

# vt mag

**All in the Family**  
Holistic learning in Virginia  
Tech's residential colleges

**Full STEM Ahead**  
Educating the next generation's  
brightest minds

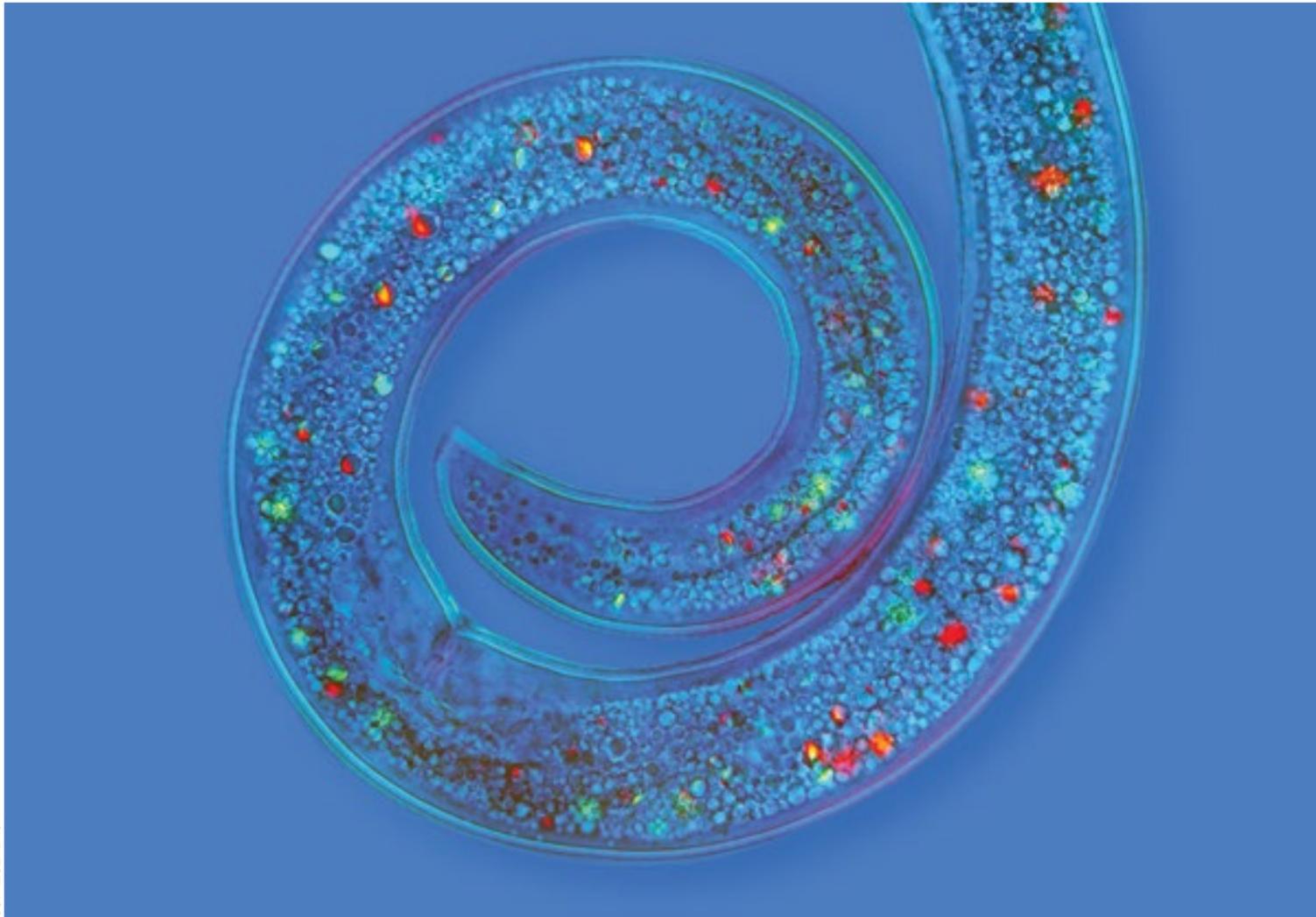
**Tried and True**  
Alumnus leads criminal  
investigations after 9/11



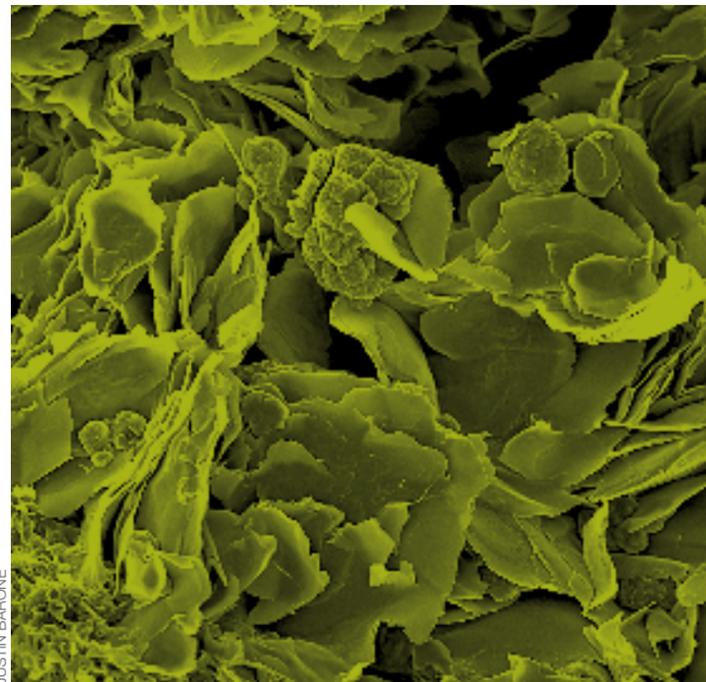
## PICTURE-PERFECT

THE LAND-GRANT TODAY

VIRGINIA TECH MAGAZINE SPRING 2013



**Wonder:** In a January exhibit entitled “The Art of Science,” College of Agriculture and Life Sciences researchers presented 11 microscopic masterpieces that illustrated how science is also an art where the journey of exploration can lead to works of beauty. Selected images, clockwise from upper left: *Helicotylenchus dihystra*, a plant-parasitic nematode; a *Laricobius osakensis* beetle; proteins of a tobacco plant; a transgenic arabidopsis plant; and protein nanosheets curling into rosettes. To read about the exhibit and watch a beautifully narrated video, visit [www.vtmag.vt.edu](http://www.vtmag.vt.edu).



JUSTIN BARONE

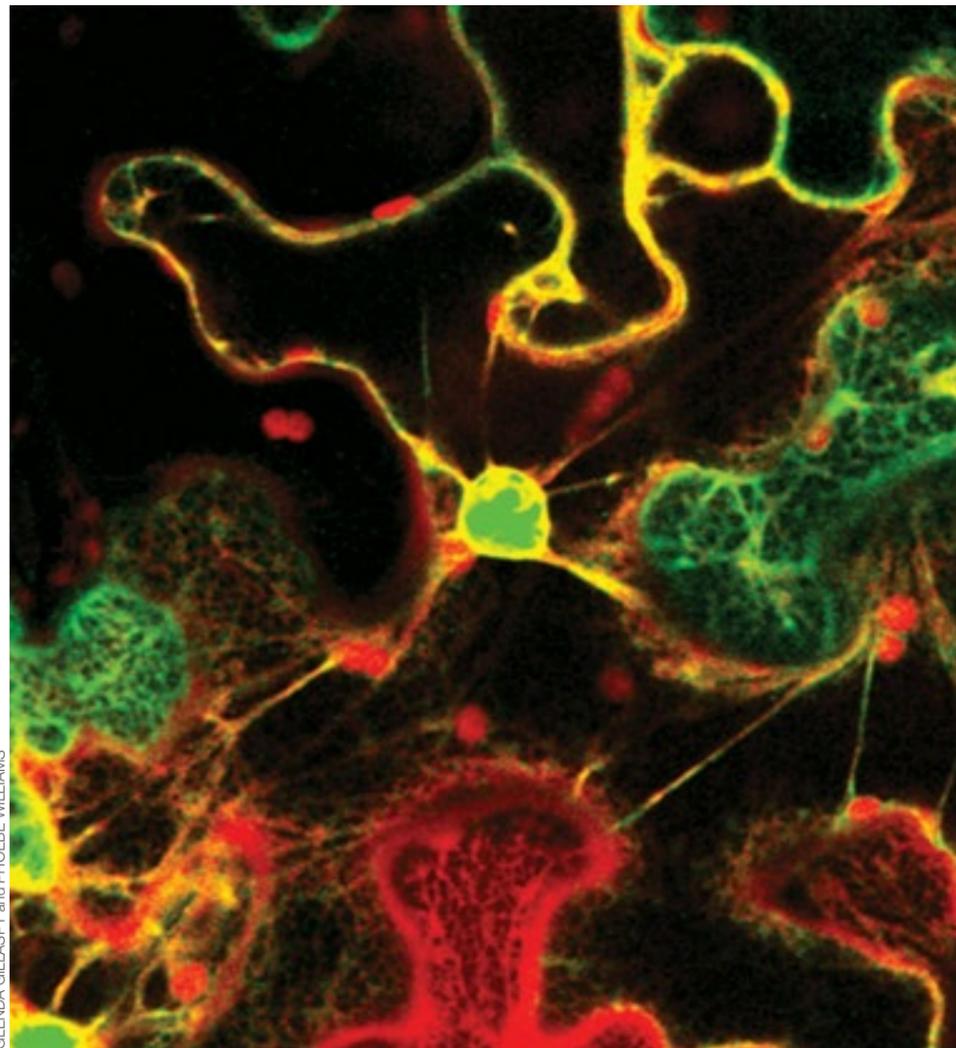


ERIC BEERS and CHENGSONG ZHAO

SCOTT SALOM and MELISSA FISHER



GLENDA GILLASPY and PHOEBE WILLIAMS



# contents

## features

### All in the Family: Holistic learning in the residential colleges

Education doesn't end in the classroom. Virginia Tech's residential colleges are structured to provide live-in faculty mentors to students, offer a holistic approach to education, and ensure that students get the most out of their college experience.

PAGE 16

### Picture-perfect: The land-grant today

Learning. Discovery. Engagement. One-hundred and fifty years after the Morrill Act was signed into law, the land-grant mission is alive and well at Virginia Tech. From logger safety to obesity research, faculty, staff, and students across the university are taking this mission to heart.

PAGE 22

### Full STEM ahead: Educating the next generation

In a middle school, children build small solar-powered vehicles, part of a program designed by Virginia Tech faculty to kindle excitement about engineering concepts. On campus, undergraduates gather in a lab space in their residence hall, using routers and 3-D printers to build prototypes. In a multitude of ways, scholars across campus are responding to a call for unique approaches to STEM education.

PAGE 30

## departments

Letters to the Editor	2	Philanthropy	42
Around the Drillfield	3	Book Notes	44
How Tech Ticks	10	Alumni Association	46
Professor Profile	12	Class Notes	54
Corps of Cadets	20	Still Life	64
Alumnus Profile	38		

**On the cover:** All the world's a stage—for Virginia Tech and now for residents of Clifton Forge, Va. Faculty members and 16 students from the College of Architecture and Urban Studies helped to reimagine the downtown area, designing and building an amphitheater that embodies the town's vision for a sprouting artistic community. Gracing the stage is Amber Rosser, a senior animal and poultry sciences major from Lynchburg, Va., and a three-year member of Virginia Tech's Contemporary Dance Ensemble. Photo by Jim Stroup.

VIRGINIA TECH MAGAZINE

Spring 2013, Vol. 35, No. 3

EDITOR

Jesse Tuel

ASSISTANT EDITOR

Denise Young

ART DIRECTOR

Robin Dowdy

GRAPHIC DESIGNER

Tiffany Pruden

CONTRIBUTORS

Sandy Broughton, Bruce L. Ciccone, Carrie Cox, Christina Koomen, Mark Maloney '82

COPY EDITORS

Juliet Crichton, Richard Lovegrove

GRADUATE ASSISTANTS AND INTERNS

Jenn Bates, Emily Goodrich, Kelsey Kradel, Gretchen Lee, Amanda Loman, Jesse Steele, Anne Wernikoff

PHOTOGRAPHERS

Michael Kiernan, Jim Stroup, Logan Wallace

WEBMASTER

Juliet Crichton

CLASS NOTES

Shirley Fleet

BUSINESS MANAGER

Paula Vaught

ASSISTANT VICE PRESIDENT FOR

MARKETING AND PUBLICATIONS

Melissa Richards

ASSOCIATE VICE PRESIDENT

FOR UNIVERSITY RELATIONS

Larry Hincker '72, M.B.A. '94

CONTACTS

Story ideas and letters to the editor: Email: vtmag@vt.edu. Phone: 540-231-5852. Mail: Virginia Tech Magazine, 205C Media Building, Blacksburg, VA 24061.

Address changes: Email: alumndata@vt.edu. Phone: 540-231-6285 between 8 a.m. and 5 p.m., Monday through Friday.

Class Notes: Email: fleets@vt.edu. Mail: Class Notes, Virginia Tech Alumni Association, Holtzman Alumni Center (0102), Blacksburg, VA 24061.

Advertising: Jeanne Coates '88; coates@primeconsultingva.com, 757-715-9676.

Virginia Tech does not discriminate against employees, students, or applicants on the basis of age, color, disability, gender, national origin, political affiliation, race, religion, sexual orientation, or veteran status. The university is subject to Titles VI and VII of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Sections 503 and 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990, the Age Discrimination in Employment Act, the Vietnam Era Veterans' Readjustment Assistant Act of 1974, Federal Executive Order 11246, Virginia's State Executive Order Number Two, and all other applicable rules and regulations. Anyone having questions concerning any of those regulations should contact the Office for Equity and Access, Southgate Center, Ste. 179 (0319), Blacksburg, VA 24061, 540-231-9331.

On Nikki Giovanni

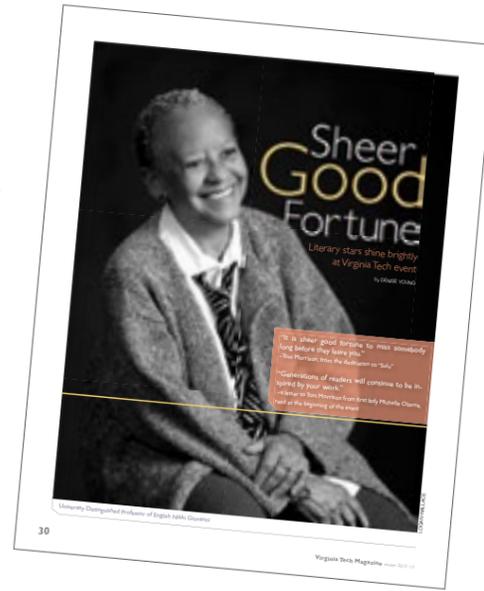
Nikki Giovanni's words enabled me, the parent of a member of the Hokie Nation, to move forward after the April 16 tragedy. The signs around campus recounting her words, "We will prevail," gave me strength to move about the desolate campus that, in prior visits, was full of life, joy, youthfulness, and caring. Now as we continue to heal, Giovanni gives us the "Sheer Good Fortune" event. With this thoughtful act of kindness, she raises the names of queens of literature and truth and shares her love for them with us. She is a blessing and it is our sheer good fortune to be in her midst.

Janice deCongé, Pikesville, Md.

A helping hand

I'd like to sing the praises of Will Hancock (mechanical engineering '92). My family was stuck at a gas station near Charleston, W.Va., after having a minor wreck in Dayton, Ohio, coming through a blizzard on our way home to North Carolina. Within minutes of me raising the hood on our Pathfinder, Will walked by, noticed my VT hat, and asked if we needed help. He took me to two garages and a rental car office then went back to check on my wife and daughters. His kindness and attention literally saved the day. It speaks to a bond that I think all Hokies feel, especially following the April 16 tragedy. We never spoke of it, nor did we have to. With a nod to Professor Nikki Giovanni, the Hokie Nation prevails. I hope to live up to Will's example myself.

Jeffrey Shu (English '89), Clemmons, N.C.



A ring underwater

Reading other letters of lost class rings brought to mind my own. Unlike most others, though, I know where mine is. In 1966, I was a first lieutenant being ferried in a Huey chopper a couple of miles offshore and parallel to the Vietnam coast. Catastrophic engine failure forced a crash-landing at sea that resulted in casualties. I led the surviving passengers who didn't have flotation gear in a harrowing swim to shore through choppy, wind-tossed seas. About 100 yards from shore, we encountered a terrific undertow. The deadly current sucked the socks off my feet, the watch off my wrist, and my class ring off my finger.

I would like to add that the Corps of Cadets stands today as the most cherished part of my life at Tech, on equal footing with the quality academic education. The benefits of the corps experience have been positive beyond measure in both my military service and civilian career, and I revere it.

Charles E. Payne (business administration '62), Virginia Beach, Va.

Virginia Tech among universities to receive grant to launch program for entrepreneurs

In February, the University of Maryland, George Washington University, and Virginia Tech jointly announced \$3.75 million from the National Science Foundation to launch a regional Innovation Corps (I-Corps) node with one sweeping goal: find the best entrepreneurial student and faculty researchers and help them bring their discoveries to market.

I-Corps takes researchers through a seven-week program based upon Stanford University's Lean LaunchPad course, with additional elements designed just for I-Corps participants. The program emphasizes talking to as many potential customers as possible, pivoting in response to insights, building low-cost prototypes to get customer feedback, constantly adapting, and building a scalable business model.

The program is designed to foster a culture of entrepreneurship among researchers and students. Intended outcomes will include a new startup, patent, or technology license to a company.



Going Local

Dining Services has partnered with the Department of Dairy Science to offer "Virginia Tech Milk" in D2 at Dietrick Hall. Students harvest the milk on campus from the herd of dairy cows at Virginia Tech's Dairy Center. The milk is then pasteurized by the James River Department of Agribusiness and served through the milk dispensers at D2.

Virginia Tech tops 'best value' lists

Virginia Tech has landed on Kiplinger's Personal Finance list of the 100 best values in public education for 2012-13. The ranking cites four-year colleges and universities that combine outstanding education with economic value. Since the ranking began in 2006, Kiplinger's has included Virginia Tech each year among

the top public universities for its value in this annual survey. Virginia Tech made the list due to "its high four-year graduation rate, low average student debt at graduation, abundant financial aid, a low sticker price, and overall great value."

Virginia Tech is also included again among "best value" public universities according to The Princeton Review Best Value Colleges for 2013 list.

Partnering with USA Today, the Princeton Review selected "best value" institutions based on its surveys of administrators and students at more than 650 public and private colleges and universities. More than 30 data points covering academics, costs, and financial aid were considered. Institutions were evaluated using data provided by each school as well as opinion data collected from students at each school.

## Early education has big payoff

Investing in high-quality early education has dramatic and sustained payoffs not just for the children directly involved, but for society as well. Think of it as a kind of educational compound interest. When children are prepared, their early successes lead to more successes. But when they're not prepared, a lifelong struggle can begin. The spiral can be upward, or it can be downward."

—Craig Ramey, professor and distinguished research scholar in the Virginia Tech Carilion Research Institute, on the Abecedarian Project, a study of the potential benefits of early childhood education



JIM STROUP

### Helmet research to draw in additional sports

Hockey, baseball, softball, and lacrosse players will soon have better information about helmet safety available to them. Stefan Duma (above), Harry C. Wyatt Professor and head of the Virginia Tech-Wake Forest University School of Biomedical Engineering and Sciences, is expanding his groundbreaking research into football helmets and concussions. Ratings on hockey helmets are expected in fall 2013, followed by youth football in 2015, and then baseball, softball, and lacrosse in 2016. During that time, all ratings for adult and youth football helmets will continually be updated and released to the public.

## Professors Burkhart and Dove named Virginia's Outstanding Scientists

Harold E. Burkhart, University Distinguished Professor and the Thomas M. Brooks Professor of Forestry in the College of Natural Resources and Environment (CNRE), and Patricia M. Dove, C.P. Miles Professor of Geosciences in the College of Science, have been designated Virginia's Outstanding Scientist of 2013 by the Virginia governor's office and the Science Museum of Virginia.

"Forest scientists consider Harold Burkhart the father of forest biometrics, which explores the theory and applications of quantitative models of forest stands," noted Virginia Tech President Charles W. Steger. "Harold's international leadership in this basic research vastly improved forest development, particularly in the South."

"Professor Burkhart's modeling methods have been adopted, extended, and applied in Virginia, across America, and around the world, thus contributing to the goal of sustainable management of forest resources," said Paul Winistorfer, CNRE dean. "He has significantly advanced the science of sustainability."

Dove, who in 2012 was elected as a member of the National Academy of Sciences, is the

director of the Biogeochemistry of Earth Processes research group. "The College of Science is extremely proud of Professor Dove and all of her achievements," said College of Science Dean Lay Nam Chang. "As our only active member of the National Academy of Sciences, she has become one of the world's foremost authorities on biomineralization. A world-class science program starts with world-class researchers like Patricia."

## Changes at the helms of business, veterinary colleges

Richard E. Sorensen, dean of the Pamplin College of Business, will retire June 30 after 31 years of service. Sorensen was appointed dean and professor of management science (now business information technology) at Virginia Tech in July 1982.

Robert T. Sumichrast, currently the dean of the Terry College of Business at the University of Georgia, will succeed Sorensen as dean at Virginia Tech on July 1.



UNIVERSITY OF GEORGIA

Sumichrast

## Team explores new territory in supercomputing

Wu Feng, an associate professor of computer science in the College of Engineering, has set his sights on a lofty goal: to herald a new age in multi- and many-core parallel computing that he believes will "transform supercomputing."

The U.S. Air Force's Office of Scientific Research has awarded Feng up to \$6 million over five years to pursue a large-scale interdisciplinary effort aimed at achieving a substantial increase in the simulation speed of computational fluid dynamics in micro air vehicles, a class of unmanned aerial vehicles, using accelerator-based supercomputers.

The key to Feng's approach is to couple innovative advances in algorithms and mathematics with engineering progress in the co-design of hardware and software in supercomputing. For the project, he has pulled together an internationally recognized team of researchers from Virginia Tech and North Carolina State University.



JIM STROUP

Dr. Gerhardt G. Schurig, dean of the Virginia-Maryland Regional College of Veterinary Medicine, will be stepping down from his position in the summer. Appointed as the college's third dean in 2004, Schurig first joined the veterinary college faculty in 1978.

## X.J. Meng awarded \$2 million grant to study chronic hepatitis E

Dr. X.J. Meng, professor of virology in the Virginia-Maryland Regional College of Veterinary Medicine, received a five-year, \$2 million grant from the National Institutes of Health. Meng directs one of the world's leading hepatitis E virus research centers, the Center for Molecular Medicine and Infectious Disease, where he and his colleagues have spent years studying the hepatitis E virus and are now turning their attention to chronic cases of the virus, which causes more than 20 million liver infections

per year. The project seeks to develop a chronic hepatitis E model to study how the disease progresses and its possible prevention and treatment.

## Tomorrow's cruise control could have environmental features

By tapping into GPS data, a predictive eco-cruise control system being developed by the Virginia Tech Transportation Institute could save fuel and reduce emissions. Traversing steep grades isn't fuel-efficient, and conventional cruise control applies the throttle in the pursuit of constant speed. But if a route is mapped out with GPS and grades are predicted, a vehicle can move slightly faster downhill and slightly slower uphill to achieve an average speed that saves fuel.

The system, being developed by Hesham A. Rakha, a professor of civil engineering and the director of the Center for

Sustainable Mobility at the institute, along with other center researchers, students, and colleagues at other institutions, could be adapted to the wide range of passenger cars and light trucks sold in the U.S.

## U.S. News hails master's program in information technology

U.S. News & World Report has again honored the online master's program in information technology at Virginia Tech as one of the nation's best distance-learning courses in its recent Top Online Education rankings. Additionally, the

online master's program in computer information technology—offered by the College of Engineering and the Pamplin College of Business—is ranked third in the U.S.

## Scientific breakthrough opens door to understanding universe

Physicists at Virginia Tech, as part of a collaboration with U.S. and Chinese researchers, took part in one of 2012's top scientific breakthroughs, according to Science Magazine. The team, working at the Daya Bay reactor facility in China, discovered the third and final known neutrino mixing angle.

## Lizards, frogs, and engineering

We hope to be able to develop bio-inspired systems, such as faster dipping and coating processes for materials engineering, or even water-walking robots."

—Assistant Professor of Engineering Science and Mechanics Sunghwan Jung, whose team was awarded more than \$500,000 to investigate the water entry and exit problems that are apparent in engineering mechanics by studying how reptiles and amphibians interact with water

The discovery was heralded by the magazine as one of nine runners-up to the discovery of the Higgs-boson.

“This is a well-deserved recognition for a result that has changed significantly the research in an important area in physics,” said College of Science Dean Lay Nam Chang, himself a physicist.

The discovery may have opened exciting new doors in physics. “The standard model of particle physics, which describes the behavior of all particles from neutrinos to the Higgs boson, is very frustrating,” said Jon Link, associate professor of physics. “The model works so well that for decades everywhere we’ve looked we’ve found things to be in agreement with the

model. But in neutrino physics there may be something interesting going on. There is evidence of a fourth type of neutrino and possibly more. For example, when we look at neutrinos coming from a nuclear reactor, like Daya Bay, we see about 6 percent fewer than we expect from calculation. This can be interpreted as evidence of additional neutrinos mixing with the three known types.”

### Researchers study Australian track record of construction safety

The National Institute of Safety and Health awarded approximately \$1 million over five years to Brian M. Kleiner, director of the Myers-Lawson

School of Construction, and his colleagues to study how the construction industry in the U.S. can change its processes and practices to improve the safety and health of its workers.

Kleiner and his colleagues are looking at the development of occupational safety and health guidelines for the initial stages of design, especially, in the construction industry—and they’re looking at practices in Australia. The Aussies recorded an injury rate per 100 construction workers that was approximately 43 per cent lower than figures from the U.S. in 2011.

“Laws and regulations in Australia increasingly place responsibility for an accident on those who expose others to occupational health and

### Nanoscale machines

Nature has created a fantastic array of nanoscale machines, and this grant will not only help us understand the biological mechanisms that control these nanoscale machines, but also understand how we can incorporate these molecules into new types of engineering devices that mimic the hierarchical function of cells, tissues, and organs.”

—Donald Leo, professor of mechanical engineering and vice president and executive director of National Capital Region Operations, who is leading a study on a new class of materials that uses biological molecules for sensors, actuators, and energy conversion devices

safety risks. This contrasts with the United States where safety is typically left to the constructor of a project,” said Andrew McCoy, co-principal investigator on the project and assistant professor in the building construction department.

The 273 candidates who interviewed with the veterinary college are vying for 120 seats in the Class of 2017. “There are about 6,000 prospective students who apply to North American veterinary schools through a common application process,” said Dr. Jennifer Hodgson, associate dean for professional programs, who explained that candidates apply to five schools on average. “This means that we see one out of every six applications in North America.”

Like some medical colleges, including the Virginia Tech Carilion School of Medicine, VMRCVM utilizes a multiple mini-interview format to assess a candidate’s non-cognitive skills, such as critical thinking, problem solving, communication, ethics, and leadership. All interviewees participate in eight scenarios, which last six minutes each, and rotate through interview rooms for evaluation of how they respond to the scenarios.

The college was the first in the U.S. to adapt the format, which was developed at McMaster’s University in Ontario, for use in a veterinary program. Today, four other veterinary schools use the format. With the arrival of the Class of 2017 in August, every veterinary student at the college will have made it through the new interview process.



KELSEY KRADEL

### Prospective students jockey for positions at veterinary college

A record-breaking 1,220 prospective students submitted applications to the Virginia-Maryland Regional College of Veterinary Medicine (VMRCVM) last fall, representing the fourth-largest applicant pool in North America, according to figures from the Association of American Veterinary Medical Colleges.

## Q&A



Alexander Ziegler

DAVE KNACHEL

### National champion competes in his last season

Alexander Ziegler, a senior business administration major from Germany, holds back-to-back NCAA titles in the hammer throw, and in early March, he captured yet another national championship, this time in the weight throw. We caught up with Ziegler at Deet’s Place to find out more.

#### When did you start hammer and weight throw?

“I’m from Germany, and [it’s] a little different with sports. We do everything with club teams starting when we’re really young. I was doing track and field ... and at one point one of the coaches just asked if I wanted to try [hammer throw].”

#### What is your strategy when you go into competitions?

“Most of the work for those competitions is done during the fall and winter. When you get to the season it’s more fine-tuning the technique and getting in the most explosive shape you can. So when I get to competition, I’m trying to ... concentrate on how I’m going to do [what] I do in practice every day.”

#### Athletes often have rituals they perform before competitions. Do you have any rituals?

“During general warm-ups, I don’t really want to talk to anyone. I want to be left alone to focus on myself. ... I just want to focus and ... not get distracted.”

#### How did you come to be on the Virginia Tech track and field team?

“There was a shot-putter a while back, and he trained at the same Olympic training center as I did. He went to Virginia Tech for a year. He told me about it and I showed interest, and he asked me if he should set up a connection with Coach [Greg] Jack here. ... He [invited] me for a visit. ... Once I came on campus I was ... convinced when I saw the athletics department, when I saw the school, and met some of the teammates.”

By Emily Goodrich, a sophomore English major and Virginia Tech Magazine intern



JIM STROUP

**Sleepy studies:** History Professor A. Roger Ekirch has uncovered the myth of the eight-hour night of sleep.

## Nighttime, illuminated: Researchers uncover the secrets of sleep

by JEAN ELLIOTT

**A**fter 20 years of research into nighttime habits before artificial lighting, history Professor A. Roger Ekirch in the College of Liberal Arts and Human Sciences has resurrected the idea of “segmented sleep,” demonstrating that the eight hours of sleep most people strive to get goes against natural sleep cycles.

Ekirch’s research reveals that people slept very differently before the Industrial Revolution. “The nighttime slumber to which we aspire, not always successfully, is consolidated,” Ekirch said, “whereas the dominant form of sleep from time immemorial consisted of a ‘first sleep’ and a ‘second sleep.’”

For his award-winning book, “At Day’s Close,” Ekirch consulted diaries, medical texts, and court records, in which he discovered more than 500 references in a variety of languages to this bimodal sleep pattern. His findings are also supported by modern science. In a recent study at the National Institute of Mental Health, subjects deprived of artificial light for up to 14 hours a day experienced the same pattern of sleep depicted in historical sources.

Ekirch’s research has been referenced in scholarly articles, magazines, newspapers, and, increasingly, medical publications, both in the U.S. and abroad. A BBC News Magazine article on

his findings received a record 1.5 million hits during its first day online. And a growing number of sleep specialists have also embraced Ekirch’s findings, seeing a link between certain varieties of insomnia and segmented sleep.

Ekirch, who has authored four books, said he enjoys writing about men and women “who lived on the margins.” He is currently working on a fifth book about the far-reaching impact of the most violent mutiny in the history of the British Royal Navy.

Across campus, other researchers are also burning the midnight oil. Christopher Barnes in the Pamplin College of Business explored the connection between lack of sleep and ethics. He and three other scholars conducted four studies in different settings to examine the influence of low levels of sleep in decision-making situations involving ethical considerations. “We consistently found that people were more likely to behave unethically when they were short on sleep,” he said.

In 2011, the Arlington Innovation Center: Health Research, in Virginia Tech’s National Capital Region, received a \$1.5 million cooperative research and development agreement from the U.S. Army for neuroimaging studies of human performance. “The central scientific effort of this project will be to improve our understanding of how the brain stem and thalamus regulate sleep in humans, and how these systems are affected by stress and sleep restriction,” said Seong K. Mun, director of the center and a professor of physics.



### Nighttime reading:

To read the full story on Ekirch, written by Jean Elliott in the College of Liberal Arts and Human Sciences, visit [www.vtmag.vt.edu](http://www.vtmag.vt.edu).

The Virginia Tech Alumni Association  
**Hokie Classic**  
 June 17, 2013

Join fellow alumni, special guests, and friends for a captain’s choice golf tournament at the Pete Dye River Course! Greens fees, cart, door prizes, commemorative dry-fit polo, adult beverages, lunch, and post-tournament dinner in the new clubhouse overlooking the New River. It’s all included.

Registration is limited to the first 120 golfers, so register early. Enjoyable for golfers of every skill level. \$150 per person.

Learn more about the tournament and sponsorship opportunities at [www.alumni.vt.edu/events](http://www.alumni.vt.edu/events).

FROM CATERPILLAR TO BUTTERFLY

**OUR COMMUNITY CONTINUES TO GROW.**

WoodsEdge is experiencing a kind of **metamorphosis**. As always, residents can enjoy the natural beauty of our wooded 220-acre campus, as well as highly customizable, low-maintenance homes. Now, we’re bringing to life a new way to unite our community and connect residents with new opportunities.

A beautiful new timber-frame structure called the Village Center, due for completion in early 2013, will offer resources to enhance both physical and social wellness. New amenities will include a performing arts stage; a café and fitness suite consisting of a cardio and strength-training room; an exercise studio; a warm, indoor saltwater pool; and much more.

Learn more about WoodsEdge as we continue to spread our wings. Call today and be sure to visit us online.

2020 Blue Jay Lane, Blacksburg, Virginia 24060 • [www.woodsedgeblacksburg.com](http://www.woodsedgeblacksburg.com) • (540) 443-3405

Subject to availability. Prices and plans subject to change without notice. All images of the Village Center are artistic renderings of our vision for the future. This building is not yet constructed. Not a valid offering in any state where registration is required but not yet completed. All residents must be at least 55 years of age. The only exception is for spouses of residents age 55 or older. Condo association agreements apply.

Blacksburg’s First Active Adult Community

# 'COMMENCEMENT JUNKIES'

by JESSE STEELE  
photos by MICHAEL KIERNAN, JIM STROUP, and LOGAN WALLACE

**A**s students bear down to meet the requirements of graduation, university staff members are hard at work on commencement. A few of these self-described "commencement junkies" filled us in on what it takes to pull off such a massive ceremony.

Charged with coordinating and planning the ceremonies, the University Commencement Committee is an all-volunteer group, said Dan Taylor, a professor of agricultural and applied economics who started as a commencement usher about 25 years ago and now heads the committee.

In the Office of the University Registrar, it's standard practice for staff members to pull all-nighters, **checking and double-checking that the right forms are in place** and that each potential graduate's credits add up.



### Commencement speakers

are chosen by the Office of the President with input from undergraduate representatives. One long-standing tradition is to invite the Virginia governor to speak in the year after a gubernatorial election.



**Chairs—3,000 to 5,000 of them**—are rented. Each chair is fixed to the field by two anchors.

About **30 to 40 volunteer marshals** help direct students to their places, while about **120 volunteer ushers** help parents and well-wishers reach their seats in time.

About **30,000 people** descend on the Blacksburg area for a typical spring commencement.

### Celebration:

For spring 2012 commencement highlights, see a video at [www.vtmag.vt.edu](http://www.vtmag.vt.edu).

Unless weather conditions become dangerous, the **ceremony will continue as the rain falls**. There isn't a rain site, and rescheduling is out of the question.



Leading up to commencement, **grounds employees put in four 10-hour days** to prepare the campus for visitors. Every lawn is mowed, every street swept.

**More than 30 facilities workers put in five eight-hour days**—that's more than 1,200 work hours—to set up spring commencement. Immediately after the ceremony, workers spend about three hours taking everything down.

As the **Corps of Cadets' Color Guard** is shuffled to and from the various ceremonies across campus, the university provides them with quick meals.



A Roanoke company **sets up the stage and sound equipment**.

**Security is ever present.** For first lady Michelle Obama, one of the spring 2012 commencement speakers, members of the U.S. Secret Service joined additional university police officers, and facilities workers began their day at 4 a.m. in order to pass through security.



*Jesse Steele is a graduate assistant with the marketing and publications unit.*



## Jack Webster Metaphorically teaching

by JENN BATES  
photos by LOGAN WALLACE

In knee-high Wellington boots, a raincoat, and a worn, gray newsboy hat, Jack Webster navigated through a stream with his field and lab ecology class, nimbly leading his students. Some carried nets, others held measuring sticks or chemistry sets. Addressing each student by name, Webster asked questions about the field experiment. Quietly observing them, he acted as a knowledgeable resource.

In his nearly 37 years at Virginia Tech, the professor of biological sciences has built a distinguished career, and his exceptional devotion earned him the university's 2012 William E. Wine Award honoring excellence in teaching.

Jennifer Tank (M.S. biological sciences '92, Ph.D. '96), now a stream ecology and biogeochemistry professor at the University of Notre Dame and one of Webster's former graduate students, said Webster's passion was evident in his teaching.

"He ran a world-class research program and led grad students and their research, but he always made time to go into the field, both for teaching and mentoring his grad students," said Tank. "Usually the first thing you sacrifice is time in the field, but he never did that, and it's amazing to me [because of] how much commitment that takes. And it's because of his passion for the subject that he prioritizes that."

Outside of academics, Webster is an avid runner who often can be spotted on the Drillfield. He also plays guitar and sings in a folk band called "Simple Gifts of the Blue Ridge."

Webster grew up doing hands-on research with his father, who was a biology professor. Today, this style of learning sets Webster apart. In most of his classes, he takes his students into the field on a nearly weekly basis.

Beth Cheever (Ph.D. biological sciences '12), a postdoctoral researcher in the biology department at Trent University in Ontario, Canada, and one of Webster's former Ph.D. students, recalls Webster's field trips. "He was always really excited to be in the field and show science from a hands-on perspective," Cheever said. "You can tell he really enjoys being outside and sharing his research interests with his students."

Over the years, teaching helped Webster to evolve as a researcher. "What you teach influences what you get interested in researching and vice versa; they feed each other," he said. He expanded his interests from ecosystem modeling—using abstract representations to examine the interactions of living organisms with their environment—to also include stream ecology, which explores the ecosystem interactions within a stream. His current research projects include organic matter dynamics in streams, the impact of nitrogen and phosphorus in streams, stream ecosystem responses to disturbances, and river-floodplain interaction.

Webster said the greatest change in his career has been becoming more comfortable both with the material he teaches and with how to communicate with students.

"I think the most important thing to being a good teacher is you have to know

what you're talking about," he said. "Students have to recognize that you're an authority and you're not just reading it out of a book. Trying to communicate that takes a lot of practice, a lot of learning from other people. I co-taught courses with some really good teachers over the years, and I learned a lot from them."

Webster said he has learned what to realistically expect from his students as well as how to inspire their best work. Students appreciate the high expectations he sets for them, he said, and they succeed because they feel like they're being pushed.

In 1978, a teaching collaboration between Webster and Fred Benfield, professor and associate head of the Department of Biological Sciences, led to the creation of the Stream Team. What started out as two professors joining graduate research labs with common interests evolved into a more official group that includes five faculty members and about 11 graduate students per year. The ecosystem research team travels to sites around the region, conducting studies, applying for grants, and writing articles.

Brenda Winkel, professor and biological sciences department head, recognizes Webster's worth in both researching and teaching. "He is always doing more than is absolutely required of him. I think it's because he loves to teach and loves to interact with students in a classroom setting," she said. "I can't think of a time when water wasn't important [to the world, and] that's what makes [his work] effective. He can relate the subject in incredible ways to what's going on in the world and he gets people out in the field."

### Jack Webster

- 2012 William E. Wine Award, Virginia Tech
- Three Virginia Tech Department of Biological Sciences Teaching Awards
- Taught 11 different undergraduate and graduate courses since 1975
- Average Student Perception of Teaching score of 3.65 out of 4.0
- Published 100 peer-reviewed papers and 35 book chapters
- Earned \$6.3 million in grants as principal or co-principal investigator
- Secured \$32 million in funding as a contributing member of a research team
- Ph.D. in ecosystem modeling from University of Georgia; bachelor of arts from Wabash College



A student in Jack Webster's field and lab ecology course holds a crayfish taken from a stream in McCoy, Va. At left, Webster holds a conductivity meter, used to measure the chemical concentration of water, and a bag of leaves, which he and his students place in streams to measure decomposition.

—continued on page 14



### Streaming:

To see and hear one of Webster's recent adventures with his students, check out the audio slideshow at [www.vtmag.vt.edu](http://www.vtmag.vt.edu).

Outside of academics, Webster is an avid runner who often can be spotted on the Drillfield. Although he doesn't compete in as many races as he once did, he still makes time for one each year. He also plays guitar and sings in a folk band called "Simple Gifts of the Blue Ridge." The band has recorded four albums.

As the field and lab ecology students trekked back through the stream, laughing about the salamander they found, Webster walked quietly behind them, navigating through the rocks and thorns, obviously more comfortable here than he was in his office detailing his career accomplishments. In the van on the return trip to campus, Webster stopped to point out sinkholes and coal deposits—proving that his range of knowledge and desire to teach are never-ending. □

*Jenn Bates, a junior communication major, is an intern with Virginia Tech Magazine.*



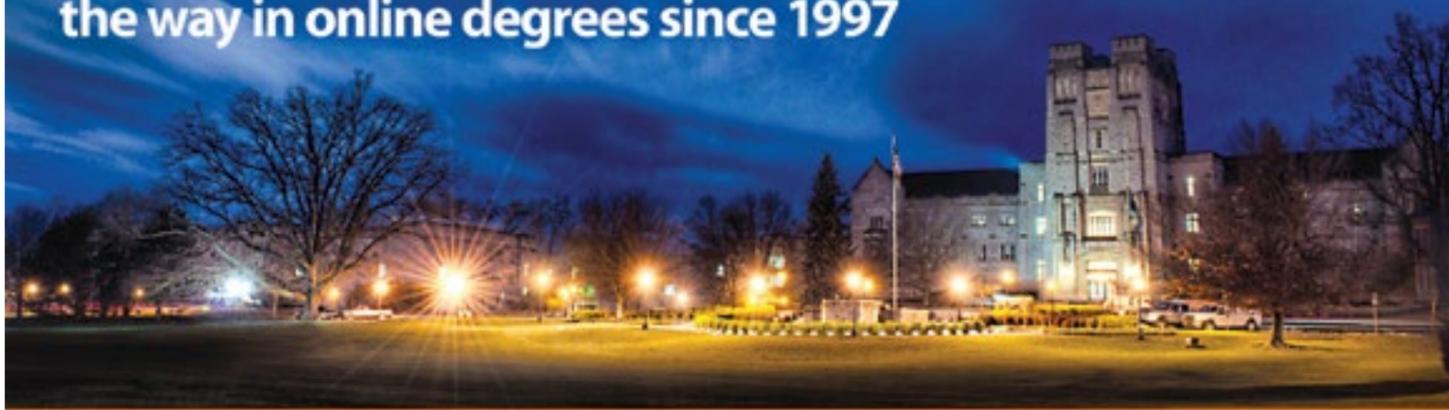
**Field work:** Jack Webster's students routinely explore and learn outside of their Derring Hall labs and classrooms.

Remember the time what's-his-face was guarding that guy on that other team? And that one guy took that shot — was it a two- or three-pointer? And boom! He drained it and the crowd went wild. I'll never forget that!

Forgetting important details about the things you love? Sign up for MyLowe's at [Lowe.com](http://Lowe.com). It remembers what your home needs, even when you don't.

# Continue the Tradition

Distance learning at Virginia Tech, leading the way in online degrees since 1997



See what we have for you!  
[vto.vt.edu](http://vto.vt.edu)

Virginia Tech  
Invent the Future®



we scan



MyLowe's remembers



your life gets easier



Proud Sponsor of Virginia Tech Athletics





**Family dinner:** Two parents, two kids, two cats—and 800 students. Welcome to the Residential College at West Ambler Johnston. Dining at D2, Ben Sax (above center) and Jennifer Quijano Sax (to Ben's right) and their children, Sarai, 7, and Avishai, 4 (at lower left), are joined by Ambrosia Church (above left), an animal and poultry sciences major; Kelsey Jo Starr (above right), a political science major; and Sheila Carter-Tod (standing, below middle), associate principal of Holly House and an associate professor of English.

# All in the Family

## Holistic learning in Virginia Tech's residential colleges

by SANDY BROUGHTON  
photos by LOGAN WALLACE

It was a fortuitous dryer malfunction that brought new neighbors together in the Residential College at West Ambler Johnston.

Shortly after students moved in last fall, Ben and Jennifer Sax's dryer broke. In the common laundry room on the fourth floor, while drying their clothes, the couple—who are live-in faculty principal and senior fellow for Virginia Tech's newest living-learning initiative—got to know their new neighbors, and students got to know them as real people. “The residential college motto is ‘to know and be known,’” said Ben. “Doing our laundry, we were just people engaged in conversation about things we were passionate about. And they found out that we wear underwear, too.”

“Up to that point, they had been so polite and thoughtful and formal,” said Jennifer. “The exchanges I had with students in the laundry room were wonderful. They began to see us not as disciplinarians, but as [colleagues] there to support and facilitate the community.”

By history, temperament, and philosophy, the Saxes are a great fit to lead the holistic learning and community-building efforts at the residential college at West AJ. Ben Sax is assistant professor of Judaic studies in the religion and culture department in

the College of Liberal Arts and Human Sciences. Jennifer Quijano Sax is interim director for education abroad in the Office of International Research, Education, and Development. Before coming to Virginia Tech in 2008, the couple spent four years as live-in faculty in one of the 38 residential colleges at the University of Chicago. It was a positive experience for the Saxes, and they longed to once again be part of the lively intellectual environment that results from living with people of different ages, interests, backgrounds, and goals.

The Saxes also bring a surprising element to the multigenerational mix of the residential college: two children, Sarai, age 7, and Avishai, age 4. They also have two cats, Falafel and Monty, who, like the children, get a lot of attention, love, and treats. “[The] students are smart, thoughtful, creative people at a wonderful time in their lives where anything is possible,” said Ben. “It is refreshing to live with them—it reminds us of why we got into this profession, and it keeps us inspired and curious. We wanted our kids to experience that, too.”

## Quantifying student success

Frank Shushok, associate vice president for student affairs and architect of the residential college initiatives at Virginia Tech, is conducting a five-year quantitative and qualitative research project on the effect of residential colleges on student learning and well-being.

The opening of the residential college at West Ambler Johnston in fall 2012 followed an enormously successful first year for the 320 students in the Honors Residential College at East Ambler Johnston, the first residential college at Virginia Tech. During the 2011-12 academic year

- Resident GPAs were among the highest on campus
- Retention increased
- Number of returning residents was high
- Participation in events was strong
- Student conduct referrals were low
- Physical damage to the facility was low
- Interaction with faculty increased
- Downtime was used more productively
- Peers provided more academic support

Initial reports from West AJ are equally as positive. In the spring of 2011, the last semester the hall was open before renovations, there were 217 student conduct violations. This fall semester, there were just 27.

The college at East AJ opened in fall 2011. This multigenerational learning community quickly established service-learning programs, most notably with the Head Start Association in Giles County, Va. In the program, students work in Head Start classrooms to enhance the preschoolers' education.

"We wanted to offer students in the residential college a real chance to engage in the local community," said Robert Stephens, faculty principal of the Honors Residential College at East Ambler Johnston. "We wanted to create a way to serve communities that really have a need."



## With honors:

For more on the Honors college's first year, visit [www.vt.edu/spotlight/innovation/2012-07-02-communities/principals.html](http://www.vt.edu/spotlight/innovation/2012-07-02-communities/principals.html).

The multigenerational environment is a place where students can be mentored and in turn mentor those who come after them. "Because I live in West AJ, I've had opportunities to be a part of events I never dreamed of, and [I've] met such a wide variety of people," said Tara Lynn Shockley, a first-year student from San Diego majoring in human nutrition, foods, and exercise. "I am incredibly lucky as a freshman to meet upperclassmen I can look up to and who can help me find my niche on campus."

Chief among the philosophical underpinnings of the residential college approach is that learning can—and does—happen everywhere, not just in the classroom. "Thinking doesn't stop at the end of class," Ben said. "You never switch off learning. Ideas need time to percolate."

Students may have been surprised when Ben bought 50 tickets to opening night of the biggest movie event since "The Hunger Games" leapt from the Kindle to the big screen, but his support of the midnight showing of "The Hobbit" started to make more sense when he arranged for Matthew Gabriele, associate professor and coordinator of medieval and early modern studies, to offer a seminar before the movie. Gabriele talked with students about the origins of monsters and why medieval times are associated with fantastical creatures.

Based on a typical semester's course load, students spend "roughly 15 to 18 hours per week in the classroom," said James Penven, associate director for academic initiatives in Housing and Residence Life. "This means they spend more time outside of the classroom than in it. We want to make this time meaningful. Our collaborative initiatives make residence halls more than just a place where students go after class."



Right at home: Ben Sax and Jennifer Quijano Sax in West Ambler Johnston

## First-person:

Want to know what it's like to live in a residential college? Check out a student-made video at [www.vtmag.vt.edu](http://www.vtmag.vt.edu).

It's all part of a holistic approach to learning, said Patty Perillo, vice president for student affairs. "Our challenge is to create a community that nurtures learning and growth for all of its members, across our curricula and co-curricular services and programs, and woven throughout the fabric of a student's university experience," said Perillo. "The residential colleges are one way we are creating the circumstances in which students are challenged and encouraged to reframe how they approach their college and lifelong learning experiences."

The residential colleges at Virginia Tech provide places where students can realize the advantages of a small, student-centered college, along with the opportunities of a large, research-oriented university. West Ambler Johnston houses 800 students, and each member is assigned to one of four houses. A live-out associate faculty principal leads each house and is assisted by a live-in graduate fellow. In addition, 80 faculty fellows, selected from across the university and the community, participate in the daily life of the college, making sure each student has opportunities for research, service learning, and international experience.

"At Virginia Tech, the Drillfield symbolically separates the two parts of student's lives—in the classroom and outside the classroom," said Frank Shushok, associate vice president of student affairs. "Our residential colleges represent an important partnership between academics and student affairs, and the re-emergence of faculty in shaping the out-of-classroom experience."

Faculty support makes a difference in how students experience Virginia Tech. "This is the difference between a 'room in a dorm'

and a residential college," said Jennifer. "You have a say, you are known, and you choose to shape your own learning experience. It's organized serendipity. We don't plan or tell the students what to do—we help them make their ideas happen. This is their initiative."

Maggie Appel-Schumacher, of Mackenbach, Germany, is a senior majoring in German and international studies and a resident advisor in West AJ. "We were given the structure and the resources," she said, "but no plan. That's really exciting. Everyone there is intentionally committed to the community, and we are allowed to share ideas, make things happen, and foster a sense of belonging."

"I have a lot of confidence in Virginia Tech students," said Ben. "The harder I make my classes, the higher they rise to succeed. The residential college can make a difference by raising expectations, expanding the bounds of student experience, connecting them to new opportunities, and providing a safe space to think critically and learn continually. Our goal is to make it a vibrant community. We'll fine-tune it as we go along." □

*Sandy Broughton is the assistant director for marketing and communications in the Division of Student Affairs.*

## A new twist on an old idea

The residential college concept dates back to the 12th century. The idea evolved at Oxford and Cambridge universities, which would provide models for residential colleges in the U.S. Key characteristics of a Virginia Tech residential college include

- **Multidisciplinary:** Students from every discipline are welcomed, and this diversity is essential to the learning philosophy.
- **Multigenerational:** Students from all classifications, first-year through graduate, reside in the community. There are many opportunities to interact with faculty, staff, and their families (and pets).
- **Live-in faculty:** The community is led by an academic faculty member, working and living side-by-side with student affairs professionals.
- **Highly engaged faculty:** There is substantive faculty engagement with members of the community.
- **Well-established governance:** Students, faculty, and other members of the community are afforded significant opportunities to engage in decision-making.
- **Mission-centric spaces:** The physical environment provides intentional spaces that practically and symbolically communicate a residential college's emphasis on holistic student development.

# Cultural Awareness

by MAJ. CARRIE COX

**“I like to think of myself as a culturally open-minded person who stays informed about current events around the world, but I learned that nothing can replace real-life experiences in another country,” said Austin Burns, a senior cadet majoring in history.**

For the past seven years, the Virginia Tech Corps of Cadets has participated in the Olmsted Cadet Travel and Cultural Immersion Program to provide those international experiences. Funded by the George and Carol Olmstead Foundation, the program is designed to help prepare future military officers for international assignments and strengthen the nation’s ability to function efficiently and effectively in foreign countries.

Only two of the six senior military colleges in the United States received travel grants for the summers of 2011 and 2012—Virginia Tech and Virginia Military Institute (VMI)—and Tech earned another grant for summer 2013. Because of the quality of the corps trips, VMI asked to join Tech’s trips the past two years instead of coordinating a separate program.

## Travel program benefits cadets

Last summer, four Tech cadets and four VMI cadets traveled to Panama, where they toured the country and the Panama Canal, performed three community service projects, and met with various officials, including U.S. Ambassador to Panama Jonathan D. Farrar.

“As a soon-to-be Marine Corps officer, I will be a member at the tip of the spear that is our military,” Burns said. “This means that with any surge of troops I will be among the first to interact with the different countries and cultures wherever I should be deployed. In these crucial moments of first contact, having the proper tact is vital to the outcome of missions. My travels to Panama have been the first step to opening my mind to just how different other cultures are and how to best interact with respect.”

The Olmsted foundation, based in Falls Church, Va., has a long history of supporting international educational programs for active-duty military officers, cadets, and midshipmen at the U.S. service academies. In 2004, those opportunities expanded to include ROTC cadets at the six senior military colleges.

Assigned to China in 1943 during World War II, Gen. George Olmsted interacted extensively with both Chinese and Japanese officials. That experience convinced him that American military leaders suffered from a lack of exposure and sensitivity to foreign cultures and led him to establish the foundation.

Through the foundation, the Corps of Cadets has coordinated travel to Rio De Janeiro, Brazil; Santiago, Chile; Buenos Aires, Argentina; and most recently, Panama. On two trips, the corps provided funding for a Citizen-Leader Track cadet (a non-ROTC cadet) to travel as well.

For summer 2013, four Virginia Tech cadets have been selected to travel to Panama—and once again, the quality of the corps’ trips has been recognized, as the Olmsted foundation asked Virginia Tech to take along four Army ROTC cadets from Hampton University and Norfolk State University. □

*Maj. Carrie Cox is the executive officer with the Corps of Cadets.*



**On the move:** Cadets from Virginia Tech and Virginia Military Institute visited Panama in the summer of 2012.

photos courtesy of TAMMY PELLETIER

## transforming lives and communities in the commonwealth



Scott Weimer (left), director, Continuing and Professional Education, Kay Dunkley, director, Virginia Tech Roanoke Center, and John Provo, director, Office of Economic Development

You may be surprised at the ways Virginia Tech’s Office of Engagement can bolster your chances of success.

**High-quality training results in a more skilled, sophisticated, productive and creative workforce.** Commonwealth Campus Centers located throughout the state, The Inn at Virginia Tech and Skelton Conference Center, The Hotel Roanoke and Conference Center, and the Executive Briefing Center in Arlington provide the perfect venues for high quality professional development.

**Technical assistance can boost your competitiveness in a challenging marketplace.** Continuing and Professional Education’s 25-plus member staff can create a blueprint to connect you with faculty experts.

**Applied research can help you take the next step as an industry leader.** Our team of economic development specialists can design applied research projects that link the university’s assets with your needs.

**For more information** about these and other resources, contact Susan E. Short Associate Vice President for Engagement [sshort@vt.edu](mailto:sshort@vt.edu) 540-231-9497



# IMAGINE

what you could do with your special savings on auto insurance.

**Upgrade to an ocean view room, buy your monthly commuting pass, donate to your favorite charity...whatever moves you most.**

As a Virginia Tech alum, you could **save up to \$343.90\*** on your auto insurance with Liberty Mutual. You could also enjoy valuable discounts tailored to the way you live today and save even more by insuring your home as well.

CONTACT US TODAY TO START SAVING		
CALL	888-438-9083	Client # 8581
CLICK	<a href="http://www.libertymutual.com/virginiatech">www.libertymutual.com/virginiatech</a>	
COME IN	to your local office	

**Liberty Mutual**  
INSURANCE  
AUTO | HOME

This organization receives financial support for allowing Liberty Mutual to offer this auto and home insurance program. \* Discounts are available where state laws and regulations allow, and may vary by state. To the extent permitted by law, applicants are individually underwritten; not all applicants may qualify. Savings figure based on a February 2011 sample of auto policyholder savings when comparing their former premium with those of Liberty Mutual’s group auto and home program. Individual premiums and savings will vary. Coverage provided and underwritten by Liberty Mutual Insurance and its affiliates, 175 Berkeley Street, Boston, MA. © 2012 Liberty Mutual Insurance.



**Humidity up, flu down:** Researchers have discovered that the flu A virus is most viable when relative humidity is either close to 100 percent or below 50 percent, which may help explain the flu's seasonality in different regions. Linsey Marr (above center), associate professor of civil and environmental engineering in the College of Engineering, Elankumaran Subbiah (above left), a virologist in the biomedical sciences and pathobiology department of the Virginia-Maryland Regional College of Veterinary Medicine, and doctoral student Wan Yang (not pictured) conducted the study.

# Picture-perfect

## The land-grant today

photos by JIM STROUP and LOGAN WALLACE

**T**eaching and learning. Research and discovery. Outreach and engagement.

These are the powerful forces behind Virginia Tech, the elements that inspire Hokies and define the modern-day land-grant institution. This photo essay explores a few of the ways Virginia Tech faculty are fulfilling this mission.

JIM STROUP

**Cutting-edge:** The SHARP Logger program—short for Sustainable Harvesting and Resource Professional—aims to train the commonwealth’s loggers in principles of sustainable forestry, environmental protection, and workplace safety. Since 1996, more than 3,500 have received the training, which is provided by Virginia Tech, Virginia Cooperative Extension, the forest industry, the Virginia Department of Forestry, and others. Program coordinator Scott M. Barrett (right), an Extension associate in the College of Natural Resources and Environment’s forest resources and environmental conservation department, is joined by Bryan Wagner, a logger safety trainer with Forestry Mutual Insurance Company.



JIM STROUP



**Stage presence:** In a two-semester design-build laboratory, 16 students worked under Marie and Keith Zawistowski (at right), faculty members in the College of Architecture and Urban Studies, to craft the Masonic Amphitheater in Clifton Forge, Va. In the 2011-12 academic year, the students conducted research and talked with residents and then they designed and built the structure, creating a venue that serves the town's vision of a sprouting artistic community. The amphitheater was named American-Architects Building of the Year 2012, selected from among 50 buildings, many designed by well-known architects and firms.

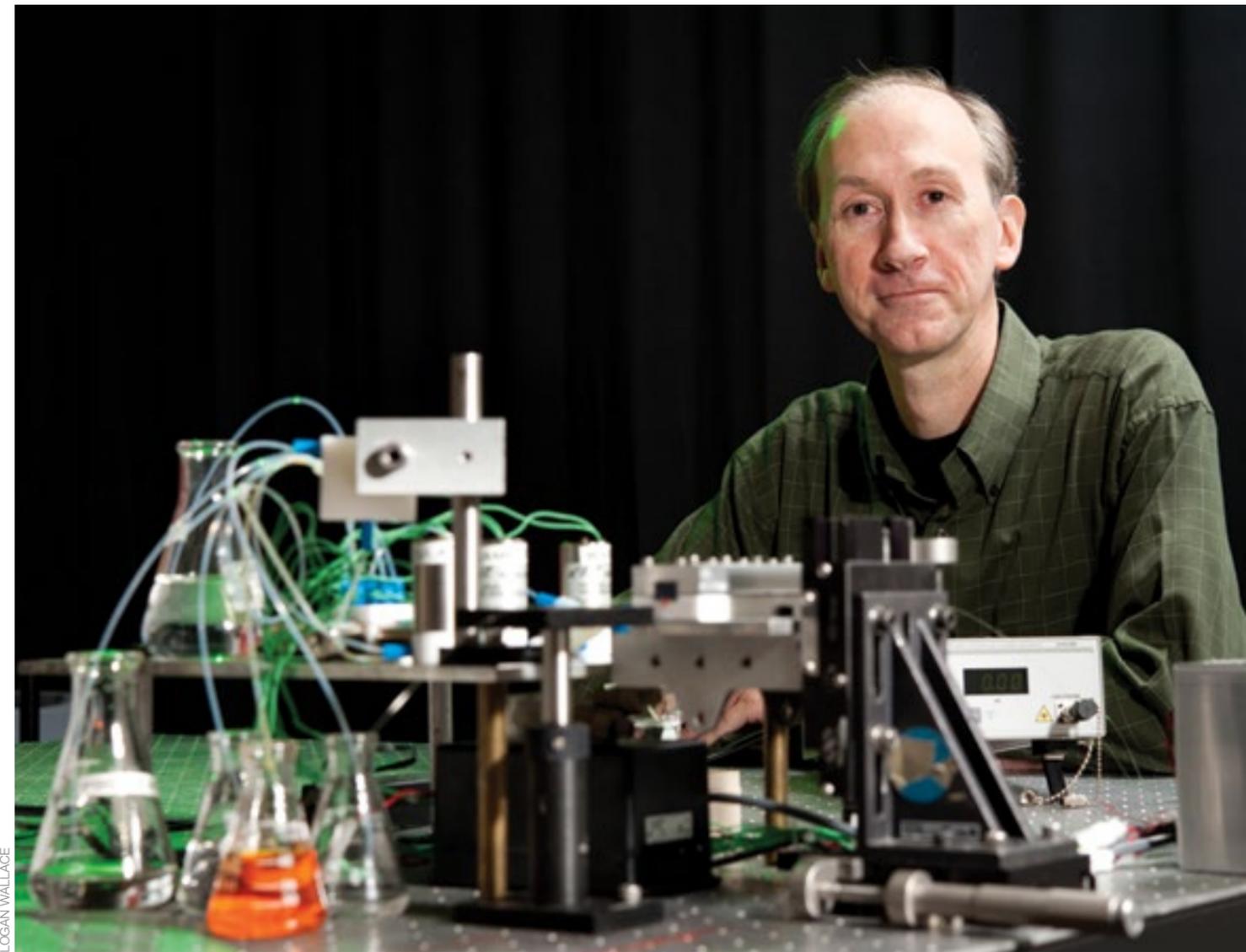
JIM STROUP

Learn. Discover. Engage. Learn. Discover. Engage. Learn. Discover. Engage. Learn.



LOGAN WALLACE

**A focus on obesity:** With a goal of improving health and quality of life in Virginia and the nation, the university recently established the Fralin Translational Obesity Research Center. The center's approach is unique. Scientists from a variety of backgrounds including human nutrition, psychology, cancer biology, economics, and pediatrics will work together to explore collaborative, translational projects with the goal of obtaining large-scale external funding to support obesity research. The center's co-directors are Kevin Davy (left) and Paul Estabrooks (standing), both professors of human nutrition, foods, and exercise in the College of Agriculture and Life Sciences, shown here performing a muscle biopsy. Estabrooks is also a professor of family medicine in the Virginia Tech Carilion School of Medicine.



LOGAN WALLACE

**Diagnostic breakthrough:** Detecting a MRSA (methicillin-resistant *Staphylococcus aureus*) infection now takes three days. But by coating optical fibers with self-assembling polymer layers, physics Professor Randy Heflin (above), along with Tyler J. and Frances F. Young Professor of Bacteriology Tom Inzana (not pictured), and others have developed a diagnostic test that takes less than an hour. The team is working with a company, Virginia nano-Tech, to commercialize the technology, which has the potential to save thousands of lives each year and lead to fewer days of hospitalization and fewer unnecessary antibiotics for MRSA patients.

**To excel:**  
To learn more about this collection of Virginia Tech excellence, visit [www.vtmag.vt.edu](http://www.vtmag.vt.edu) for links to the various topics.



# Full STEM Ahead

Educating the next generation's brightest minds

by DENISE YOUNG

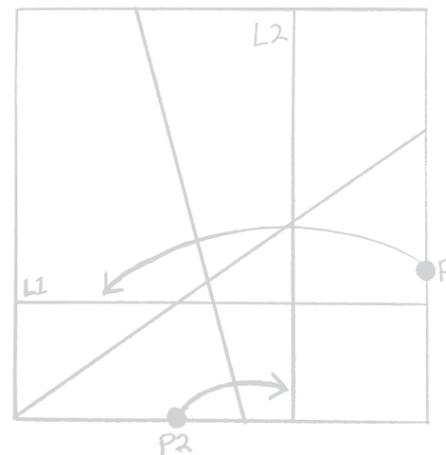
Amid the crinkling and rustling of paper, Robert Lang, an origami expert and former NASA engineer, guided workshop participants through a series of folds and cuts while he explained the mathematics of origami—and how the Japanese art can yield ideas for technological designs.

By the end of last summer's workshop in the Institute for Creativity, Art, and Technology's (ICAT) studio space, those in attendance had learned how origami's basic principles—what Lang refers to as “the mathematics of folding”—could be applied to everything from airbags to solar-power arrays.

The workshop is but one example of activities related to science, technology, engineering, and mathematics (STEM) at Virginia Tech. From hosting small workshops to initiating broader collaborations that cross college boundaries, from encouraging children to get excited about science to creating vibrant, supportive communities for engineering undergraduates, the university leads the commonwealth in advancing the impact of STEM disciplines.



**Folding math:** Robert Lang, a physicist and origami artist, taught an origami workshop at the Institute for Creativity, Arts, and Technology in the Center for the Arts, demonstrating how the principles of origami can be applied to technological and design challenges.



photos by JIM STROUP

### The next generation

Faculty and staff at Virginia Tech understand that both localized and transdisciplinary endeavors will be necessary in order to advance STEM disciplines and enhance the workforce. “Somebody once said, ‘The job that middle-school kids are being trained for doesn’t exist yet,’” said Bev Watford, associate dean of academic affairs in the College of Engineering and director of the Center for the Enhancement of Engineering Diversity (CEED).

Sue Magliaro, a professor in the School of Education, oversees the VT-STEM initiative, focused on K-12 outreach and education. “Whether it’s Geoscience in a Box or the Kids’ Tech University program, we’re trying to [raise] awareness,” she said.

Take, for example, the Studio STEM project, a collaboration between faculty in the College of Liberal Arts and Human Sciences’ School of Education and the College of Engineering (COE). The program delivers hands-on engineering projects to middle schools in the region. This spring, the students—with the aid of Virginia Tech engineering majors—built miniature solar cars and learned about such topics as gears, friction, and force. “The hands-on aspect of the ... program gives [students] confidence so that even if they don’t go into a STEM

field, they still have greater faith in their problem-solving skills,” said junior mechanical engineering major Ashley Taylor.

Studio STEM offers problem-based learning, said Brett Jones, an associate professor in the School of Education and co-collaborator on the project. Even the teachers love the magic of discovery; the program was an instant hit and now has a waiting list. “Because we do not have to teach to a standardized test, we can provide students with engaging activities that empower them to become designers and engineers,” Jones said.

Workforce demands for those with STEM skills occur at the local, state, and national levels, according to Whitney Bonham, a Virginia Tech economic development specialist who recently examined STEM workforce trends in the commonwealth. “What we’re trying to show is that Virginia’s STEM workforce is largely [centered on] supporting federal and state government [in] Northern Virginia. But there are also regional specializations.” For example, she pointed to a need for surveying and mapping specialists in the coalfields and a demand for engineering technicians to work in Lynchburg’s growing nuclear energy and wireless technology industries.

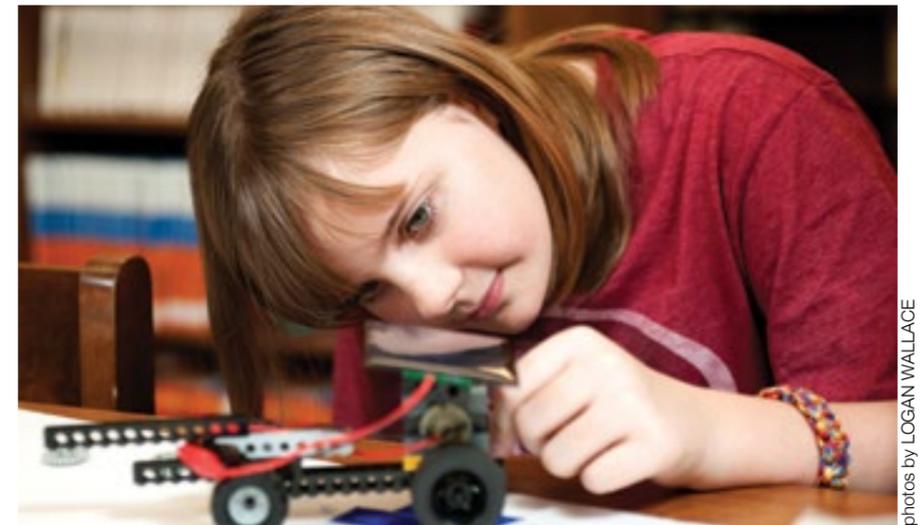
Bonham’s research drives home the fact that education in these disciplines is vital, even for those students who don’t go on to earn a bachelor’s or graduate degree. “We’re seeing that there are more ‘smart-collar’ jobs in [STEM] as well,” she said, naming an engineering technician position as one example of the need for STEM training across

all levels of higher education, from technical degrees and certificates to advanced degrees.

STEM literacy is not reserved for future scientists, engineers, and educators, noted Magliaro. As STEM issues—from using a smartphone app to understanding how climate change intersects with public policy—affect people’s everyday lives, the ability to understand the disciplines will become more and more crucial.

Jong-on Hahm, a Distinguished Senior Fellow in George Mason University’s School of Public Policy who studies science policy, said that Virginia isn’t alone in its growing interest in STEM. “Every nation on the planet is chasing innovation. [Nations are] looking to invest in areas that will foster innovation, and most of those are in the STEM disciplines,” said Hahm, who also works with the National Science Foundation and previously served as director of the Committee on Women in Science and Engineering at the National Academies.

“I’m really heartened by the fact that there’s a lot of interest in the science and technology behind other fields,” said Hahm, naming forensics and meteorology as two examples. She is also fascinated by what the future holds. Computer science and materials science may be poised for revolutionary breakthroughs, but the timing is hard to predict. “When that hits, no one [will be able to] fill those positions fast enough,” she said.



photos by LOGAN WALLACE



**Plugged in:** Students at Eastern Elementary and Middle School in Giles County, Va., participated in Virginia Tech’s Studio STEM project, building miniature solar cars. The program is funded by the National Science Foundation and Virginia Tech’s Institute for Society, Culture, and Environment.





GM visited this space last semester, and they loved it. When someone visits from a company, they will say, 'I wish I'd had this when I was in undergrad.'

—Lab supervisor Juan Folgar '11

### Live. Learn. Invent.

Virginia Tech is already the commonwealth's leading educator of engineers. In fact, Tech produces more engineers than all other Virginia universities combined. So it's not surprising that COE faculty, staff, and students are pushing the envelope on engineering education initiatives. Much of the focus is on diversity, evident in such programs as summer camps for high school girls interested in engineering and a women's preview weekend meant to help high school seniors decide if Virginia Tech is the right fit. "We need to produce a more diverse workforce," said Watford. "That's a given. And that diversity is of all kinds, not just gender or ethnicity."

Providing a supportive, inclusive environment for all engineering students helps improve retention rates, which is why the college's living-learning communities, Hypatia (for women) and Galileo (for men), are vital, said Susan Arnold-Christian, the CEED assistant director who oversees both communities. Both programs have been proven to improve retention rates for engineering students, with a rate of more than 80 percent, compared to the national average of about 50 percent.

These communities serve as gathering places for like-minded scholars, where first-year students discuss projects, collaborate on ideas, and find mentors in upperclassmen who serve as resident advisors (RAs). "With Hypatia, when you're surrounded by 100-plus freshmen women, it's the perfect environment to talk about projects, homework, classes, etc. It's a really amazing support group," said junior aerospace engineering major Carol Geary, currently a mentor in the Hypatia community. "My job is to watch freshmen grow up," she fondly said of her role.

Galileo RA Robert Kuczmariski, a junior majoring in mechanical engineering and psychology, first became excited about STEM when he started driving racecars, a family hobby. He initially minored in psychology, but added it as a second major when he discovered how the study of human thinking and behavior could enrich his engineering education. "I think it will be beneficial in management-type roles," he said.

Hypatia and Galileo reached a milestone last fall when they joined the College of Science's residential communities, Curie (for students studying physical or quantitative sciences) and Da Vinci (for biological sciences), in Lee Hall to form the inVenTs Residential Community. Informed by the themes of innovation and entrepreneurship, the environment offers opportunities for interdisciplinary collaboration, complete with a design and innovation studio.

The studio has proven to be one of inVenTs' most innovative features. Students can use the room as a study space, or they can train on the machinery, building prototypes and fostering a hands-on, entrepreneurial mindset. Graduate teaching assistant (GTA) and lab supervisor Juan Folgar (industrial systems and engineering '11) pointed out a laser cutter, a 3-D printer, a computer numeric control router (known as a CNC router), and more. "These are the top-of-the-line machines that are out there for prototyping," said Folgar, now a master's student. "GM visited this space last semester, and they loved it. When someone visits from a company, they will say, 'I wish I'd had this when I was in undergrad.'"

Joe Cuadrado (mechanical engineering '11), a master's student who was in Galileo as an undergraduate and is now a GTA overseeing the lab space, was surrounded by large whiteboards for sketching out ideas, tables for spreading out tools or working on group projects, and neatly labeled shelves of equipment. "This space allows you to know how to build things and understand the restrictions of the design—the limitations of the machines, for example," he said. "You can't do this kind of work in a dorm room." And when the studio is full of the hustle and bustle of students working on projects or training on the equipment, it's clear that innovation is in the air—not just in Lee Hall, but across campus and commonwealth.

### STEM degrees as economic engines

Virginia Tech isn't alone in recognizing the value of STEM degrees. Reaffirming the commonwealth's commitment, the Virginia General Assembly passed the Virginia Higher Education Opportunity Act of 2011, often referred to as the Top Jobs Act or simply TJ21. The legislation sprang from the Grow By Degrees Coalition formed by the Virginia Business Higher Education Council. Supported by leaders in business, community, education, and economic development, Grow By Degrees championed affordable access to higher education and investment in education as drivers of economic growth.

"Grow By Degrees was really just the first scratch of the surface, but it got everybody's attention. It said, 'Look, if we don't start investing in higher education and our citizens, we'll lose our edge,'" said Elizabeth Hooper, Tech's state legislative liaison.



**Not your typical dorm room:** A design and innovation studio in the inVenTs Residential Community puts top-of-the-line equipment for prototyping and more into the hands of students. Pictured here are, at left, Jackson Cooper and Patrick Clark, both freshmen majoring in general engineering; and below, Maggie Dozier, a junior majoring in industrial and systems engineering, and William Gerhard, a freshman studying general engineering.



photos by AMANDA LOWMAN

Signed by Gov. Bob McDonnell in April 2011, the TJ21 bill created and codified a set of goals for higher education, such as incentivizing year-round utilization of physical facilities and instructional resources, promoting resource-sharing across institutions, improving degree completion for Virginia students, and increasing degree attainment in the STEM-H—with “H” standing for “health”—disciplines.

“The Top Jobs legislation is already having a significant impact in Virginia by incentivizing institutions to increase degree production in high-demand fields,

such as STEM-H. I commend Virginia Tech for being a leader in this effort,” said McDonnell. “Together we are advancing the goal of 100,000 more degrees over the next 15 years. The reforms and investments we initiated are resulting in job-creating research, cost-saving innovation, and affordable access to a good college education for more Virginia students.”

Like many, McDonnell recognizes the importance of increasing STEM graduates and improving educational access—both key aspects of the legislation—in keeping the commonwealth and its citizens



The Top Jobs legislation is already having a significant impact in Virginia. I commend Virginia Tech for being a leader in this effort.”

—Virginia Gov. Bob McDonnell

competitive in tomorrow’s economy. “In order to get a good job, you need a good education,” he said. “The jobs of today and tomorrow are in the STEM-H fields. We must continue to ensure that Virginia students are prepared for the high-quality, high-paying jobs of the 21st century.”

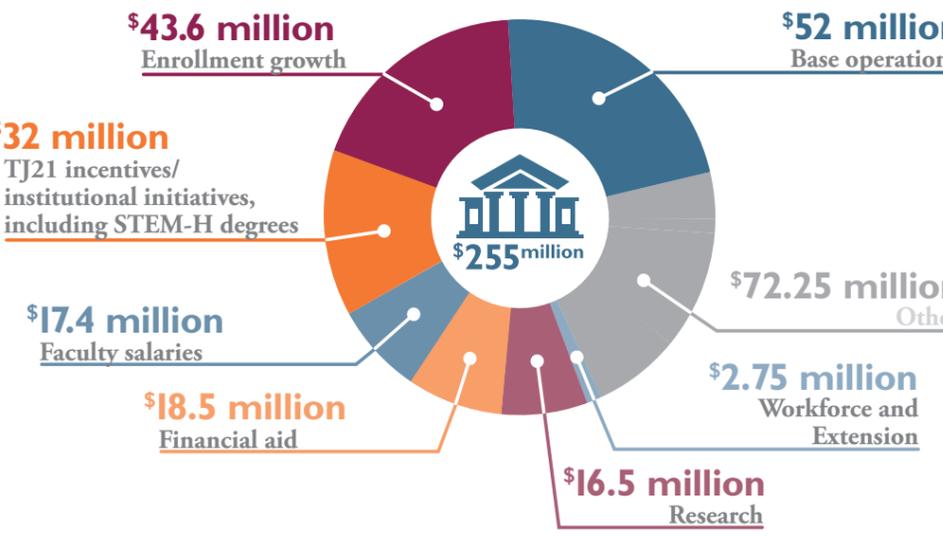
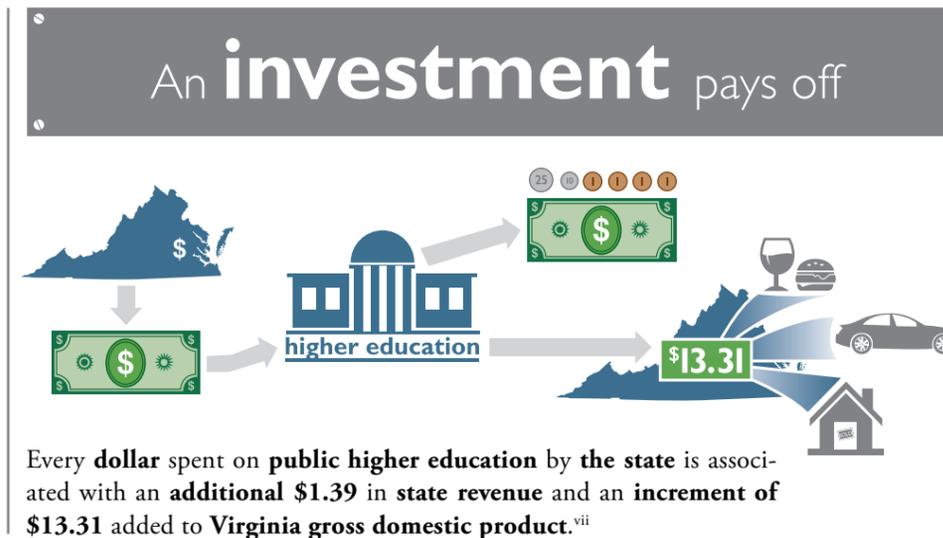
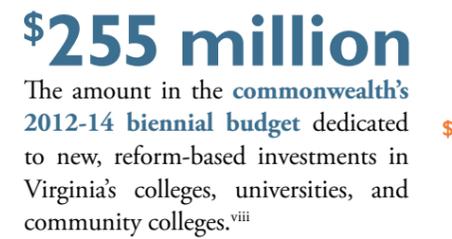
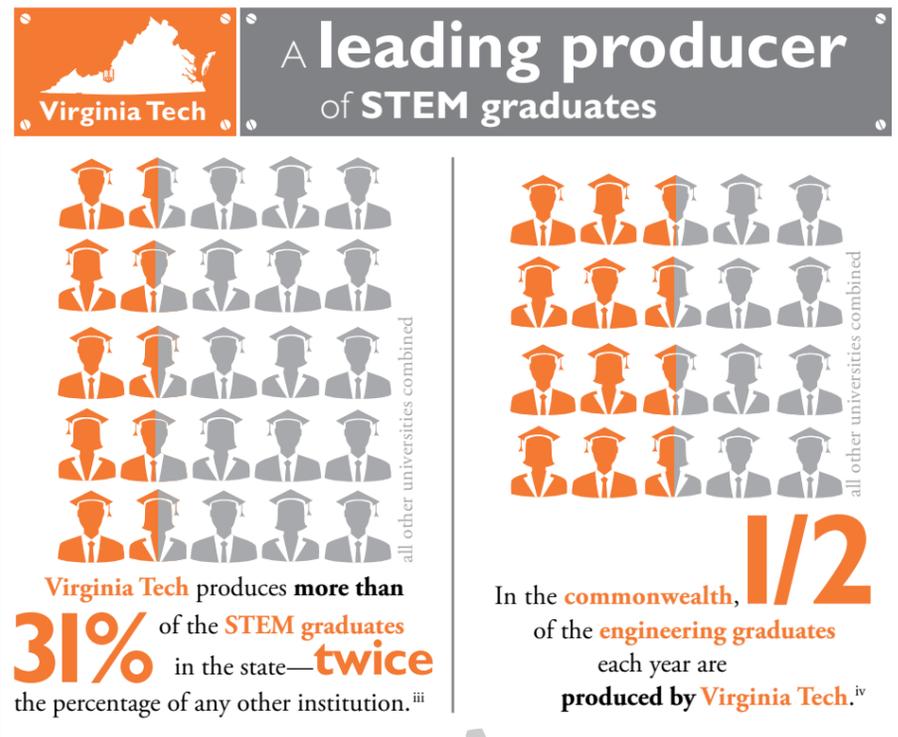
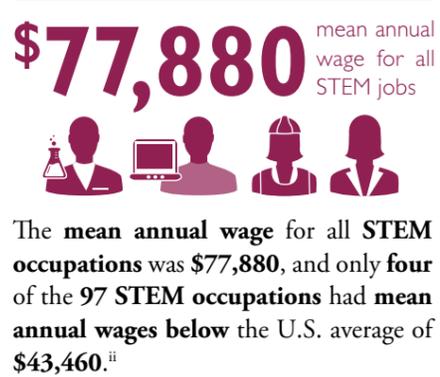
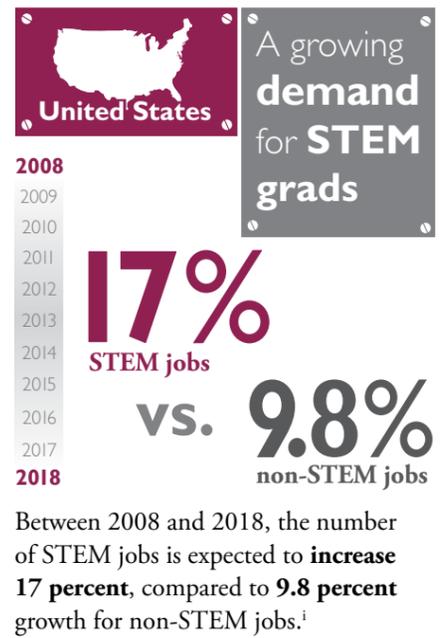
Added Hooper, “The STEM degree production [goal] ties into Virginia’s ability to be competitive with states—and, really, other countries—that are making vital investments in their own human capital.”

Meanwhile, TJ21 represents the commonwealth’s investment in its residents and its institutions of higher education. Ralph Byers, executive director of government relations for Virginia Tech, noted the unique expenses associated with training and educating students in the STEM disciplines. “Generally speaking, STEM degrees are more expensive because of the equipment and labs that are required for STEM education, so we were pleased that the governor and general assembly recognized this in the Top Jobs legislation,” Byers said.

And though STEM education might be a natural fit for the university, the arts will never be overlooked. While Hooper understands the vital role of STEM degrees in the commonwealth’s economic future, she said that Virginia Tech won’t turn its back on its commitment to the arts—a commitment exemplified in the university’s Center for the Arts and ICAT. “It’s important to note that while this focus on STEM degrees is a goal for the commonwealth and Virginia Tech, we’re not going to abandon our commitment to the liberal arts. We do recognize that we have to educate the whole person.”

Lang, the origami expert, demonstrated perfectly the aesthetics of STEM during his workshop on campus as he explained the fundamentals of flat-folding origami. When the paper is flattened and cut, a design emerges. “If I use this structure in a larger pattern, I can make a network of these creases,” Lang said as he held up a design. “That moves us out of ‘magic tricks’ to create real-world structures.”

Much like a design emerging in origami, Virginia Tech’s multifaceted approach to STEM education is reshaping the commonwealth’s future. □



SOURCES: For sources noted with Roman numerals, visit [www.vtmag.vt.edu](http://www.vtmag.vt.edu).

# Tried and True

## Alumnus leads criminal investigations after 9/11

by JESSE TUEL

**F**lip the normal criminal investigative process upside down. There is no neatly compacted crime scene from which an investigator collects evidence, talks to eyewitnesses and the suspect, and builds a case.

Instead, there is the World Trade Center in New York City. There is a field near Shanksville, Penn. There is the U.S.S. Cole, bombed in a Yemeni port. Inside a small room in a temporary building at Guantanamo Bay, there is a terrorism suspect of completely unknown identity who reveals nothing.

The suspect's interrogation is one of the more than 10,000 interviews conducted in Cuba as part of more than 1,400 criminal investigations in the global war on terror in the three years following 9/11. The interrogations—and the nation as a whole—are tainted with the desperate urgency to uncover the next seemingly imminent attack.

Those interrogations are what retired Col. Britt Mallow (sociology '77) oversaw as commander of the Department of Defense's (DOD) Criminal Investigative Task Force (CITF), an entity comprised of investigators from the Army, Navy, Air Force, FBI, and other agencies. Formed in the aftermath of 9/11, CITF sought justice by building cases destined for military tribunals, and its jurisdiction spanned sites of terrorist acts around the globe. Prosecution, though, took a back seat to intelligence-gathering, and Mallow and his colleagues found themselves fighting against interrogative methods widely deemed as torture.

### Taking command

Raised in a military family, Mallow was a natural fit for the Virginia Tech Corps of Cadets, and knowing he wanted to go into the military police, he majored in sociology. Mallow's career in military law enforcement, spanning 29 years, afforded him plenty of continuing education, including two master's degrees.

Commanding U.S. Army military police units of increasing size and responsibility, Mallow was often overseas, directing police functions at Army installations



ANNE WERNIKOFF

and antiterrorism operations for all Army forces in Europe. In an Arabic-language course in the mid-1980s, he met his wife, Lynda, then an intelligence analyst working for the Air Force. In 1990, when the couple was working for the U.S. government in Europe in the middle of the first Gulf War, their daughter, Kathleen, was born.

In 2000, Mallow became deputy commander of Army Criminal Investigation Command (CID). After 9/11, he was tapped to lead CITF and shape the legal process for investigating al Qaeda. (He was CITF commander until 2005, when he retired.) Early on, Mark Fallon, then a Naval Criminal Investigative Service (NCIS) special agent, met with Mallow to determine how NCIS would engage with CITF.

Fallon stayed on as Mallow's deputy commander, helping to design CITF's reporting structure and facilities, training, and personnel needs. Launching CITF was a colossal task. For instance, whereas the FBI had been the primary investigative agency for domestic terrorism, CITF drew

in multiple agencies, and the prosecuting venue shifted from the Department of Justice to military tribunals. On all fronts, Mallow displayed incredible "political savvy," Fallon said.

### A high-stakes puzzle

One suspect is seated in a room at Guantanamo Bay. A special agent and a translator are inside, possibly with Mallow and a behavioral consultant watching through a window or on video surveillance. All are adept at reading people, watching for cues in body language, and establishing rapport. In the oral tradition of Arab cultures, even a rant signals a suspect's desire to tell his or her side of the story.

In Cuba, even a preliminary step such as establishing a person's true identity was shrouded in mystery. "Most of [the suspects] were captured with just scraps of paper, or nothing. You had to go by what they were doing when you captured them, what they said, what pieces of physical evidence [they had], and the circumstances other people might describe," said Mal-

low. "You're given somebody, and you don't know what their name is. You don't know with whom they were involved. You suspect that they were involved in some terrorist acts, and you have to sort all that out with very, very thin bits of evidence. ... Everything was a puzzle."

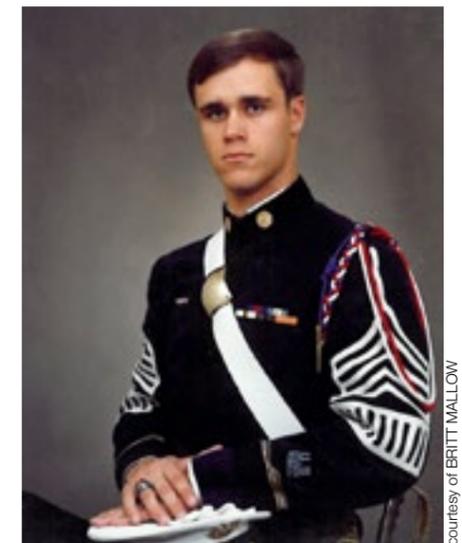
All the while, angst in the national security community was decidedly high following 9/11. "We were all concerned that there was going to be another attack. It was imminent, and we needed to stop it. The ... pressure was intense," Mallow said.

In this atmosphere, the tension between criminal investigators and intelligence officers was palpable. The criminal investigators had experience in conducting adversarial interrogations within a specific legal environment, but intelligence interrogators were in the driver's seat.

"We were dealing with challenges created by individuals who had no experience in interrogations or al Qaeda, pushing for what some will call enhanced interrogation techniques and what others will call torture—tactics that DOD has since disal-



In the lead: Britt Mallow '77 at Fort McClellan in 1981 and as a cadet in 1977



courtesy of BRITT MALLOW

lowed—[and] dealing with them at a time in our nation's history when passions were inflamed," said Fallon, now the director of ClubFed LLC, offering strategic consulting in the public and private sectors.

"Our mission came second behind the intelligence mission," Mallow said. "We really thought there was some wasted effort trying to cast around for a new way to get these people to talk rather than sticking to the tested methods that our investigators were using. It was very frustrating when we were pushed aside. Although we talked to some high-level officials, we couldn't change the way everyone would operate. And you know it's not right—but beyond that, you know it's not likely to work," Mallow said.

Still, Mallow kept CITF above reproach; Fallon called him a "true patriot." "The principled, centered leadership that Britt brought to the table helped ensure that CITF personnel fulfilled their responsibilities and did so honorably," said Fallon. "We would tell them, 'History will look back on how we performed during this war with al Qaeda, and [we want you] to be sure that your children and grandchildren are proud of the way you served your country.'"

**Leaving a legacy**

Now retired from the military, Mallow works at MITRE, a noncompetitive systems engineering corporation that manages federally funded research-and-development centers and serves federal agencies exclusively. There, he helps agencies, including federal law enforcement entities, address system-wide challenges related to information technology, information security, intelligence programs, and more.

At MITRE, Mallow reports to Jeff Hormann, who launched a computer-crimes unit in the Army CID under Mallow's

command in the late 1990s. "He so impressed everyone [at MITRE] that it was essentially a no-brainer to hire him," Hormann said. "I still consider him a mentor and a great leader."

Mallow is certain that Americans are safer today than they were prior to 9/11, chiefly because of a sea change in thinking in the national security community. The CITF brought together law enforcement, intelligence, legal, and IT experts, all of whom learned from each other. Analysts began to think like cops, and vice versa. "They created what I like to think of as ... a new sort of culture of national security, where people will look across discipline boundaries," Mallow said. "If, in some part, myself and the other leaders I worked with were able to contribute to that generation of smarter people, that's probably the best thing we did."

Reconnecting with Virginia Tech, Mallow—who recently joined the College of Liberal Arts and Human Sciences Alumni Advisory Board—praised such efforts as the Center for 21st Century Studies and the Center for Peace Studies and Violence Prevention for "putting people with diverse perspectives together to work on big problems." The sheer velocity of global change worries Mallow more than another 9/11, and he's encouraged to see "that folks are really stretching our ways of

thinking about problems. That's probably the best legacy and the best chance for us to be safer in the future, is to harness that kind of brainpower," he said.

Mallow is clearly energized by academia. In the long term, he sees himself helping students prepare for the national-security challenges of tomorrow. "If I were to have the opportunity to interact with students on a larger scale, that would be a dream for me," Mallow said. □



courtesy of BRITT MALLOW

**In service:** Britt Mallow '77 in Baghdad in 2004 and at his retirement ceremony in 2005

Client Service



Business Model



Operational Excellence



Team Spilman



# Spilman's Goal: Excellence and value.

From the way we carefully guide our clients through the legal system to the speed and synchronization of our execution, and from the accuracy and effectiveness of our representation to the innovative ways we select and nurture talent, Spilman constantly strives for excellence and value.

VIRGINIA # NORTH CAROLINA # PENNSYLVANIA # WEST VIRGINIA

**SPILMAN THOMAS & BATTLE, PLLC**

ATTORNEYS AT LAW

540.512.1800 | 310 First Street, Suite 1100 | Roanoke, VA 24011  
[www.spilmanlaw.com](http://www.spilmanlaw.com) | Attorney Responsible For This Message: Webster Day

*Excellence. Value. Get There!™*



Left to right: Dr. Bruce Johnson, Dr. George Levicki, medical student Robert Brown, Dr. Charles "Bud" Conklin, and Dr. Peter Lockhart



Dr. Charles "Bud" Conklin (above left) in an instructional setting

# Healthy Curriculum

Delta Dental foundation advances oral health education

by CHRISTINA KOOMEN  
photos by LOGAN WALLACE

**A**t the second annual Delta Dental of Virginia Oral Health Lecture at the Virginia Tech Carilion (VTC) School of Medicine earlier this semester, one of the introductory speakers, third-year VTC student Robert Brown, conceded that the connection between oral health and general health was "something I did not fully appreciate before I came here."

Then he shared with the audience the story of a terminally ill oral cancer patient whom he and other members of his class met during a visit to Carilion Clinic's dental facility. Brown described how, despite the advanced state of her disease and what must have been severe pain, the patient couldn't stop smiling as she shook students' hands and congratulated them on being part of the school's groundbreaking new oral health program.

"According to her daughter, it was her strong desire to meet us and help to teach us that kept her going," Brown recalled. "She told us that she wanted us to be the best doctors."

The VTC School of Medicine, which welcomed its first class of students in fall 2010, is one of the few medical colleges in the U.S. to include an oral health component in its training for all students. The program

was launched with philanthropic assistance from the Delta Dental of Virginia Foundation, which recently followed up with a \$1 million endowment to help sustain the oral health curriculum. Funds from the endowment will also be used to support clinical rotations, service-learning projects, research scholarships, and the development of standardized patient cases.

"The oral health program positions the Virginia Tech Carilion School of Medicine as a thought leader and an innovator in the educational process," said Dr. George A. Levicki, president of the Delta Dental of Virginia Foundation Board of Directors. "It represents a true advance in the practice of medicine and how to incorporate the growing body of evidence that suggests important links between good oral health and good overall body health."

In the evolution of medical practice, general and dental health care have experienced a somewhat on-again, off-again relationship. Delta Dental Lecture keynote speaker Dr. Peter Lockhart, chair of oral medicine and director of the Institute for Oral Medicine at Carolinas Medical Center in Charlotte, N.C., pointed out that no less a figure than early American physician Benjamin Rush, a signer of the Declaration of Independence, advocated the extraction of teeth in order to cure a wide variety of diseases. But the two fields began to diverge with the establishment in 1840 of the Baltimore College of Dental Surgery, the first dental school in the world. Although the college distinguished dentistry as a profession in its own right, it also institutionalized the separation of oral health from general medical education.

But over the past decade or so, research has begun to revive awareness of the connections between oral health and other medical conditions, ranging from coronary artery disease and diabetes to low birth weight in newborns. The VTC curriculum "establishes the intercollaborative aspect of medicine and dentistry on patient management" for a new generation of practitioners, according to Dr. Charles "Bud" Conklin, associate professor in the Department of Surgery at VTC and section chief for dentistry at Carilion Clinic.

"Most physicians have anywhere from no training in oral health and oral medicine to maybe four hours, tops," said Conklin, who has been with Carilion for 33 years and is one of the chief architects of the new program. "In the Virginia Tech Carilion School of Medicine curriculum, we're looking at 32 hours of both clinical and didactic exposure in the first two years, plus testing to make sure they have mastered the skills."

One major reason for creating the oral health curriculum was to improve oral cancer survival rates. Conklin noted that about 40,000 people in the U.S. develop some form of oral cancer each year, but many cases are diagnosed late. This is largely because the elderly are at highest risk but dental visits tend to fall off after age 65, often for financial reasons. However, physician visits by older patients tend to remain steady, so if a doctor is trained to spot the signs of oral cancers, early diagnosis is more likely to occur, and more lives are likely to be saved.

VTC's oral health program comprises three basic components. First-year students learn oral anatomy and how to do an oral

The Virginia Tech Carilion School of Medicine, which welcomed its first class of students in fall 2010, is one of the few medical colleges in the U.S. to include an oral health component in its training for all students.

examination. In the second year, students take part in a comprehensive week of oral medicine training, using a case-based learning approach. This immersive experience includes examining a variety of oral pathologies, analyzing cases in depth, and even drilling into mock-ups of good and bad teeth to feel the difference. In years three and four, students will have the option of taking electives to gain more advanced knowledge.

Ultimately, Conklin hopes that doctors will add the patient's mouth to the standard physical exam repertoire that includes the head, eyes, ears, nose, and throat. This approach may already be gaining traction at Carilion Clinic.

"One of our faculty members, a family practice physician, captured the value of this model best when she said that it had led her to change the way she performs her own patient exams," said, Dr. Cynda Johnson, VTC dean. "We hope this innovative program will continue to inspire physicians to perform oral exams and ultimately to improve health outcomes for patients everywhere."

It has certainly resonated with VTC students like Brown, who concluded his remarks at the lecture by emphasizing: "To be the best doctors, we must understand oral health." □

*Christina Koomen was a writer with University Development.*

# Book Notes



## BOOKS BY ALUMNI nonfiction

**Chris Holland** (statistics '92) and **Jack Shostak** (statistics '89), "Implementing CDISC Using SAS: An End-to-End Guide," statistics, software, SAS Press.

**Tom Hood** (marketing '78), et al, "Richmond, One of America's Best Tennis Towns," sports, Dementi Milestone Publishing.

**Nathan Jones** (business information technology '05), et al, "Professional iOS Network Programming: Connecting the Enterprise to the iPhone and iPad," app development, Wrox Press.

**Bonnie Kerrigan Snyder** (M.Ed. student personnel services '93), "The Unemployed College Graduate's Survival Guide: How to Get Your Life Together, Deal with Debt, and Find a Job After College," career, Adams Media.

**Frank N. Wilner** (economics '75, M.S. business '77), "Amtrak: Past, Present, Future,"

economics, rail, Simmons-Boardman Books.

## fiction

**Sybil Baker** (communication '86), "Into This World," novel, family, Korea, Engine Books.

**Robert Moore** (chemical engineering '60), "The Neighbor," novel, contemporary, Tate Publishing & Enterprises LLC.

**Dan Sizemore** (political science '82), "The Money Maker," novel, pyramid schemes, self-published.

## BOOKS BY FACULTY/STAFF

**Matthew Vollmer**, assistant professor, English department, co-editor, "Fakes: An Anthology of Pseudo Interviews, Faux Lectures, Quasi-Letters, 'Found' Texts, and Other Fraudulent Artifacts," anthology, short stories, satire, W.W. Norton & Company.

**Matthew Vollmer**, "Inscriptions for Headstones," essays crafted as epitaphs, Outpost19.

## featured author

**Rob Dietz** (M.S. environmental science and engineering '00) is the coauthor, with Dan O'Neill, of "Enough is Enough: Building a Sustainable Economy in a World of Finite Resources."

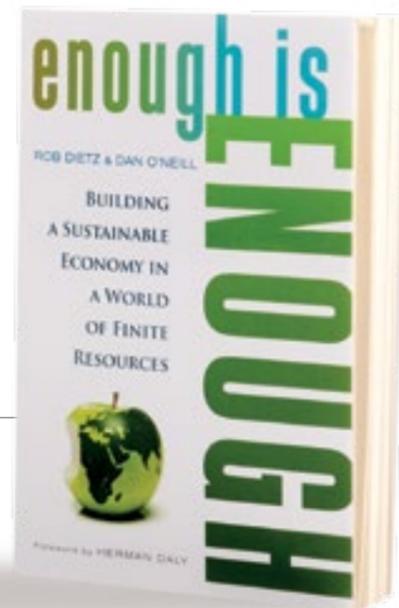
With an unconventional background in economics and environmental science, Dietz has come to question a widely accepted assumption—that the economy has to grow. He contends that we can overcome environmental crises and improve quality of life by changing the economic focus from more to enough. Below is an excerpt from "Enough is Enough," reprinted with the author's permission.

*A game of checkers offers very little insight into how to solve the world's intertwined environmental and social problems, or so I thought.*

*I was playing against my 5-year-old daughter when we decided it would be more fun to see how high a tower we could build. At first, we recklessly plopped down two or three checkers at a time. But as the tower grew, we changed our approach. With the steady hands of a surgical team, we added one checker at a time. By this point, our formerly straight tower had taken on a disconcerting lean. On our final attempt to increase its height, the mighty tower reached the inevitable tipping point and came crashing down to earth. My daughter's reaction: "Sometimes when things get too big, they fall."*

*She somehow summarized the root cause of humanity's most pressing environmental and social problems: Our economic tower has grown too large, and it's threatening to collapse under its own weight. Beyond that, it's threatening the integrity of the checkerboard and the well-being of the players.*

*But we can build a better economy. We can meet our needs and care for the planet at the same time. This is our checkerboard, after all, and we don't have to play by the old rules anymore.*



Submission guidelines are available online at [www.vtmag.vt.edu/bookreview.html](http://www.vtmag.vt.edu/bookreview.html). To submit a book, mail it to Book Notes, Virginia Tech Magazine, 205 Media Building, Blacksburg, VA 24061. You can also email your name, the name of the publisher, the genre, and a brief description of the book to [booknotes@vt.edu](mailto:booknotes@vt.edu). We must receive the book within one year of its publication date. Photos by Amanda Loman.

# Spring Hokie Wear from Nike!

## University Bookstore & Volume Two Bookstore



## Nike T-Shirts!



## Nike for Women!



## Nike Caps!

Women's

Get in gear for the Spring Game on April 20<sup>th</sup> with your Official Bookstores of Virginia Tech!



myVTmobile

Text "VT" to 96714. This is a service we have at Virginia Tech that will send you texts for awesome deals all around campus!

Find these items and more at:  
 University Bookstore, on campus • Volume Two Bookstore, off campus  
 Dietrick Convenience Store, on campus • Hokie Shops  
[www.bookstore.vt.edu](http://www.bookstore.vt.edu) • [www.hokieshop.com](http://www.hokieshop.com)

## The Lyric Theatre

An iconic building in the heart of Blacksburg

For more than a century, one place close to campus has been a source of entertainment for countless Virginia Tech students—the Lyric Theatre.

After its establishment in 1909 as a venue to offer silent films to the local community and as an escape for students, the Lyric occupied three locations before, in 1929, a group of local businessmen partnered to build a grand cinema for “talkies.” Their vision would become the current Lyric Theatre on College Avenue, a majestic Art Deco building adorned with two distinctive masks over the marquis that welcomed students for less than \$1.

The new Lyric seated 900 people and had an orchestra pit in front of the stage for occasional theatrical productions. (After several renovations, however, the seating has been reduced to about 500, with what I suspect are far more comfortable seats than those in earlier days). The Lyric was one of three sound motion-picture theatres in the state at the time, and it was especially a treat for students whose hometowns didn’t yet have a movie theatre. For decades, the Lyric hosted many first-run films, even as several other movie theatres appeared in Blacksburg in the 1970s and ’80s. However, the advent of the area’s first multiplex in Christiansburg offered too much competition for the Blacksburg theatres, and all eventually closed their doors. The Lyric ceased showing movies in 1989. Over the next five years, the theatre was leased off and on by Virginia Tech for class instruction and by the Student Union film program while Squires Student Center was undergoing a renovation.

In 1994 a group of local Blacksburg citizens formed a nonprofit organization, the Lyric Council. The council raised more than \$600,000 to renovate and revive the iconic theatre, and it reopened in 1996. The renovation restored the beautiful red silk tapestries that cover the walls, which are lit by elegant lanterns designed for the theatre when it first opened. Seats were upholstered and a new sound system was installed, and the current building owner granted a 30-year rent-free lease.

Today, the theatre is staffed mostly by community volunteers, including students. Second-run films are featured, along with some festival-winning films, musical artists, and the occasional theatrical performance. Conversion from 35mm film equipment to more modern digital projection is the highest priority for the theatre.

Lyric Council volunteers have embarked on a project to document the story of this Blacksburg icon with a book that interweaves history, photos, and special memories. They’re seeking your input. Do you have a fond memory of the Lyric you’d like to share? Learn more about this special publication and how to share your memories at [www.thelyric.com](http://www.thelyric.com).



JOHN MCCORMICK

*Tom Tillar '69*

Vice President for Alumni Relations



IVAN MOROZOV

## contents

Reunions and homecomings	PAGE 48
Drillfield Series	PAGE 50
Strong Together	PAGE 50
Call for nominations	PAGE 51
Travel tours	PAGE 52
Hokie Day	PAGE 53

## contributors

<b>Tom Tillar '69</b>	Vice President for Alumni Relations
<b>Dave Hunt</b>	Communications Director
<b>Shirley Fleet</b>	Class Notes Editor

Reconnect at your class reunion or college homecoming

# 2013 reunions



### 2013 Class Reunions

**Sept. 7** - Western Carolina  
College of Liberal Arts and Human Sciences homecoming  
*Special Event: Alumni Chapter Officers Forum*

**Sept. 21** - Marshall  
College of Agriculture and Life Sciences homecoming  
Corps of Cadets homecoming

**Oct. 5** - North Carolina  
(traditional parade)  
College of Engineering homecoming  
*Special Event: Highty-Tighties homecoming*  
*Special Event: Recreational Sports homecoming*

**Oct. 12** - Pittsburgh  
College of Science homecoming  
College of Natural Resources and Environment homecoming

**Oct. 26** - Duke  
Graduate Degree Alumni homecoming  
College of Architecture and Urban Studies homecoming  
*Special Event: Marching Virginians homecoming*

**Nov. 16** - Maryland  
College of Veterinary Medicine homecoming  
Pamplin College of Business homecoming

Class reunions for the 20th through the 50th anniversaries are held at five-year intervals. Each reunion includes optional campus tours, a Friday evening meal, and plenty of time for reminiscing and dancing. Saturdays feature a morning brunch and pregame festivities, followed by the game.

Seeing the Hokies play in Lane Stadium is a treat for all reunion participants. Special seating is arranged for reunion registrants at Tech's sold-out games, and rooms are set aside at The Inn at Virginia Tech for reservation by reunion registrants. Banquets and brunches are at the inn as well.

### Come home:

For more information on the 2013 homecomings and reunions, visit [www.alumni.vt.edu/reunion/](http://www.alumni.vt.edu/reunion/).

Multiple homecomings are hosted throughout the football season to coincide with home games. Eight academic college programs are spread across the home schedule, along with special homecomings for graduate alumni, Corps of Cadets alumni, and other groups. Homecomings are open to all alumni of the host groups, regardless of graduation year. In each case, there is a game-day gathering, plentiful pregame tailgate food, and the opportunity to reunite with friends, faculty, and staff. Lodging and game tickets (if needed) are available to registrants on a first-come, first-served basis, so it's best to register early.

# 2013 homecomings



### Reunite:

For more information on the 2013 homecomings and reunions, visit [www.alumni.vt.edu/reunion/](http://www.alumni.vt.edu/reunion/).



May 10-11

2013 Drillfield Series

The Drillfield Series continues in 2013 with weekends devoted to photography, fine dining, student legacies, and special programs for corps and women alumni. Make plans now to attend these events designed for alumni and their families, and take advantage of the specially discounted accommodations available at The Inn at Virginia Tech.

Focus on Photography 2013

Year three of this popular program will take your photography to the next level. Instructors will cover processing and editing photos, shooting and editing video, and such topics as lenses, digital exposure, night photography, and photographing campus. A reception and most meals are included.



June 17

The Virginia Tech Alumni Association Hokie Classic

Join fellow alumni, special guests, and friends for a Captain's Choice golf tournament at the Pete Dye River Course. The price includes greens fees, cart, door prizes, a commemorative polo, lunch, adult beverages, and a post-tournament dinner in the new clubhouse overlooking the New River. Registration is limited to the first 120 golfers, so register early. Enjoyable for golfers of every skill level. \$150 per person. Visit [www.alumni.vt.edu](http://www.alumni.vt.edu) for more information.

June 21-23

Corps of Cadets Alumni Weekend

Calling all cadet alumni! Come enjoy Tech's summertime campus and reunite with former cadets. Program highlights include a barbecue at the alumni center, a shooting-range contest and paintball, a Civil War presentation, reflections from veterans, and a briefing from the commandant. Meet student cadets, and learn how you can help the corps in your hometown.

\*Specially discounted lodging at The Inn at Virginia Tech is available. For more details, visit [www.alumni.vt.edu](http://www.alumni.vt.edu).

July 12-13

Virginia Tech Admissions Weekend

Our annual "Day in the Life of College Admissions" is designed to assist 2014 and 2015 high school graduates and their parents in navigating the college application process. Program highlights include pointers for conducting a college search, a behind-the-scenes look at college admissions, application preparation tips, and information on scholarships and financial aid.

July 19-21

Women's Getaway Weekend for Alumnae

Bring friends or former classmates for a fun-filled weekend in Blacksburg. Relax, revive, and reminisce. Take some time for yourself and indulge in a weekend especially designed for women. Program highlights include a tapas and wine reception, massages, recreational activities, a champagne brunch, insightful sessions for today's woman, and a dinner with special guests.

The Strong Together initiative

On Nov. 13, 2012, the Office for Diversity and Inclusion (ODI) partnered with the National Capital Region chapter of the Virginia Tech Alumni Association to host the first of several "Strong Together"

networking receptions. The Strong Together initiative is coordinated by ODI to promote the values set forth in the Virginia Tech Principles of Community, which state the university's commitment to providing a welcoming and diverse academic environ-

ment. Held at the Tower Club in Vienna, Va., the event was attended by more than 70 regional alumni, along with Vice President for Diversity and Inclusion William T. Lewis Sr. Attendees had the opportunity to meet Lewis and his staff, to learn about ODI initiatives, and most importantly, to reaffirm the values set forth in the Principles of Community.

One of the attendees, Jerome Fowlkes (finance '88), said the occasion reminded him that "there is more that is similar in us than what separates us." He said that regardless of skin color, ethnicity, sexual orientation, or religious beliefs, Hokies share a common hope. "Being a Hokie means that by standing Strong Together, we invent the future together."

Chapters around the country will host additional Strong Together events. Please check your Virginia Tech alumni emails for notices about upcoming events.

Read more about Strong Together and the Principles of Community at [www.diversity.vt.edu/principles-of-community/strongtogether.html](http://www.diversity.vt.edu/principles-of-community/strongtogether.html).

Alumni Humanitarian Award

The Alumni Association is seeking nominations for its Humanitarian Award, presented to an alumnus or alumna who has performed exceptional service outside of his or her profession or career. The scope of service should encompass significant regional, national, or international impact. The nomination form can be accessed at [www.alumni.vt.edu/humanitarian](http://www.alumni.vt.edu/humanitarian).

Multicultural Alumni Advisory Board nominations

The Alumni Association is looking for nominations for the Multicultural Alumni Advisory Board, which represents the interests of diverse alumni constituencies. The board works closely with the Alumni Association and the Office for Diversity and Inclusion to assist with diversity initiatives and to strengthen alumni programs, admissions programs, and general networking among constituents. Send nominations to Multicultural Alumni Advisory Board, Virginia Tech Alumni Association, Holtzman Alumni Center (0102), Blacksburg, VA 24061.



JIM STROUP

Outstanding Recent Alumni Award nominations

The Alumni Association invites nominations for the 2013-14 Outstanding Recent Alumni Awards, which recognize professional achievement and leadership by alumni who have graduated since 2003. Nominations are due by Aug. 15 and should be mailed to Outstanding Recent Alumni Awards, Virginia Tech Alumni Association, Holtzman Alumni Center (0102), 901 Prices Fork Road, Blacksburg, VA 24061. Please include the candidate's biographical information and qualifications.

Alumni board nominations for 2014-17

The Alumni Association is seeking nominations for its board of directors for the next three-year term, which begins in 2014. Nominations are due by June 1 and should be mailed to Alumni Board Nominations, Virginia Tech Alumni Association, Holtzman Alumni Center (0102), 901 Prices Fork Road, Blacksburg, VA 24061. Please include each nominee's full name, class year, address, and specific qualifications for service on the board. Self-nominations are welcome.



LATANYA WALKER

Ray Gessner '91, Vice President for Diversity and Inclusion William T. Lewis Sr., and Christopher Jennings '96

2013 Travel Tours

travel



Germany

**Historic Colonial South**

TDI  
**May 25-June 4 | \$3,495**  
*With guest speaker James I. Robertson Jr., Alumni Distinguished Professor Emeritus of History*

**European Mosaic**

Go Next, Oceania Cruises' Nautica  
**June 5-13 | from \$2,199\*** (air included)  
*The university's hosts will be College of Engineering Dean Richard Benson and his wife, Leslie.*

**Baltic Treasures**

Go Next, Oceania Cruises' Marina  
**July 4-15 | from \$3,999\*** (air included)

**Alaskan Adventures**

Go Next, Oceania Cruises' Regatta  
**Aug. 5-12 | from \$1,999\*** (air included)  
*The university's hosts will be College of Architecture and Urban Studies Dean Jack Davis and his wife, Linda, an instructor at the university.*

**British Isles and Norwegian Fjords**

Go Next, Oceania Cruises' Nautica  
**Aug. 14-27 | from \$4,999\*** (air included)

**Discover Switzerland**

AHI  
**Aug. 28-Sept. 12 | \$3,995\***

**Grand Danube Passage**

AHI, MS Amadeus Brilliant  
**Aug. 29-Sept. 13 | from \$4,395\***

**Black Sea Serenade**

Go Next, Oceania Cruises' Nautica  
**Sept. 15-28 | from \$4,999\*** (air included)

**Pearls of the Mediterranean**

Go Next, Oceania Cruises' Riviera  
**Oct. 10-18 | from \$2,199\*** (air included)

**New! Marvels of China**

Chinese Language Institute  
**Oct. 12-23 | \$3,995**

[www.alumni.vt.edu/travel](http://www.alumni.vt.edu/travel)

**Villages and Vineyards of the Mosel,**

Rhine, and Main Rivers  
 AHI, MS Amadeus Diamond  
**Oct. 14-22 | from \$2,895\***

**Greek Isles Odyssey**

Go Next, Ocean Cruises' Nautica  
**Oct. 17-25 | from \$2,199\*** (air included)

**Island Escape**

Vacations To Go, Royal Caribbean's Navigator of the Seas  
**Dec. 8-15 | \$594\***

*\*Dates and prices are subject to change. Pricing is based per person on double occupancy. Free air is based from North American gateway cities.*

**Travel insurance:**

The Alumni Association encourages all alumni to consider purchasing travel insurance. Learn more at [www.alumni.vt.edu/travel/insurance](http://www.alumni.vt.edu/travel/insurance).

**The 2014 alumni directory**

An extensive effort to update records for the publication of the next alumni directory will begin this year. Alumni mailing addresses, email addresses, phone numbers, and employment information need to be updated for the publication, which will allow alumni to stay connected with each other.

The Virginia Tech Alumni Association is partnering with Publishing Concepts Inc. (PCI) to publish the print directory and CD. When you are contacted, please respond to PCI's phone and mail surveys to update and ensure the accuracy of the information. At that time, the Virginia Tech Alumni Directory will be available for early reservation, with delivery expected in 2014. The publisher will also offer special incentives for certain category purchases. Additionally, for the first time, the 2014 directory will have the option for alumni to include photographs.

**Virginia Tech columbarium**

Many campuses have a columbarium where alumni and others from an extended university family may choose to be interred. Virginia Tech's columbarium is located on the grounds adjacent to the Holtzman Alumni Center on a grassy knoll in view of the Duck Pond. The Hokie Stone-faced wall houses 60 niches that may be purchased for individual or dual interments. To date, half of the niches have been designated. Each niche is covered with a maroon granite face on which names will be engraved and filled with gold lettering. A walkway behind the columbarium leads to the alumni center terrace. The area is designed to accommodate expansion, with future walls bordering the terrace. For more information on the Virginia Tech columbarium, contact Josh Burnheimer at 540-231-6285 or [ffburnie@vt.edu](mailto:ffburnie@vt.edu).



DAVE HUNT

**Book of Hokies:**

Don't miss out on the 2014 alumni directory. You'll even be able to add photos to the edition.



MICHAEL WHITE

**Hokie Day 2013:** On Jan. 31, nearly 200 alumni and students from across the commonwealth gathered for the 2013 Hokie Day at the General Assembly—making it the largest event for legislative advocacy for higher education since Hokie Day's inception. The day began with breakfast and a briefing, featuring President Charles W. Steger, Vice President for Finance Dwight Shelton, and Vice President for Alumni Relations Tom Tillar at the Sun Trust Bank headquarters in downtown Richmond. After a discussion on university priorities, Hokies headed to Capitol Hill to meet with their legislators. The Virginia Tech delegation was recognized in the Senate and the House, and a photo with Gov. Bob McDonnell was taken on the Capitol steps. The strong showing, which included more than 100 students, ensured that Tech's 15th annual Hokie Day was the largest legislative gathering organized by any college or university in Virginia.

Alumni, we want to hear what you've been doing. Mail career, wedding, birth, and death news to Alumni Notes, Virginia Tech Alumni Association, Holtzman Alumni Center, Blacksburg, VA 24061; email the news to fleets@vt.edu; or submit the news online at www.vtmagazine.vt.edu/submit-classnote.php, where photos may also be uploaded for consideration.

Alumni mailing addresses may be viewed online at www.alumni.vt.edu/directory by logging in with your Virginia Tech PID and password. For assistance, call 540-231-6285.

- career accomplishments
- weddings
- births and adoptions
- deceased

**'36** **Ernest D. Proudman Jr.** (ME), Williamsburg, Va., 10/31/12.

**'38** **Alvin R. Schwab** (CE), Silver Spring, Md., 9/30/12.

**'39** **Francis H. Dobbins** (ANSC), LaGrange, Ga., 10/31/12.  
**Jesse B. Grove Jr.** (CHE), Scottsville, Va., 10/16/12.

**Francis D. Irving** (ANSC, EDDBS '53), Cartersville, Va., 9/7/12.

**'41** **R.P. Graves** (METE), Wilmington, N.C., 9/2/12.

**Richard M. Williams Sr.** (DASC), Suffolk, Va., 10/16/12.

**'42** **James G. Van Oot** (CHEM, CHEM '51), West Grove, Pa., 9/10/12.

**'43** **Charles A. Absher Jr.** (ANSC), Big Stone Gap, Va., 8/2/12.  
**Glynn D. Barranger** (CE), Roanoke, Va., 11/22/12.

**Hugh S. Harris** (AGRN), Bridgewater, Va., 9/12/12.  
**William R. Jones** (CHE), Spring Hill, Fla., 8/23/12.

**'44** **Clifford G. Dorn** (EE '46), Irvington, Va., 10/9/12.

**Thomas W. Booth** (CHE '48 '49), Lexington, Ky., 11/2/12.

**George S. Potts** (AGEC '46), Kenbridge, Va., 10/16/12.

**John L. Whaley** (BIOL), Chapel Hill, N.C., 11/1/12.



CAPTURED PHOTOGRAPHY BY JENNY

Dara Felder Logan (ISE '05) and Daniel Logan, Fairfax, Va., 5/26/12.

**'50** **Richard D. Blasser** (BAD), Dillon, S.C., 9/4/12.

**Joseph E. Bon Durant** (ME), Aurora, Ill., 9/12/12.  
**Richard D. Fowlkes** (IE), Alexandria, Va., 7/19/12.

**Joseph Goldsten** (METE), Lexington, Va., 10/11/12.

**Howard G. Gouger** (EE), Yorktown, Va., 10/5/12.

**Frank J. Hierholzer** (EE), Florissant, Mo., 7/17/12.

**Robert L. Johnson** (ME), Wilmington, Del., 10/18/12.

**Oliver T. Kittinger** (BAD '51), Rocky Mount, Va., 11/5/12.

**W.K. Rodenbaugh II** (CHE), Pascagoula, Miss., 6/10/12.

**Harry N. Upson** (METE), Upper Gwynedd, Pa., 11/14/12.

**Dennis E. Verner** (IE), Galveston, Texas, 10/19/12.

**Elwood A. Woolwine** (AGED), Williamsburg, Va., 11/4/12.

**'51** **Kenneth E. Hasle** (ME), Anchorage, Alaska, 10/24/12.

**Vernon W. Hodges** (ME), Lancaster, Calif., 11/11/12.

**James S. Love** (AGED), Stuart, Va., 12/11/12.

**Robert W. Oast** (FW), Asheville, N.C., 10/13/12.

**James H. Smith** (BAD), Martinsville, Va., 9/23/12.

**'52** **John S. Long** (AGED, EDAD '57), McGeheysville, Va., was inducted into the Fort Defiance High School Athletic Hall of Fame in honor of his 46 years of support.

**Lauren O. Lyons** (FW), Lambsburg, Va., 9/25/12.

**Richard B. Mottley Jr.** (EE), Chester, Va., 11/11/12.

**Troy N. Washburn** (METE), Knoxville, Tenn., 9/8/12.

**'53** **John B. Deaton** (GSC '58), Bohannon, Va., 11/13/12.

**Ralph C. Slusher** (BION, EDCI '83), Altavista, Va., 10/29/12.

**John E. Strickland** (CE, CE '60), Arvada, Colo., 8/29/12.

**'54** **Ronald T. Binner** (IE), Macon, Ga., 12/4/12.

**Richard E. Hawks** (POUL), Rogersville, Tenn., 9/5/12.

**John M. Underwood** (CE), Roanoke, Va., 11/16/12.

**'55** **James E. Kalasky** (ME), Royal Oak, Mich., 9/21/12.

**'56** **Rushford K. Fleshman Jr.** (ANSC), Spotsylvania, Va., 10/9/12.

**'57** **M. Thomas Keister** (BAD), Falls Church, Va., 11/3/12.

**Harry L. McGehee** (BAD '61), Jupiter, Fla., 11/3/11.

- career accomplishments
- weddings
- births and adoptions
- deceased

**Hillmer J. Olson Jr.** (IAED), Hampton, Va., 11/22/12.

**D. Bruce Wygal** (CHE), Pine Bluff, Ark., 12/18/12.

**'58** **W.W. Dise** (BAD), Midlothian, Va., 9/5/12.

**Robert Richardson**, Nobel Laureate physicist and member of the College of Science Roundtable, died Feb. 19. Richardson, who received both his bachelor of science and master of science degrees from Virginia Tech in 1958 and 1960, respectively, received the Nobel Prize in physics in 1996 for his work on superfluidity in helium-3, a breakthrough in the area of low-temperature physics. In 1966, he joined the staff of Cornell University, where he remained as a researcher and where he and his wife, Betty, both taught undergraduate physics.

**'59** **S.D. R. Moore** (BAD), Roanoke, Va., was named in Virginia Living Magazine as a Legal Eagle and was named to the 2013 Best Lawyers list.

**John F. Brown** (ME), Graceville, Fla., 11/25/12.

**Jerry M. Hammond** (AGED), Roanoke, Va., 12/11/12.

**Franklin C. Moore** (CE), Winter Park, Fla., 9/22/12.

**John E. Pace Sr.** (IE '60), Chambersburg, Pa., 10/4/12.

**'60** **Lawson H. Carr** (HORT '71, AGED '71), Smithfield, Va., 12/7/12.

**J. Edward Jackson** (STAT), Rochester, N.Y., 9/13/12.

**Jon D. Newell** (ME '61), Gloucester, Va., 11/27/12.

**'61** **Charles L. Putnam Jr.** (CE), Millboro, Va., 10/14/12.

**'62** **John J. Bartko** (STAT '61, STAT '62), Newville, Pa., was granted Accredited Professional Statistician status by the American Statistical Association.

**John A. Brothers** (CHE, CHE '66, MESG '68), Naples, Fla., 10/9/12.

**Michael R. Dovel** (GEOL '63), Glade Spring, Va., 8/21/12.

**'63** **G. Karr Linkous Jr.** (ENGL), Durham, N.C., 6/26/12.

**Robert D. Saunders Jr.** (PHYS), Gaithersburg, Md., 12/9/12.

**'64** **Maston E. Poole Jr.** (IE), Lake Frederick, Va., retired as director of financial services for Loudoun County, Va., after 34 years of service.

**Charles E. Yearout** (ME), Hendersonville, Tenn., retired from Bridgestone Americas LLC but continues to serve as an engineering consultant.

**Richard L. Gallo** (BAD), Atlanta, Ga., 9/19/12.

**Jay W. Garvin** (ARCH), Reston, Va., 10/9/12.

**Clark J. Wagner** (EE), Westminster, Md., 10/5/12.

**'65** **James W. Moyer Jr.** (STAT), Phoenix, Ariz., published his second book, "We the People: The Sleeping Church."

**Lewis A. Robinson Jr.** (ANSC '66), Glade Spring, Va., 9/8/12.

**'66** **Raymond L. Board** (BAD), Wirtz, Va., 12/19/12.

**Paul J. Buhan** (ZOOL, BIOL '70), Chambersburg, Pa., 10/9/12.

**'67** **Earning L. Blythe** (ENGL '68, URBA '83), Blacksburg, Va., received the 2012 Leadership Award from EDUCAUSE.

**Victor R. Drewry** (DASC), Mount Crawford, Va., 5/12/12.

**'68** **G. Edgar Brown Jr.** (GEOL, GEOL '70), Stanford, Calif., was the 2012 recipient of the Ian Campbell Medal for Superlative Service to the Geosciences.

**Ralph T. Grizzel** (CHE '69), Newark, Del., retired as general manager from Rath Inc. after 22 years of service.

**'69** **Ralph T. Rader** (ME '70), Troy, Mich., was named to the 2013 Best Lawyers list.

**Mary Anne Marshall Richey** (CTRA, EDSU '70), Hobe Sound, Fla., was selected 2012 Florida School Psychologist of the Year by the Florida Association of School Psychologists.

**Margaret Moore Meador** (EXT), Plant City, Fla., 11/2/12.

**D. Edwin Parks** (BAD), Dublin, Va., 11/2/12.

**John W. Young Jr.** (PHYS), Emory, Va., 10/31/12.

## For architecture alumna, Ut Prosim proves foundational

by EMILY GOODRICH

**A**s executive director of the Virginia Center for Architecture, Helene Dreiling (architecture '81) spends most of her time working to raise awareness of the profession and volunteering for the American Institute of Architects (AIA). She traces her dedication to this cause back to a study-abroad trip she took while she studied at Virginia Tech.



BRUCE MUNCEY

Helene Dreiling '81

"After several months of study in Switzerland, Italy, and France, I came to realize that the arts and culture are ... important influences in the daily lives of Europeans," said Dreiling. "Not only do they appreciate good design, they expect it. I have dedicated much of my professional career [to] elevating the public's awareness and appreciation of architects and architecture, undoubtedly as a result of this early inspiration."

Dreiling began serving the AIA 11 years ago, most recently as secretary. In May 2012, she was chosen as president-elect for 2014. She is the first Virginia Tech graduate—and third Virginian—elected to the post. In the multifaceted position, she will be representing the interests of more than 80,000 architects, advocating within the field, in the broader design and construction industry, in the legislative arena, to the general public, and to international audiences.

Volunteerism and nonprofit work come naturally to her. "I always say that [my service] springs from the *Ut Prosim* spirit," said Dreiling, who plans to continue raising awareness of and respect for architecture during her presidency.

*Emily Goodrich is a sophomore English major and an intern with Virginia Tech Magazine.*

**'70** **Kenneth A. Carroll** (SOC), Vienna, Va., 9/22/12.

**Jennifer Hale Chrisman** (MHFD '71), Sandston, Va., 11/11/12.

**Melvin G. Schnappinger Jr.** (AGRN), Centerville, Md., 9/11/12.

**'71** **Leticia Lamie Bryant** (HNF), Bainbridge, Ga., 9/7/12.

**Raymond D. Cooper** (ME), Bowling Green, Va., 9/1/12.

**James L. Duesberry** (MGT '72), Virginia Beach, Va., 9/27/12.

**'72** **Philip A. Shucet** (HIST), Norfolk, Va., was named 2012 Virginia Business Person of the Year for his work on The Tide, a 7.4-mile light-rail system.

**Beth A. Turner** (STAT, ESEN '73), Wilmington, Del., retired after 39 years of service with E.I. DuPont de Nemours and Company Inc.

**Fred R. McDavid Jr.** (EE), Harrisonburg, Va., 9/18/12.

**'73** **Kathryn Ford Conrad** (URBA '75), Reston, Va., 10/7/12.

**Vaughn M. Douglass** (FIW), Nashua, N.H., 9/3/12.

**William H. Mastbrook** (EDBS), Manassas, Va., 11/12/12.

**'74** **William K. Crist** (EDBS, EDCI '77), Wellsville, Pa., is a senior geologist with Geo-Technology Associates Inc.



Chelsea Kathleen Helm (BC '11) and Edward "Teddy" Dyer (EIT '09), Roanoke, Va., 11/10/12.

NONI MAGNIFICO



COURTESY PHOTO

Joseph W. Marshall III (ARCH '89), Oakland, Calif., twin daughters, Ash and Jaya, 6/23/12. As Joseph wrote, "You know, most babies have their first photoshoot in front of the Taj Mahal."



GRANT AND DEB PERRY

Meghan E. Byrne (EPP '06, CE '07) and Joseph M. Check, Hampstead, N.C., 9/29/12.



COURTESY PHOTO

Jackson Reed Farr (FIN '02), San Diego, Calif., a son, Landon Reed, 8/31/12.



AMANDA MARSHALL PHOTOGRAPHY

Lindsey Leisher Estes (COMM '06), Bel Air, Md., a daughter, Addison Kathleen, 12/21/12.

**Darlene A. Morgan** (EDBS '75), Roanoke, Va., 8/22/12.

**Judith A. Watson** (CS), Norristown, Pa., 8/26/12.

**'75 Donald H. Beck Jr.** (CE), Bethany Beach, Del., is a Realtor for Long & Foster Inc.

**Christine E. DeMeter** (BIOL), Riva, Md., 10/25/12.

**'76 Mark A. Graham** (HORT, ACCT '79), Harrisonburg, Va., received his designation as a Certified Valuation Analyst from the National Association of Certified Valuers and Analysts.

**Robert A. Rapaport** (PSCI), Norfolk, Va., was named in the 2012 edition of Virginia Super Lawyers.

**Carolyn Potts Grubb** (CTRA), Purcellville, Va., 11/7/12.

**Joseph H. Kyle III** (EDSP), Salem, Va., 11/19/12.

**Bequita A. Morse** (EDBS), Tallahassee, Fla., 11/12/12.

**'77 W. William Gust** (PSCI), Roanoke, Va., was named to the 2013 Best Lawyers list.

**Nora M. Barksdale** (EDCI), Java, Va., 10/22/12.

**Lois B. Rambo** (EDCI), Fredericksburg, Va., 11/12/11.

**Roger M. Shelor** (ECAS), Athens, Ohio, 10/29/12.

**'78 Eugene W. Browning** (CE), Natural Bridge, Va., 12/19/12.

**Claudia M. Chaille** (EDSP), Reston, Va., 1/18/12.

**William L. Fowler Jr.** (EDVT), Wytheville, Va., 12/7/12.

**Gerald W. Mabry** (CE), Blacksburg, Va., 10/24/12.

**Samuel C. Robinson** (ECAS), Springfield, Va., 6/26/12.

**G. Hutson Tiller** (MKTG), Richmond, Va., 9/21/12.

**'79 Ruth Harry Lytton** (MHFD '77, MHFD, HIDM '86), Radford, Va., received the 2012 Heart of Financial Planning Award.

**Thomas C. Via Jr.** (FIN), Blacksburg, Va., is chairman of the Independent Insurance Agents of Virginia.

**Amy Palacio Chesek** (EDSS) and David Chesek, Wilmington, N.C., 6/29/12.

**Broughton T. Michura** (BIOL), Zachary, La., 11/2/12.

**William C. Pendleton** (PSYC), Ormond Beach, Fla., 9/2/12.

**Katherine H. Shiflet** (SOC), Union, W.Va., 9/25/12.

**Marian L. Walker** (MHFD), Pasadena, Texas, 10/11/12.

**'80 Ronald E. Adams** (MGT), Daleville, Va., is vice president of ACE.

**Patricia Martin Dove** (AGRN, GEOL '84), Blacksburg, Va., was selected as Virginia's Outstanding Scientist for 2013.

**Sallie Brown Garst** (MHFD '81), Fresno, Calif., 10/23/12.

**'81 Forrest B. Nichols** (CE), Richmond, Va., is senior project manager for Skanska at the Virginia Commonwealth University's Children's Hospital building site.

**Earl D. Collins Jr.** (HORT), Pompano Beach, Fla., 9/26/12.

**Stephen S. Engle** (PSCI), Centerville, Ga., 10/10/12.

**Lisa Benedict McCray** (EDCI), Buchanan, Va., 10/11/12.

**'83 B. Wayne Adams** (MKTG), Raleigh, N.C., was promoted to senior vice president and compliance officer for North State Bank of Raleigh.

**J. Martin Cassidy Jr.** (COMM), Hillsborough, N.C., is business development and sales manager of the National Press Photographers Association in Durham, N.C.

**John J. Cusimano** (FIN, BAD '94), Blacksburg, Va., was named the university treasurer at Virginia Tech.

**Mary Kathryn Burkey Owens** (ENGL), Chesterfield, Va., was selected for the 2013 Best Lawyers list and named to the Virginia Super Lawyers edition.

**Karen K. Ramsey** (ANSC), Goode, Va., 9/19/12.

**Rex T. Teves** (IEOR), Peachtree City, Ga., 10/11/12.

**William H. Woessner** (BIOL), Newport News, Va., 10/30/12.

**'84 John D. Daus** (ME), Vienna, Va., climbed Mount Kilimanjaro as a fundraiser for multiple sclerosis research.

**Thomas R. Fox** (FOR), Christiansburg, Va., was named a Fellow by the Soil Science Society of America.

**Sara Wimmer Leftwich** (COMM), Salem, Va., is the manager of the dual career program and special projects in the Department of Human Resources at Virginia Tech.

**Raymond J. Pages** (EE '85), Dayton, Md., received the 2012 Distinguished Alumni award from Central Virginia Community College. He was also awarded the NASA Silver Achievement and Exceptional Achievement medals for his contribution to the successful launch of the NPP satellite.

career accomplishments

weddings

births and adoptions

deceased

**'85 Mary C. Calatayud** (ENGL), Fairfax, Va., published her first poetry collection, entitled "In the Company of Spirits."

**John P. Grotzinger** (GEOL), San Marino, Calif., is the chief scientist for the Mars Science Laboratory mission.

**Robert H. Kulp Jr.** (BC), Roanoke, Va., premiered his company, Black Dog Salvage, on DIY Network on Nov. 8, 2012.

**Charles K. Robertson** (COMM), Glen Ridge, N.J., was named Distinguished Visiting Professor at The General Theological Seminary in New York and general editor of the Studies in Episcopal and Anglican Theology series.

**Peter M. Furgiuele** (ARCH), Yardley, Pa., 9/5/12.

**Joey P. Powell** (FIN), Chesapeake, Va., 11/2/12.

**'86 Douglas C. Witney** (TA), Blacksburg, Va., is director of production services for the Center for the Arts at Virginia Tech.

**Margaret A. Knoll** (VM), Westminster, Md., 4/14/12.

**'87 Carolyn Carper** (EDCI), Dublin, Va., 12/1/12.

**Anne F. Miller** (EDAC), Richmond, Va., 9/24/12.

**Karen Warren Riedel** (ANSC), Ranson, W.Va., 11/11/12.

**'88 Scott T. Acton** (EE), Charlottesville, Va., was named an Institute of Electrical and Electronics Engineers Fellow for his contributions to biomedical image analysis.

**Monica J. McCowin Smith** (ME), Hampton, Va., was elected to a four-year term on the City of Hampton School Board.

**Amlan Mitra** (ECON, URPL '92), Naperville, Ill., was re-appointed to the Transportation Research Board Executive Committee of the National Academy of Sciences.

**'89 Christina Moldenhauer Daves** (PSCI), Gainesville, Va., was named Steve's Top Inventor and awarded money to continue her work with her company, CastMedic Designs.

**Benjamin H. Cassutto** (VM) '89, Millsboro, Del., 10/18/12.

**Joseph W. Marshall III** (ARCH), Oakland, Calif., twin daughters, 6/23/12.

**'90 David A. Coahran** (FIW), Spicer, Minn., is supervisor of the Minnesota Department of Natural Resources' fisheries staff.

**Tracy Tate O'Dowd** (ELED), Frederick, Md., is assistant director of corporate business development at The Maryland Jockey Club.

**David C. Soderberg** (FIN), Oakton, Va., 9/19/12.

**'91 Shannon W. Holland** (GEOG), Naples, Fla., completed the Investment Management Consultant certification and has become a Certified Divorce Financial Analyst.

**'92 Tammy Lee Spradlin** (FIN), Bedford, Va., is assistant director of internal audit at Virginia Tech.

**John M. Mattox** (FIN) and Mitzi E. Bondurant, Charlotte, N.C., 8/11/12.

**Robert T. Hicks** (MKTG), Arlington, Va., a son, 5/31/12.

**Clifford R. Shearer** (MGT) and **Charlene Dal Campbell** (HIST '95, EDCI '96), Chesapeake, Va., a daughter, 8/1/12.

**Kendra F. Ruestow Atherton** (FIN), Virginia Beach, Va., 11/24/12.

**'93 William A. Altizer** (BIOC), Midlothian, Va., earned his master's degree in chemistry at University of North Carolina Wilmington.

**Stefan A. Hall** (ENGL, ENGL '98), Winston-Salem, N.C., is an associate professor of communication at High Point University.

**'94 Markus Breitschmid** (ARCH), Blacksburg, Va., has co-authored a book entitled "Christ & Gentenbein: Around the Corner."

**Robert L. Smith** (FPR), Christiansburg, Va., was appointed interim head of the Department of Sustainable Biomaterials at Virginia Tech.

**Christopher L. Symanoskie** (ECAS), Christiansburg, Va., is vice president of investor relations at American Public Education Inc.

**Brett M. Rader** (HIDM) and Carol J. Green, Pearisburg, Va., 9/22/12.

**Victoria Friend Broyles** (ENGL), Macon, Ga., 9/17/12.

**Betsy J. Clark** (ENGL), Luray, Va., 10/13/12.

**Rosemary Halpin** (EDAD), Roanoke, Va., 10/14/12.

**Tai K. Nguyen** (ME), Roanoke, Va., 11/12/12.

**'95 Barry I. Matherly** (URPL), Richmond, Va., was awarded Fellow Member status by the International Economic Development Council for her stature in the field of economic development and related disciplines.

**'96 William H. Armstrong III** (HLED), Gaithersburg, Md., is the director of training and leadership at Long and Foster.

**Lewis A. Conner** (ACCT), Roanoke, Va., was named in the 2013 Best Lawyers list.

**Mark N. Heinrich** (ME), Leesburg, Va., is a senior associate for Dewberry.

**Monique M. Hoeflinger** (PSYC), Woodbridge, Va., joined a NoVo Foundation program that seeks to end violence against girls and women.

**Brian M. Tanner** (ME), Centreville, Va., is a senior associate for Dewberry.

**Lindsay Guard Cassada** (SOC), Richmond, Va., a son, 10/15/12.

**Wendy Couchoud Haas** (HORT '97), Crownsville, Md., a son, 11/25/12.

**Anthony L. Kopera** (ME), Parkville, Md., triplets, 12/27/11.

**Stephen B. Michael** (MSCI), Fairfax, Va., 3/3/12.

**Ronald Sheffield** (BSE), Prairieville, La., 11/24/12.

**'97 Catherine Y. Gehrt** (PSYC, ART '02), Blacksburg, Va., is communications director for the College of Architecture and Urban Studies at Virginia Tech.

**Jody Littman Booth** (BIOL) and Michael Booth, Simpsonville, S.C., 11/24/12.

**'98 Geoffrey S. Ax** (ARCH), Burke, Va., is regional aviation market director for Leo A. Daly in Atlanta, Ga.

**Pavlos P. Vlachos** (EM, EM '00), Blacksburg, Va., was named the Robert E. Hord Jr. Professor of Mechanical Engineering by the Virginia Tech Board of Visitors.

**Jeffrey C. Alexander** (BION '94, VM) and Stacia L. Flinn, Blacksburg, Va., 6/5/12.

**Katherine T. Willey** (ENSC, ENT '08), Washington, D.C., 10/15/12.

**'99 Myra Blanco** (ISE, ISE '02), Radford, Va., was awarded the J. Cordell Breed Award for Women Leaders, to be presented at the SAE International 2013 World Congress.

**Katherine M. Bredimus** (ENGL), Marionville, Va., is co-owner of 11th Hour Creative and has joined forces with Bayonet to form a branding and advertising agency in Richmond, Va.

**Roque R. Castro** (IDST), Culpeper, Va., presented his "LOVE" sculpture at the Town of Culpeper, to be displayed in the downtown park as part of a Virginia tourism social media campaign.

## Hokies earn GAP 50 awards

Seeking to identify and celebrate Virginia's next generation of entrepreneurs, the Virginia Center for Innovative Technologies announced the winners of the GAP 50 award in December 2012 as part of Gov. Bob McDonnell's "Year of the Entrepreneur" initiative. Among the winners named in the Roanoke-Blacksburg region, nine were Virginia Tech alumni, students, or partners.

- **Hussein Ahmed** (M.S. computer science and applications '08), founder and CEO, KusTomNote.com, Blacksburg.
- **Eddie Amos** (communication '85), senior vice president and CTO, Meridium, Roanoke.
- **Sam English**, partner with Virginia Tech Corporate Research Center (CRC), president and CEO, Attention Point, Roanoke.
- **Doug Juanarena** (electrical engineering '75), vice president, RackSpace, Blacksburg.
- **Nathan Latka**, former student, co-founder and CEO, Heyo, Blacksburg.
- **Peter Lazar**, partner, Virginia Tech CRC, CEO of eBroselow, Blacksburg.
- **Jack Lesko** (M.S. materials engineering science '91, Ph.D. engineering mechanics '95), associate dean of research and graduate studies, Virginia Tech.
- **Caroline Pugh**, a junior majoring in business information technology, COO of VirtualU, Blacksburg.
- **Bob Summers** (computer engineering '98), "chief geek," Friendeo, Blacksburg.



### On fire:

The full version of this article is available at <http://cnre.vt.edu/magazine/articles/201302/virginia-tech-claims-four-top-wildland-firefighting-ranks.html>.

Organization (NIMO) team in 2006, overseeing the Atlanta team. NIMO teams are smaller than standard management teams (seven people compared to about 33) and “help wildland fire agencies address issues and improve future fire management,” according to NIMO’s website.

All four alumni started their firefighting careers on forestry Professor Dick Vasey’s wildfire fighting crew.

“Firefighting gets into your blood,” said Quesinberry, who took over Ferguson’s former job as full-time commander of the NIMO team in Atlanta. “We all have our passions; some like to hike, some like to skydive—[and] firefighters are like the skydivers of forest service work.”

Although they’re no longer on the front lines, all the alumni have been in tight situations. They all know what it’s like to outrun a fire, their hearts thudding in their throats. They are masters of strategy, and of reading weather, land, and risks.

“We’re very safety conscious now,” said Wilkins. “We take a step back, look at things, and strategize. We don’t put ourselves in front of a fire we can’t stop. There is no point in giving up your life for a natural resource. Risk your life for another life, but not for trees.”

The four commanders, who have been friends for decades, said the Virginia Tech firefighting crew is a special fraternity. “We’re a tight group,” said Speaks. “For bonding, nothing quite compares to the fire experience and going to Virginia Tech.”

*Su Clauson-Wicker is a writer for the College of Natural Resources and Environment.*

# Say hello to the future.



## Alumni among ranks of elite firefighters

by SU CLAUSON-WICKER

**T**om Speaks (forestry and wildlife '79), Mike Wilkins (forestry and wildlife '76), and Mike Quesinberry (forestry and wildlife '83) are now part of an elite group. The three alumni recently became type 1 incident commanders, the highest wildfire-fighting rank.

Such a commander leads a management team assigned to the nation’s largest, most complex fires. Only 20 people nationally hold the rank at a given time, and reaching the position requires 20 to 25 years of training, experience, and successive leadership in the firefighting arena.

A fourth Hokie, Joe Ferguson (forestry and wildlife '77), became the first type 1 commander for a National Incident Management

**Memuna Z. Khan** (BIOL), Oshkosh, Wis., was the recipient of the 2012 May Bumby Severy Class of 1908 Award, given to Ripon College faculty in recognition of excellence in undergraduate teaching.

**Lisa M. Wnek** (MGT), Wareham, Mass., was selected as the Hokie Hero for the Russell Athletic Bowl game.

**Jennifer Gittes Zuniga** (PSCI), Severn, Md., was selected as the Hokie Hero for the Russell Athletic Bowl game.

**Jeremy A. Guerin** (COMM) and Shannon B. Watson, Centreville, Va., 10/13/12.

**Kristin L. Makovec Bourkland** (AE, AE '01), Springfield, Va., 11/6/12.

**00** **Ryan J. Witherell** (COMM), Nashville, Tenn., is a partner with Seigenthaler Public Relations.

**Marc S. Povell** (ART) and Rachel H. Schoolman, Washington, D.C., 8/4/12.

**Jason C. Dye** (ISE) and **Kelly C. Henderson** (BIT '03), Mooresville, N.C., a son, 7/23/12.

**David H. Luer** (GEOL), Denville, N.J., a son, 7/2/12.

**Brian C. Okerberg** (MSE, MSE '05) and **Laura Stephanie Pollard** (PSYC), Gibsonia, Pa., a daughter, 1/19/12.

**01** **Thomas E. Cecere** (BCHM, VM '05, BMVS '12), Newport, Va., is an assistant professor of anatomic pathology in the Department of Biomedical Sciences and Pathobiology at Virginia Tech.

**Eric J. Ruggiero** (ME, ME '02, ME '05), Schenectady, N.Y., won the 2013 American Institute of Aeronautics and Astronautics Lawrence Sperry Award for his innovation and leadership in turbo-machinery seals technology.

**John C. Krebs** (MSCI, FIN '02) and Bridget T. Bradshaw, Fairfax, Va., 4/28/12.

**Jason M. Moss** (MKTG) and **Jenny Philips** (MSCI), Bristow, Va., a son, 3/8/12.

**Colleen Bullock Quattlebaum** (COMM) and **Steven L. Quattlebaum** (CE), Glen Allen, Va., a daughter, 6/10/12.

**02** **Timothy L. Belcher** (CE), Centreville, Va., is an associate with Dewberry’s Fairfax office.

**Maria Evangelista Robison** (COMM), Overland Park, Kan., won a Mid-America Regional Emmy for Best News Promo with KCTV5 station.

**Megan L. Shepherd** (BIOL, VM '06), Christiansburg, Va., is a clinical assistant professor of nutrition in the Department of Large Animal Clinical Sciences at the Virginia-Maryland College of Veterinary Medicine.

**Michael G. Voicheck** (TED), Hatfield, Pa., received a doctorate of education from Immaculata University and was named the Pennsylvania High School Teacher of the Year by the Technology & Engineering Education Association of Pennsylvania.

**Stephen P. Janoschka Jr.** (AT, AGED '05, EDCT '06) and **Macel Lynn Hubbard** (PSCI '03), Salem, Va., a son, 8/25/12.

**Jenna Cancro Lyons** (PSYC '01), Englishtown, N.J., a son, 8/22/12.  
**Emily Gaddy Taylor** (MGT), Christiansburg, Va., a son, 8/30/12.

For Luke Tonia and Jacob Soles, having great chemistry teachers in high school not only got them fired up about science, it also stoked an interest in pursuing education as a career. Luke and Jacob are this year’s recipients of the ACS-Hach Land Grant Scholarship, which provides funds for college chemistry majors who want to share their passion for science with the next generation of young learners.

Scholarship support not only enables students to focus on academics—it also empowers their dreams. To learn more about the positive impact of philanthropy on Virginia Tech, or to make your gift, please visit [www.givingto.vt.edu](http://www.givingto.vt.edu) today.

Virginia Tech University Development (0336)

902 Prices Fork Road | Blacksburg, VA 24061

540-231-2801 or 800-533-1144 | [www.givingto.vt.edu](http://www.givingto.vt.edu)



## Attention 2002 grads

After June 30, 2013, the Schifft Health Center will destroy the medical records of all 2002 graduates. If you would like a copy of your records, please contact Paula Robertson at 540-231-9430 or medrec@vt.edu before June 1.

**Michael G. Voicheck** (TED) and **Jill C. Guertin** (ARCH '05), Hatfield, Pa., a son, 5/27/12.

**Michelle Arevalo Winston** (ISE, SYSE '07) and **Mark A. Winston** (EE '03), Clifton, Va., a son, 7/4/12.

**George R. Wood** (ME), Rocky Mount, Va., 10/11/12.

**'03 Christopher S. Dula** (PSYC), Johnson City, Tenn., was named to the Top 25 University Instructors list on [www.RateMyProfessor.com](http://www.RateMyProfessor.com).

**Yousri Omar** (FIN '04), Falls Church, Va., was recognized by the Bar Association of the District of Columbia as Young Lawyer of the Year.

**Timothy P. Gurski** (IDST) and Erin Crowley, Springfield, Va., 10/6/12.

**Jennifer Cooke Young** (MGT) and Jeremy A. Young, Ashland Va., 7/29/12.

**Sara Shepperson Belleau** (HD), Richmond, Va., a daughter, 8/11/12.

**Caroline Hunter Davis** (COMM) and **Luke F. Davis** (ACIS, BAD '05), Columbia, S.C., a son, 10/29/12.

**Katey Robison Wilber** (MKTG), State College, Pa., a son, 5/20/12.

**'04 Andrew C. Witt** (BIT), Bethel Park, Pa., published his first article, "Hearing Psalm 102 within the Context of the Hebrew Psalter," in the academic journal *Vetus Testamentum*.

**Crystal Morgan Fraser** (COMM, ARCH '08) and Brian D. Fraser, Oakton, Va., 9/29/12.



OUR 365 NEWBORN PHOTOGRAPHY

**Clifford R. Shearer** (MGT '92) and **Charlene Dal Campbell** (HIST '95, EDCI '96), Chesapeake, Va., a daughter, Campbell Rae, 8/1/12.

**Tammie Lynne Blanch** (ARCH) and **Evin M. Fitzpatrick** (FORS), Lebanon, Pa., a daughter, 4/17/12.

**Rebecca Shaver Grenoble** (ACIS), Roanoke, Va., a daughter, 3/16/12.

**Kathy M. Holdsworth** (SOC), Sarasota, Fla., a son, 7/4/12.

**Jonathan W. Janky** (FIN) and **Stefanie Marie Erb** (MKTG '05, AHRM '05), Charlotte, N.C., a son, 9/9/12.

**Melissa M. Dowd** (BIOL, BIOL '05), Fresno, Calif., 11/16/12.

**'05 Shireen A. Hafez** (VMSC), Blacksburg, Va., is an anatomy instructor in the Department of Biomedical Sciences and Pathobiology at the Virginia-Maryland Regional College of Veterinary Medicine.

**John N. Hall** (FIN), Lynchburg, Va., is a portfolio manager for MontVue Capital Management.

**Christopher J. Imhof** (DOE, DAE), Columbia, Md., earned his professional engineer's license in the State of Maryland and works for Dwyer Engineering.

**John R. Irwin** (COMM), Culver City, Calif., produced the short film "Sold" and was chosen as a semifinalist for Ridley Scott's Your Film Festival.

**Tracy A. McCracken** (VM), Chevy Chase, Md., is assistant director of education and training for the Center for Public and Corporate Veterinary Medicine at Virginia Tech.

**Kennard O. Ratliff III** (HIST), Christiansburg, Va., is an adjunct professor of history at Concord University.

**Dorothy Pendleton Heimlich** (PSYC) and Gregory S. Heimlich, Mechanicsville, Va., 7/6/12.

**Dara Felder Logan** (ISE) and Daniel Logan, Fairfax, Va., 5/26/12.



Crystal Morgan Fraser (COMM '04, ARCH '08) and Brian D. Fraser, Oakton, Va., 9/29/12.

**Richard S. Slater Jr.** (CE), Gainesville, Va., a son, 6/18/12.

**'06 Kenesa T. Ahmad** (PSCI), Herndon, Va., co-authored and edited three books for the International Association of Privacy Professionals and the Open Society Foundation.

**Cecilia M. Elpi** (PSYC), Blacksburg, Va., is the events coordinator and handles external relations for the Virginia Tech Transportation Institute.

**Penn N. Markham** (EE), Knoxville, Tenn., earned a doctorate in electrical engineering from the University of Tennessee.

**Meghan E. Byrne** (EPP, CE '07) and Joseph M. Check, Hampstead, N.C., 9/29/12.

**Benjamin W. Deen** (MKTG) and **Cynthia Sunny Ahari** (AHRM '07), Reston, Va., a daughter, 11/11/12.

**Lauren E. Murphy** (PUA), Stephens City, Va., a daughter, 9/29/12.

**'07 Andrew S. Howell** (HIST), Greer, S.C., was selected as the Hokie Hero for the Duke game.

**Matthew B. James** (CE, CE '10), Blacksburg, Va., earned his professional engineering license.

**Jonathan W. Biggers III** (HNFE) and **Whitney Ann Hawkins** (ACIS, ACIS '08), Henrico, Va., 8/11/12.

**Joseph O. Ferrante** (AE) and Catherine Gates, Las Vegas, Nev., 10/20/12. **James P. Racine** (CE, CE '08) and **Ingrid Elizabeth Freemyer** (COMM '09), Falls Church, Va., 9/22/12.

**Carlton N. Weatherford Jr.** (SOC, EDPE '08) and **Sonya Elizabeth Milstead** (MKTG '09, MGT '09, BAD '11), Dayton, Va., 5/26/12.

**Ashley Dooley Carpenter** (CS), Belmont, N.C., a daughter, 10/28/12.



Amy Palacio Chesek (EDSS '79) and David Chesek, Wilmington, N.C., 6/29/12.

**'08 James V. Bisha** (FPR, FPR '12), Ithaca, N.Y., is director of unit load technology for Ongweoweh, a pallet management company.

**Lindsey E. Miller** (CHE, PSCI), Baltimore, Md., passed the New York State Bar exam and is employed at the Jones Day law firm in New York.

**Blair R. Riley** (COMM), Atlanta, Ga., is an assistant account executive of technology for Porter Novelli.

**Lindsay M. Walton** (PSCI), Richmond, Va., is an associate with the law firm of Macauley & Burtch P.C.

**Thomas D. Brennan Jr.** (PSCI, PHIL) and **Alexandra Glancy Brennan** (SOC), Richmond, Va., 9/15/12. **Jeremy L. Burner** (AAEC) and **Katelyn D. Koontz** (AAEC '09, ACIS '09), Rhoadesville, Va., 9/29/12.

**Jessica Jones Weiss** (PSYC, ME '09) and Nicholas J. Weiss, Baltimore, Md., 6/9/12.

**Riley Katherine Andrews** (IDST) and **Gary M. Wheelock** (EE), Manassas, Va., a daughter, 3/1/12.

**'09 Shaun Bockert** (PHIL), Chesapeake, Va., is an associate with the firm of Blank Rome in Philadelphia.

**Selena Stewart Gottuso** (ENGL) and Aaron C. Gottuso, Hincley, Ohio, 6/16/12.

**Samantha Baker Marcum** (AAEC, FIN, BAD '12) and Robert Marcum, Blacksburg, Va., 4/21/12.

**Justin M. Love** (ISE), Houston, Texas, a daughter, 11/8/12.

**Clay R. Copeland** (BC), Abingdon, Va., 10/15/12.

**Erika N. Fifer** (AAEC), Evansville, Ind., 12/12/12.

career accomplishments

weddings

births and adoptions

deceased

**'10 Peter R. Laclede** (HIST, PSCI), Java, Va., was selected as the Hokie Hero for the University of Virginia game.

**'12 Robin L. Fontenot** (BMVS), Christiansburg, Va., is a clinical instructor of large animal surgery in the Department of Large Animal Clinical Sciences at the Virginia-Maryland Regional College of Veterinary Medicine.

**Suzanne L. Santamaria** (BMVS), Blacksburg, Va., presented a paper at the International Conference on Biomedical Ontology that won Best Paper, and is now a research assistant professor in the Virginia-Maryland Regional College of Veterinary Medicine.

**James M. Buchanan**, a 1986 Nobel Prize winner in economic science and a long-time professor at Virginia Tech, died Jan. 7. In 1969, Buchanan arrived at Virginia Tech, where he founded the Center for Study of Public Choice. His work, including more than 30 books, made the case for smaller government, lower deficits, and fewer regulations. Buchanan left for George Mason University in 1983. In 1998, he returned to Virginia Tech as University Distinguished Professor Emeritus of Economics and Philosophy, contributing to the community in a variety of ways.

**Shinya Kikuchi**, the Charles E. Via Jr. Professor of Civil and Environmental Engineering, died Dec. 7, 2012. His research focused on transportation planning, urban transportation systems, traffic logistics and engineering, treatment of uncertainty and data, application of soft computing, and intelligent transportation systems.

**Buford Brown Meredith**, grounds foreman in the Department of Athletics, died Jan. 24. Meredith had just completed 50 years of service. He helped with the construction of Cassell Coliseum and the Jamerson Athletics Center and helped maintain athletic facilities, including the mowing of the fields and the cross-country course. However, he was best known for painting the lines and end zones on Worsham Field before home football games. He performed this task until 2005.

## obituaries

### faculty/staff

**Brig. Gen. Earl C. Acuff**, U.S. Army Airborne Light Infantry and commandant of the Virginia Tech Corps of Cadets from 1973 to 1980, died Feb. 13. He was 94. In 1970, he was asked to teach military science at Virginia Tech. In 1973, he became the corps' commandant.

During WWII, he served in the U.S. Army in a platoon known as the Alaskan Scouts, scouting Japanese forces in the Aleutian Islands. In 1949, he returned to the Army to teach Arctic survival skills, and in 1952, he fought for the hills known as Pork Chop and Old Baldy, earning a Purple Heart and more. At age 47, he became the oldest man to graduate as a U.S. Army Ranger. He earned a master's degree in international policy in 1966 and served as a brigade commander in Vietnam in 1968.

Later, Acuff was inducted into the National and World Champion Racquetball Hall of Fame after earning 20 gold medals at major national and international tournaments.

## hokie business showcase

Advertise your business in Class Notes! Contact us at [vtmag@vt.edu](mailto:vtmag@vt.edu) for rates and more information.

Restricted to alumni-owned businesses.

Never miss a VT NetLetter

In your Gmail inbox, click the "priority" icon on the NetLetter.

**Kollege Kicks LLC**

900 Harmony Rd.  
Glen Allen, VA 23059

[www.kollegekicks.com](http://www.kollegekicks.com)  
804-553-0618

**Beliveau Estate Winery**

Come visit our Blacksburg Winery  
Run by a Family of Hokies  
540-961-0505

5415 Gallion Ridge Rd; Blacksburg, VA: 24060  
[www.beliveauestatewinery.com](http://www.beliveauestatewinery.com)

**Main Street Inn**

205 SOUTH MAIN STREET  
BLACKSBURG, VIRGINIA 24060  
540.552.6246

LOCATED IN THE HEART OF DOWNTOWN BLACKSBURG  
[WWW.MAINSTREETINNBLACKSBURG.COM](http://WWW.MAINSTREETINNBLACKSBURG.COM)



photos courtesy of BRUCE CICCONE

# Hokies Helping Hokies

After Hurricane Sandy, New Jersey Hokies lend a hand

by BRUCE L. CICCONE and MARK MALONEY '82

**H**urricane Sandy hit the Jersey Shore with an unprecedented force. The day after was a scene taken from an apocalyptic movie. Streets were impassable due to flooding and catastrophic damage. Some neighborhoods had been completely swept out to sea. Many Hokies living in New Jersey had their homes flooded and were without power.

Among the hardest hit Hokies were Chick and Nancy Cunningham and their daughter, Emily, a clothing and textiles major, of Sea Bright, N.J. They had three flooded homes on their property, two boats out of 100 left in their marina, and sand and mud everywhere. It was a disaster. The Cunninghams would end up losing months of income from the two rental properties, and long hours out searching for his clients' boats meant that Chick had no time to focus on restoring the damaged properties.

Clearly, the Cunninghams were Hokies in need of help. The founder of the Jersey Shore Hokies group, Todd Cozzolino, whose son Andrew (finance and economics '12) is an alumnus, and Mark Maloney (hotel, restaurant, and institutional management '82), president of the New Jersey alumni chapter, took on the task of recruiting New Jersey Hokies to help begin the remediation project.

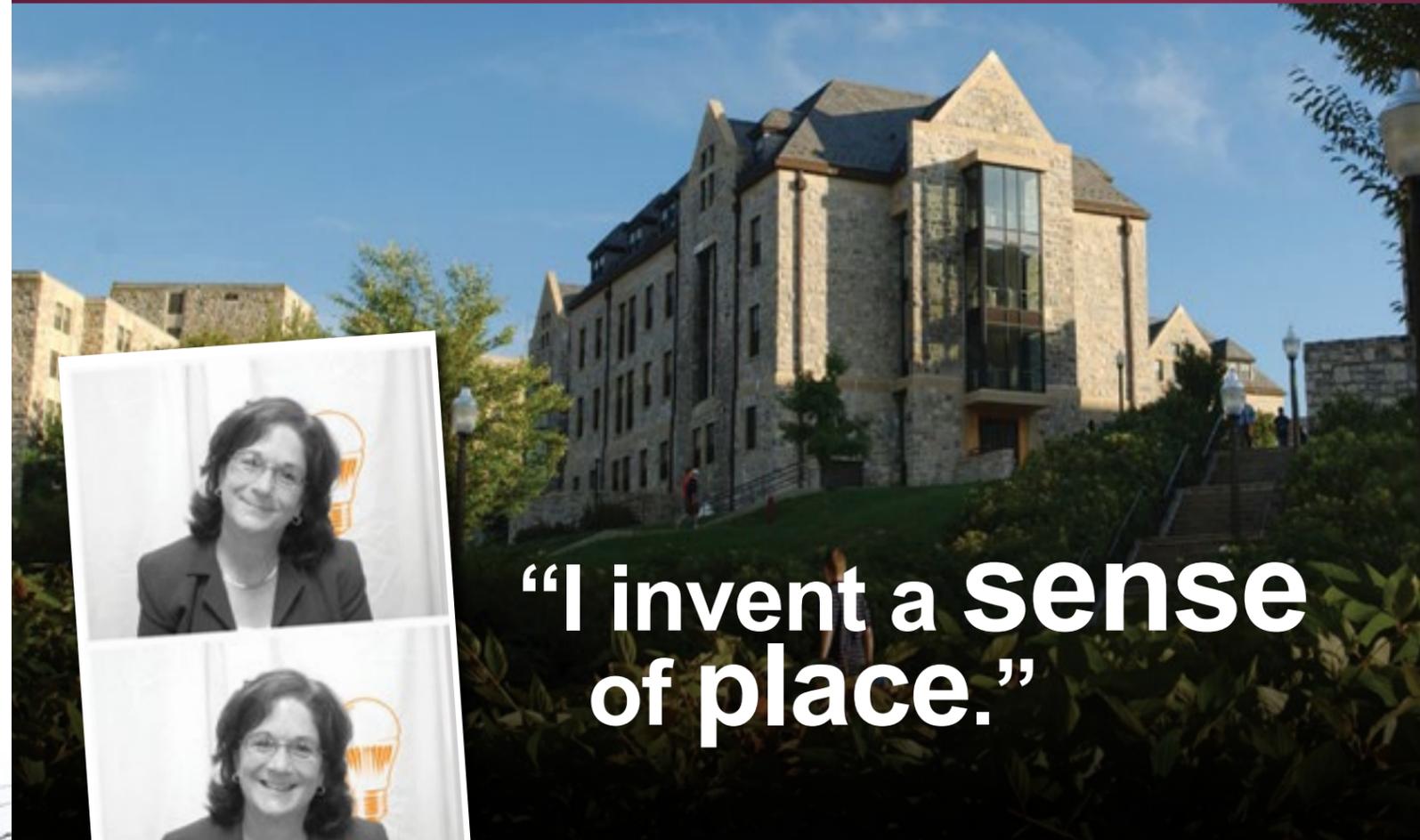
More than 50 people responded. Coming and going throughout the day, the team split into groups helping to remove sheetrock, molding, insulation, and appliances. Another group concentrated on backfilling a section of the property that was washed away in the storm. With such a swift response, these Hokies successfully cleared the grounds and gutted the house, which will need to be rebuilt. Chick, who is very involved with the South Jersey Hokies, was shocked by the number of Hokies that turned out to help muck out his property. It's amazing how much work 50 people can accomplish in one day. □

*Bruce L. Ciccone is the founder of New Jersey Hokies—Habitat for Humanity and a member of the Paterson Habitat for Humanity Board of Directors. His son Jonathan, a computer science major; wife, Liz, (business and textiles '79); and four of Liz's siblings are all Hokies. Mark Maloney '82 is president of the New Jersey alumni chapter.*



### Loyalty:

View the full story about how New Jersey Hokies helped the Cunninghams and others in the wake of Hurricane Sandy at [www.vtmag.vt.edu](http://www.vtmag.vt.edu).



# “I invent a sense of place.”



Associate Dean of Undergraduate Academic Affairs Rachel Holloway believes in helping students get comfortable as a part of Virginia Tech.

And one of the best ways for students to become comfortable is to move out of their comfort zones, meet new people, and engage in new experiences, and be transformed by the adventure of being a scholar.

“You know, I’m often asked to give advice to students about how they can make the most of their Virginia Tech experience,” said Holloway. “For me, it’s that they have to find challenges that they really don’t believe they can meet. They need to accept the challenge and go out there and do it, and they’ll surprise themselves.”

**Rachel Holloway**  
Undergraduate Academic Affairs  
Associate Dean

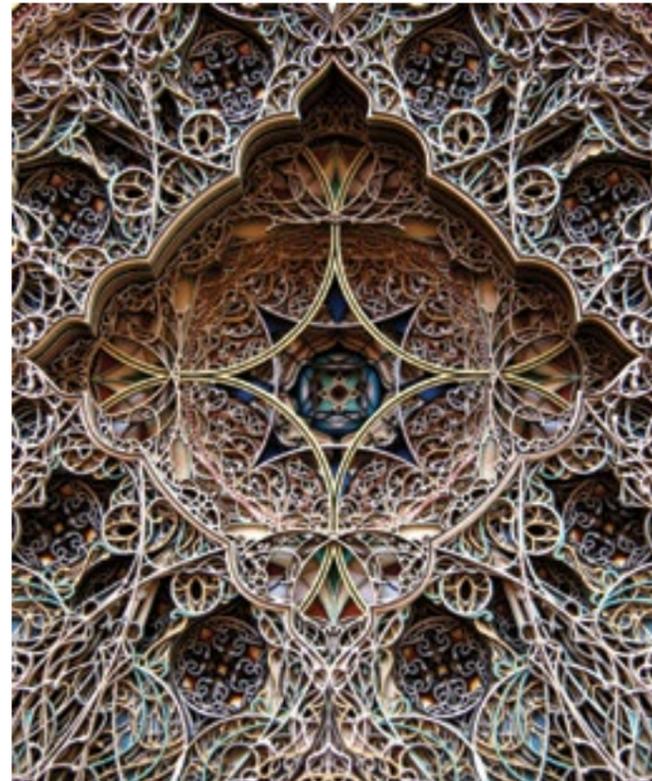


We set up a photo booth on our campus and asked faculty how they are inventing the future. The story featured here represents just one sample of the innovative work that is being done at Virginia Tech.



**Lasered layers:** Inspired by Gothic and Islamic architectural ornamentation, Associate Professor Eric Standley layers laser-cut paper to create 3-D works of art that have generated international buzz. His pieces often involve more than 100 layers of paper and can take months of planning and drawing. Standley coordinates a program in the School of Visual Arts that teaches first-year students essential skills in creativity, conceptual sensitivity, drawing, and design.

Images courtesy of Eric Standley. To read about Standley's work and see a video, go to [www.vtmag.vt.edu](http://www.vtmag.vt.edu).



# ENGINEERING ONLINE. ON YOUR SCHEDULE.

Our online master's programs are specifically designed for working engineers offering flexible plans of study with a format that allows you to study where you are.

## FLEXIBLE ONLINE MASTER'S PROGRAM TO TAKE YOU TO THE NEXT LEVEL





# reunions & homecomings

## 2013 Reunions

- Sept. 7** - Western Carolina  
Young Alumni Reunion  
Class of '93 - 20th Anniversary
- Sept. 21** - Marshall  
Class of '88 - 25th Anniversary
- Oct. 5** - North Carolina  
(traditional parade)  
Class of '63 - 50th Anniversary
- Oct. 12** - Pittsburgh  
Class of '83 - 30th Anniversary
- Oct. 26** - Duke  
Class of '73 - 40th Anniversary  
Class of '78 - 35th Anniversary
- Nov. 16** - Maryland  
Class of '68 - 45th Anniversary

## 2013 Homecomings

- Sept. 7** - Western Carolina  
College of Liberal Arts and Human  
Sciences homecoming  
*Special Event: Alumni Chapter Officers  
Forum*
- Sept. 21** - Marshall  
College of Agriculture and Life Sciences  
homecoming  
Corps of Cadets homecoming
- Oct. 5** - North Carolina (traditional parade)  
College of Engineering homecoming  
*Special Event: Highty-Tighties homecoming*  
*Special Event: Recreational Sports homecoming*

- Oct. 12** - Pittsburgh  
College of Science homecoming  
College of Natural Resources and  
Environment homecoming
- Oct. 26** - Duke  
Graduate Degree Alumni homecoming  
College of Architecture and Urban  
Studies homecoming  
*Special Event: Marching Virginians home-  
coming*
- Nov. 16** - Maryland  
College of Veterinary Medicine homecoming  
Pamplin College of Business homecoming