LEADING THE WAY

Virginia Tech is committed to educating the leaders of the future—and to creating the opportunities that move leadership into action







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A shifting world that becomes more unpredictable with each passing day requires leaders who are flexible and willing to adapt to change. Nearly all leadership skills can be learned, but they need to be practiced and honed. Virginia Tech is moving leaders from attribute to action.

38 APPLACHIAN FUTURES

A new immersive, experiential learning program, the Appalachian Futures Lab empowers architecture students to develop designs to advance economies, preserve histories, and reimagine futures for Appalachian communities.

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ON THE COVER: From student organizations to postgraduate learning opportunities, Virginia Tech is developing the leaders of the future, including Brianna Arroyo, senior, Golf Company, Air Force ROTC; Max Fiorentino'22; O'Brian Martin, sophomore; Jeremy Treadwell, Institute for Technology and Leadership fellow; Hannah Stratton'20. Virginia Tech photos

(at right) A student works on a robotic arm during Animatronics, a pilot course hosted in Newman Library. Photo by Chase Parker for Virginia Tech.





A MILESTONE YEAR

By Tim Sands, Virginia Tech's 16th president

I love being a Hokie in the spring. Warm weather and colors return to our campuses, our thoughts turn to commencement, and we look forward to celebrations and reunions as we prepare for Alumni Weekend.

Spring also brings the excitement of March Madness, baseball, softball, and other warm weather sports, not to mention the football team's spring game. I know you share my appreciation for our student athletes and their performance on the field and in the classroom (page 22).

2024 will be a milestone year for Virginia Tech and for me personally. It has been 10 years since I joined you on this journey, and I want to express my deep appreciation for your support over the past decade. As I noted in my State of the University Address in February, we have been true to our land-grant mission and have made remarkable progress toward our Beyond Boundaries vision despite unexpected headwinds in higher education.

Our priorities are now centered on two strategic initiatives. Virginia Tech Advantage is focused on providing the full Virginia Tech experience at an affordable cost to students in the commonwealth, regardless of financial need. Virginia Tech Global Distinction aims to elevate our standing as a leading global research university with a land-grant mission by growing our partnerships and research impact.

Both initiatives represent an investment in our future by providing the resources, opportunities, and experiences that will help our students grow into the leaders of tomorrow (page 26). Your ongoing support for our vision was evident as we recorded another record-breaking Giving Day this year (page 48).

I greatly appreciate your generosity and partnership during this important season of growth. ■

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LETTERS



TO THE EDITOR

FROM WAFERS TO CHIPS

Your fall 2023 edition was another great issue.

I enjoyed reading the article Semiconductor Advancement (p.24) because I was involved in the early days of semiconductors: R&D '63-'78 and management '79-'84. It is a natural field for Tech to be involved in, since so many different technical degrees are useful as they work together in this field.

Gordon McNeil '62 Parker, Colorado

ADDITIONAL INFORMATION

It was wonderful to read the End Note, Pay It Forward, summer 2023 (p. 72), by Menah Pratt, Virginia Tech vice president for strategic affairs and diversity. She wrote about the Mildred Pratt Student Assistance Fund created by her mother, Professor Emeritus Mildred Pratt, in 1993 to provide financial assistance to School of Social Work students experiencing temporary financial hardship or need at the University of Illinois. Her mother's "pay it forward" efforts in creating this fund were inspired by the kindness of a secretary who generously provided funds to her in her time of need to achieve her educational goals. She had just been notified she would not get a scholarship she applied for from P.E.O., an organization dedicated to supporting women's education. She was told by the dean of the School of Social Work at Indiana University that she was ineligible due to her race.

While it is not possible for us to trace back the specifics of this 1950s occurrence and the message delivered by that dean, we write today to share the inclusive and dedicated mission of P.E.O., a nonprofit philanthropic educational organization, to provide those "transformational" funds to women of all races. Since its beginnings in 1869, P.E.O. has supported over 122,000 women pursuing their educational goals by providing over \$416 million in educational assistance. We are constantly looking for women who qualify for our needs-based 2 percent simple interest loan program and grants for women returning to their educational pursuits to better themselves and their families as well as our competitive scholarships for graduating high school women and awards for doctoral degree students, etc. We urge your readers to check out our websites for much more information and to hear directly from many of our current recipients, women who represent all of us.

Lisa L. Lahrman, vice president, P.E.O. Virginia State Chapter Vienna, Virginia

Bridget Arvold M.A.Ed. '91, P.E.O. Chapter AY, Charlottesville, Virginia

CORRECTION

A class note that appeared in the fall 2023 edition of Virginia Tech Magazine recognizing the co-authorship of Richard G. Rice '61, Duong D. Do, and James E. Maneval '82 did not specify that this was the third edition of the textbook "Applied Mathematics and Modeling for Chemical Engineers."







Lisa Gunter, who worked on the project at both Virginia Tech and Arizona State, with her dog, Sydney. Photo by Lee Friesland for Virginia Tech.

NEWS

BOOSTING SHELTER DOG ADOPTIONS

After a long day at work, you open the door to your home, and a chorus of furry happiness rushes forward, the sound of unconditional canine love. With your return, your dog's world is whole.

Virginia Tech and Arizona State University researchers are working to help more shelter dogs experience this kind of love, safety, and happiness in an adoptive home.

The research team in Virginia Tech's College of Agriculture and Life Sciences found that implementing shorter-term fostering programs at animal shelters vastly improved adoptions for dogs. The team's study assessed the effects of outings of just a few hours and fostering stays of one to two nights on dogs' length of stay in the shelter and their adoption outcomes.

The researchers found that brief outings and temporary fostering stays increased dogs' likelihood of adoption by five and more than 14 times, respectively.

Erica Feuerbacher, associate professor in the School of Animal Sciences, and Lisa Gunter, assistant professor in the school who originally worked on the project as the Maddie's Fund Research Fellow at Arizona State University, oversaw the study.

"It's an exciting finding. Our prior work showed how beneficial sleepovers were for reducing dogs' stress," Feuerbacher said. "It's wonderful to know that it also helps them get adopted."



Scott Downs, field specialist, samples water from the Occoquan Reservoir in Manassas, Virginia. *Photo by Anthony Wright for Virginia Tech.*

STUDYING DISRUPTIONS TO SALT CYCLES

A group of Virginia Tech civil and environmental engineering researchers have teamed with researchers at the University of Maryland to publish a scientific review paper that details how the human demand for salt comes at a cost to the environment.

Published in the journal Nature Reviews Earth & Environment, Stanley Grant, Megan Rippy, and Shantanu Bhide from Virginia Tech's Occoquan Watershed Monitoring Laboratory revealed that human activities are making Earth's air, soil, and freshwater saltier, harming biodiversity and making drinking water unsafe in extreme cases.

Over the course of the study, Rippy, Grant, Bhide, and University of

Maryland researchers showed that human-caused salinization affected approximately 2.5 billion acres of soil around the world—an area about the size of the United States.

The U.S. churns out 44 billion pounds of deicing agent for roads, which represents the biggest impact of salts on the environment. Several U.S. cities are using beet juice as an alternative. Mining and land development are rapidly accelerating the natural "salt cycle" as well, along with agriculture and construction.

"This is a slow-moving train wreck," Rippy said. "It's playing out so slowly that it's easy to overlook that our streams, lakes, and drinking water resources are becoming progressively saltier."

PEDALING TO PRESTIGIOUS ACHIEVEMENT



Photo by Christina Franusich for Virginia Tech.

Virginia Tech has pedaled its way to national recognition as a gold level Bicycle Friendly University, a designation awarded by the League of American Bicyclists.

Among the 220 colleges and universities in 46 states and the District of Columbia enrolled in the Bicycle Friendly University program, Virginia Tech ranked in the top 18 percent of all bicycle friendly campuses.

Virginia Tech's gold level achievement is more than just an honor, according to Nick Quint, Sustainable Transportation's network manager. It's a testament to the university's effort to create a holistic campus environment. By investing in the comfort and safety of bicyclists, the university is reducing its carbon footprint, reducing health care costs, fostering a sense of community, and promoting a fun, healthy campus culture.

"We are incredibly proud to be recognized as a gold level Bicycle Friendly University," Quint said. "This achievement underscores our dedication to sustainable transportation and creating a vibrant, bike friendly campus. We will continue to enhance our biking infrastructure and support initiatives that encourage more people to embrace bicycling as a sustainable and enjoyable means of transportation."

CONNECTING THE BRAIN AND STRESS EATING

A Virginia Tech scientist has pinpointed a molecule found in a region of the brain called the hypothalamus that is connected to changes in the brain that lead to emotional overeating. Sora Shin, assistant professor at the Fralin Biomedical Research Institute at VTC, and her research team described the discovery in a paper published in Nature Communications.

"We don't always eat because we are hungry and we have certain physical needs," Shin said. "Whenever we get stressed or feel some threat, then it can also trigger our eating motivation. We think this molecule is the culprit."

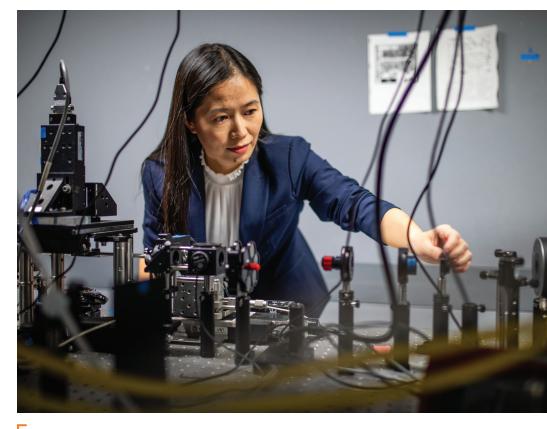
Shin and her research team began their study by investigating a small molecule, Proenkephalin. This molecule is common in multiple parts of the brain, but little research had examined its role in the hypothalamus, which serves as the center for regulating eating behavior.

A project involving mice confirmed the role of the molecule in stress-induced eating. Shin, along with In-Jee You, a former research associate at the institute, and Yeeun Bae, a human nutrition. foods, and exercise graduate student, hope their discovery leads to a therapy to alleviate emotionally triggered eating.

"We found the molecule's location, and that could be a good starting point," Shin said.

Photo by Matt Chittum for Virginia Tech.





Associate Professor Xioating Jia in her Photonics Lab. Photo by Peter Means for Virginia Tech.

ATTACKING ALZHEIMER'S DISEASE

Xiaoting Jia, associate professor in the Bradley Department of Electrical and Computer Engineering, has seen the direct, cruel impact of Alzheimer's disease, as it ravaged her grandmother's mind, destroying memories of a longlived and loved life.

Now, Jia is teaming with a professor at the University of Virginia and one from Washington University in St. Louis to build a deep brain, multipurpose fiber. The researchers plan to use this fiber as part of an endoscope that would take images of the brain. They want to use the images to study biomarkers, including the thick protein deposits called amyloids that evidence suggests lead to memory loss.

"Amyloid deposits are the main feature for AD [Alzheimer's disease], and they begin developing years, even decades, before people show AD symptoms," Jia said. "It's still a mystery how the deposits even begin."

Using the endoscope potentially could allow doctors to send electrical pulses and later, anti-amyloid drugs—to the brain, with the hopes of re-establishing blood flow and oxygenation of dead neurons and thus restoring memory.

The team hopes to develop and test two prototypes within a year, with the goal of producing technology that leads to an improved quality of life for millions of Americans.



A Hokie-themed Peterbilt serves as the first fully dedicated truck for the Sharing the Road with Large Trucks program. Photo by Jacob Levin for Virginia Tech.

HOKIE-THEMED SEMI DRIVES VTTI PROGRAM FORWARD

A team from the Virginia Tech Transportation Institute revived a 1995 Peterbilt semi-truck in Hokie fashion.

Originally used just for research, the truck now will be the first fully dedicated truck for the institute's Sharing the Road with Large Trucks program.

"I am honored to have been able to help with the restoration of this classic American icon to represent this outreach program and the university," said Mark Golusky, the team leader for field operations. "The new purpose of this truck fits perfectly into our university motto, *Ut Prosim* (That I May Serve). It serves to help teach the public on safe driving habits while driving around large vehicles."

Since 2017, the Sharing the Road team has conducted safety demonstrations for more than 28,000 students in six states, with multiple new states planned for the near future. The Peterbilt not only will fill that role, but do so while adorned with multiple Virginia Tech elements, including:

- A representation of the Pylons above on the front grill
- *Ut Prosim* written at the top of the wind deflector
- A Chicago maroon and burnt orange paint scheme
- A HokieBird hood ornament

For more information, email sharingtheroad@vtti.vt.edu.

FINDING DRUGS TO CURB ALCOHOL CRAVINGS

In social media posts on the community network Reddit, users reported reduced cravings for alcohol when taking drugs intended to treat Type 2 diabetes and obesity.

An analysis of those posts, together with a remote study of individuals with obesity who reported using semaglutide and tirzepatide, found that the drugs decreased cravings and reduced alcohol consumption, according to a study by Virginia Tech researchers published Nov. 28, 2023 in Scientific Reports.

The drugs are a promising development in the study of alcohol use disorder, according to Warren Bickel, a behavioral health research professor at Virginia Tech Carilion School of Medicine.

"These findings add to growing literature that these medications may curb dangerous drinking habits," Bickel said.

Scientists with the Fralin Biomedical Research Institute's Addiction Recovery Research Center combined two different studies to build on existing research. In one study, participants on semaglutide or tirzepatide reported drinking significantly fewer drinks, on average, than those in the control group who were not on any medication for diabetes or weight loss. The authors suggested further randomized controlled trials involving these drugs to treat alcohol use disorder.

Virginia Tech researchers are recruiting people from Southwest Virginia to help learn more about these drugs and alcohol intake. To learn more about how to participate in a research study, email arrc@vtc.vt.edu



Photo by Luke Hayes for Virginia Tech.

VIRTUAL REALITY USED FOR **SOLUTIONS TO BEAT THE HEAT**

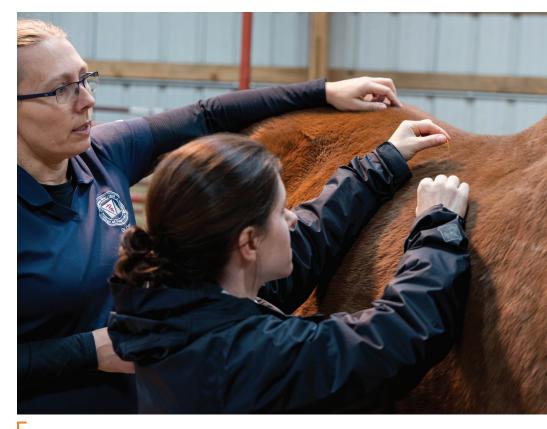
An interdisciplinary team led by Eiman Elgewely, assistant professor of interior design in the College of Architecture, Arts, and Design, is looking to the past for effective, less energy-consuming approaches to combat the heat.

The house of Sheikh Isa in Bahrain was constructed in the 1800s with architectural features designed to resist the hot climate of the Middle East. Elgewely and her team have created a 3D virtual reality experience that brings this structure to Blacksburg.

"I reached out to the international research team who was working on the 3D documentation of the house, and they provided 3D scans that we used to create the virtual environment," Elgewely said. "This allowed students to explore the house, move from one space to another, and understand many aspects not only of the architecture, but the culture."

The virtual environment enabled students to study how the Sheikh Isa house was oriented, what materials were used to construct the walls, and which features were designed for cooling.

Elgewely presented the team's research at the Cultural Heritage and New Technologies Conference in Vienna, Austria. The paper, "Sustainable Traditional Arab Dwellings in VR: The Educational Virtual Model of Sheikh Isa House, Bahrain," received the Best Paper Award, prestigious recognition for the project's innovative contributions to the field.



A third-year veterinary student learns acupuncture techniques. Photo by Andrew Mann for Virginia Tech.

ACUPUNCTURE GROWS AS PART OF VETERINARY MEDICINE

Known for promoting healing and balance, acupuncture has long played a crucial role in traditional Chinese medicine. Today, it serves as a safe, effective, complementary therapy in veterinary medicine.

The Virginia-Maryland College of Veterinary Medicine combines ancient acupuncture methods with contemporary medical approaches in animal health care. Acupuncture is available in its Veterinary Teaching Hospital as a service and is taught to veterinary students.

This fall, students participated in clinical labs focusing on equine and small-animal acupuncture. Students and faculty also attended a weekend workshop on acupuncture led by Wuren Ma, a veterinary professor from Xianyang, China.

Veterinary acupuncture involves placing thin needles into "acupoints" on the animal's body to stimulate the nervous system. This stimulation does not cause pain and helps the body heal by promoting the release of natural pain-relieving substances, according to Rebecca Funk, clinical associate professor in the Department of Large Animal Sciences.

"Integrating acupuncture is about expanding our horizons in animal health," Funk said. "We're not just treating ailments. We're nurturing the whole being of these animals."

Elective labs during the fall semester provided third-year veterinary students with the opportunity to learn more about and apply acupuncture techniques under guidance from faculty.



Photo by Peter Means for Virginia Tech.

FORTIFYING COASTAL RESILIENCE

Sherif Abdelaziz (pictured above, at left), associate professor in the Charles E. Via, Jr. Department of Civil and Environmental Engineering, is collaborating with researchers from Heriot-Watt University in Edinburgh, Scotland, to find solutions to keep coastal areas safe by enhancing the resilience of sea walls against increasing coastal flooding.

This research will focus on understanding how the soil behind seawalls is affected by repeated wetting and drying cycles caused by waves overtopping the walls. By pinpointing vulnerable areas, researchers aim to enhance the design and resilience of sea walls.

"This is an interesting study because it combines, probably for the first time, the interactions for the effect of the water flooding on soils and, subsequently, on shoreline protective structures," Abdelaziz said. "We will be able to assess how all these factors interact together, so we can better design our shoreline protective structures to sustain the increasing intensity of waves and floods."

The PIONEER project involves laboratory testing using innovative devices such as a thermos-hydro-mechanical direct shear interface device at Heriot-Watt to simulate various climate change and emission scenarios efficiently. Virginia Tech will complement those lab-scale tests with experiments on a full-sized, 4-meter-high retaining wall to investigate the effects of temperature, water pressure, and other parameters.

NEWSREEL

VIRGINIA TECH VIDEOGRAPHERS HAVE BEEN HARD AT WORK CAPTURING THE UNIVERSITY'S NEWS AND EVENTS.

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STATE OF THE UNIVERSITY

President Tim Sands celebrated achievements and outlined priorities for the university's future: global distinction, access, and affordability.



BIG DATA SOLUTIONS

Chris North, associate director for the Sanghani Center and computer science professor, is leading a class in the data visualization lab in the new Data and Decision Sciences building in Blacksburg, Virginia.



NEW FACILITY TO FURTHER IMPACT OF EQUINE MEDICAL CENTER

The Jane and Stephen Hale Equine Performance Evaluation Center at the Marion duPont Scott Equine Medical Center in Leesburg, Virginia, will allow for continued comprehensive research of horses.



APPROACHING THE FINISH LINE IN ACADEMICS AND ATHLETICS

Cole Beck, a men's track and field athlete and football player, balanced academics and athletics, earning two degrees and setting multiple school records on the track.



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FOCUSED ON ADVANCING

GROWTH AND EXCELLENCE

By Katie Mallory

After 13 years serving as the commandant of the Virginia Tech Corps of Cadets, Maj. Gen. Randal Fullhart announced his upcoming retirement this July. The longest serving commandant in corps history, Fullhart created an environment of growth and excellence during his tenure, seeing the completion of three new residence halls for cadets and a new headquarters building, the Corps Leadership and Military Science Building, for the corps and ROTC units.

But his impact was seen in more than just buildings. He redefined the path for cadets seeking non-military careers after graduation with the Citizen-Leader Track (see related story on page 26) and planted the seed for the credited study abroad program Global Scholars, allowing cadets to study leadership decisions on sites from the world wars.

He created a culture where cadet organizations and identity groups would blossom, such as the Black Cadet Organization, Cyber Team, and Growley Team to name only a few, and more than doubled faculty and staff positions to support cadets. Fullhart worked to foster campus partnerships by including campus organizations in cadet training, such as Hokie Wellness, Residential Well-being, and the Cook Counseling Center. Another achievement has been increased enrollment in the corps, which grew 23 percent during Fullhart's 13 years.

"Maj. Gen. Fullhart has dedicated more than a decade of service to Virginia Tech, advancing the mission of the Corps of Cadets as an administrator, instructor, and respected leader," Virginia Tech President Tim Sands said. "The university greatly appreciates his exceptional service. Under his oversight, the construction of new facilities on the Upper Quad, the growth of the cadet population, and the strong relationship with cadet alumni have been transformative and will serve the university well for the generations to come."

"I feel very gratified thinking about all the cadets whom I've shaken hands with as they walk across the stage, their next chapter and their next adventure ahead of them," Fullhart said. "That's ultimately why I wanted this type of work, to help equip young men and women who aspire to make a difference in the world."

Upon his retirement, the commandant and his wife, Kathy Fullhart, plan to relocate to Texas to be closer to family.





PROCESS IMPROVEMENT

SHOULD SOME FOODS BE LABELED AS ADDICTIVE?

By Leigh Anne Kelley

Fralin Biomedical Research Institute at VTC scientist Alexandra DiFeliceantonio and colleagues from the United States, Brazil, and Spain published an analysis in Food For Thought, a special edition of the British Medical Journal, recommending an international shift in the way we think about ultra-processed food.

"There is converging and consistent support for the validity and clinical relevance of food addiction," said Ashley Gearhardt, the article's corresponding author and a psychology professor at the University of Michigan. "By acknowledging that certain types of processed foods have the properties of addictive substances, we may be able to help improve global health."

"Most foods that we think of as natural, or minimally processed, provide energy in the form of carbohydrate or fat, but not both," said DiFeliceantonio, associate director of the Fralin Biomedical Research Institute's Center for Health Behaviors Research and assistant professor in the Department of Human Nutrition, Foods, and Exercise in the College of Agriculture and Life Sciences at Virginia Tech.

Consider the carbohydrate-to-fat ratio of an apple, salmon, and a chocolate bar:

- The apple has a ratio of 1-to-0.
- Salmon has a ratio of 0-to-1.
- A chocolate bar has a ratio of 1-to-1.

Foods with a 1-to-1 ratio appear to have an increased addictive potential, the researchers said.

"Many ultra-processed foods have higher levels of both. That combination has a different effect on the brain," DiFeliceantonio said.

Researchers indicate behaviors around ultra-processed foods may meet the criteria for diagnosis of substance use disorder in some people, such as less control over intake, intense cravings, and withdrawal symptoms. Geographic differences also must be considered. Some people live in food deserts with limited access to minimally processed foods. Others facing food insecurity are more reliant on ultra-processed foods and would be more likely to demonstrate food addiction, researchers said.

Viewing some foods as addictive could impact areas of social justice, clinical care, and public policy. For example, a salt reduction program in the United Kingdom was associated with a decline in deaths from stroke and coronary artery disease.

"Given how prevalent these foods are—they make up 58 percent of calories consumed in the United States—there is so much we don't know," said DiFeliceantonio.

The researchers call for more study into such areas as:

- How complex features of ultra-processed foods combine to increase their addictive potential
- Better defining which foods can be considered addictive
- Differences among countries and communities, including disadvantaged communities
- The value of public health messaging
- Clinical guidelines for preventing, treating, and managing addiction to ultra-processed foods

The co-authors represent international expertise on food addiction, nutrition physiology, gut-brain reward signaling, food policy, behavioral addiction, and eating disorders.







(from left) Suman Jhajharia and Cyrus Sprow inspect a sheet of graphene in the lab of Roop Mahajan. Photo by Alex Parrish for Virginia Tech.

A WONDER MATERIAL

THE SCIENCE BEHIND USING COAL TO PRODUCE GRAPHENE

By Alex Parrish

Graphene, a one-atom-thick sheet of material, is 200 times stronger than steel, yet lighter than paper. Its unique blend of properties can be used to add damage resistance to the bodies of cars and planes. The electrically conductive material can be formulated as ink and printed on paper or clothing, opening the door to wearable electronics. Use in batteries lowers charging time and increases power output, and when made into a membrane, it could be used to filter water.

Because graphene primarily consists of carbon, researchers must start with a material naturally high in carbon. Graphite, the primary component of pencil lead, is the usual choice because its composition is almost pure carbon.

Roop Mahajan, the Lewis A. Hester Professor in Mechanical Engineering at Virginia Tech with a joint appointment in materials science and engineering, leads a team that has re-imagined a more sustainable method to source graphene from coal.

In Mahajan's process, raw chunks of coal are ground into a coarse powder. The powder is put into a large cylinder with white marbles of different sizes, then rolled. The marbles grind the dust, further reducing its size. The ball-milled powder is then chemically stripped of impurities such as metal sulfites and ash.

The coal is then placed into nitric acid, which converts coal into graphene oxide. The acid is drained off and the unreacted carbon removed, resulting

in graphene oxide powder, which can then be further converted to graphene by heat treatment. This is the substance that has been mixed with adhesives, silicon, glass, and metal to produce new kinds of composite materials.

The most popular technique to process graphene uses four chemicals, three of which are considered hazardous. Mahajan's group has reduced this process to one chemical, which also means less disposal to manage. This lowers environmental impact as well as the risk to researchers.

Although coal contains a lower percentage of carbon, the team's method promises a better future for the environment and a more sustainable supply chain. This shift also could open doors for a repurposed coal economy.

"This wide spectrum of applications exemplifies the remarkable potential of coal-derived graphene technologies in reshaping industries and improving lives on a global scale," Mahajan said. ■



DISCOVER MORE

Scan and tap with your phone camera to watch a video and learn more about this story.

WORKFORCE READY

PREPARING MINERS FOR THE INDUSTRY'S FUTURE

By Lindsey Byars

The Center for Autonomous Mining Systems in Holden Hall looks like a giant sandbox, but the one-of-a-kind facility is preparing mining engineers for the industry's future.

The center is a two-story bay area with three pits full of various grades of locally sourced limestone gravel designed to represent different digging conditions. Additional classrooms overlook the pits, including a virtual reality lab that simulates heavy equipment operation.

Aaron Noble, head of the Department of Mining and Minerals Engineering, said this "ecosystem" is unlike any other university facility in the world.

"It's the first of its kind and one of the few places where you have a dedicated workspace for designing and testing autonomous mining equipment at a small scale," said Noble. "Experiential learning is critical to our future at the university, and this facility provides a space that is both accessible and relevant."

Students build and test autonomous haulers and excavators in the center as well as learn the fundamentals of sensors, robotics, and positioning systems that provide industry changing data.

"Our industry, like many, is becoming more autonomous, more robotic, and our students need to understand the sensors and data coming from those systems. Most importantly, they need to learn how to make the most out of that data so we can increase the efficiency and lower the carbon footprint of mining operations," said Erik Westman, a mining and minerals engineering professor.

As society moves more toward a green economy, the need for copper, lithium, and other metals is great. The biggest challenge is finding qualified miners, so Noble, Westman, and the mining and minerals engineering department are working to recruit and train the next generation.

"This facility is a place we can take prospective students and show them in a very real sense that mining is not crawling around in tunnels with a pickax," said Noble. "Mining is a highly skilled profession, and this facility gives us the capability to continue the tradition of excellence and innovation that define Virginia Tech."

The center also provides a testing site for the Virginia Tech Astrobotics team and the Diggeridoos, who compete in Elon Musk's Not A Boring Competition.



Xinxin Shao, a research associate in the Department of Mining and Minerals Engineering, checks the condition of a lab-scale autonomous excavator designed and built by the Autonomous Excavator Team. Photo by Peter Means for Virginia Tech.



Scan and tap with your phone camera to watch a video and learn more about this story.

CREATE A DELECTABLE GARDEN FOR POLLINATORS

By James Mason

Did you know that different insects have different favorite foods? In recent years, concern for pollinators, including various types of bees, butterflies, and even beetles, has inspired gardeners all over the world to grow food for these critical creatures.

To ensure food sources for insect pollinators, gardeners have created veritable buffets to entice and feed bees, butterflies, and other winged arthropods. But, as Margret Couvillon, assistant professor of pollinator biology and ecology

in Virginia Tech's Department of Entomology, found, there was very little information to make the perfect flower feast for these critters.

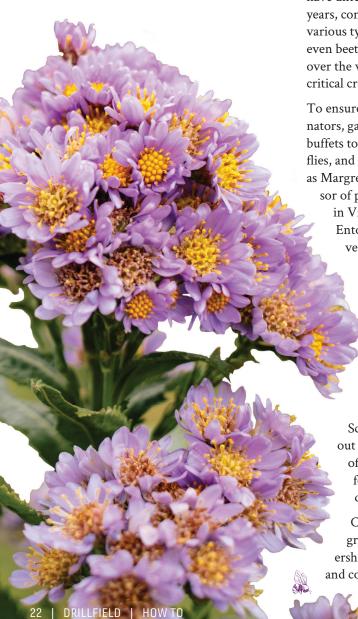
Through a research donation from Virginia-based Kaeser Compressors, Couvillion, her lab, and her collaborators from Virginia Tech's School of Plant and Environmental Sciences joined forces to find out what plants or combination of plants would best attract and feed the most and the most diverse insect pollinators.

Couvillion and her former graduate student Micki Palmersheim '21 planted test gardens and collected pollinator data over two years. Their goal was to count how many insects visited which types of flowers and to determine which plants were preferred by different species of pollinators. The findings determined which plants were general crowd pleasers, which produced the highest diversity of insects, and which kept them coming back for more—or had the highest number of insect visitors, usually bees. With this information, Couvillon and Palmersheim published a research paper on what ornamental plants will attract abundant, diverse insect pollinator communities to mid-Atlantic gardens.

The two "recipes" for home pollinator gardens on the next page grew from that research: the crowd-pleasing Virginia Tech Diverse Pollinator Garden that will bring a variety of pollinators to visit and feed, and the "seconds, please" Blacksburg Bee Garden focused on plants that really bring the bees.

These gardens can take up large hillsides or be planted as a section of flower beds. No pollinator garden is too small.

Additional suggestions include taking care of the garden by weeding and trimming plants as needed because a healthy garden supports healthy insects. Once the garden is planted and blooming, be sure to snap a few pictures of these helpful visitors to share with family and friends.





BUZZWORTHY

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SCORING BIG IN THE CLASSROOM

By Jimmy Robertson

Virginia Tech student-athletes continue to shine in the classroom, as pointed out by University President Tim Sands in his State of the University Address on Feb. 7. More than half of Virginia Tech's student-athletes finished the fall semester with better than a 3.0 GPA. Here is a closer look at the numbers that illustrate the student-athletes' academic success for the fall 2023 semester.

Photos courtesy of Virginia Tech Athletics.



The average semester GPA for Virginia Tech student-athletes was **3.25**

242 student-athletes made the dean's list

Cumulative GPA of student-athletes

is **3.25**

25 Virginia Tech studentathletes maintain a cumulative GPA of 4.0 registered a

4.0 GPA

for the fall
semester

451 student-athletes earned a

3.0 GPA or better in the fall semester

446 studentathletes maintain a cumulative GPA of 3.0 or better

Top three women's sports teams by GPA: soccer, golf, and tennis

Top three men's sports teams by GPA: golf, tennis, and baseball

18 of 20 teams maintain a cumulative GPA of 3.0

HOKIES MENTOR YOUNG AUTHORS

WRITING PROGRAM FEATURED IN THE JOURNAL CELL

By Lindsey Byars

An undergraduate in the Virginia Tech College of Science has transformed her childhood dream to help kids publish their writing into a STEM teaching tool that was featured in the science research journal Cell.

In 2022, Elea Abisamra, a cognitive and behavioral neuroscience major, created Kids Can Write, a program that guides students through the writing, illustration, and self-publishing process of creating a book.

Abisamra adapted the program in 2023 to teach students at Gilbert Linkous Elementary School in Blacksburg about the brain. She brought in other neuroscience majors as tutors and editors to support the process by teaching lessons about neuroscience and helping students creatively interpret the information.

"What started out as only writing is now a teaching tool for science. We want to show that storytelling is connected with neuroscience and all fields, and that students can use storytelling to learn. Then they publish their work, and it's with them forever," said Abisamra.

Abisamra was invited to write a paper about this innovative way to teach STEM concepts to students for Cell, a peer-reviewed science research journal. "The Power of Storytelling in STEM" published Nov. 9, 2023

This first Kids Can Write chapter started at Virginia Tech. Now, there is a chapter at George Mason University as well as international groups in Lebanon and Jordan. In summer 2023, Abisamra spoke to students at Johns Hopkins



Elea Abisamra (at left) and other Virginia Tech students teach elementary school kids about science writing and self-publishing books. Photo by Clark DeHart for Virginia Tech.

University who would like to start a chapter, and she plans on traveling to Tanzania to teach a workshop in May.

Abisamra has adapted the program to do more than teach science. Through collaborations with Virginia Tech and other external groups, there is an initiative for cancer patients, seniors with cognitive decline, people in prison, kids in Lebanon and Jordan, and refugees in Poland. Writing gives a voice to underrepresented groups who Abisamra said can "benefit from self-expression, self-confidence, mentorship, and publishing."

All the resources Abisamra creates are free. Impact is her goal, not profit.

Looking forward, Abisamra hopes to see Kids Can Write reach around the globe and maybe inspire a school for kids without a home or connections. For now, she continues to spread the word in hopes of inspiring others to ioin her cause.

"None of this could happen without the tutors and the partners we have," said Abisamra. "The more partners and collaborators, the more we can do. I want this to be big." ■





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OUR MISSION HAS ALWAYS BEEN TO CONTRIBUTE TO THE IMPROVEMENT OF HUMAN HEALTH ALONG MULTIPLE DIMENSIONS

Michael Friedlander

executive director of the Fralin Biomedical Research Institute at VTC and Virginia Tech vice president for health sciences and technology

(above) The William Jacob and Barbara Boyle Lemon Family Garden Roof at 4 Riverside helps reduce energy use, contributes to biodiversity, and decreases rainwater runoff. Photo by Clayton Metz for Virginia Tech.



Visit news.vt.edu/magazine for more details about the building and Virginia Tech's Climate Action Committment.

by Leigh Anne Kelley

Since opening in summer 2020, the newest building on Virginia Tech's Health Sciences and Technology campus in Roanoke, Virginia, has used rainwater alone to flush its toilets and irrigate surrounding green space.

The building houses some of the laboratories, as well as core facilities for Fralin Biomedical Research Institute (FBRI) at VTC's laboratories and core facilities, the Virginia-Maryland College of Veterinary Medicine's Animal Cancer Care and Research Center, and Carilion Clinic's training classes. A Green Team made up of student, faculty, and staff volunteers at FBRI works together to build awareness and help facilitate waste reduction and recycling. Also, the Green Team supports three waste recycling programs, working in partnership with Virginia businesses.

RECYCLED FROM 2022 TO 2023:

■ 1,317 styrofoam coolers

Plastic foam goes to Atlas Molded Products in Ridgeway, Virginia, for processing and re-use.

■ 960 pounds of soft plastic film

Through the NexTrex program, salvaged plastic film is sent to Trex in Winchester, Virginia, which uses the material for decking and useful outdoor seasonal furniture.

■ 5,395 pipette tip boxes

Pipette tip boxes are collected in coordination with Fisher Scientific.



CLIMATE ACTION COMMITMENT

Authorized originally in 2009, the Climate Action Commitment provides a Virginia Tech-specific, actionable framework for advancing sustainability and energy efficiency in campus operations, academics, research, and more.







GREEN ROOF

Some rainwater flows through the William Jacob and Barbara Boyle Lemon Family Garden before slowly making its way to the Roanoke River, limiting runoff and helping reduce the risk of flooding.

HARVESTING SYSTEM

Rain is also captured from the remaining roof surface and redirected into an underground cistern, where it is stored for use in toilet flushing.



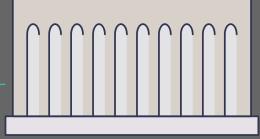
4 RIVERSIDE ROANOKE, VA



ROANOKE RIVER

The building is engineered to focus on sustainability while also reducing pollution and the risk of flooding in the Roanoke River.

24,000-gallon rain water storage



When combined with low-flow plumbing fixtures, the result is a 60.8 percent reduction in water use for the facility.

Harvesting rainwater has reduced water consumption in the facility by 1,000 gallons per day.

All new construction and capital renovations strive for a Leadership in Energy and Environmental Design (LEED) rating from the U.S. Green Building Council. The 139,000 square foot FBRI building in Roanoke earned a silver LEED rating in 2021. To date, the university has 24 LEED certified buildings.





Morgan Ralph enrolled at Virginia Tech in fall 2020, early in the COVID-19 pandemic. The university, like the rest of the world, was slowly returning to more in-person options for work and study, but social and community service opportunities remained limited.

The circumstances didn't deter Ralph, a natural extrovert.

In the spring of 2021, Ralph joined a service sorority. And when a sorority sister learned of Ralph's love of the outdoors, she suggested that Ralph join the Leadership Institute within the College of Natural Resources and Environment.

Having thrived in leadership positions at nearby Narrows High School in Narrows, Virginia, Ralph seized the opportunity.

"I've been told I'm a little bossy, which isn't always a compliment," Ralph said with a laugh. "But I love getting involved with leadership roles, and this was a way for me to learn how to be more diplomatic in leading a meeting and leading others. The Leadership Institute has given me that confidence to be like, 'OK, I can lead people my age. I can lead people older than me. I can handle conflict resolution.' It gave me a tool kit of skills to deal with different personalities."

A shifting world that becomes more unpredictable with each passing day requires leaders who are flexible and willing to adapt to change. It requires thinking broadly and stretching beyond traditional norms. It requires innovation, an embracing of diverse people and ideas, and an ability to communicate with sensitivity, empathy, and open-mindedness. It requires a leadership style that inspires rather than one that rules.

Nearly all leadership skills can be learned. But, they need to be practiced to ensure future successes.

Virginia Tech creates the opportunities that move leadership from attribute to action.



JUST WHAT IS LEADERSHIP?

In most cases, people recognize good leadership when they see it. They feel strongly about whom they think are good leaders. Yet they struggle to provide an actual definition.

Even dictionaries fall short-offering insufficient entries such as "the action of leading a group of people" or "the state or position of being a leader."

Tyler Walters, dean of University Libraries at Virginia Tech, has a Ph.D. in managerial leadership in the information professions and has studied leadership for years. He said people struggle to define leadership because it is not a concrete concept.

"I've come to think of leadership as more of an art than as a science," he said. "If it's a science, it's really the science of people."

Walters offered a simple suggestion, one to which many probably can relate. Leadership means getting people to unite to address a common goal or to move an organization in a specific direction.

"I don't like to think of leadership as: The leader is out front, and everybody else is just listening," he said. "It's more about being in touch with people, doing things and saying things that resonate with people, and helping them to understand things like vision and strategy and where it is you're trying to go."

Today, academics and researchers have categorized leadership according to specific applications—servant leadership, participatory leadership, authoritative leadership—to name just a few. According to Walters, the best leaders, regardless of the type of leadership, exhibit similar traits.

Walters said being a great leader starts with being empathetic and seeing things from the followers' perspectives. Followers want to know that leaders care about them-and that caring needs to be genuine.

"You can't really fake it," Walters said. "People figure that out quickly and easily, so that goes along with the principle of authentic leadership, which is about being who you are as a leader, tapping into your own story, your own background, and letting people know that background. I think those things go together. I think it's important for people to be able to not only see you as leader, but also see you as person."

The common characteristics of leaders include integrity, accountability, honesty, and intelligence, and many other shared attributes.

But definitions and traits aside, when it comes to leadership, the most pressing question may be: Can leadership, at its core, be taught?

Virginia Tech believes it can.

SALUTING A DIFFERENT FUTURE

Andre Asarian started thinking about joining the military while in high school. The Brooklyn, New York, native hoped to attend one of the prestigious military academies, but medical reasons forced him to choose a different direction.

In his search for the right college, Asarian discovered the Citizen-Leader Track within the Virginia Tech Corps of Cadets.



The College of Natural Resources and Environment's Leadership Institute provides students with the opportunity to meet with leaders in federal agencies (at top) to discuss conservation issues. Virginia Tech photo. The Corps of Cadets medic staff (at left) was led by Andre Asarian, standing in the center, who used the Citizen-Leader Track program to take advantage of all the leadership development that the corps offers. Photo courtesy of Andre Asarian. Capt. Jamie McGrath '90 (at right, next page), director of the Virginia Tech Corps of Cadets' Maj. Gen. W. Thomas Rice Center for Leader Development, talks with upperclass cadets during a training session. Photo by Katie Mallory for Virginia Tech.

This four-year program is specifically for cadets who, for any number of reasons, are unable to or choose not to graduate as a commissioned officer and serve a post-graduate stint in the military, but still seek the traditional corps training and opportunities for leader development.

Recognizing the similarities in this program —one of just a few of its kind nationally—and the academies, Asarian decided to enroll.

"I'm at a research institution and a huge public university where I get all the same opportunities I can get from the Naval Academy or West Point and places like that," he said. "I'm given that same leadership training in a military setting so that I can improve as a leader, become a more confident individual, and build on things I've learned through high school from being involved in leadership."

Therein lies the distinction of the Virginia Tech program. The Citizen-Leader Track teaches leadership skills within a military model, but those skills transfer to any career, according to Ken Mallory '06, director of the program.

"Instead of focusing on military tactics and skills and the knowledge necessary for success in a uniformed capacity, we're focusing on what is going to help you to be successful in civilian employment, in government employment, or one of the national organizations in public service, in corporate service, or in volunteerism," Mallory said.

Asarian, now a senior, is a company commander within the program of 250 cadets in the Citizen-Leader Track. He will graduate with degrees in public health from the Virginia-Maryland College of Veterinary Medicine and political science from the College of Liberal Arts and Human Sciences.

Asarian intends to work in the medical field, perhaps as a physician or a community health director. He recently received his paramedic certification—something he may have lacked time to pursue as a traditional ROTC cadet because, while the leadership development programs within the corps are similar, commissioning cadets do have differing obligations.

Asarian serves on the corps medic staff and commanded the 12-cadet team as it provided support during the fall 2023 New Cadet Week prior to the start of the fall semester. He also works part time and volunteers as a paramedic in the New River Valley and Roanoke regions and at home during breaks. He plans to apply to the Virginia-Maryland College of Veterinary Medicine for graduate school and eventually could serve in the military

as a medical physician if he so chooses.

Or he could pursue different paths. The Citizen-Leader Track provides the cadet with any number of post-graduate options.

"That's one of the nice things about our program," Mallory said. "Someone may decide, 'Hey, the Army's not for me,' but decide that aspects of it are appealing. We have that built-in flexibility to be able to absorb those ebbs and flows while still providing valuable experiences, even if it's nothing more than helping a cadet build a resumé or learn how to pitch themselves at a career fair for professional experiences later on."

THE IMPORTANCE OF "DOING"

Arguably, no group on campus emphasizes leadership more than the Corps of Cadets. In fact, the corps recently opened the Corps Leadership and Military Science Building—investing more than \$70 million into a building that houses offices for the corps and ROTC staffs, the Rice Center for Leader Development, and classrooms for the corps, the Citizen-Leader Track program, and ROTC programs. It also houses the Integrated Security, Education, and Research Center.

There is a reason for this hefty investment, according to Maj. Gen. Randal Fullhart, commandant of the corps.





Alumna Christina McClung (left) participated in a panel discussion in Oct. 2023. Photo by Craig Newcomb for Virginia Tech.

HOKIES WHO EXCEL ALSO INSPIRE THROUGH LEADERS +

In an example of the *Ut Prosim* spirit of service, standout Hokies are happy to pay their wisdom forward by participating in the Leaders + program of events and interviews. By sharing their stories, they help to educate and inspire.

For example, Christina McClung '03, senior vice president for human resources at Capital One, was on the panel of a Women in Industry event at The Boeing Company's Arlington, Virginia, facility, which drew over 100 alumni and friends.

"The event was well thought out and offered a unique and valuable opportunity to spend time with fellow Hokie women and be inspired by the panelists," said Robine Whetham '95.

Launched in July 2022, Women in Industry is one of several Leaders + programs run by LINK - the university's Center for Industry Partnerships – that allow alumni, students, and friends to learn from some of the most innovative, influential leaders of today.

In May, Hokies will come together in Northern Virginia once again for the next Women in Industry event. Meanwhile, all throughout the year, leaders from a variety of industries share their wisdom, online, in video profiles or Q&A interviews. To hear what they have learned, be inspired by their example, and find out about upcoming events, visit vt.edu/leadersplus.

"They [the cadets] know that we and the university are holding them to higher standards because of what we're going to be asking them to do when they graduate," Fullhart said. "They will be responsible, in many cases, for other people's sons and daughters, and you don't want them to take that responsibility lightly. You want them to take the time during these four years to prepare to be the kind of leaders that we're confident in."

All corps leadership courses are run through the Maj Gen W. Thomas Rice Center for Leader Development. First-year and sophomores cadets are required to enroll in courses about the fundamentals of leadership and then work toward small unit leadership. Juniors and seniors have the option of taking junior organizational level leadership and senior executive level leadership classes. The commandant's staff teaches these courses, which are accredited through the Pamplin College of Business' Department of Management.

The corps' leader development activities are not static. Global dynamics and military tactics change constantly, and that requires training cadets to be adaptable to evolving situations, according to Capt. Jamie McGrath, '90, director of the Rice Center.

"I think that's one of the things about this program that I am very pleased about is that we are a dynamic and learning organization," McGrath said. "We are not set in the past-in doing things the way we've always done them. We are constantly looking to improve the quality of the experience for our cadets. We're constantly looking to ensure that our cadets are prepared to step into today's leadership environment, so what we teach has evolved and how we present it has evolved."

The corps' strategy, though, and that of many colleges within the university revolves around more than just teaching. Leadership involves "doing."

To better explain, cadets learn various leadership strategies and concepts in the classroom. Then, the corps' staff places them in roles where they need to use those strategies and concepts to be effective leaders.

These roles can be anything from serving as regimental and battalion commanders, working in day-to-day staff operational roles, overseeing logistics, being a member of the Highty-Tighties, or helping with communications, such as writing for corps publications or managing the corps social media.

Another way that cadets practice leadership is through external partnerships. For example, Boeing provides internships for cadets that may lead to jobs post-graduation, and the Department of Defense has partnered with the corps on a pilot program that offers select cadets internships that will later translate to work for the department as civilians.

"I think the experience piece is a critical element of any leadership development program," McGrath said. "It does not always have to be a military model. That is the model that we happen to use here in the Corps of Cadets, but I do think that experience is critical for leaders.

"There are certainly other ways to experience leadership growth and development. Ours is not the only method by which you can do that. I work very closely with several of the other leader development programs here at Virginia Tech, and all of them include an experiential piece."

COMMUNICATION IS KEY

When he joined the College of Natural Resources and Environment's Leadership Institute during his first year at Virginia Tech, Truman Collins anticipated it would help him develop leadership skills and improve his ability to communicate with other professionals in the field.

The Roanoke, Virginia, native, who is graduating in May with a degree in wildlife conservation, never envisioned putting those lessons to use in the jungles of Belize.

Yet, he did exactly that while searching for jaguars as part of Marcella Kelly's camera-trapping research project—a project that has received worldwide recognition for the longtime Virginia Tech professor. Collins dealt with flat tires, broken GPS devices, and varying personalities of those in his groups.

"There are so many different things that can happen when you're in the field," Collins said. "There are so many different styles of people and what people want to do, and you have to blend that all together. You don't want to overcoach one group and under coach another. You want to give people the most for things to be successful, but also take a step back and let them be successful.

"I think the Leadership Institute really has helped me work with different types of people in different situations."

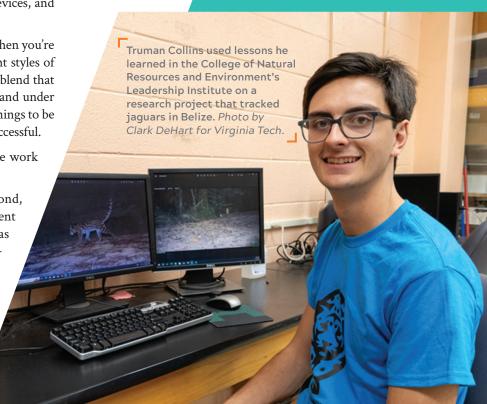
That's exactly what Brian Bond wants to hear. Bond, associate dean of extension, outreach and engagement and professor of sustainable biomaterials, serves as the director of the institute, which consists of approximately a dozen students. To participate in the institute students must be juniors or seniors and successfully complete an application process. Other criteria include a GPA of 3.8, three references, and

past participation in activities that demonstrate leadership.

Through the institute, Bond and other faculty introduce leadership theories and encourage personal development. Several instruments, such as the Myers Briggs Type Indicator, the Thomas-Kilmann Conflict Mode Instrument, and the Emotional Intelligence Assessment are part of the curriculum. Students participate in a leadership project, and travel to Charlottesville, Richmond, and Washington, D.C., to meet with leaders in state and federal government agencies, private industries, and nongovernment organizations.

The program helps students develop their own leadership styles so they can effectively communicate and address issues related to conservation—or in simpler terms, put leadership into action.

"To influence people and policy and get them to understand the science and make the right decisions, you've got to interact with people, and you've got to have skills to be able to communicate that information and lead people in the right direction," Bond said. "We want our students to be able to engage in leadership positions right out of the gate and to advance and be able to meet the needs of society with their technical skills, but also be able to interact with groups and lead those groups moving forward."



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WE WANT TO HAVE THAT SAFE SPACE SO THEY ARE ABLE TO EXPERIMENT,
THEY'RE ABLE TO PRACTICE,
AND THEY'RE ABLE TO
UNDERSTAND WHAT FAILURE
POTENTIALLY LOOKS LIKE,
SO THAT THEY CAN LEARN
FROM THAT AND MAKE THE
APPROPRIATE CHANGES."

Ron Poff, associate professor of practice

Ralph, the Narrows, Virginia, native, feels that the Leadership Institute prepared her to do exactly that. She has used what she learned from the institute in her position as assistant manager at a local restaurant, and even in everyday interactions, she puts what she calls her "tool kit" to use.

Ralph will graduate in May with degrees in conservation and society from the College of Natural Resources and Environment and in environmental policy and planning from the College of Liberal Arts and Human Sciences. She plans to seek a master's degree in public administration from Virginia Tech before eventually pursuing a career as an environmental lobbyist or as a flood-plain manager.

"I don't think I would be interested in the roles I would like to do after graduate school had I not been in the Leadership Institute," she said. "I think having that class and gaining that confidence and gaining the ability to work well with people has been so important to my development, both personally and professionally."

PRACTICE MAKES PERFECT

When Ruthie Brown switched majors from biology to management science, consulting, and analytics within the Pamplin College of Business, she discovered that she could graduate within three years. And then she realized she needed to build her resumé quickly.

So, the Eggleston, Virginia, native joined the Pamplin Leadership Development Team, serving a year on the hospitality committee. She then served as co-president along with Mona Tull this past calendar year.

"At first, I wasn't really thinking about doing that," Brown said. "I was exploring some other clubs that I was also in and some leadership positions within those. I really wanted to have a diverse portfolio. But I just really liked what Pamplin was doing, and I really thought that I would be good in the role. I have a lot of ideas, and I'm positive. I love to encourage and lift members up.

"I got to be close with the team, which was a perk, and I felt like our team did a great job of leaning into our roles. I hope that's from me and Mona's leadership. It was just a great opportunity that I couldn't pass up."

The Leadership Development Team is positioned within the Business Leadership Center in the college. More than two dozen students are selected to participate each year following an application process that factors in GPA and commitment to service time, among other criteria.

The team attends professional workshops and plans an annual Student Leadership Conference that brings in corporate industry partners to share about topics such as leadership and organizational development. The team also plans a career fair, and partners with other organizations on campus to support leadership development.

Brown, who will be working as a project manager for Cisco Systems in Raleigh, North Carolina, after she graduates in May, said she took a lot of pride in revamping the culture of the team, inspiring members to become involved in projects and actively participating in meetings. But she also admitted her year as president wasn't easy.





Delia Alcorn is one of more than 100 students on the Undergraduate Student Senate, which works with Virginia Tech administrators to address challenges faced by undergraduate students. Photo courtesy of Delia Alcorn.

"It was definitely challenging," Brown said. "I think any leadership position is challenging in its own ways. ... But it was a good experience. Everyone was great, and we did some awesome things."

Brown's success as a leader, and the success of other leaders on the team, reinforced the team's model, which is simple—learn concepts about leadership and then practice them, according to Ron Poff, associate professor of practice and interim director of the team.

"One of the things that we talk about is that we want to have a safe place to fail. I don't know any leader in this world that's never failed," Poff said. "We want to have that safe space so they are able to experiment, they're able to practice, and they're able to understand what failure potentially looks like, so that they can learn from that and make the appropriate changes."

The College of Agriculture and Life Sciences offers a similar opportunity through its interdisciplinary minor Leadership and Social Change. Students working toward the minor are required to participate in a capstone course that invites them to reflect on their college experiences and what they learned, particularly experiences with student organizations. Students then organize a semester-long podcast series to share as part of an interview for graduate school or private employment.

The minor isn't limited to those pursuing degrees within the College of Agriculture and Life Sciences. It is open to students working toward degrees in other colleges, also.

That brings added value to the minor, according to Eric Kaufman, professor and associate department head in the college's Department of Agricultural, Leadership, and Community Education.

"It's not intended to be only for students in agriculture, and because of that, we get some rich discussions in the classes," Kaufman said. "There are certain things we're bringing in, some key concepts on leadership, that are important.

"We're often taking students who have good foundations or interests and instincts about how to interact with groups and how to inspire a shared vision and hope toward that, but then what we're doing is trying to help them get to the next level. We want them to take some of those initial pieces and get more systematic in the way that they prepare other leaders and work with a wider variety of groups in a different context."

MAKING MEANINGFUL CONNECTIONS

Delia Alcorn's participation in the Undergraduate Student Senate, the student governing body at Virginia Tech, seems fitting. After all, many of her family members worked in public service, including her father, Walter, who serves on the Fairfax County (Virginia) Board of Supervisors.

But when Alcorn contemplated pursuing a project important to her—increasing accessibility to medical and forensic post-sexual assault care at Virginia Tech by lobbying the university administration to train or hire a dedicated sexual assault nurse examiner-she needed confirmation.

Ainsley Cragin and Tristan Southerland, also students in the Undergraduate Student Senate, provided both the motivation and the support.

"Ainsley and Tristan really encouraged me to pursue this project," Alcorn said. "They both told me that this was something that was needed and that people would care. That was the biggest thing. I was like, 'Do people even care? Would people even listen to me?' With Ainsley and with Tristan, I felt like it was possible, and it was confirmed that I did need to do this."

Through her role on the Undergraduate Student Senate, Alcorn, a sophomore, has met with various stakeholders on campus and even certain state government delegates to discuss the topic. A campus-based sexual assault nurse examiner—a trained nurse who provides specific care following sexual assault—potentially could eliminate the need to send individuals who have experienced sexual violence to Carilion New River Valley Medical Center in Radford, Virginia, for examinations. Accessibility, care, and evidence recovery all would be improved.

Therein lies the role of the Undergraduate Student Senate, a group of more than 100 students who represent the 30,000-plus undergraduates at Virginia Tech. The senate works with university administrators to address challenges faced by students. They also determine how \$620,000 in student fees are allocated, reviewing requests and distributing funds to various student organizations. In addition, a select group participates in advocacy days in Richmond and Washington, D.C., advocating to state and federal legislators on institutional priorities.

Members of the senate spend a lot of time with Kat Nelson, deputy director of the senate and advisor. Nelson documents duties and projects, connects the members with university partners, and helps them understand the university's governance structure. She also supports the students in fulfilling their duties and executing projects.

"They have a big job to do, all of them do," Nelson said. "I really appreciate their passion, so I want to make sure that we set them up to succeed. Since coming to Tech, I'm blown away by how cool these students are and how smart they are and how they would think of things that I wouldn't think of. If we can equip them better, then I'm always excited to do that."

That mentorship, both from university administrators and older students, is a critical element to the senate's success. It empowers students to take on projects and policies that they otherwise may not have pursued.

In other words, it gives them confidence to be leaders—something they eventually will need during competitive job searches.

"Being in the senate has given me a lot of self-confidence," Alcorn admitted. "I feel that I would be a much different person without the senate and without this project. I've learned how to be more of a professional."

Mentorship is also important in the College of Engineering. In the early 1990s, college administrators launched the Center for Enhancement of Engineering Diversity (CEED) to encourage and support engineering students.

During the past year, CEED launched a pilot program to connect older women engineering students as mentors to younger women students. This mentoring program is one of several within the college.

Michelle Morris, who graduated with a degree in biomedical engineering in May 2023 and currently is pursuing a master's degree, oversaw several mentors who worked with approximately



25 mentees this past year. She helped the group plan meetings to discuss common issues faced by women in engineering and supported them in organizing a Women in Biomedical Engineering career panel to enable younger students to network with Virginia Tech alumnae in biomedical engineering careers.

"One thing that we heard at the end of our exit surveys was that most of the mentees really enjoyed being able to talk to someone who's a little older in the department," Morris said. "I think the thing that made it successful was there was never a set agenda. The mentees could talk about what they needed at that time, as opposed to something being more structured. I think they really enjoyed just being able to make a connection and discuss whatever needs they had that moment of the semester."

Insights gleaned through the first year of the program apprised college administrators of what women students need and desire, and will inform changes to meet those needs going forward.



THE FUTURE OF LEADERSHIP

Virginia Tech officials believe in molding good leaders. So much so that the university offers six minors related to leadership spread among different colleges on campus.

Nearly all the university's leadership classes, centers, and programs are designed to prepare students for the workplace. And nearly all are led by well-respected professors, researchers, and staff members with expertise arguably unequaled in their respective fields.

That expertise provides the foundation from which the university's reputation for educating leaders has emerged. Such credibility is important.

"It really helps if an instructor has practical, real-world experience in the subject they teach," Fullhart said. "That's why all the people whom we have teaching in our courses, and serving as mentors, have decades of front-line experience and the credibility that comes with that."

Employers around the globe indicate an increasing need for employees who not only have the skills to manage work-related tasks, but also have the capacity to excel in the yet-to-be imagined labor market of the future. As the work environment continues to evolve, employers seek candidates who demonstrate creativity, problem-solving and other traits synonymous with leadership. But too often their searches are unsuccessful.

Poff, with an extensive background in business, sees that void in society, and believes Virginia Tech graduates are prepared to fill it.

"Leadership isn't easy." said Poff. "It takes someone special. It takes initiative, and it takes a chance to step back, listen to others, and you don't always win at what you are wanting to do. I would say, too, that working with people right now is not easy.

"Leadership, outside of our university and the work we do, I'm not always sure it exists. But I think that's where we, as Hokies, can go out and change that."



LEADERSHIP AND **HUMANITIES**— AN IMPORTANT COMBINATION

By Jimmy Robertson

Two years ago, after a career spent working first in the nonprofit sector and later for technology firms, including two prominent companies in Silicon Valley, Rishi Jaitly made a move into the world of higher education.

Today, the technology advisor, former entrepreneur and high-ranking executive at Twitter, now called X, and Google serves as a professor and, perhaps more interestingly, a passionate proponent of the humanities.

Jaitly's passion fuels his latest endeavor—starting and overseeing the Virginia Tech Institute for Leadership in Technology.

"This feels, in many ways, like my fifth startup," Jaitly said.

The Institute for Leadership in Technology seeks to incorporate humanities—such as art, literature, philosophy, religion, and history—into the creation of a higher level of leadership among individuals. This institute's students are not 18-year-olds or even faculty members, but rather rising technology leaders from around the world.

In fact, the inaugural class of fellows—11 this year—features executives from Fortune 500 companies such as Amazon, Microsoft, and Boeing who all completed a rigorous application process. While much of the coursework takes place virtually, the group of fellows gather in person three times per year. Before receiving their leadership credentials, fellows will have completed readings, written papers, and presented creative writing.

"I think the humanities are the answer," Jaitly said. "They teach you meaning, which is an important element of leadership. They teach you an ability to see across differences. These are all the essential elements of reflective leadership.

"A lot of the debates about the future of technology tend to be about policy and rules and controls and governance. The question I'm asking is, 'Well, who's in the room where things happen? What kinds of experiences are people bringing to those rooms? Are they living in bubbles? Or are they living boldly in the human other?'... When you're selling a product to customers, when you're designing products for new markets, when you're imagining product market fit, when you're thinking about hiring and recruiting, when you're thinking about employee retention, the ability to live in the human other is a superpower."

Jaitly came to understand the importance of humanities during his career not long after reading "The Fuzzy and the Techie: Why the Liberal Arts Will Rule the Digital World" by Scott Hartley. Most leaders in the technology sector possess the STEM skills prevalent in academic curricula today, but Jaitly found that the most inspired also possess a differentiated human element when making critical decisions.

More importantly, Jaitly realized that the humanities had played a powerful role in his own impact across his various roles.

"There was this underlying feeling I had in me that the humanities had actually played a disproportionate role in powering my own leadership across sectors, across communities, and across a wide range of contexts," he said. "This feeling was building in the late 2010s, and I wondered why our culture didn't hold up a lifelong commitment to the liberal arts as a North Star. Why weren't we connecting the dots between the role that humanities might play in addition to the role of technical skills, the role of traditional business skills, in fueling a higher leadership?

"A couple of years ago, a current colleague of mine at Virginia Tech, said, 'Rishi, you're so passionate about the humanities, and you're a practitioner and leader in technology. It seems to me Virginia Tech would be a wonderful stage on which you might advance this story and advance this mission."

Jaitly and Sylvester Johnson, associate vice provost for public interest technology and founding director of the Center for Humanities—where the Institute for Leadership in Technology resides—aren't seeking to replace the STEM skills of those in leadership positions within the technology sector. Nor do they seek to replace the experiences that allow leaders to put what they know into practice and learn from mistakes. They seek to be an additive to skills and experiences.

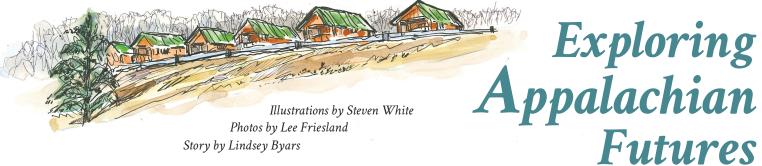
"There's been a desert, and I was staggered when the idea dawned on me that this didn't exist in the United States and perhaps the world," Jaitly said. "I still haven't heard of a program like this that systematically offers rising stars, rising practitioners in and around the technology landscape, an ability to cultivate skills in and around the humanities."

Future plans for the institute and this program are in development.

"Looking ahead, I would hope we were catalytic for other efforts like this that maybe didn't just aim at the technology industry, but at other portions of our world and community," said Jaitly. "Hopefully, we can all reimagine how the humanities dress up and go to market."







Many architecture students spend a semester during their undergraduate studies conducting research and studying design, history, and theory in an immersive environment in the United States or other countries. This semester, a new experiential learning program is offering students in the College of Architecture, Arts, and Design the opportunity to "study abroad from home" while making a meaningful impact on the community.

Called the Appalachian Futures Lab, the program sits at the intersection of practice, design work, community, and education and is focusing this semester on the historical coal town of Pocahontas, Virginia, a community of about 300 residents located less than two hours from Blacksburg. Throughout the semester, students will visit and engage with community groups, research and document the architecture through photos and drawings, and create impact-oriented conceptual designs for the community in support of both economic development and preservation efforts.

"The Appalachian Futures Lab is imagined as an opportunity for students to get embedded and do experiential learning and community-based work, but with travel. It can be based in Blacksburg, but students will go and spend time in local communities, working with real people and real projects. This work will be informed by regional travel, including a week-long excursion through five Appalachian states. The thought was, we don't have to go quite so far in the world to learn about architecture and to meet people and do design," said Kevin Jones, associate professor of practice in the School of Architecture.

Students left for a three-day trip to Pocahontas on Jan. 24. They took a scenic route through coal towns in West Virginia, including Itmann, Welch, and Bramwell. Each stop featured exploration of different types of historical architecture, offering students insight into the region's history and the impacts of coal mining. Towns that once boomed with industry now are mostly empty. Brandon Hernandez, a senior architecture student, said seeing areas that "need a lot of love" is emotional, but he's eager to propose ideas that may help the community in Pocahontas.

"We're working with good people. We're wanting to do good things for them, and they're counting on us to propose an idea to help reimagine what this town could be," said Hernandez.



"Where we are now versus Blacksburg, which is not that far away, the difference in the towns is pretty drastic," said Camille Lyles, another senior architecture student. "There's a lot of great architecture, but since most people in those towns are leaving those areas, a lot is falling into disrepair or completely falling down, which loses a little bit of history. It's one of the things that's really cool about this experience, that we might be able to help preserve some of the great architecture here in Appalachia."

Pocahontas Mayor Benjamin Gibson, leaders from the Cumberland Plateau Planning District Commission, and members of Historic Pocahontas Inc., a local preservation organization, met with students throughout the day on Jan. 25. Students were given the opportunity to ask questions before spending Jan. 26 measuring, photographing, and sketching buildings that will serve as the basis for design concepts. One focus will be the Pocahontas Fuel Building, a structure built during World War II.

"The Fuel Building is a sturdy brick building in town that was once the headquarters of the Pocahontas Fuel Company. The community is looking to adaptively reuse the structure to support economic development, with a focus on things like tourism, health care access, and affordable housing. The students will use these ideas as starting points to engage in conceptual design work to support this vision," said Jones.

"There was a lot of history reviewed, so how do we use that history to push forward into the future? There are some spots that have set for a while and we've been stuck, and I think what we've learned today is that we have a path forward," said Gibson. "Having outside help from Virginia Tech is positive news for the town that builds excitement in the citizens that live here, but it also builds excitement for entrepreneurs who see the local government is taking extra steps to help the local economy and the community."

Gibson said most residents are in their 70s and 80s and appreciate the opportunity to share what Pocahontas used to be like, giving Virginia Tech students more insight into the town's history. Younger residents were present to share changes they would like to see in their community, changes Gibson hopes will retain future generations and attract others.

"I think by the Virginia Tech students listening to some of the youth, they'll get an idea of what the younger generation also needs and what can make their life a little bit easier because that attracts younger generations here," said Gibson.



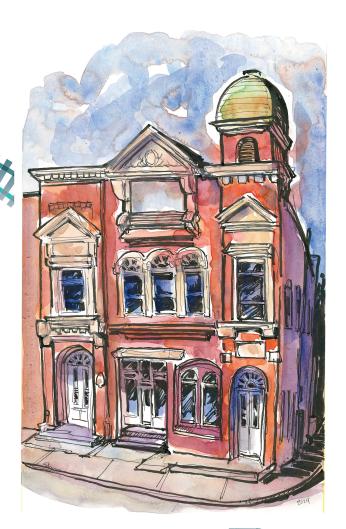
(below) Architecture student Chris Hoyt sketches buildings in Pocahontas, Virginia, as part of the inaugural semester of Appalachian Futures Lab.







(top left) Students tour the former Pocahontas firehouse. (top right) Camille Lyles sketches the buildings and takes measurements for 'existing conditions' drawings.



"One of my favorite things is being able to talk with the client and actually get a sense of what they need and be able to fill that need and figure out what we can do that's going to be best for them," said Lyles. "This is a great opportunity to have more experience working directly with the community."

For more than 50 years, the School of Architecture has focused the education of architects around the ideas of thinking by doing and learning through making. Empathy and creativity are at the core of their efforts. Students pursue work that is impactful and design processes that are inclusive and that cultivate community—*Ut Prosim* (That I May Serve) in action.

"These students, these architects, that I teach at Virginia Tech are interested in having an impact. They want to make change in the world, and they're chomping at the bit to do that. This is how you do it. You go out, you talk to people, you meet them where they are, and you bring the work to them," said Jones.

The Appalachian Futures Lab is serving the region and offering students hands-on field experience, but it is also a cost-effective opportunity. The cost per student is estimated at \$1,000. With institutional funding from the School of Architecture and the College of Architecture, Arts, and Design, as well as in-kind support and resources from community partners and other stakeholders, the experience for all students this semester was completely covered.

Jones said he hopes this first semester will allow the students and faculty to build relationships and shape future opportunities for service. In February, the group will visit The University of the South in Sewanee, Tennessee, to engage with members of



the Roberson Project and the people of the town's historic Black St. Mark's community. This visit will lay the groundwork for the lab's work in the fall: a collaboration with students and faculty from Virginia Commonwealth University, the University of the South, and the St. Mark's community to design a new Memorial Classroom on the site of the former Kennerly School, a two-room structure that served the African American families of the town during segregation.

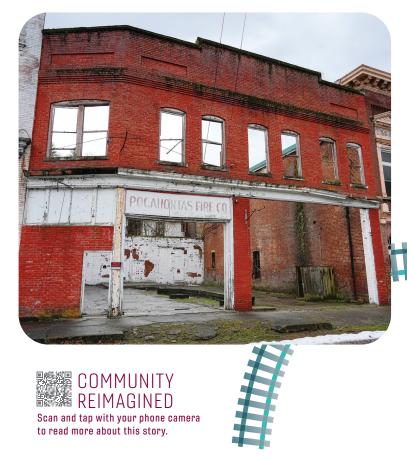
"We're excited to see what the semester brings. The idea is that maybe each semester and each town is about a set of outcomes, and that over the semesters and years, there's a body of work that adds up to something more than the sum of its parts," said Jones.

Partners and stakeholders for the spring semester include:

- Town of Pocahontas
- Historic Pocahontas Inc.
- Virginia Department of Environmental Quality
- Virginia Department of Energy
- Virginia Tech Community Design Assistance Center
- Roberson Project, Sewanee: The University of the South

The dedication of faculty in the School of Architecture to provide transformational learning experiences for all students, regardless of financial ability, echoes the university's priority to do the same through Virginia Tech Advantage, a universitywide, multiyear commitment to offer a broad educational experience to undergraduate students from Virginia who have financial need.

(below) The former Pocahontas firehouse is one site being investigated this semester for reuse.







COAST-TO-COAST DEVOTION

By Jimmy Robertson

Liz Lazor lives and works in California, but the young alumna always remains connected to Virginia Tech and never hesitated when asked to become a tri-chair for Boundless Impact: The Campaign for Virginia Tech.

It's not a stretch to say that Liz Lazor '15 offered a different perspective when she joined the Boundless Impact Campaign Steering Committee in 2018.

The youngest committee member, she looked at topics more with the eyes of a student compared with her more established and successful committee counterparts.

"I have a close pulse on the student experience and what that is like," Lazor said.

Then she added, laughing, "The first few meetings that I went to, I was staying with my friends who were still in college. I was crashing on their couch to go to these meetings, while many of my fellow board members were flying in privately, so I had a different view from that perspective."

That youthful perspective, along with her energy and excitement for all things Virginia Tech, played major roles in the university's Advancement Division asking the 30-year-old to be one of the tri-chairs of the steering committee for the upcoming term.

On March 14, 2023, the university announced Lazor, along with Deseria Creighton-Barney '86 and J. Pearson '87, as the new tri-chairs of Boundless Impact: The Campaign for Virginia Tech. Together, they will lead the university's ambitious \$1.872 billion fundraising campaign designed to drive forward major initiatives and scheduled to run through Dec. 31, 2027.

Lazor received the invitation to be a tri-chair during a call with Angela Hayes, associate vice president for advancement and campaign director, a call that surprised her in a good way.

BEING SO INVOLVED GAVE ME A LOT OF ACCESS AS A STUDENT TO ADMINISTRATORS AND FACULTY MEMBERS THAT I WOULDN'T HAVE OTHERWISE SOUGHT OUT."

Liz Lazor '15

"I really thought she was going to say, 'You haven't been attending enough meetings,' or sometimes I do them virtually, or I didn't donate enough compared to my peers on the board who have buildings named after them," Lazor said. "She said, 'No, we want you to be one of the tri-chairs,' and she told me, 'Think about it. You know you don't have to answer now.'

"I said, 'I'll answer you right now - yes. Before you change your mind, I'm going to take this."

Lazor, who graduated with a degree in finance from the Pamplin College of Business, works in Palo Alto, California, where she lives with her husband, Siggi Simonarson '13. Her background in student governance while at Virginia Tech makes her an ideal fit to be both

on the committee and in a position of leadership. During her time at the university, she served as a residential hall advisor, class treasurer, and student body president.

"Being so involved gave me a lot of access as a student to administrators and faculty members that I wouldn't have otherwise sought out," Lazor said. "Being on the campaign steering committee has been a similar experience in that the campaign steering committee is working with administrators and faculty members to reach those goals. They're in the meetings with us. They're the ones giving us updates on what's happening with the university, so it feels very, very similar in that regard."

In addition, Lazor has enjoyed career success in the financial industry, and



Tuna Shankar (left) and Liz Lazor (right) served as vice president and president of the student body during the 2014-15 academic year. Virginia Tech photo. (opposite page) Liz Lazor joined with fellow Hokie alums at a gathering in San Francisco, California earlier this year. Photo by Kathleen Sheffer Photography.

those skills will serve the committee well. A certified financial planner, she originally wanted to live and work in New York City, but an interview with a company in Palo Alto sold her on California – so much so that she called a New Jersey firm to turn down an offer before even landing an opportunity in California.

She later made the bold decision to leave her original place of employment and join a startup company, which allowed her to earn ownership shares and increased pay and gain more of a voice in the business' direction. The startup was eventually acquired by Wealthfront, and today, she manages partnerships for Wealthfront.

"I'm there for what I want right now," Lazor said. "I love the partnership/ business development angle, and I think that plays to my strengths. It's very relationship heavy, and it's these long deals, a lot like what happens on this board. You've got to form these relationships that may take several years before a deal is made or pays off, but I like that, and I am not as interested in the transactional type of work. I don't know 10 years from now, but right now I do love what I do."

No matter where she works or lives or what she is doing, Lazor finds a way to remain connected to Virginia Tech, though that's almost easy considering her familial ties to the university. A Northern Virginia native, she is one of five children – all of whom graduated from Virginia Tech and three of whom participated in student government at the institution. So, her experiences and those of her siblings often generate conversation about their undergraduate days.

Also, Lazor has been active in alumni activities in the Bay Area since her arrival there. Many alumni members

gather occasionally at The Bus Stop in San Francisco to watch games and engage in general revelry—events sometimes enjoyed with the consumption of a shot of Wild Turkey, of course, in honor of the university's mascot. In fact, former football coach Frank Beamer attended one of their events, using his personal skills to engage with the Bay Area Hokies.

It's that feeling of pride for her school, a bond among most alumni, and the university's impact globally that led her to get involved with Boundless Impact. Today, she believes so much in its goals that she wants to remain a part of it in the years to come. She even took a week off work in October to come back to Blacksburg for a committee meeting and to watch the Hokies' Thursday night football game against Syracuse.

"I don't know what I'll do after this board," she said. "But I'm happy to be here as long as they want me to be here, and then after that, there are some other groups and boards that have asked for my participation. I want to be focused on one thing, so I've been careful about not doing too many other things. But I'll stay on this board as long as I can."

The Campaign for Virginia Tech continues toward its 2027 conclusion with a fundraising goal of \$1.872 billion. As of Feb. 29, the campaign, which was announced in October 2019 and also has a goal to engage 120,000 Hokies, had raised \$1.546 billion (83.56 percent of goal) and engaged 99,326 (83 percent of goal) alumni.

To make a gift or learn more about the campaign, visit give.vt.edu/why-give.



Scan and tap with your phone camera to learn more about the campaign..



HOKIES IN FOCUS

1a-b celebrating support

Young alumni in the Pylon Society gathered at Club House in Washington, D.C., for a special event recognizing their generous and loyal support of Virginia Tech. Pylon Society members qualify in two ways: giving to any Virginia Tech college or program in consecutive fiscal years or establishing recurring, monthly gifts. Photos by Travis Carr.



Thousands of Hokies across the world participated in the annual Hokie Hike. Some alumni chapters, including Central Florida pictured, hosted meetups. Photo courtesy of Christina Salisbury.

3 HOKIE HAPPY HOUR

Virginia Tech's Asian Pacific Islander Desi Alumni Society gathered in D.C. for a happy hour. The society is one of five inclusive alumni groups. Photo by Kristen Swanson Houston.











4 GO HOKIES

Cornerstone Alumni and Roanoke Hokies partnered to host a game watch party at Brandon Oaks Retirement Community for the Boston College game. Photo courtesy of Shannon Hammons.

5a-d BOUNDLESS IMPACT

We hosted campaign events in Dallas, Austin, San Diego, San Francisco, and Naples, where alumni and friends learned about our presidential priorities, Virginia Tech Advantage and Virginia Tech Global Distinction. They reflect the university commitment to making college affordable and accessible and institutional excellence across research, teaching, and engagement. Virginia Tech photos











GIVING DAY

PLAY BY PLAY

By Dacota Liska

In an inspiring display of community spirit and generosity, more than 18,900 Hokies representing 21 countries and 50 states raised more than \$13 million for Giving Day 2024. The event broke records and crushed last year's totals.

For 24 hours from noon Feb. 21 to noon Feb. 22, members of Hokie Nation stepped up to support their favorite colleges, departments, programs, teams, student organizations, and more. ■

KEEPING SCORE

18,946: Hokies got in the game and made a gift

More than \$13M: Dollars raised

1,511: Ambassadors who shared their passion, raising \$744,531.86 through 10,574 gifts

Australia: Location of our farthest gift

168: People who attended Giving Day parties in Washington, D.C., and Richmond

Pamplin College of Business:

Winner of the Most Donors Leaderboard and the Most Amount Raised Leaderboard

Rec Sports: Winner of the Beat Your Best Donors Leaderboard





Scan and tap with your phone camera to watch a video and read more at givingday.vt.edu.

ALUMNI FARMING FAMILIES

MAKE CONSERVATION A PRIORITY

By Marya Barlow

What do a sustainable grass-based livestock farm in Loudoun County, a fifth-generation former tobacco farm in Pittsylvania County, and a fourth-generation cattle farm in Louisa County have in common?

They are all Hokie-owned and -operated family farms that are doing their parts to preserve Virginia's waterways and natural resources.

Three Virginia Tech alumni families recently earned Virginia Clean Water Farm Awards from the Virginia Department of Conservation and Recreation. The awards recognize up to 10 farmers from among the commonwealth's 47 soil and water districts whose conservation practices and dedication to protecting natural resources make them role models for producers across Virginia.

Though their backgrounds and approaches are different, these families demonstrate a commitment to soil, water, and land conservation on their farms.

JUSTIN '08 AND CASEY '09 WISCH

own Long Stone Farm in Loudoun County, a 250-acre farm specializing in pasture-raised beef, pork, lamb, chicken, and eggs. They sell their products to regional restaurants and stores and also operate two farm stores, offer farm and culinary tours, and produce small-batch cider and wine from their orchard. The Wisch family focuses on producing high-quality meat and eggs in managed grazing systems that are beneficial to livestock and surrounding ecosystems.

Everything produced on the farm is free of antibiotics, hormones, pesticides, insecticides, and herbicides.

FRED MASSIE '78, AND HIS SON, PETER,

were recognized for conservation measures on their fourth-generation family farm in Louisa County. The father and son graze cattle on 450 acres across multiple farms in the York River Basin. They have steadily transitioned from an open pasture system to rotational grazing techniques, which move cattle from field to field and are better for soil and wildlife health. Since 2018, they have worked with the Thomas Jefferson Soil and Water Conservation District to install infrastructure protecting 33,000 feet of stream bank and created 75 acres of natural vegetation buffers to protect streams and important wildlife corridors.

TIM ALDERSON '87 AND HIS FAMILY

strive to implement conservation practices on their 210-acre Pittsylvania County farm by improving surrounding water quality and sharing information with other producers in the area. Alderson helps preserve the health of his land by using rotational grazing to feed his 75 cow/calf pairs and three bulls. He keeps cattle away from streams and ponds by using 28 acres of natural buffer zones, 12,000 feet of fencing, and alternative watering facilities that include troughs, wells, and 11,000 feet of pipelines. He routinely takes plant and tissue samples to ensure soil health for the best quality forage to feed his cattle.



Justin (at left) and Casey Wisch. Photo courtesy of the Wisch family.



Peter Massie (at left) and Floyd Massie. Photo courtesy of Jessica Shippen-Hansen.



Tim Alderson (at left) and Virginia Secretary of Natural and Historic Resources, Travis Voyles. Photo courtesy of Virginia Department of Conservation and Recreation.

UNLIKELY PATHS LEAD TO SUCCESS

By Melissa Vidmar, Jimmy Robertson, and Lindsey Byars

ZACH JACOBS

GRADUATE SUPPORTS COMMON-WEALTH EDUCATION SYSTEM



Zach Jacobs '19, assistant secretary of education for Virginia, exemplifies the university's motto *Ut Prosim* (That I May Serve) by serving the residents of the commonwealth. Jacobs, who earned a dual degree in agribusiness management and national security and foreign affairs, works with the General Assembly, university presidents, and higher education liaisons to ensure that Virginia's university system is top-notch and produces graduates who want to live and work in Virginia.

"At the end of the day, the entire administration works to make sure our education system is best in class, whether that is K-12 or in higher education," Jacobs said.

Before becoming assistant secretary of education, Jacobs worked as a senior legislative assistant for the U.S. House of Representatives and as a legislative specialist for Virginia Farm Bureau.

"I always knew that I wanted to go to college and to make it happen, I would have to pay my way," said Jacobs, who was a first-generation college student. "After I was accepted, I applied for scholarships all the time."

Some semesters were harder than others. Jacobs had to work to make ends meet, including as an on-campus Microsoft and Amazon Prime representative, at the Copenhaver Sheep Center, as a waiter, and in paid internships over the summer. His resilience paid off.

Jacobs is grateful for all the opportunities and mentors who helped him along the way. One of his mentors helped him connect with people whom he subsequently worked with.

"Find those connections people have and work with your mentors to reach out," he said.

"One of the most meaningful ways I have always shown my gratitude is by sending handwritten thank you notes."

He said this is an underrated touch point in the professional world, but if you can write one, do so. "It goes a long way and people remember that."

BRYSON BAUMGARTEL ALUMNUS MAKES BROADWAY CONDUCTING DEBUT



Many students enroll at Virginia Tech with well-placed desires of pursuing an engineering degree. So, too, did Bryson Baumgartel '14.

But just a week into his first semester, he opted to strike a different chord and seek a rather unlikely course of study for someone with his mathematical aptitude.

Baumgartel's decision to pursue a degree in piano performance from Virginia Tech led to him being front and center on the world's biggest stage. In early October, he made his Broadway conducting

debut for the American musical "Merrily We Roll Along."

"It was really thrilling," Baumgartel said.

The performance marked the latest in an ascending career-one that can be traced to his time at Virginia Tech. He started studying and playing the piano at a young age, but stopped taking private lessons before going to high school to pursue other interests and only played casually until he arrived in Blacksburg.

Baumgartel served as the music director for Juxtaposition, an all-male acapella group, while at Virginia Tech. He also secured an internship with Disney during his junior year with noted conductor and music director Michael Kosarin on the pre-Broadway production of "Aladdin."

After graduation, he worked as a rehearsal pianist and music assistant under Kosarin again, this time in "Beauty and the Beast," which ended up taking him to London and on an international tour throughout Asia and the Middle East.

He later worked at Tuacahn Center in Ivins, Utah, where he landed his first job stick-conducting a show, in addition to working for other regional theaters. He subbed on the keyboard for "Aladdin" in 2018 and reached a big milestone when he played for the show on Broadway.

"Virginia Tech was such a good fit for me, and I had professors who were just happy to meet me where I was and just take it in stride and work on getting my technique back into shape, getting my sight reading back into shape," he said. "I always tell people I don't think that I could have arrived the way that I did at many other schools, so I felt super lucky in that regard."

AUDREY MILLER ALUMNA USES ART TO **CURATE CONNECTIONS**



Fine arts majors typically don't have a traditional career path after graduation. The options are diverse, and paths with other artists often intersect at interesting points.

Audrey Miller (pictured above left), a 2016 graduate from what is now the College of Architecture, Arts, and Design, uses the diverse skills gained through experiential learning opportunities and courses in the School of Visual Arts to curate art spaces for the Workhouse Arts Center in Lorton, Virginia.

Her most recent exhibition, "VMFA: Futures," pulled pieces together from the 2022-23 Virginia Museum of Fine Arts fellowship recipients. Included in her selections were photographs by fellow Hokie Michael Borowski (pictured above right), associate professor and the college's interim associate dean for research and creative scholarship.

"When I'm choosing artwork to be in an exhibition, I'm trying to choose artwork that is not necessarily in the same medium or exploring the same topics as the artists on site, bringing additional variety into the gallery space with things that people might not see while they're already on campus," Miller said.

Miller continued, "Michael Borowski's photography is a transformative work, combining AI artwork brought into 3D space by using a salt print technique, the primary way that photographs were printed in the 1800s, the time his body of artwork referenced, and I thought that was really fantastic. It just so happened that he was a photography teacher at Virginia Tech, and I graduated from there."

For Miller, curating an art space is about bringing those different voices together to engage the public in perspectives and opinions for their consideration.

"Even if you don't agree with what the artist has to say, hopefully viewers can appreciate the way the artwork is presented and come away thinking about it differently," Miller said.



Read more about each of these young alums at news.vt.edu/magazine.

MILESTONES





- "We met at Virginia Tech in 2015, but our love story didn't begin until almost three years later in Arlington, Virginia. We got married in Hahn Horticulture Garden with lots of fellow Hokies in attendance." —Lisa Hemphill Burns '16, Arlington, Virginia, who married Ryan Burns '15, 7/1/23.
- "Burrito the burro donned colorful florals and joined in the fun at our Arizona wedding." —Brianna Hannigan Alaffa '11, Chandler, Arizona, who married Gregory Alaffa, 4/2/23.
- "At our wedding in Charleston, South Carolina, in October, our DJ played 'Enter Sandman' to call all the Hokies from dinner to the dance floor for the alumni photo, and the room exploded with energy—it was one of my favorite moments of the reception!" —Mary Lee Carter '16, Raleigh, North Carolina, who married Ryan MacCrea, 10/21/23.
- "Noah Lucas Coffren is pleased to introduce his new baby sister to Hokie Nation." —Rommelyn Conde Coffren '07, M.A. '12, Christiansburg, Virginia, who along with Zach Coffren '08, welcomed daughter, Lana Grace Coffren 9/28/23.
- "Emily and I, along with my parents, Don and Suzy, are always Virginia Tech loud and proud, even on our wedding day." —Bryan Furr '14, Norfolk, Virginia, who married Emily Probin, 9/23/23.
- "We said our vows in War Memorial Chapel," -Hannah Shinnault Deuyour, MPH '23, Christiansburg, Virginia, who married David Deuyour '02, MACIS '18, 6/17/23.







Alumni, we want to hear what you've been doing. Mail career, wedding, child, and death news to Class Notes, Virginia Tech Alumni Association, Holtzman Alumni Center, 901 Prices Fork Road, Blacksburg, VA 24061; email the information to classnotes@vt.edu; or submit online at vtmag.vt.edu/submit-classnote.php, where photos may also be uploaded for consideration. For assistance, call 540-231-6285

CAREER John B. Lindamood, Columbus, Ohio, former professor at The Ohio State University, was featured in the 2022 summer edition of The Ohio State University Alumni Magazine in recognition of his collaboration with Ohio State professor Poul Hansen to develop a chocolate coating to prevent sogginess in Drumstick ice cream cones, now manufactured by Nestle.

CAREER Herbert H. Hash Jr., Boone, N.C., published a book, "A Theologian's Thoughts on Timely Topics.

CAREER **Peter L. King**, Rehoboth Beach, Del., published a fifth book through Productivity Press, "Production Scheduling for the Process Industries" along with Noel Peberdy and Mac Jacobs. King's company, Lean Dynamics, consults in lean manufacturing with companies in pharma and the food and beverage industry.

-'67 –

CAREER Richard B. Washington III, Alcoa, Tenn., retired from Fork Union Military Academy after 35 years teaching middle school mathematics then relocated to be closer to his children.

Gerald W. Barnes, Lakeland, Fla., retired from the Army Corps of Engineers, lives near "grands," and completed his third combat survivors' book of stories for publication in December 2023. Book proceeds will benefit veteran causes. A final book is planned for release in 2024.

'74

CAREER John C. Harves, Olney, Md., along with Neil Gillespie '75, published a second edition of "The Ultimate Soccer Dictionary of American Terms" containing over 5,000 defined entries

CAREER Neil E. Gillespie, Chambersburg, Pa., along with John Harves '74, published a second edition of "The Ultimate Soccer Dictionary of American Terms" containing over 5.000 defined entries

CAREER Cecil L. Willis. Wilmington, N.C., released a memoir, "Hillbilly Odyssey," through Redhawk Publications.

CAREER Bruce B. Harper, Blacksburg, Va., retired from Virginia Tech June 30, 2023, following a 37 1/2-year career. He was the first and only Virginia Tech webmaster from the start of the university's presence on the web.

CAREER Gary S. Michel Charlotte, N.C., authored a book, "deComplify: How Simplicity Drives Stability, Innovation and Transformation," published by Forbes Books.

CAREER Barbara A. Murphy, Great Falls, Va., is a managing director and partner focused on U.S. real estate opportunities for the Carlyle Group. She is based in Washington, D.C. Prior to joining Carlyle in 2000, she was with Lincoln Property Co. in Arlington, Va., and KPMG in Washington, D.C.

CAREER Wayne Z. Welling-

ton Jr., Charleston, S.C., who was elected American Nurses Association (ANA)-Illinois president, received the Excellence in Nursing Leadership Award 2023 and the Power of Nursing Leadership: Pinnacle Leader Award 2022. He has been a member of the Illinois Nursing Foundation board of directors and the ANA-

'WRITING SAVED ME'

House music was created in Chicago in the late 1970s by Black and primarily gay DJs. And when it comes to the inside track on the genre, look no further than Vonda Paige '86.

Paige is executive producer and producer of "The Woodstock of House," a 2021 docu-



mentary that explores the story of Chicago house music. The film features some of the musicians and DJs who mixed techno, disco, soul, and funk that defines the genre. To date, the film has won 10 awards and been screened in 17 film festivals.

The first in her family to attend college, Paige took advantage of many opportunities at Virginia Tech. She wrote for the Collegiate Times, eventually advancing to news editor. "Master the fundamentals -writing, for example, or math-and you will always have work," she said. "Being a communication major is the foundation for all jobs I've had. Writing saved me."

When carpal tunnel syndrome upended her journalism career, Paige landed at the Tavis Smiley Foundation, and later, co-founded 2ChiEntertainment Co.

Vice president of the Black Alumni Society, Paige has over 25 years of experience in nonprofit management, marketing, social media, and public relations.

Illinois Legislative Committee, is associated with the alumni of the Amy V. Cockcroft Fellowship of Healthcare Leaders, and is a recipient of the Palmetto Gold Nurse Award.

'90

CAREER Michael P. Maxwell, Hartland, Wis., was appointed to the commercial court docket by Chief Justice Annette Ziegler.

____'92

CAREER Christina L. Hennessey, Reseda, Calif., is director of the Unified Library Management System at the California State University, Office of the Chancellor, in Long Beach, California.

CAREER Robert Lucas Hobbs, Bristol, Va., who serves as a general district court judge in Abingdon, Virginia, was elected secretary of the Association of District Court Judges of Virginia.

-'9**7** —

CAREER Jennifer L. Price Hall, Pittsburg, Kan., joined Pittsburg State University as director of development for the Kelce College of Business.

CAREER Jeremy A. Bartz, Chantilly, Va., was named president of E4H Environments for Health Architecture

WEDDING Sarah Slotsky Bazydlo, Charlottesville, Va., and Russ Bazydlo, 5/13/22.

CAREER Christopher A. Bogus and Juliette Barnes Bogus, Mount Pleasant, S.C. and Charleston, S.C., celebrated two anniversaries this year-10 years in business and 21 years married. Their advertising business, formerly B Squared and now Inspire Agency, specializes in nonprofits, mental health organizations and companies, life sciences, and medical technology.

'02

WEDDING David Deuyour and Hannah S. Deuyour MPH '23, Christiansburg, Va., 6/17/23.

'05

CAREER Jessica Kiser Drake, Williamsburg, Va., graduated from the 2023 Virginia Rural Leadership

'06-

CAREER Catherine J. Jackson, Roanoke, Va., a partner at Gentry Locke who was named the Roanoke Bar Association 2021 Young Lawyer of the Year, has relocated to the firm's Lynchburg office.

Jochen M. Schwarz, Chapel Hill, N.C., joined North State as a commercial banker for the downtown Raleigh

'07—

CAREER Nicholle Depaz Clinton, Vienna, Va., was one of the former Hokie athletes who coached the inaugural Peru women's lacrosse team to a fourth-place finish at the Pan American Lacrosse Association Games in Jamaica.

Britt K. Faulkner, Arlington, Va., was one of the former Hokie athletes who coached the inaugural Peru women's lacrosse team to a fourthplace finish at the Pan American Lacrosse Association Games in Jamaica.

CHILDREN Rommelyn Conde Coffren M.A. '12, Christiansburg, Va., a daughter, 9/28/23.

CAREER Jacob R. Grohs, Blacksburg, Va., is interim director of the Center for Educational Networks and

Manisha P. Patel, Greensboro, N.C., who earned the Legal Elite distinction as published by Business North Carolina magazine, was honored as an inductee into the North Carolina Pro Bono Honor Society.

Brian P. Damewood, Purcellville, Va., won the National Auction Association's men's 2023 International Auctioneer Championship, which was held in Oklahoma City in July 2023.



HOMECOMING WEEKEND OCT. 26-27

Return home this fall for our Homecoming Weekend celebration. Enjoy the parade downtown and a tailgate Saturday morning before the Hokies take on Georgia Tech. Registration for the fall celebration will open this summer.



ALUMNI WEEKEND JUNE 6-9



In the meantime, check our other upcoming events in Blacksburg and in your area. Scan the QR code or visit alumni.vt.edu/events.



Ryan T. Beethoven-Wilson, Glenn Allen, Va., has been promoted to partner at Keiter, a Richmond-based accounting firm.

CAREER John C. Kollar, Cincinnati, Ohio, is a subsection manager for tip sensor and separable instrumentation in the test systems engineering division of GE Aerospace.

Ellen S. Mendyk Erickson, Arlington, Va., was accepted to be a U.S. diplomat with the U.S. Department of State Foreign Service (Political Cone).

CHILDREN Ellen S. Mendyk Erickson, Arlington, Va., a son, 4/10/23.

CAREER William M. Farmer, Salem, Va., was appointed chief revenue officer for CarNow.

WEDDING Brianna G. Alaffa, Chandler, Ariz., and Gregory Alaffa, 4/2/23.

CAREER Doray A. Lively, Austin, Texas, is director of project management at Berry Consultants in Austin, Texas.

WEDDING Doray A. Lively, Austin, Texas, and Jason Lively, 6/23.

CHILDREN Stephen "Ty" Hodges, Williamsburg, Va., a daughter, 6/30/22

CAREER Connor J. Durham, Shawsville, Va., teaches at Christiansburg Middle School. Melissa Farmer Richards, Hubbardsville, N.Y., was appointed vice president and chief of staff of Emer-

son College.

Joshua T. Smith, Dallas, Texas, one of 15 Bell Nunnally attorneys named to the 2023 Texas Rising Stars List, was named to the Best Lawyers: Ones to Watch in America 2024 list.

WEDDING Connor J. Durham, Shawsville, Va., and Tori Radday,

Bryan Furr, Norfolk, Va., and Emily Probin, 9/23/23.

CAREER Hunter C. Taylor, Martinez, Ga., founded a 3D metal printing company specializing in micro-second process control of laser-powder bed fusion systems.

WEDDING Melissa L. Haas, Charlotte, N.C., and John Osinga, 9/23/23. Ryan Burns and Lisa Hemphill Burns '16, Arlington, Va., 7/1/23.

WEDDINGS Mary Lee Carter, Raleigh, N.C., and Ryan MacCrea, 10/21/23.

Nick Robertson and Morgan S. Robertson'17, Raleigh, N.C., 3/4/23.

WEDDING Bryan R. Furr, Norfolk, Va., and Emily Probin, 9/23/23

CAREER Sabrina J. Tolbert Blacksburg, Va., joined Goodell DeVries as an associate in the medical malpractice practice group.

CAREER Brian C. Gore, Henrico, Va., received the first-ever Virginia Associates Award from AIA Virginia. The award recognizes his commitment to mentorship and advancing diversity, equity, and inclusion in the architectural profession.

Collin M. Ito, Virginia Beach, Va., graduated from the U.S. Air Force Airman's Leadership School on Aug. 24, 2023.





HOKIE TRAVEL TOURS

Go on a journey with fellow Hokies. Let Virginia Tech be your guide with trips for all experience levels and budgets. Our tours are open to all Virginia Tech alumni, friends, and family. Here's a look at what's coming up.

Visions of Alaska Jewels of the Rhine with Lucerne

June 21-28 Aug. 2-11

Baltic Sea Beauty A Viking's Crossing

Aug. 24 - Sept. 11 July 16-26

For more information about this trip and other travels tours, go to alumni.vt.edu/travel.



DON'T FORGET TO SMILE

If you've traveled alongside Hokies, you know how special our trips are. Share your memories and photos with us, and we'll spotlight some of your experiences in an upcoming issue of Virginia Tech Magazine. Email us at alumni@vt.edu.

TAKING UT PROSIM TO AFRICA

By Jimmy Robertson



A chance encounter between an American granddaughter and a young girl from the Maasai tribe in a remote part of northern Tanzania sparked the forming of a nonprofit organization and the building of a boarding school that is changing lives in this African country.

That encounter also interrupted the retirement plans of Theo Dil-

laha, a former professor in the Department of Biological Systems Engineering at Virginia Tech.

"I think we're all a little shocked at what we've done," Dillaha said.

With assistance from many people with Virginia Tech connections, Dillaha and his family and friends have started the Maasai Education Foundation, which is raising money for the operation of and the building out of the Engaruka English Medium Primary School. This school currently meets the educational needs of approximately 270 Maasai students in the Engaruka region.

In 2016, Dillaha, his family, and friends traveled through the Engaruka region on a 10-day safari. During one of the group's stops, Daphne Kibler—7 years old at the time and Dillaha's granddaughter—befriended a Maasai girl of similar age named Maria. The two girls bonded, even though Maria spoke little English.

"There's not a lot of a language barrier for two kids chasing goats," Essra Kibler '02, Daphne's mom, said, laughing. "Maria was so excited to teach Daphne all she knew about goat herding because that was also one of her responsibilities in the family, and Daphne told me, 'I'll never forget that. Maria is the bravest girl I've ever met."

Maria, though, did not attend a school because few girls in Maasai culture get an education, and Daphne struggled to understand that concept. Upon returning to the United States, her mom decided to become an educational sponsor for Maria, but that meant getting Maria's family to agree to send her to a school away from the family's remote home.

"I thought going to school was as simple as us sponsoring the tuition," Kibler said. "What I didn't know was there were no schools around there.... It was a much bigger ask than I thought."







Dillaha, assisted by Brian Benham, a biological systems engineering professor and Virginia Cooperative Extension specialist, ultimately established a foundation to build a school. In April 2017, the Maasai Education Foundation officially formed.

Seven years later, the school consists of nine classrooms, staff rooms, a nurse's room, a dining hall, a 120-bed girls' dormitory, satellite internet, and a water supply. Currently, boys sleep in an unused classroom.

In partnership with the Maasai Education Foundation, Virginia Tech's Service Without Borders (SWB), a student organization, sends students to the school every summer. SWB has raised money for a computer lab with 20 laptops, a playground, and drip irrigated gardens and orchards.

Jarek Campbell '21, M.A. '22, who graduated with degrees in geography from the College of Natural Resources and Environment, joined the organization and went to Tanzania in 2019. Campbell, who now works as assistant director of recruitment for the college, has since visited two more times, helping to build a playground and the computer lab and digging holes for fruit trees and ditches for the irrigation system.

"The first trip I would categorize as an adventure," Campbell said. "The second year I went, I really learned

about the people and connected my life to their lives. I kind of closed the gap, I think, between myself and the people in that community.

"This third year (2023), my travel turned from a window to a mirror. I was able to spend a lot of time to reflect on my life and think about what was important in my life."

Continued fundraising is critical for construction projects and for the success of the school. The foundation holds two fundraising campaigns each year.

"The one thing I would point out is we don't tell the school what to do," Dillaha said. "We give them advice. We finance much of the operation and construction, but we do not dictate.... This is their school. We're just trying to support them as best we can."

Several Virginia Tech alumni aid the cause. Most of the Maasai Education Foundation board consists of Virginia Tech alumni, including Steve Conner '83, MENG'87, the principal engineer for Schnabel Engineering LLC in Blacksburg; Margie Lee '82, DVM '86, the associate dean for research and graduate studies at the Virginia-Maryland College of Veterinary Medicine; Randy Stith, retired director of visual and broadcast communications at Virginia Tech; and Nina Tarr '20, CEO at the Center for Strategic and International Studies in

Washington, D.C. In addition, Colin Kibler, chief information security officer for Performance Food Group and Daphne's father, serves as the foundation's information technology lead.

Their efforts are paying off. Three years ago, the first class of fourth grade students at the school took a national exam required of fourth graders in Tanzania, and the class ranked in the top 2 percent nationally for schools with less than 40 students per class. The second fourth grade class took the exam in 2022, and it ranked No. 4 out of 85 schools district wide.

"We're obviously pleased," Dillaha said. "We've got that feedback now to validate what we're doing."

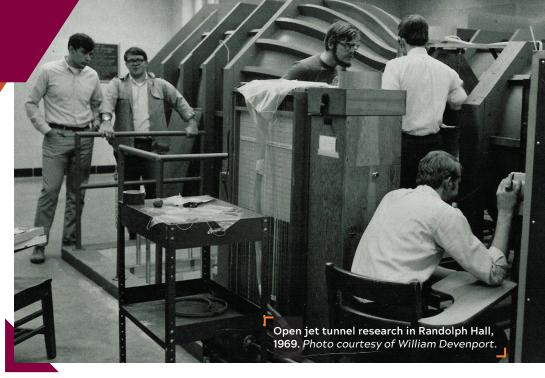
Dillaha said that the foundation's goals consist of finishing the buildout of the school. That means completing the boys' dormitory, two more classrooms, a small administration building, and teacher/ staff housing. Getting that done figures to take two more years.

Dillaha takes pride in what has been accomplished—even though his retirement hasn't been exactly what he originally envisioned.

"There are two rewards for me," he said. "I feel good about the impact it has on the students that are going to school and I feel great about the impact that it has on the Virginia Tech students."

RETRO





REMEMBERING RANDOLPH HALL

By Hayley Roulston

In 1959, Virginia Tech was tight on space due to its largest enrollment since the post-World War II boom. Throughout the '50s, the university's growth had steadily increased, reaching over 5,000 students. Adding Randolph Hall to the Blacksburg campus provided much-needed space for engineering students to learn as well as created a home for the chemical engineering and aerospace and ocean engineering departments.

In 2023, the once state-of-the-art building was taken down to make way for larger, modern classroom and lab space for engineering students. The building was a hub for engineering classes, the Frith First-Year Maker Space, the Stability Wind Tunnel, senior design project space, and research labs. Thousands of engineering alumni made memories there. A handful shared their stories during Homecoming Weekend.

(above) Jay Rule '75, M.S. '76, Ph.D. '88, wrote memories of Randolph Hall on a wall during a special event in the fall. Photo by Hayley Roulston.



"Instead of taking the normal aeronautical laboratory course, the aerospace Class of 1961 was given the honor of calibrating the wind tunnel that the school received from NASA Langley [Research Center]. I'll never forget the first time the wind tunnel was turned on—the glass observation window was sucked in, taking department head James B. Eades Jr.'s glasses with it."

Richard Ott '61



"In Orientation to Engineering 101, we discussed an essay: "Should Women Be Allowed to Take Up Seats in Engineering Classrooms?" The premise was that, by the time a woman was fully trained and productive, she would leave the workforce to start a family. This hit home. In 1971, 30 women started with me, but only six graduated with an engineering degree. When I graduated, there were fewer than 3,000 women engineering graduates in the whole country."

Carolyn Bucklen '75



"I made so many memories in Randolph Hall over the years, but my favorite was working on undergraduate research with Professor Craig Woolsey in the Nonlinear Systems Lab. We designed a desktop model of a variable speed control moment gyroscope. Professor Woolsey is still using it as a teaching model today."

Tiasha Khan 10



FROM PARTNERS IN ACADEMICS TO PARTNERS IN LIFE

Prior to the demolition of Randolph Hall, Virginia Tech engineering alumni and donors bid goodbye to the building that served the college for more than half a century. During a special event, Hokies gathered to write their favorite memories on a wall. For electrical engineering alumna Kimberly Puri '00 and her husband, Amit Puri '99, the memory was their love story.

KIMBERLY'S STORY

"Meeting my husband in Randolph Hall was one of the most beautiful memories that college gave me. It all began during our sophomore year at Virginia Tech. I remember the day so vividly. The building was buzzing with students from all walks of life, and specifically within engineering, from all corners of the globe. I was settling into my seat, preparing for the lecture, when I heard someone a few rows back trying to get my attention. As I looked up, there he was—my future husband—with a warm smile on his face. He had seen a pack of gum on my desk and politely requested a piece.

Over the next few weeks, we crossed paths more often, and our casual con-

versations evolved into deeper ones. We soon discovered that we had many common interests, dreams, and values. As we spent more time together, we started to build a deep and meaningful connection. We shared our dreams and fears, laughed together, and supported each other through the challenges of student life. We became not just partners in academics, but partners in life."

AMIT'S STORY

"Buildings carry stories, memories, and history within their walls, and seeing them crumble can evoke a mix of feelings. As the old makes way for the new, this represents the ever-changing landscape of Virginia Tech and its ability to adapt to evolving needs and technologies. Gone are the days of open fields and grazing cattle from Virginia Tech's core campus. State-of-the-art engineering facilities, like Mitchell Hall, will provide a fully modernized infrastructure to propel the college into the next phase of research and technology. And perhaps, within these new walls, Mitchell Hall will become the beginning of someone else's love story." ■



With the help of a \$35 million gift from Norris Mitchell '58 and his wife, Wendy, construction of Mitchell Hall, which will house new lab spaces and engineering classrooms, is planned for late spring 2024 with the initial demolition of Randolph Hall. More than 70 percent larger than Randolph Hall, the new facility will accommodate growth and innovation in research and teaching. Illustration by Virginia Tech Capital Construction.



Scan and tap with your phone camera to read more about this story.

·**44**____

David M. Bland, Plano, Texas, 7/16/2023.

-'45*-*----

James F. Dinwiddie, Moneta, Va., 6/19/2023.

Henry R. Forkner Sr., Reedville, Va., 8/18/2023.

Edwin H. Powell, Williamsburg,

Frederick R. Jarratt, McLean, Va.,

William C. Strauss III. Keymar. Md., 9/13/2023.

___'48____

Laurie V. Atkinson, Huntsville, Ala., 8/11/2023.

____'49____

Ernest J. Degen, Glen Allen, Va.,

Mason P. Holland, Columbus, Ga.,

George "Robin" Hunt Jr., Oakley, Utah, 8/14/2023.

Carroll L. Smith, Lynchburg, Va., 6/8/2023.

-'50 ——

William S. Davis, Winchester, Va., 6/11/2023.

Gordon Hammond Jr., Doswell, Va., 6/19/2023.

Robert O. Whaley Sr., Charlottesville, Va., 7/4/2023.

___'51 -

Beverly "Monty" Montague Anderson, Ashland, Ky., 9/19/2023.

Albert J. Engelberg Jr., Springfield, Mo., 8/17/2023.

Terry A. Hurlbut Jr., Plano, Texas, 8/18/2023.

Frank G. Lesure, Frederick, Md., 9/3/2023.

Evelyn C. Black Long, Blacksburg, Va., 8/8/2023.

Charles R. Sayre Sr., Watkinsville, Ga., 6/27/2023.

-'**52** ——

Guy W. Buford, Roanoke, Va., 9/8/2023.

Harry W. Carlson, Burlington, N.C., 9/8/2023.

Robert L. Foster Jr., Radford, Va.,

James C. Eggleston, Wilmington, N.C., 7/26/2023.

Thomas M. Grizzard Jr., Richmond, Va., 7/4/2023.

Wilfred "Jake" C. Williams, Warfield, Va., 8/22/2023.

James A. Zollman, Lancaster, Pa., 7/4/2023.

-'**53** -----

Robert D. Hunt Jr., Roanoke, Va.,

_'54 ----

Roger M. Brewster, Fredericksburg, Va., 7/20/2023.

T. Roger Chartters, Fredericksburg, Va., 8/13/2023.

P. Decatur Gwaltney IV, Manns Harbor, N.C., 8/24/2023.

_____'55____

Thomas E. Tabor III, Hillsville, Va., 8/21/2023.

_____'56____

Laura Davis Crawford, Oakmont, Pa., 8/16/2023.

William D. Ditman, Keller, Texas, 8/13/2023.

Charles E. Gray Jr., Delton, Mich., 9/5/2023.

Donald F. Mears, Elon College, N.C., 7/21/2023.

Betty Stenhouse Johnson, Sumter, S.C., 8/8/2023.

·' 57 ——

Charles William Cox, Columbia, S.C., 8/15/2023.

Hugh C. Hilliard Jr., Yarmouth Port, Mass., 7/23/2023.

Stuart T. Jones, Franklin, Va., 8/27/2023.

Sidney A. Martin Sr., Virginia Beach, Va., 8/28/2023.

Neubert Clayton Phillips, Buckhannon, W.Va., 7/5/2023.

David W. Robinson, Wheeling, W.Va., 7/19/2023.

Bronson E. Stoneman, Richmond, Va., 7/8/2023.

Samuel M. Williams, Mount Pleasant, S.C., 7/22/2023.

Claude W. Wilson, Franklin, Tenn., 6/21/2023.

Robert F. Woody Jr., Christiansburg, Va., 8/7/2023.

[']58 –

James R. Ballengee, Columbus, Ga.,

Nelson S. Burkholder Jr., Indian Trail, N.C., 1/7/2023.

Floyd N. Coppage, Albuquerque, N.M., 7/23/2023.

Francis W. Gencorelli, Merrick, N.Y., 6/27/2023.

Edward J. Gorman, Alpharetta, Ga., 8/3/2023.

C. Howard Robins Jr., Williamsburg, Va., 8/31/2023.

Dabney E. Short Jr., Chester, Va.,

___'59*___*_

Paul H. Baum, Dover, Pa., 6/20/2023.

James N. Brooks, South Hill, Va., 5/26/2023.

Allan L. Butler, North Chesterfield, Va., 8/31/2023.

Melvin A. Fiel, Ocala, Fla., 8/17/2023.

Bruce McIntosh II, Waterford, Va., 3/28/2023.

Michael J. Mugler, Yorktown, Va., 8/12/2023

George Thomas Riggin Jr., Longs, S.C., 8/6/2022.

William G. Roberts, Faber, Va., 7/12/2023.

David T. Shereda, Seattle, Wash., 7/27/2023.

-'60-

Jon H. Betts, Powhatan, Va., 7/28/2023.

Guy L. Bush Jr., Austin, Texas, 8/2/2023.

Roy Palmer Green, Alberta, Va.,

Ralph E. Snyder, Mebane, N.C.,

William W. Stover Jr., Simpsonville, S.C., 6/2/2023.

____' **61** _____

John H. Costenbader III, Virginia Beach, Va., 9/4/2023.

William D. Garwood Jr., Apple Valley, Minn., 3/28/2023.

Paul W. Lefebvre, Gainesville, Fla., 9/4/2023.

-'62 ----

Joseph Cary Bryant, Dillwyn, Va.,

Edgar "Eddie" L. Capps Jr., Newport News, Va., 7/30/2023.

Charles O. Farris, Southern Pines, N.C., 9/4/2023.

Robert L. Gillenwater, Summerville, S.C., 7/31/2023.

Bernard P. Gravely Sr., Glen Allen, Va., 6/8/2023.

Ronald E. Hilton, Jacksonville, Fla.,

Jerome A. Michelsen, Louisville,

Christopher P. Wright, Minnetonka, Minn., 8/25/2023.

<u> –'63 – </u>

William R. Elliott III, Phenix, Va., 1/22/2023.

David L. Graney, Fayetteville, Ark., 7/4/2023.

James M. Gray, Dunn, N.C., 7/6/2023.

Johnny M. Logan, Gray, Tenn., 7/2/2023.

Stanley C. Mayhew, Palm Bay, Fla., 8/7/2023

Leonard Lee Manning, Santa Fe, N.M., 8/7/2023.

Lyle C. Motley Jr., Painted Post, N.Y., 8/8/2023.

Joel P. Silvey, Gibsonville, N.C., 7/26/2023.

Russell H. Smith, Plymouth, Minn., 8/21/2023.

Howard G. Townsend Jr., Alma, Ark., 7/4/2023.

'64

William E. Klotz, Cary, N.C., 7/14/2023.

Joseph "Larry" Long, Franklin, Va., 4/25/2023.

William C. Ryder, Fort Mill, S.C., 7/17/2023.

–'65*–*

Willis C. Barrow, Norfolk, Va., 7/30/2023.

Robert G. Bremner, Mechanicsville, Va., 6/11/2023.

Robert E. Hathaway, Netcong, N.J., 8/26/2023.

Henry "Richard" Koelling, Hillsboro, Ore., 9/18/2023.

Richard L. Smith, Austin, Texas, 7/13/2023.

-'66*---*-

Donald T. Anderson, Charlotte, N.C., 6/29/2023.

Andrew B. Campbell Jr., Smyrna, Ga., 8/3/2023.

Norman R. Cox Jr., Carrollton, Texas, 8/1/2023.

Patsy Daniel Delohery, Marietta, Ga., 6/19/2023.

Hari C. Dewan, Punjab, India, 8/30/2023.

Kenneth W. Garnett, Vinton, Va., 7/24/2023.

Kenneth A. Skrivseth, Laurel, Md., 8/10/2023.

-'**67** ——

Gerald W. Duncan, Blacksburg, Va., 7/10/2023.

David A. DuFresne, Bethany Beach, Del., 7/12/2023.

Julian "Jerry" L. Greenwood Jr., Wilmington, N.C., 6/7/2023.

Lowell L. Koontz, Glen Allen, Va., 8/18/2023.

Dennis C. Loy, Ruckersville, Va., 8/12/2023.

Jesse D. Moon Jr., Long Island, Va., 1/4/2023.

Joseph A. Taylor, Kingsport, Tenn., 9/1/2023.

'68

Donald C. Ahlstrand, The Villages, Fla., 6/14/2023.

Thomas L. Bailey Jr., Westerville, Ohio, 7/26/2023.

Mary B. Kershes, Springfield, Va., 7/27/2023.

Thomas R. Morgan, Richmond, Va., 5/31/2023.

–'69*–*––

Roger W. Carico, Wise, Va., 7/12/2023.

Gary L. Cockram, Meadows of Dan, Va., 7/20/2023.

William Gregory Cridlin Jr., Cheriton, Va., 7/14/2023.

Mark R. Davis, Appomattox, Va., 9/12/2023.

James T. Gabbert Jr., Hernando, Ms., 6/20/2023.

Patsye L. Matthews Johnson, Deerfield, Va., 6/21/2023.

Paul W. McClanahan II, Stephens City, Va., 7/24/2023.

Norman E. Rose, Bumpass, Va., 8/19/2023.

Philip R. Stoneburner, Woodstock, Va., 7/21/2023.

-'70

Charles W. Cartwright Jr., Holiday Island, Ark., 2/3/2023.

Harry D. Immel III, Clarksville, Va., 6/6/2023.

Warner L. Pinchback, Danville, Va., 5/25/2023.

Calvin B. Rodgers, Mount Sidney, Va., 6/27/2023.

['] 71

James W. Breakfield Jr., Conway, Ark., 8/30/2023.

Bruce E. Mayer, Vinton, Va., 8/13/2023.

Cecil A. Overfelt Jr., Cary, N.C., 4/4/2023.

[']72

James R. Dolbear, Chester, Va., 6/14/2023.

Robert L. Keeton, Henrico, Va., 6/18/2023

Carol Senger-Korynta, Newport News, Va., 7/24/2023.

Anne King St. Clair, Mechanicsville, Va., 6/11/2023.

Thomas E. Willis, Mechanicsville, Va., 8/18/2023.

–' 73

Steven E. Harris, Ashburn, Va., 6/29/2023.

Don Paul Smith, St. Petersburg, Fla., 9/16/2023.

Thomas V. Williams Jr., Flint Hill, Va., 7/7/2023.

Gary H. Zehnpfennig, Roanoke, Va., 7/6/2023.

<u>-</u>'74 –

Susan Alford, Tazewell, Va., 6/13/2023.

Jerry B. Chase, Wytheville, Va., 8/15/2023.

Thomas A. Egeland, Fairfax Station, Va., 7/13/2023.

George A. Robertson, Columbia, S.C., 6/5/2023.

Gerald J. Stiles, Ferrum, Va., 8/30/2023.

—' 75 —

Carlyle P. Comer, Colonial Heights, Va., 6/13/2023.

Carl G. Dury II, Franklin, Tenn., 7/16/2023.

Dana Quesinberry Markham, Roanoke, Va., 9/15/2023.

David W. Rowland, Salem, Va., 9/13/2023.

John V. Thompson III, Salisbury, N.C., 7/21/2023.

[']76

Patricia A. Hunter, Centennial, Colo., 6/22/2023.

Julia Parish Jennings, Rural Retreat, Va., 6/10/2023.

Kevin V. Kelly, Riyadh, Saudi Arabia, 8/12/2023.

J. Lee Gravatte III, Washington, D.C., 6/29/2023.

Katherine E. Hines, Annandale, Va., 8/14/2023.

Reid "Chip" S. Lawson Jr., Acworth, Ga., 8/5/2023.

Barbara Reid, Atlanta, Ga.,

John B. Christian IV, Swoope, Va., 6/25/2023.

Gene A. Tingle, Roswell, Ga., 1/26/2023.

—'**78** ——

Richard T. Eudy II, Alexandria, Va., 7/3/2023.

Rosalyn P. Lawrence Ewing-Brown, Portsmouth, Va., 6/7/2023.

Sally Hoffmaster Foy, Blacksburg, Va., 4/3/2023.

Russell "Rusty" L. Lindsay Jr., Katy, Texas, 6/5/2023.

-'79 -

Edgar S. McClellan III, Clarksville, Va., 7/3/2023.

Steven T. Pondek, Bel Air, Md., 5/11/2023.

Charles A. Simko, Columbus, Miss., 6/12/2023.

Larry R. Sweeney, Verona, Pa., 7/27/2023

-'80*-*-

Edward F. Jablonowski, Burkesville, Ky., 6/28/2023.

Michael W. Sieve, Fairfax, Va., 8/4/2023.

-['] 81 -

Daniel C. Bowling II, North Tazewell, Va., 7/19/2023.

Thomas D. Ficklin Jr., New Kent, Va., 1/17/2023.

Carol Lowder Gay, Richmond, Va., 7/1/2023.

Lawrence A. Kenney, Hamden, Conn., 8/19/2023.



James N. Taylor Jr., Londonderry, N.H., 7/29/2023.

Douglas W. Trimble, Staunton, Va., 7/28/2023.

_**'82** ____

Raymond J. Riha, Williamsburg, Va., 8/1/2023.

Gertrude A. Russell Huster, Carmel, Ind., 6/7/2023.

Scott R. Stacey, Albany, N.Y., 8/4/2023.

-'83

Tammy J. Grimes, Savannah, Ga., 6/28/2023.

Anita S. Kessler, Roanoke, Va., 6/27/2023.

Ernest L. Seth Jr., Colorado Springs, Colo., 3/8/2023.

-'84

Nancy Donohoe Benoit, Wake Forest, N.C., 5/31/2023.

Richard A. Chandler Jr., Henrico, Va., 8/9/2023.

Michael E. Gavula, Hyattsville, Md., 6/13/2023.

Norman Dwight Livesay, Denver, Colo., 7/5/2023.

Raymond C. Luken Jr., New Bern, N.C., 8/24/2023.

James David Stone, Sterling, Va., 7/24/2023.

Timothy T. Swecker, Gray, Tenn., 7/18/2023.

Eugene Graham White III, Oak Ridge, N.C., 7/23/2023.

[']85

Robert D. Banfield, Houston, Texas, 6/29/2023.

Debra K. Shelton-Van Wagner, Gaithersburg, Md., 11/9/2022.

Wayne E. Speer, Jonesborough, Tenn., 7/6/2023.

Kathleen Morris Yelshin, Odenton, Md., 7/23/2023.

-**'86** ----

Jackson L. Flanigan, Clemson, S.C., 8/5/2023

Mark H. Tiedje, Manassas, Va., 7/12/2023

_'88 -

Jennifer A. Salmon Vorsteg, Ellicott City, Md., 9/17/2023.

[']89

Mark A. Debes, Falls Church, Va., 8/9/2023.

James P. Homerosky, Mcmurray, Pa., 7/25/2023.

Vernon L. Willet Jr., Brownville, Maine, 4/0/2023.

-'90

Arthur J. Arrage, Virginia Beach, Va. 5/13/2023

Martha A. Matlick, Frederick, Md., 7/16/2023.

Bryan K. Patrick, Salisbury, Md., 8/18/2023.

____' 91 ____

Frederick A. Buck, New Albany, Ohio, 7/1/2023.

Scott T. Prillaman, Collinsville, Va., 8/22/2023.

Philip R. Savarie, Alexandria, Va., 8/16/2023.

Timothy P. Torrez, Richmond, Va., 8/18/2023.

__'92*____*

Timothy W. Cotman Sr., Ruthville, Va., 8/1/2023.

Benedict O. Dichoso Jr., Dumfries, Va., 3/4/2023.

-'93

Charles E. Hawkins Jr., Roanoke, Va., 8/17/2023.

Greta T. Raines, Auburn, Ala., 8/10/2023.

Pamela C. Smith, Castroville, Texas, 8/2/2023.

-[']95—

Charles W. Carey Jr., Lynchburg, Va., 7/30/2023.

Albert "Travis" Mitchell Jr., Richmond, Va., 7/2/2023.

Jeffrey S. Osborne, Roanoke, Va., 8/24/2023

-'96*--*--

Theodora R. Zotto Demaria, Apex, N.C., 6/13/2023.

_____'98*____*

James R. Watkins, Buckingham, Va., 7/1/2023

-'00

David S. Fitch, Clermont, Fla., 6/29/2023.

_' **01** ___

John C. Horsley Jr., Newport News, Va., 6/10/2023

<u>'02</u>

David E. Brandeen, Severna Park, Md., 8/14/2023.

John E. Davis Jr., Ashland, Va., 9/12/2023.

Michael Hedlesky Jr., Dublin, Va., 1/6/2023.

Stephannie M. Wise, Henrico, Va., 10/23/2022.

Cory T. Malone, Fort Worth, Texas, 8/9/2023

____80'___

Ward "Skip" L. Cornett III, Delaware, Ohio, 7/2/2023.

_____' 11 ____

Demetria "Demi" L. Argiropoulos, Blacksburg, Va., 8/8/2023.

Michael S. Castor, Blacksburg, Va., 8/6/2023.

_____' 15 ___

Gerardo Bledt, Madison, N.J., 6/4/2023.

-'20*-*---

Tyler J. Flanagan, Kaukauna, Wis., 7/26/2023.

-'23

Alejandro G. Romulo, Blacksburg, Va., 9/2/2023.



OBITUARIES-

BOARD OF VISITORS

James Dewey Bennett, who between 1984-86 served two consecutive one-year terms as the Virginia Department of Agriculture and Consumers Services ex officio member on the Virginia Tech Board of Visitors, died Jan. 24.

FACULTY/STAFF

Maj. Gen. Jerrold P. Allen, U.S. Air Force (retired), who served as the 34th commandant of the Virginia Tech Corps of Cadets from 1999-2011, died Dec. 13, 2023. Allen markedly shaped the corps' leadership program, establishing a leadership minor and four leadership courses that receive academic credit for cadets, all housed within the Maj. Gen. W. Thomas Rice Center for Leader Development.

Bonnie Braun, former associate dean in what was then the College of Human Resources, died Nov. 5, 2023. Braun served the university from 1983-94. She was the first associate director of Extension for both 4-H and family and consumer sciences and became responsible for agriculture and community resource development.

John "Jay" Nelson Edwards, former chair of the sociology department, died Jan. 19. Edwards joined Virginia Tech in 1968, and became internationally known for his research on marriage and the family. He received grants from the Social Security Administration and the National Institute on Aging to study marital instability, and along with a colleague, studied the effects of crowding on family relations and health in Bangkok, Thailand through a multi-year grant from the National Science Foundation. Edwards published five books, and his work was featured in dozens of research publications.

James K. "Jim" Mitchell, University Distinguished Professor Emeritus of Civil and Environmental Engineering at Virginia Tech, died Dec. 17, 2023. Mitchell was known for his passion for teaching and his expertise in soil properties and behaviors, ground improvement, environmental geotechnics, and geotechnical earthquake engineering. He was named the Charles E. Via, Jr. Professor of Civil Engineering in 1994 and was recognized as a University Distinguished Professor in 1996. He retired in 1999.

Howard Joseph Moses, who served as technical director for the Center for Power Electronics Systems (CPES) from 1999-2001, died Aug. 8, 2023. After retiring from a 40-year career that included serving in three major aerospace companies, Moses joined the

Bradley Department of Electrical and Computer Engineering in 1999. He was appointed technical director of CPES, Virginia Tech's only National Science Foundation-sponsored laboratory. In two years, he retired again but a few months later joined a company at Virginia Tech's Corporate Research Center where he remained for 15 years.

Franklin Duke Perry '62, MBA '66, former associate vice president for development died Feb. 22. Perry worked at Virginia Tech for 23 years in both alumni relations and university development. He left Virginia Tech in 1990 but continued in higher education for a tenure of 37 years. During his career, Perry served on committees of national fundraising and foundation organizations and as a consultant to universities, colleges, and hospitals.

Joy Rosenthal, a longtime Virginia Tech photography instructor, died Nov. 7, 2023. Rosenthal started teaching photography for the School of Visual Arts more than 20 years ago and was an integral part of non-majors class offerings for the past several years.

Joseph Scarpaci, professor emeritus of geography in the College of Natural Resources and Environment, died Dec. 30, 2023. A member of the Virginia Tech community for approximately 20 years, Scarpaci engaged in the scholarship of urban and social geography and international development in Latin America. He was the author of numerous works of scholarship. Scarpaci was selected as the Virginia Social Science Association Geography-Scholar of 2008 and served as the vice chair of the Latin American Specialty Group of the Association of American Geographers from 2008-11.

Norrine Bailey Spencer Ph.D. '89, former associate provost and director of undergraduate admissions, died Sept. 23, 2023. Spencer also served as associate dean of the Pamplin College of Business In 2007, she was one of six faculty recipients of the Advancing Women Award, and in 2009, the Pamplin College of Business awarded her a Certificate of Excellence for Lifetime Achievement in Diversity.





END NOTE

EXPANDING OUR CAPACITY TO SERVE

By Dan Sui, senior vice president for research and innovation

This winter, I got the biggest promotion in my life—I joined the ranks of granddads.

There is something powerfully motivating about meeting a new generation. As I looked into the face of my grandson, Jack, I couldn't help but think about his future and his future world. I couldn't help but wonder about all those unknowns and how I could help him navigate them.

In my research as a geographer, the term for this is "terra incognita." That simply translates to "unknown territory," but for us in the field, it's an indicator that important work remains to be done.

I've found a similar motivation fueling the research of our faculty, staff, and students. Often from different corners of the world, they are bonded by a shared passion for mapping terra incognita in and between the technical and mechanical domains and the societal and moral arenas to chart a course toward actionable solutions to complex global challenges.

Virginia Tech is home to those driven to make differences that reach from local communities to global commons. To strengthen our capacity to serve others, we've launched Virginia Tech Global Distinction.

This universitywide effort will elevate our international prominence, expand our talent, and exponentially increase our ability to make the world a better place. It will build on our existing reputation for partnering not only across academic disciplines and industries, but across national boundaries and oceans. The efforts of William E. Lavery Professor Kathy Alexander to bring One Health to Botswana is but one recent example of Hokies bringing together top international talent.



(from left) Dan Sui, Feng Xu, Rosie, and Jack.

Of course, being a force for change in our communities and beyond cannot be done alone. We rely on partners from government, industry, foundations, alumni, and friends—for example, Virginia Tech's recent consortium with government, industry, and other universities on a \$42 million project to secure next generation wireless communications. Whether leading cutting-edge research or taking innovations to impact, charting terra incognita requires bold, ambitious, change-the-world partnerships.

The success of Virginia Tech Global Distinction hinges on Hokies everywhere seeing their roles in this effort.

Hokies such as Jacob "Jake" A. Lutz III '78 are already stepping up to help. Through an endowment established earlier this year, the Lutz Awards will recognize world-class research through four annual awards spanning the breadth of research disciplines.

Support for this effort will look different for each Hokie Whether it's helping to provide the financial resources that fund research and discovery or championing the work by sharing it with others, every Hokie is vitally important.

I often tell my students: If human knowledge is an island, as our knowledge expands, our shore of ignorance also stretches. There is always more work to be done, more unknowns to navigate, more opportunities to serve our fellow humans. And as Hokies, this is not just the work we do, but who we are and how we should be known.

Each time I look into my grandson's eyes, I am reminded of the proverb, "We do not inherit the earth from our ancestors, we borrow it from our children." I can't think of a stronger motivation to explore the complex terra incognita ahead of us together.

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CHANGE SERVICE REQUESTED





ALUMIVI WEEKEND Dinner and fireworks on the Drillfield
Campus tours and exploration

Happy hours with friends





ALUMNI.VT.EDU/WEEKEND