonomous vehicles that participated in the 2010 Rim of the Pacific war games in July 2010. The Virginia Tech engineering students worked with TORC Technologies, a company founded by alumni of the university's robotics program, to complete the four vehicles. Previously, TORC worked with engineering students to develop autonomous vehicles for the Urban Challenge competition sponsored by the Defense Advanced Research Projects Agency in 2006 and in 2007.

Students in the Robotics and Mechanisms Laboratory created CHARLI, the first untethered, autonomous, full-sized, walking, humanoid robot with four moving limbs and a head built in the United States. His long legs and arms can move and gesture thanks to a combination of pulleys, springs, carbon fiber rods, and actuators. CHARLI is also able to talk. The students built CHARLI with \$20,000 in seed money from the Virginia Tech Student Engineers' Council and donated equipment from National Instruments and Maxon Precision Motors. The August 2010 issue of *Popular Science* featured CHARLI in a cover story, titled "The Loneliest Humanoid in America." Dennis Hong, the engineering faculty advisor, was selected in a previous edition of *Popular Science* as one of its Brilliant 10, a selection of the brightest young researchers in the country.

Virginia Tech's Lumenhaus, an 800-square-foot solar home, went to Madrid, Spain, in June 2010, and was victorious against 16 international research universities in the 2010 Solar Decathlon Europe. The Virginia Tech Lumenhaus team consists primarily of faculty and undergraduate and graduate students from the College of Architecture and Urban Studies, the College of Engineering, and the Pamplin College of Business.

## College Of Liberal Arts and Human Sciences

### ***Noted Accomplishments/Honors***

The college has five Alumni Distinguished Professors (ADPs) — the most for any of the university's eight colleges. Only nine Virginia Tech professors currently have received an ADP appointment from the university's board of visitors. The appointment recognizes extraordinary academic citizenship and distinguished service within the Virginia Tech university community. They are Jacqueline Bixler, foreign languages and literatures; Rosemary Blieszner, human development; Gary Downey, science and technology studies; James Robertson Jr., history; and Lucinda Roy, English.

The college has two University Distinguished Professors — English Professor Nikki Giovanni and political science Professor Tim Luke. The rank of University Distinguished Professor is bestowed by the board of visitors on those whose scholarship and writing has attracted national and/or international attention. Currently, only 12 Virginia Tech professors are recognized as University Distinguished Professors.

The career and technical education graduate program in the School of Education tied for fourth place among vocational and technical specialties in this year's *U.S. News & World Report* survey of America's Best Graduate Schools. The program has 100 master's students and 30 doctoral students in such fields as business and information technology education, family and consumer sciences education, marketing education, and agricultural education.

Virginia Tech boasts a laptop orchestra — the first Linux-based orchestra in the world with a focus on ultra-affordable design. It uses an inexpensive MSI Wind Notebook and employs a free Linux operating system.

### ***Outstanding Faculty***

Matthew Vollmer, an advanced instructor in English, was awarded a \$25,000 Literature Fellowship in Prose from the National Endowment for the Arts. Vollmer is author of *Future Missionaries of America*, a highly praised collection of short stories. Vollmer is also winner of the Sporn Award for Excellence in Teaching Introductory Subjects.

John Burton, professor of learning sciences and technology in the School of Education, received the university's 2010 Alumni Award for Excellence in International Outreach. Burton established the Instructional Systems Development Program, with graduates hailing from China, South Korea, Australia, Japan, Canada, Egypt, Malawi, South Africa, Mexico, and Brazil. Burton is co-founder of the Center for Research and Development in International Education.

Robert Stephens, associate professor of history, received the Edward S. Diggs Teaching Scholars Award. Students routinely praise Stephens' knowledge and enthusiasm and his commitment to helping them develop the critical reading and writing skills historians need. His teaching acumen has been recognized with both a Certificate of Teaching Excellence and an XCaliber Award for Excellence in Technology-Assisted Teaching and Learning.

Kelly A. Parkes, assistant professor of teaching and learning in the School of Education, received the university's 2010 XCaliber Award for excellence as an individual involved in teaching with technology.

Parkes, who joined the Virginia Tech faculty in 2006, teaches graduate level music education classes and supervises interns.

In February, Virginia Tech celebrates its authors. Once again, the College of Liberal Arts and Human Sciences sported the longest list of faculty (49) who have authored, co-authored, or edited books over the past year. The list includes two individuals with three submissions.

#### ***Student/Student Group Achievers***

Elizabeth Prisley, who received her master of arts degree in English in May 2010, was awarded a Fulbright English Teaching Assistantship. Prisley is teaching English to high school students in the German state of Hessen.

Jennifer Lamb and Emily Barry were named to USA Today's prestigious All-USA College Academic teams. Lamb, a double major in political science and agricultural and applied economics, combined these disciplines to pursue research into sustainable agriculture, taking into consideration disadvantaged populations. Lamb was also the 2010 Undergraduate Woman of the Year and a Harry S. Truman Scholar in 2009. Barry, who received her bachelor's degree in Spanish with a minor in international studies in December 2009, was named to USA Today's second team of academic all-stars. Thanks to a grant from the college's Undergraduate Research Institute, Barry led a community development partnership with El Porvenir, Honduras.

Michelle McLeese, a fifth-year Ph.D. student in the Department of Sociology, was named Graduate Woman of the Year. McLeese significantly increased graduate students' involvement in the Graduate Student Assembly during 2009-10, when she served as vice president; in 2010-11, she holds the position of president.

CLAHS students Mikhelle A. Taylor and Erin Weiss won two of Virginia Tech's eight ACC Undergraduate Research Scholarship program awards, which recognize highly talented undergraduate students who are pursuing ambitious and unique research projects.

Cadet John Steger, a history major, served as regimental commander, the top cadet in the corps. He was in charge of the leadership training and daily operations for 769 cadets, while also serving as head residence advisor for Brodie, Rasche, and Monteith halls. Under Steger's leadership, cadets conducted five blood drives, collecting 249 units in just one semester; mentored in the public schools; raised \$11,300 for the Matt La Porte Memorial Scholarship and the National D-Day Memorial; and completed 14 other community service projects. Steger is now a commissioned infantry officer in the U.S. Army.

## **College Of Natural Resources and Environment**

#### ***Noted Accomplishments/Honors***

The College of Natural Resources was re-named the College of Natural Resources and Environment to more accurately reflect its broad-based programs and its increasing focus on sustainability initiatives to effectively prepare graduates for today's challenges in managing the environment. The name change was approved by the Virginia Tech Board of Visitors on June 7, 2010.

The National Science Foundation ranked the \$91 million research program of the College of Natural Resources and Environment and the College of Agriculture and Life Sciences fifth in the nation.

Programs in the College of Natural Resources and Environment have consistently ranked among the top in the nation. The college's wildlife program has been ranked first by its peers, and the fisheries

program has been ranked second. In a study of the research impact of North American forestry programs published in the *Journal of Forestry*, Virginia Tech's program was second on the perceptions-based composite score and third on the citations- and publications-based index.

The college hosted an open house for the university community, community colleges, area high schools, and the public to showcase its programs and projects. Chuck Leavell, noted musician and keyboardist for The Rolling Stones, was the featured guest. An award-winning tree farmer and longtime conservationist, Leavell signed copies of his book, *Forever Green: The History and Hope of the American Forest*, and gave the keynote address in addition to a musical performance. The event recognized current students' achievements and presented exhibits to inform potential students about the college's areas of study.

The college is expanding its graduate programs to include an executive master of natural resources degree focusing on leadership for sustainability. The program is the first of its kind in the nation to combine natural resources and leadership graduate training, regular classroom sessions, an international residency, and a transformative curriculum to facilitate team-based learning tailored for professionals. A cohort of 15 to 25 students will start the 18-month program each spring and fall at the National Capital Region's Falls Church, Va., campus.

The college initiated and expanded a number of international partnerships. It joined with the Southern Virginia Higher Education Center and the Galway–Mayo Institute of Technology in Ireland, which is internationally known for its furniture program, to facilitate the exchange of Irish and American students and staff among the three institutions. The agreement will include the development of new distance-learning modes for the delivery of joint modules, programs, and future collaboration on research projects in marine science, natural resources, and the built environment. A faculty member in the college's wood science and forest products department initiated a partnership with the Costa Rica Institute of Technology and is teaching online courses to students at Costa Rica Tech. Plans are in place to reciprocate the teaching of online courses as well as to offer study-abroad programs, mutual research projects, and other collaborative efforts. The college is also part of a longtime Virginia Tech partnership with the Universidad Austral de Chile that is working to establish the Center for Science and Global Sustainability in Valdivia, Chile.

Alumnus Doug Domenech (forestry and wildlife '79) was appointed secretary of natural resources by Virginia Gov. Bob McDonnell. Domenech oversees the eight agencies charged with protecting the commonwealth's air, water, soil, and wildlife.

### ***Outstanding Faculty***

Kathy Alexander, associate professor of wildlife, published groundbreaking research on how human behavior can influence the emergence of infectious disease in humans and animals. Her research studying the interactions of human and animal populations in Africa appeared in the *Ecological Society of America's Frontiers in Ecology and the Environment*.

John McGee, associate professor of forestry and geospatial Extension specialist, is co-leader of an interdisciplinary team that received a \$900,000 grant from the National Science Foundation to develop the Geospatial Technician Education Through Virginia's Community Colleges project, which seeks to establish academic pathways in geospatial technology at Virginia's community colleges.

The college fared well in the 2009-10 faculty / staff awards sponsored by the Virginia Tech Alumni Association. Harold Burkhart, University Distinguished Professor and the Thomas M. Brooks Professor of Forest Biometrics, received the Alumni Award for Excellence in Graduate Academic Advising. Tom Hammett, professor of forest products marketing, received the Alumni Award for Excellence in International Education. A team that included Professor Bruce Hull and doctoral student Courtney

Kimmel of the Department of Forest Resources and Environmental Conservation received the XCaliber Award.

Kevin Edgar, professor of biomaterials and bioprocessing, was among the inaugural class of American Chemical Society (ACS) Fellows. He was also named an ACS Cellulose and Renewable Materials Division Fellow and was appointed associate editor of *Cellulose*, a leading peer-reviewed journal in the field of cellulose and related naturally occurring polymers.

Daniel Hindman, assistant professor of wood science and forest products, was selected as the 2010 honoree to the Rural Builder Hall of Fame in the educator/academic research category.

David Wm. Smith, the Shelton H. Short Jr. Professor Emeritus of Forestry, received the Society of American Forester's Gifford Pinchot Medal for outstanding contributions by a forestry professional.

Shepard Zedaker, professor of forestry, was named as a Society of American Foresters Fellow, an honor reserved for less than 5 percent of its members.

#### ***Student/Student Group Achievers***

Students in the Virginia Tech Chapter of the Institute of Packaging Professionals were selected by British boat manufacturer Topper Industries to develop an innovative "boat in a box" packaging design for the company's 12-foot plastic sailboat.

John Haworth, a sophomore wildlife sciences major, won first place in the Virginia Outdoor Writers Association's fifth annual undergraduate writing competition, which encourages young adults to cultivate their creative talents in writing by describing how outdoor experiences have influenced their lives.

Ryan McManamay, a doctoral student in fisheries and wildlife sciences, received the Jimmie Pigg Outstanding Student Achievement Award from the Southern Division of the American Fisheries Society.

Wyatt Blevins, a sophomore fisheries science major and a member of the Virginia Tech Bass Fishing Team, was named to the first National Guard FLW College Fishing All-America Team. Blevins and his teammate finished fourth in the regional college fishing championship and seventh in the national championship.

Michael St. Germain, a graduate student in fisheries and wildlife sciences, was recognized for his contribution to the Southeastern Bat Diversity Network and U.S. Forest Service Bat Blitz partnership, which was selected as the 2010 winner of the U.S. Forest Service Wings Across the Americas Award for bat conservation.

Nick LaPointe, a fisheries and wildlife sciences doctoral student, was featured in an episode of the National Geographic Channel series "Wild" entitled "Fishzilla," which focused on the northern snakehead. LaPointe was also contacted by the Animal Planet series "River Monsters 2" for permission to use photographs from his northern snakehead website.

## **Pamplin College of Business**

#### ***Noted Accomplishments/Honors***

The Pamplin College of Business undergraduate program is ranked 42nd overall among the nation's undergraduate business programs and 24th among public institutions. Pamplin's overall ranking places it in the top 10 percent of the 500-plus U.S. undergraduate programs accredited by AACSB International (Association to Advance Collegiate Schools of Business International).

Pamplin ranks 25th among U.S. institutions for the number of business doctorates produced in 1996-2000, based on data in AACSB's 2003 Doctoral Faculty Commission Report.

The college developed an innovative program to help alleviate the critical national shortage of business-school faculty. It is among four U.S. business schools that launched the first post-doctoral "bridge-to-business" programs approved by AACSB International. The programs are designed to prepare individuals with doctorates in non-business, but related, disciplines for new careers as business faculty members.

Pamplin's business information technology program is among the top 10 IT programs in the country, according to TechRepublic, an online forum and resource for IT professionals.

### **Outstanding Faculty**

The world's top 50 tourism scholars include members of Pamplin's hospitality and tourism management faculty, according to a study in *Tourism Management* journal. The study listed Pamplin professors Muzzo (Muzaffer) Uysal, Richard Perdue, and Ken McCleary, along with professor emeritus Michael Olsen.

Management Professor Richard Wokutch and marketing Professor Joseph Sirgy are listed among the most productive researchers in business ethics, according to a recent study in the *Journal of Business Ethics*, which ranked Virginia Tech 15th among the top 25 academic institutions in this field.

Business information technology Professor Cliff T. Ragsdale was named a Fellow of the Decision Sciences Institute. Ragsdale is one of only 108 scholars worldwide to receive this distinction, which recognizes exceptional contributions to the theory and practice of decision sciences.

Management Professor Michael Badawy received the International Association for Management of Technology's 2009 Lifetime Achievement Award. The award is the association's highest honor, granted to individuals for their "valuable and sustained contributions in support of education, research, and academic service in the field of management of technology."

Nancy McGehee, associate professor of hospitality and tourism management research, received a 2010 Best Paper Award at the Association for Tourism and Leisure Education International Conference on Sustainable Tourism. Her award, in the "travel philanthropy, volunteer, and charity tourism" special stream, was for her co-authored paper, "Critical Theory, Social Movement Theory, and Volunteer Tourism." McGehee was among the first scholars, in the mid-1990s, to study the phenomenon of volunteer tourism, or voluntourism, in which individuals undertake vacations that include organized community service.

Marketing Associate Professor Eloise Coupey was awarded the university's 2010 William E. Wine Award for teaching excellence.

Janine Hiller, professor of business law in the Department of Finance, Insurance, and Business Law, received a Fulbright Scholar grant and the Fulbright-Lund Distinguished Chair of International Public Law to teach and do research at the Raoul Wallenberg Institute of International Human Rights Law at Lund University in Sweden.

### **Student/Student Group Achievers**

Business information technology students in a course taught by Assistant Professor Alan Abrahams publish a guide to e-business that is distributed free via small business development centers across the United States and available for purchase at the guidebook site, <http://businessguidebook.org/>, where a complimentary e-book edition can also be downloaded. The students have launched an outreach program

to high schools and donated a 30-minute slide presentation, "How to start and grow an online business," to the U.S. Small Business Administration's (SBA) online courses website, at the request of the SBA.

Bigge Saatcioglu, a doctoral candidate in marketing, won the American Marketing Association's 2009 Marketing and Society Award for her dissertation proposal, "The Practices of Consumer Resistance Among the Working Poor." She is studying the strategies that residents of trailer parks and other low-income consumers use in a marketplace dominated by stereotypes about the poor.

Pamplin College of Business students manage about \$8 million of the university's endowment through separate stock and bond investment portfolios of \$4 million each. The stock investing project, called SEED (Student-managed Endowment for Educational Development), is believed to be the nation's largest student-run portfolio that is managed entirely as an extracurricular activity, not as part of a course. The fixed-income portfolio is managed by a group called BASIS (Bond and Securities Investing by Students). Virginia Tech is the only Virginia school and one of only five universities in the country with a student-run, fixed-income securities fund.

Shane McCarty, of Arlington, Va., a junior majoring in marketing, was appointed to serve as the undergraduate student representative on the Virginia Tech Board of Visitors. McCarty is extensively involved in leadership and volunteer activities at Virginia Tech. He serves as the vice president of the Student Government Association, where he oversees 45 members of the executive board, and as the student representative to the University Curriculum Committee for Liberal Education.

### **Notable Alumni**

The college is named in honor of alumni Robert B. Pamplin, the retired CEO of Georgia-Pacific who died in June 2009 at age 97, and businessman and philanthropist Robert B. Pamplin Jr. Its notable alumni include David Calhoun, chairman and CEO of The Nielsen Company and former vice-chair of GE; Brad Casper, president and CEO of Dial Corporation; Lance Smith, retired U.S. Air Force general and former commander of the U.S. Joint Forces Command; Terry Blevins, executive vice president and chief financial officer of Landmark Media Enterprises; Trish Cox, chief operating officer of Schwab Advisor Services; Lynne Doughtie, national managing partner of KPMG's U.S. advisory services; C.E. Andrews, president and chief operating officer of RSM McGladrey, a subsidiary of H&R Block; Vahan Janjigian, vice president and executive director of the Forbes Investors Advisory Institute, Forbes chief investment strategist, and author of *Even Buffet Isn't Perfect: What You Can and — Can't — Learn from the World's Greatest Investor*; and Denman Zirkle, executive director of the Shenandoah Valley Battlefields Foundation.

## **College of Science**

### **Noted Accomplishments/Honors**

The College of Science is leading some of the first biomedical research projects at the newly formed Virginia Tech Carilion School of Medicine and Research Institute. These include research in infectious diseases, developmental science, and neuroscience.

The college has unique joint degree programs with law schools at the University of Richmond and Washington and Lee University that enable students to obtain bachelor of science and law degrees with an emphasis in intellectual property law in as little as six years.

The Department of Geosciences was ranked as having some of the best paleontology and Earth sciences programs in the nation (ninth and 28th, respectively) in *U.S. News & World Report's* "America's Best Graduate Schools 2011." The Ph.D. program in clinical psychology in the Department of Psychology is a member of the Academy of Psychological Clinical Science Programs, comprised of the top 40 research-oriented programs in the United States and Canada. In addition, the department was named the 33rd best in clinical psychology in *U.S. News & World Report's* "Best Graduate Schools 2010."

The College of Science has a Nobel-prize-winning alumnus: Robert C. Richardson (B.S. physics '58; M.S. physics '60).

James M. Buchanan Jr., University Distinguished Professor Emeritus of Economics and Philosophy and faculty member from 1969-1983, was awarded the Nobel Prize in Economics in 1986.

The College of Science has had two Rhodes Scholars: William W. Lewis, ('63 physics) and honors student Mark Embree ('07 math and computer science).

### ***Outstanding Faculty***

The College of Science has a faculty member who is a member of the prestigious National Academy of Sciences (John Cairns, biology emeritus) and another faculty member who is a member of the equally prestigious National Academy of Engineering (James McGrath, chemistry).

The college has six faculty members who are University Distinguished Professors (Robert J. Bodnar, geosciences; Michael F. Hochella Jr., geosciences; David G.I. Kingston, chemistry; James McGrath, chemistry; Thomas H. Ollendick, psychology; and John Tyson, biological sciences).

The college has three faculty members who are Alumni Distinguished Professors (Ezra "Bud" Brown, mathematics; Art Buikema, biological sciences; and E. Scott Geller, psychology).

The college has two faculty members who have received the internationally acclaimed Alexander von Humboldt Research Award (Michael F. Hochella Jr., geosciences; and Royce Zia, physics).

Four faculty members from the college have been named Virginia Outstanding Scientists since the year 2000: Neal Castagnoli, chemistry, 2000; David Kinston, chemistry, 2002; John Tyson, biological sciences, 2004; and Michael Hochella Jr., geosciences, 2005.

One faculty member has received the Lifetime Achievement in Science Award (Duncan Porter, biological sciences, 2006).

Three faculty members (Robert Bodnar, Michael Hochella, and Patricia Dove) in the Department of Geosciences are Fellows in the American Geophysical Union. Bodnar has also received a Silver Medal of the Society of Economic Geologists. Dove is also a Fellow in the Geochemical Society and the European Association for Geochemistry.

Tom Burbey associate professor of geosciences was recently awarded a Fulbright grant to study fractured rock formations in France.

Assistant Professor Carla Finkielstein, biological sciences, has received a Minority Scholar Award in Cancer Research from the American Association of Cancer Research.

Daniela Cimini, assistant professor of biological sciences, is the first researcher from Virginia Tech to be awarded a collaborative international grant from the Human Frontier Science Program.

Four faculty members in the Department of Chemistry are Fellows in the American Chemical Society: Neal Castagnoli Jr., Timothy E. Long, James McGrath, and Richard Turner.

Judy Riffle, professor of chemistry, is a Fellow in the Polymeric Materials Science and Engineering (PMSE) division of the American Chemical Society (ACS).

Shuhai Xiao, professor of geosciences, has been named a Guggenheim Fellow.

The college has two Fellows in the American Association for the Advancement of Science: Robert J. Bodnar and Michael F. Hochella Jr.

David G.I. Kingston, University Distinguished Professor of Chemistry, has two plants named in his honor. *Taxus kingstonii* is a yew tree that grows in India, China, and Taiwan. *Cordia kingstoniana* is a South American tree.

Beate Schmittmann, professor of physics, is a Fellow of the American Physical Society.

Royce Zia, professor of physics, is a Fellow of the Institute of Physics and the American Physical Society.

Five faculty members in the college were recently named CAREER Award winners by the National Science Foundation: Edward Valeev (chemistry), Theresa Reineke (chemistry), Lou Madsen (chemistry), Carla Finkielstein (biological sciences), and Giti Khodaparast (physics).

Edward Valeev, assistant professor of chemistry, is a recipient of the national Camille Dreyfus Teacher-Scholar award for 2010.

The Department of Psychology has six faculty members who are Fellows of the American Psychological Association (Martha Ann Bell, Jack W. Finney, E. Scott Geller, Russell T. Jones, Thomas H. Ollendick, and Richard Winett).

#### ***Student/Student Group Achievers***

Ryan Shaw (chemical engineering and mathematics) was awarded a prestigious Goldwater scholarship in 2010.

Bonnie Fairbanks, a graduate student in biological sciences, received a Fulbright Scholarship to conduct research in Botswana.

Camille Harris, graduate student in biological sciences, was awarded a National Institutes of Health fellowship to continue her studies on mosquito-borne viruses. Harris also was also named Outstanding Doctoral Student in the college for 2009-10.

COS alumnus David Williams (Ph.D. psychology '04) recently received the university's 2010 Graduate Alumni Achievement Award for his accomplishments in promoting health and wellness. Currently, Williams is an assistant professor of community health at Brown University.

## **Virginia-Maryland Regional College Of Veterinary Medicine**

### ***Noted Accomplishments/Honors***

The Virginia-Maryland Regional College of Veterinary Medicine (VMRCVM), in collaboration with the Virginia Tech Carilion School of Medicine, launched a new master of public health program in the fall of 2010 in response to a critical shortage of trained public health professionals. The program, which offers concentrations in public health education and infectious disease, integrates and expands public health opportunities at the university.

In June 2009, VMRCVM's Veterinary Teaching Hospital introduced a new outpatient advanced imaging service for surrounding small animal veterinarian practices. The new service provides weekly

outpatient appointments for magnetic resonance imaging (MRI), computed tomography (CT) scans, and ultrasounds. This service allows access to advanced imaging that might not otherwise be available to general practitioners.

One of the most common causes of lameness in horses — an injury to tendons or ligaments — can now be treated at the Marion duPont Scott Equine Medical Center with platelet rich plasma (PRP). PRP is derived from blood that is drawn from an equine patient and run through a centrifuge, which separates a solution's less-dense components from its heavier ones.

For the past several years, Dr. Elankumaran Subbiah, assistant professor in the Department of Biomedical Sciences and Pathobiology, and a team of researchers from the college have conducted innovative research to develop from a common avian virus a treatment for cancer. The National Institutes of Health (NIH) and the Congressionally Directed Medical Research Program of the Department of Defense have provided major funding for Subbiah's work, which focuses on creating a cancer therapy from genetically altered Newcastle disease virus. Now this innovative work will continue thanks to a pledge from Robert Garst, in memory of his wife, Maria, who died from cancer. The Maria Garst Memorial Fund for Cancer Research will enable Dr. John Rossmeis, an associate professor in the Department of Small Animal Clinical Sciences, to take Subbiah's work on brain tumors called gliomas from the research laboratory into the clinical setting.

VMRCVM was awarded with the XCaliber Team Award, a Virginia Tech award that recognizes exceptional, high-caliber work and innovative approaches to teaching using technology. It also recognizes excellence on a large-scale project [PLUG, Portable Laboratory on Uncommon Ground], which was field tested in the Mahale Mountains in Tanzania.

The United States Park Police Horse Mounted Patrol presented an Award of Excellence to Virginia Tech's Marion duPont Scott Equine Medical Center "for the truly exceptional veterinary services received from this nationally recognized equine health care facility." The award states that, "for decades, this premier equine hospital has provided both intensive and critical equine health care services for the U.S. Park Police horses."

VMRCVM continued strong collaboration with the College of Agriculture and Life Sciences, College of Science, and College of Natural Resources and Environment to operate the new Integrated Life Sciences building at the Corporate Research Center and strengthened the foundation for a similar shared approach to the planned Translational Medicine/Research Building.

In response to an increased need for qualified veterinarians in North America, particularly those servicing the public sector, the first-year class has been further increased from 95 to 98 students. In addition, plans are being finalized for construction of the Veterinary Medicine Instructional Addition, with an anticipated starting date of summer 2011. This new facility will include a state-of-the-art clinical techniques laboratory as well as small group teaching spaces and faculty offices.

### ***Outstanding Faculty***

Dr. Ansar Ahmed, professor of immunology and head of the Department of Biomedical Sciences and Pathobiology, completed research on a new, nonradioactive alternative to determining the proliferation of lymphocytes. The paper he authored on his research surpassed 500 citations in the citation index ISI Web of Science, a prestigious honor earned by few in the field of life sciences.

Dr. Jennifer Barrett, assistant professor of surgery at the Marion duPont Scott Equine Medical Center, was selected to serve on the Founders' Committee for the North American Regenerative Society.

Dr. Sandra Diaz, assistant professor of dermatology in the Department of Small Animal Clinical Sciences, achieved diplomate status with the American College of Veterinary Dermatology.

Dr. Marion Ehrich, professor in the Department of Biomedical Sciences and Pathobiology, was selected as the recipient of the 2010 Merit Award from the Society of Toxicology (SOT) for her long-lasting and multi-level contributions to the field. Ehrich was also honored during the recent 20th Anniversary Celebration of the SOT Undergraduate Education Program for Minority Students as an instrumental individual in the development and growth of the program.

Dr. X.J. Meng was named Virginia Tech's inaugural Fralin Life Science Institute Senior Faculty Fellow. Meng was honored for his outstanding scholarship and his sustained leadership within life sciences in the university. The Fralin Life Science Senior Faculty Fellow award recognizes contributions of senior faculty members beyond their scientific achievements and regular faculty appointments.

Dr. Bonnie Smith, associate professor in the Department of Biomedical Sciences and Pathobiology, was awarded the national Carl J. Norden-Pfizer Distinguished Teaching Award, an honor that celebrates her as the best among the thousands of professors teaching in the nation's 28 colleges of veterinary medicine.

Dr. Nammalwar Sriranganathan, a professor of bacteriology in the Department of Biomedical Sciences and Pathobiology, was awarded the prestigious Pfizer Award for Research Excellence during ceremonies associated with the college's 2009 Research Symposium.

Dr. W.D. Whittier, a professor in the Department of Large Animal Clinical Sciences and extension beef cattle specialist, was honored with a Virginia Veterinary Medical Association Veterinary Service Award.

Dr. Anne Zajac received the Distinguished Service Award from the American Association of Veterinary Parasitologists (AAVP). She also authored a book under the auspices of the organization, the royalties of which have added thousands of dollars to the AAVP student travel fund. Zajac is the first female president of the organization.

#### ***Student/Student Group Achievers***

Anne Dewar '11, Jenny Miller '12, and Sarah Brauning '12 became national champions at the American Association of Bovine Practitioners (AABP) Quiz Bowl competition. The VMRCVM students beat out 23 teams from the United States and Canada at the AABP Convention.

Dr. Kathryn Simmons, VMRCVM alumna, was selected as a 2010-11 American Veterinary Medical Association Congressional Science Fellow. Simmons graduated with the college's charter class in 1984. This is the second year in a row that a VMRCVM alumna has been selected for the prestigious fellowship.

## **Other areas**

### **Distance Learning and Summer Sessions**

Ninety-six percent of Virginia Tech's academic departments are engaged in developing and/or delivering eLearning courses.

There were 21,617 credit eLearning enrollments at the undergraduate and graduate levels combined through 978 credit-course sections. Noncredit enrollments totalled 327 in 89 noncredit eLearning courses.

New partnerships were formed through the Institute for Distance and Distributed Learning (IDDL) Re-

search Fellowship program. Faculty in the Department of Mechanical Engineering and the Department of Music were awarded research grants to examine aspects of online course design and how the learning experience can be shaped in a variety of ways to meet different learning styles among student populations.

The IDDL Enterprise Fund generated \$3.8 million in tuition income, with \$2.46 million going directly to the colleges and programs and an additional \$269,257 going into the Provost Course Development Fund for development of online courses. This represents Enterprise Fund revenue growth of 21.6 percent. From 2001 to 2010, a total of \$15.6 million has been earned and distributed as part of this unique program coordinated by distance learning.

Throughout fiscal year 2010, a total of \$220,477 from the Provost Course Development Fund was awarded to faculty members to develop new online courses and revise seat-based courses for online delivery.

More than 120 faculty and staff members representing 68 university departments participated in faculty / staff development or individual training in the process of designing, developing, and delivering eLearning courses through IDDL. Fifty-five faculty members participated in specific course-design consultation.

## **Outreach and International Affairs**

The Outreach and International Affairs Office of Economic Development is spearheading a partnership of industry, academia, and government that has received a \$4.7 million grant from the U.S. Department of Labor to help train health care workers in the field of electronic medical records. The 25-partner team will focus on health information technology training in Southwest Virginia communities hit hard by job losses.

The Office of Economic Development also led a team of about 20 industry, nonprofit, and academic partners in securing \$3.8 million in federal stimulus money to train workers in Southwest Virginia for green jobs in the construction industry. The grant is expected to train some 400 workers over two years.

John Dooley, vice president for Outreach and International Affairs, and S.K. De Datta, associate vice president for international affairs, are among the leaders in Virginia Tech's agreement with MARG Limited, an infrastructure development company in India, to establish a new international campus. Virginia Tech MARG Swarnabhoomi, to be located in the state of Tamil Nadu in southeast India, will offer master's degree and Ph.D. programs for about 300 students in engineering and the sciences.

The Office of International Research, Education, and Development (OIRE), directed by S.K. De Datta, administers research programs focused on sustainable agriculture, resource management, and pest management in more than 40 countries around the world. In 2009, the U.S. Agency for International Development renewed these programs with \$30 million in funds for five years. OIRE also oversees Virginia Tech's Office of Education Abroad, Center for European Studies and Architecture, Caribbean Center for Education and Research, Women in International Development program, and Peace Corps and Fulbright programs.

Each year the Office of Education Abroad coordinates credit-bearing study-abroad programs for more than 1,100 students. These students have access to education-abroad programs in more than 40 countries and on all seven continents.

Continuing and Professional Education, a major component of Outreach Program Development, provides more than 400 short courses, seminars, workshops, training programs, and conferences to about 30,000 individuals annually.

Since its founding in July 2008, the Center for Student Engagement and Community Partnership has overseen the university's nationally recognized service-learning program, which engages more than 3,000 students each year in community service for Southwest Virginia. The center's social entrepreneurship grant program sponsors projects involving more than 200 students in Honduras, South Africa, and Kenya, as well as in Virginia.

The Institute for Advanced Learning and Research (IALR) in Danville continues to help bring new job opportunities to southern Virginia. Since it was founded in 2004 by Virginia Tech, Danville Community College, Averett University, the Virginia General Assembly, and southern Virginia communities, IALR has developed robust research programs in horticulture and forestry, polymers, and motorsports and vehicle performance, as well as undergraduate and graduate education programs—all of which have helped bolster the area's economy. As a recent example, IALR is a partner in establishing the \$14 million National Tire Research Center in Halifax County.

The Virginia Tech Institute for Policy and Governance, created by Outreach and International Affairs and the School of Public and International Affairs in the College of Architecture and Urban Studies, uses a management laboratory approach to stimulate and support social science research in child and family social welfare, governance and civil society, and public and community health. The institute's students and faculty are frequent contributors to professional journals, books, conferences, and popular media. The institute also develops undergraduate and graduate curricula.

Two of Virginia Tech's most successful outreach programs are Upward Bound and Talent Search, both federally funded and designed to encourage potential first-generation college students to graduate from high school and attend college. Each year, more than 90 percent of high school seniors who participate in Virginia Tech Upward Bound enroll in college; 87 were accepted by colleges in 2010.

A decade ago, Dooley, then associate provost for outreach, convened a group of Virginia Tech faculty and researchers interested in promoting STEM (science, technology, engineering, and mathematics) education. Today, the VT-STEM K-12 Outreach Initiative encompasses a network of more than 150 university faculty and countless undergraduate and graduate students who reach out to public schools throughout Virginia with a roster of more than 50 distinct educational programs.

## **Student Affairs**

Virginia Tech is one of three public institutions in the U.S. to offer full-time military and civilian student lifestyles (the others are Texas A&M and North Georgia College and State University). The Virginia Tech Corps of Cadets commissions 80 percent of its graduates, while VMI, the Citadel, and Texas A&M commission 35 to 50 percent.

The Cranwell International Center, in conjunction with the Council of International Students Organizations, 62 student organizations, and more than 200 volunteers, hosted the 51st International Street Fair in 2010. With 13,000 attendees, it was the largest and longest-running street fair at any university in the U.S.

The corps of cadets is the largest non-corporate supporter of the National D-Day Memorial in Bedford, Va., having raised \$178,000 for the memorial.

For the second consecutive year, the Virginia Tech Army ROTC team won the ROTC division of the Army 10-Miler in Washington, D.C., the largest 10-mile race in the world.

Dining Services was awarded the prestigious Best Concept Award for a catered special event by *Food Management Magazine*.

Dining Services was at the forefront of the sustainability movement nationally, with composting, a university garden, local purchasing, extensive sustainability training, classroom instruction, participation in formulation of the University Climate Action Commitment, and creation of a sustainable dining venue. Fraternity and sorority members raised and donated more than \$150,000 and completed more than 60,000 hours of community service in 2009 for various philanthropies.

Recreational Sports assisted coordinating the second annual Run in Remembrance, which had approximately 8,000 runners.

Student Activities achieved the following milestones

- 6,145 individuals volunteered for the Student Government Association's (SGA) Big Event
- 6,209 people and more than 630 teams participated in SGA's Relay For Life and raised more than \$562,000 for the American Cancer Society
- SGA sold more than 80,000 Hokie Effect shirts and organized 1.8 tons of recyclables at the Green Effect Football Game

