SUMMER 2024

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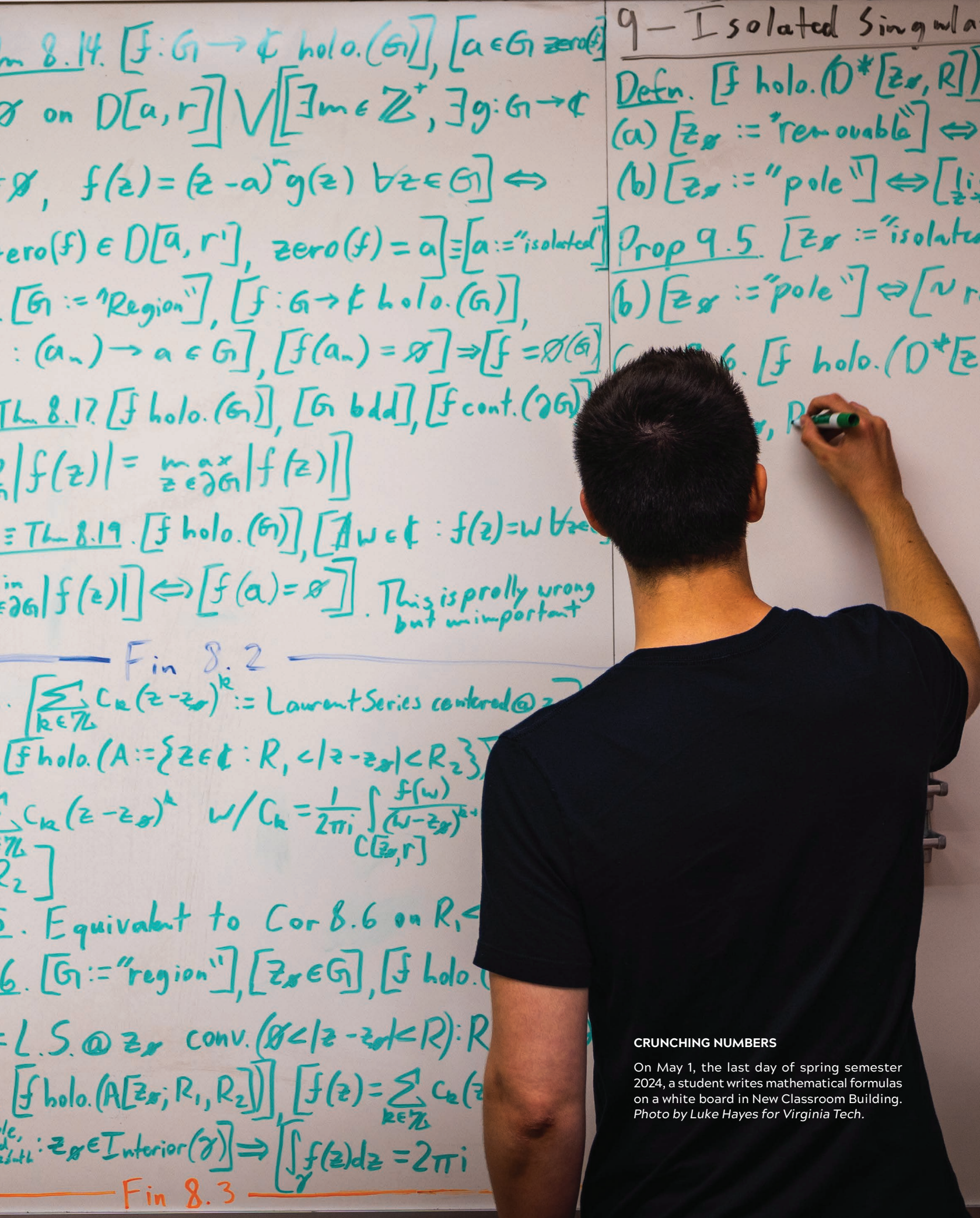

CRUNCHING NUMBERS

On May 1, the last day of spring semester 2024, a student writes mathematical formulas on a white board in New Classroom Building. *Photo by Luke Hayes for Virginia Tech.*

FEATURES

DEPARTMENTS

ON THE COVER: The HokieBird reigns as the Royalty of Tailgating at Virginia Tech. *Photo courtesy of Virginia Tech Athletics; doodles by Steven White '92.*

(at right) During the past 50 years more than 171,000 youth from central, western, and southwestern Virginia have attended 4-H Camp at the W.E. Skelton Center at Smith Mountain Lake. In June a camper and a volunteer enjoy a trail ride at the center. *Photo by Clark DeHart for Virginia Tech.*

Photo by Clark DeHart for Virginia Tech.

REFLECTIONS ON A DECADE OF PROGRESS

By Tim Sands, Virginia Tech's 16th president

After a wonderful commencement week and Alumni Weekend, I have been reflecting on my 10th anniversary as a Hokie and all the events, accomplishments, and challenges we have experienced as a community over the past decade.

I am proud of the progress we have made together. Virginia Tech has grown in many ways. Enrollment is up 23 percent, and we are more diverse with a 36 percent increase in underrepresented and underserved students. Our U.S. News & World Report ranking increased significantly, and we are one of the top 20 public universities in the nation. Our endowment has more than doubled, and our annual fundraising has tripled.

We also have grown in infrastructure and impact. The VTC Health Sciences and Technology campus in Roanoke is advancing research to better treat our greatest health challenges, and over the past 10 years, our medical school has sent hundreds of talented doctors into the world. The North Academic District expansion of our Blacksburg campus is nearly complete, and the Virginia Tech Innovation Campus is about to open the doors of its first academic building in Alexandria.

Our athletics program has become much stronger across all sports, and I am looking forward to the return of football in the fall along with another exciting tailgating season.

With your help and support, we have accomplished a great deal, but there is much more we can do. While we have advanced inclusive excellence and enhanced the value of a Virginia Tech degree, about 1 in 4 Virginia students still face graduation without adequate financial and experiential resources to support the next phase of their lives and careers.

That is why the next decade will focus on Virginia Tech Advantage's commitment to raise $500 million to address those needs, and I am pleased to report that we are already well ahead of our goal for this fiscal year.

We will also continue elevating our impact as a land-grant research university through a steady increase in research funding, rankings, and reputation, bringing Virginia Tech the global distinction that will attract the world's best talent and partners to the commonwealth.

Thank you for your support, generosity, and engagement over the past 10 years. I can't wait to see what Hokies can accomplish in the decade to come. ■

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LETTERS

TO THE EDITOR

CLIMATE CONSCIOUS

Hello,

I wanted to reach out and thank you for highlighting microplastics (summer 2023) and how so many colleges and departments are involved in researching the effect microplastics have on life on Earth.

I think a reoccurring series discussing what neat work/research is happening at Virginia Tech in regards to improving the earth we live on would be really neat—seeing what research is being done to better fight climate change, pollution, and general sustainability.

Thank you for providing updates on all of the neat happenings at Virginia Tech.

Go Hokies!

Benjamin Shpurker '16
Denver, Colorado

FROM THE EDITOR

If you missed the story about microplastics or want to catch up on stories from previous issues of Virginia Tech Magazine, visit us online at news.vt.edu/magazine or scan this QR code with your phone.

CORRECTIONS

Norrine Bailey Spencer's obituary was incorrectly included in the spring 2024 edition (p. 63). Spencer, former associate provost and director of undergraduate admissions, passed away Sept. 23, 2009.

Kathy Alexander's title was incorrectly noted in the spring 2024 edition (p. 65). Alexander is the William E. Lavery Professor in the College of Natural Resources and Environment. She was awarded a 2024 Outstanding Faculty Award from the State Council of Higher Education in Virginia.

Virginia Tech students from Laurel Travis' Global Logistics and Infrastructure in Panama class learned about logistics and global competence during a spring break trip to Panama in late March. *Photo courtesy of Carly Daffan.*

AROUND THE DRILLFIELD

A community choir for individuals with dementia and their caregivers is allowing Virginia Tech researchers to study the impact that music has on a person's well-being. *Photos courtesy of Jasmine Rorrer.*

NEWS

MUSIC THERAPY HITS HIGH NOTE WITH NEW COMMUNITY CHOIR

Classic rock 'n' roll songs resounded as members of The Beat Goes On, a community choir that includes individuals with dementia and their caregivers, made its debut April 29 inside the Creativity and Innovation District.

Joanna Culligan, instructor of human development and family sciences in the College of Liberal Arts and Human Sciences and the therapeutic program manager at the Engagement Center for Creative Aging, serves as the choir's director. She and Patricia Winter, the choir program's co-director, are music therapists. They have worked together for nearly seven years and use the choir to understand how music improves quality of life for people living with forms of dementia, especially Alzheimer's disease, and their caregivers.

"One of the things that happens a lot is that people start to isolate, and they don't engage in a lot of the things that they used to do," Culligan said. "We were like, 'Let's make a choir that really includes everyone. Let's have it open. No audition—people can come and sing and just experience joy and music making.'"

The center received a grant from Virginia Tech's Institute for Creativity, Arts, and Technology that enabled Culligan to start the choir. Community members and students were invited to participate, and now the choir consists of 30 participants.

A Virginia Tech contingent traveled to South Africa over winter break to help design an orchard and garden for a school for deaf and hard-of-hearing children. *Photo by Will Rizzo for Virginia Tech.*

A FOCUS ON FOOD SECURITY IN SOUTH AFRICA

Fourteen students traveled to South Africa over winter break as part of the global food security and health minor housed in the College of Agriculture and Life Sciences.

Ozzie Abaye, professor in the School of Plant and Environmental Sciences, led the trip along with Mark Reiter, professor of soils and nutrient management at the Eastern Shore Agricultural Research and Extension Center, and Peter Ziegler, research assistant professor.

The group installed two greenhouses at an elementary school outside of Cape Town that will provide fresh food for the cafeteria, an extended growing season, and a hands-on curriculum in life sciences for students at the school.

"I think it's very important for students to understand that what they've learned in the classroom can be applied globally and that their work has value," Abaye said. "These students now understand that they're part of a global community."

Students worked in small teams, designing projects for an orchard and garden for a school for deaf and hard-of-hearing children, creating interpretive materials for a community garden and after-school program, and leading a lecture on soil health at a demonstration farm for regenerative land management. ■

Students are working to transform a vacant former middle school into affordable housing for seniors. *Photo courtesy of Jasmine Rorrer.*

STUDENTS DESIGN NEW LOOK FOR VACANT SCHOOL

A group of Virginia Tech students is helping to transform a former middle school in Pulaski County, Virginia, into affordable housing for senior citizens.

The students—who are studying a variety of subjects including residential environments and design, property management, real estate, and interior design—are in a capstone residential design class in the Department of Apparel, Housing, and Resource Management. They are creating designs, evaluating rental rates, and more for the former Dublin Middle School, located 30 minutes from Blacksburg.

Lisa Tucker, department head, is teaching the residential design class.

"I'm using a project-based learning approach," Tucker said. "A lot of what the students are learning about is how to work together in a team, how to communicate, how to resolve conflict. Out of that process, they can get a better product than if they had done it as individual projects."

The students are proposing eight designs for apartments and for a community space, restaurant, and property management offices. They also are conducting a feasibility study, evaluating demographics and rental rates, and discussing how to market the property.

Once solutions are finalized, Pulaski County will use them as inspiration for the property's senior living design. ■

TEAM MAPS OUT DISCOVERIES FOR FUTURE BRAIN RESEARCH

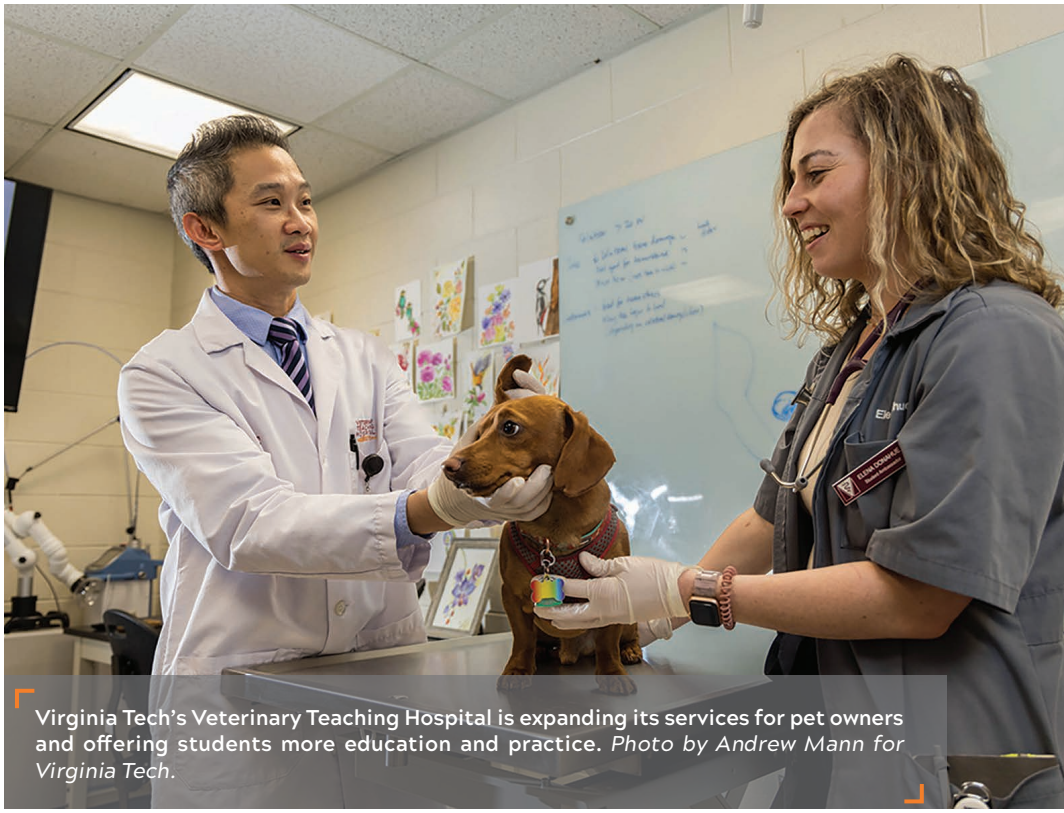
An estimated 1 in 6 people worldwide suffer from a brain disorder, according to the American Brain Foundation, and there are still unknowns surrounding how this organ functions. What if a comprehensive map existed that took into consideration not just the biology of the brain, but the specific location where the biology occurs?

Researchers in the College of Engineering have developed a method to do just that. Chang Lu, the Fred W. Bull Professor of Chemical Engineering; Xiaoting Jia, associate professor in the Bradley Department of Electrical and Computer Engineering; and Daphne Yao, professor in computer science and affiliate faculty at the Sanghani Center for Artificial Intelligence and Data Analytics, have been leading a research project that could be groundbreaking for brain research.

Through a collaborative process, the team was able to create a map that demonstrates when the brain is experiencing a seizure versus when it experiences normal activity.

"Treating brain disorders has historically been done not by rational design, but by trial and error," Lu said. "By having a reference map that explains how different parts of the brain operate at a molecular level, this can help researchers begin to develop different treatment options." ■

(from left) Xiaoting Jia, Daphne Yao, and Chang Lu. *Photo by Peter Means for Virginia Tech.*



Virginia Tech's Veterinary Teaching Hospital is expanding its services for pet owners and offering students more education and practice. *Photo by Andrew Mann for Virginia Tech.*

VETERINARY TEACHING HOSPITAL EXPANDS ITS PROGRAMS

The Dermatology Service at the Veterinary Teaching Hospital at Virginia Tech is undergoing a transformation marked by a strategic hiring and the launch of new educational programs.

This period of growth will improve services for pet owners and referring veterinarians and boost veterinary dermatology education and practice.

"We're excited to expand our dermatology rotations to give more educational opportunities for our students," said Ben Tham, clinical associate professor of veterinary dermatology in the Veterinary Teaching Hospital.

Faculty availability limited the offering of dermatology rotations to fourth-year students on clinical rotations within the teaching hospital. With the addition of Assistant Professor Ivan Ravera, a barrier has been removed.

The department introduced a specialized internship program in June, followed by a residency program slated to begin in July 2025. Part of the department's capacity to grow also has been the support of licensed veterinarians with a veterinary technician specialty in dermatology and the embracing of technologies, such as acquiring a carbon dioxide laser unit.

The addition underscores the college's commitment to staying at the forefront of treatment innovations.

"Our goal is to elevate the standard of care we provide, enrich our educational programs, and make a lasting impact on the veterinary field," Tham said. ■

Virginia Tech students finished second in a regional geoscience contest that focused on ways to capture carbon. *Photo courtesy of Ryan Pollyea.*

GEOSCIENCES STUDENTS CAPTURE CARBON

Researching how to successfully store carbon underground is helping a group of students reach new heights.

Eight Virginia Tech graduate students—four from the Department of Geosciences and four from the Department of Mining and Minerals Engineering—teamed up on a carbon sequestration project off the coast of Louisiana as a part of the Society of Exploration Geophysicists' EVOLVE Carbon Solutions Professional Program.

With seismic and oil drilling data donated by industry partner Fairfield Geotechnologies, the students developed a plan for the implementation of a carbon sequestration site, including the transportation of carbon, adherence to government regulations, and projections of economic impacts.

The students presented their work at the Carbon Capture, Utilization, and Storage Conference in March, and the global not-for-profit selected Virginia Tech as the host of the first virtual version of its U.S. regional geoscience trivia contests. Matt Tascione and Lars Koehn finished second overall in the regional competition, qualifying for the Challenge Bowl World Finals in Houston this summer. Mohammad Khorrami and Jonathan Lucy were third.

"Virginia Tech can be a major player in carbon sequestration if we play our cards right," Tascione said. "The opportunities are here for us to really latch on to it." ■

VIRGINIA TECH'S ICAT PART OF D-DAY REMEMBRANCE

The National D-Day Memorial Foundation in Bedford, Virginia, added layers of immersion to this year's D-Day remembrance with the help of Virginia Tech's Institute for Creativity, Arts, and Technology (ICAT).

June 6 marked the 80th anniversary of the Allied forces' invasion of Normandy, France, during World War II. It also marked the first time the ceremonies at the National Memorial included moving pictures and sound.

The experience consisted of a short audio-visual production, written and created by ICAT and the foundation, that included first-hand accounts and utilized the memorial as the backdrop.

"It's a 25-minute projection show, telling the story of D-Day through first-hand accounts," said David Franusich, ICAT's multimedia designer on the project. "We accomplished it using archival illustrations, photos, and film footage—carefully assembled, animated, and projection-mapped along with spatialized audio."

The collaboration between ICAT and the foundation is reflective of ICAT's mission to bring together people across disciplinary boundaries to harness artistic expression in ways that benefit society and Virginia Tech's motto, *Ut Prosim* (That I May Serve). ■

ICAT's projection told the story of D-Day through first-hand accounts. *Photo by Luke Hayes for Virginia Tech.*

Pamplin Dean Saonee Sarker (at left) moderated a panel discussion in New York City. *Photo by Andy Santos for Virginia Tech.*

PAMPLIN FOCUSES ON AI'S IMPACT IN BUSINESS

A panel during Pamplin College of Business' 22nd annual Hokies on Wall Street event held April 4 in New York City discussed the skills and personality attributes needed by students to fit into a world influenced by artificial intelligence (AI). The six-person panel consisted mostly of Virginia Tech graduates familiar with how AI changes the way business gets done.

Pamplin Dean Saonee Sarker moderated the discussion. She opened the event by stressing the importance of finding a meeting point between two contrasting views of AI: a utopian view that AI is the solution to all problems and a dystopian view that focuses on the dark side of AI.

"In a recent article, one expert said that if you are not having an existential crisis with AI, then you are probably not embracing it enough," Sarker said.

While panelists generally agreed that students will need to master certain technologies to thrive in an AI world, they also stressed the importance of a range of timeless human attributes.

"We moved from the farm era to the industrial era and now another era is coming," Reza Barkhi, KPMG Professor of Accounting and Information Systems, said. "We need to be open to it."

NEWSREEL

VIRGINIA TECH VIDEOGRAPHERS HAVE BEEN HARD AT WORK CAPTURING THE UNIVERSITY'S NEWS AND EVENTS.
CHECK OUT THIS SAMPLING AND MANY OTHERS BY SCANNING THE QR CODE OR VISITING **NEWS.VT.EDU/VIDEOS.**

UNDERGRADS INSTALL WEATHER STATION

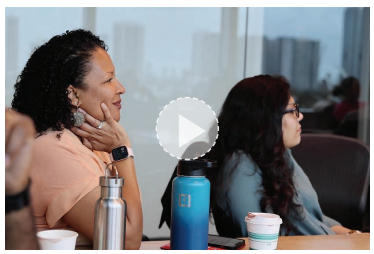
Meteorology Instructor Dave Carroll '84 and students installed a weather station on top of Apple Orchard Mountain in late March. The station will provide data on atmospheric conditions around the tallest mountain in the central Blue Ridge.

STUDENTS BUILD MULTI-USE STRUCTURE

Originally meant to be part of Habitat for Humanity of the New River Valley's Shack-A-Thon, students in the College of Architecture, Arts, and Design's Foundations Studio designed and built a multi-use livable structure.

PRESCHOOLERS FIND THEIR RHYTHM

The Moss Arts Center partnered with the School of Performing Arts, the Marching Virginians, and Giles County Public Schools to bring music and the arts to pre-kindergartners.



FIRST COHORT COMPLETES FELLOWSHIP

The Institute for Leadership in Technology, a program focusing on the role humanities play in leadership, completed its inaugural year. Fellows included executives from Fortune 500 companies.

VISUALIZE IT

THE SCIENCE BEHIND USING VISUALIZATION TO STUDY CANCER

By Matt Chittum

Jennifer Munson, professor at the Fralin Biomedical Research Institute at VTC, can now guide her graduate students through a glioblastoma brain tumor virtually, using a 3D visualization created with their own data.

In December 2023, Munson's students gathered inside a room-sized cube in the Visionarium. A red blob representing a tumor floated before and around them, wrapped in gray tubes portraying fluid flowing through cancer. A richer knowledge of fluid in tumors could lead to advancements in understanding how glioblastoma tumors spread and how fluid flow may affect the delivery of cancer drugs to them.

Inside the cube, team members can explore their research data in a fresh way. Using a remote control, lab members can lift, rotate, and zoom into the tumor, instantly noticing things they hadn't before.

"There's a big appetite, especially in the surgical world, to have better ways to understand what a tissue or tumor looks like from different angles," said Munson, who is also a professor in the Department of Biomedical Engineering and Mechanics in the College of Engineering. "There's a similar value for us, being able to see the tumor from below or the side and really think about how you might affect that tumor with treatment. It just gives us a lot more information."

The Visionarium opened in the late 1990s, the first of its kind in an academic institution, and has undergone continual upgrades. The Visionarium is part of the Advanced Research Computing unit, which provides centralized infrastructure and support for the Virginia Tech research community.

Nicholas Polys, director of visualization in Advanced Research Computing, and his team use data supplied by faculty across numerous disciplines to create 3D models of complex systems.

Visualizations can help a researcher or designer quickly debug a system or recognize an error in an equation. It overcomes barriers in language and vocabulary, he said, because everyone is seeing the same thing in front of them.

"It's the greatest common denominator in the knowledge economy," Polys said. "A good visualization is like a smile. It's universal."

Munson said this is just the beginning of her lab's relationship with the Visionarium.

"I think we have no lack of ideas," Munson said. "So hopefully we don't overwhelm the Visionarium with all the things we want to do." ■

Jennifer Munson (at left), associate professor at the Fralin Biomedical Research Institute at VTC, looks on with graduate research assistant Cora Carman Esparza and research scientist Jessica Cunningham while Nicholas Polys (at center) points out details of fluid flow through a brain tumor in the 3D visualization he and his team created from their research data. *Photo by Matt Chittum for Virginia Tech.*

CLOSE UP

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

MAJ. GEN. WILLIAM H. SEELY III JOINS THE CORPS OF CADETS IN SPRING 2025

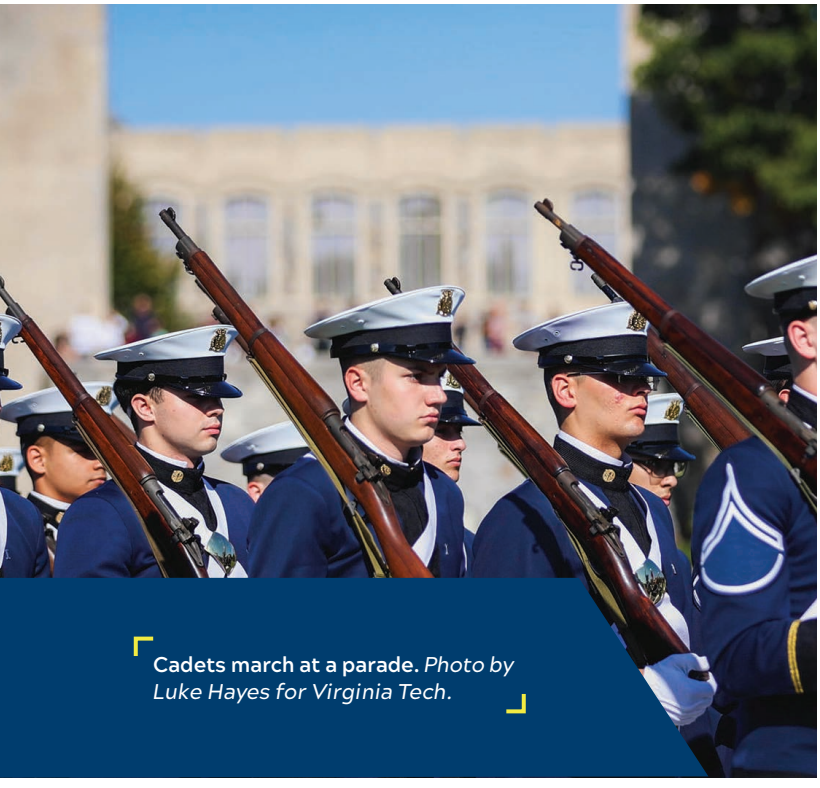
CHANGE OF COMMAND

By Ashley Roberts

U.S. Marine Corps Maj. Gen. William H. Seely III was named the next commandant of the Virginia Tech Corps of Cadets and will officially step into the role upon his departure from active duty, which is planned for the spring of 2025. Seely will succeed Maj. Gen. Randal Fullhart, who officially ended his tenure as commandant on July 1.

"We look forward to advancing the corps' role in the university's mission under the leadership of Maj. Gen. Seely. His experience, achievements, and exemplary military career will be an inspiration to the cadets who will become tomorrow's global, ethical leaders," said Virginia Tech President Tim Sands.

Maj. Gen. William H. Seely III. *Photo courtesy of William Seely III.*



Cadets march at a parade. *Photo by Luke Hayes for Virginia Tech.*

"As I step into this honored position, I am filled with excitement as Virginia Tech is an incredible institution with a legacy of exceptional leadership within the corps," said Seely. "I look forward to working across the institution to shape outstanding officers and civilian leaders who excel in both military and non-military settings."

Throughout his 35-year military career Seely has held critical leadership roles. He served as a reconnaissance battalion commander for 3rd Marine Division and commanded the Marine Corps Intelligence Schools. He also led Task Force-Iraq as part of Combined Joint Task Force-Operation Inherent Resolve from 2019-20 and served as the commandant of the Joint Forces Staff College from 2020-21. Currently, he is the commandant of the Eisenhower School at the National Defense University in Washington, D.C.

Seely holds a bachelor's degree from American University and master's degrees from Oklahoma State University, National Intelligence University, and the Naval War College.

Retired U.S. Army Reserve Brig. Gen. Dwayne Edwards, head of Virginia Tech's Department of Biological System Engineering, will serve as interim commandant until Seely's arrival. ■

MEANINGFUL CONNECTION

A TODDLER INSPIRED MARGARET BUXTON TO LEARN AMERICAN SIGN LANGUAGE.

By Kelsey Bartlett

Margaret Buxton, a recent graduate from the Department of Human Development and Family Science, learned sign language to better help Bennett, 2, develop his social and language skills at the Virginia Tech Child Development Center for Research and Learning. *Photo by Andrew Adkins for Virginia Tech.*

> IT'S DAY AND NIGHT WHEN YOU'RE LEARNING A NEW LANGUAGE OR SECOND LANGUAGE. **IT'S IMPORTANT TO HAVE FULL IMMERSION."**
>
> **Sheree Andrews,** Bennett's mother

Margaret Buxton, who graduated this spring with a degree in childhood pre-education development and a minor in disability studies, struggled with dyslexia as a child.

Her educational journey sparked a fascination with language and how it is taught, influencing her career goals as she grew up.

During a field study placement at Virginia Tech's Child Development Center for Research and Learning, Buxton met Bennett, a deaf 2-year-old who expanded her view of language learning, inspiring her to learn American Sign Language (ASL).

Bennett can hear with the aid of cochlear implants, small electronic devices that stimulate the auditory nerve. His parents want him to learn sign language so that he can fully communicate when he isn't wearing the implants and so he will feel more connected to the deaf community.

Buxton practiced with Bennett every day in the classroom. She kept a laminated packet of common signs nearby, and when she stumbled for a word, she looked it up.

"Having someone at the center who is able to sign with Bennett has made a huge impact on his life," said Sheree Andrews, Bennett's mother, who added that Bennett often came home from school signing new words.

Buxton took a class that provided introductory coursework around ASL. Meeting Bennett gave her the opportunity to be more hands on in her approach to learning the language, a skill she hopes will be helpful to other children in her future career.

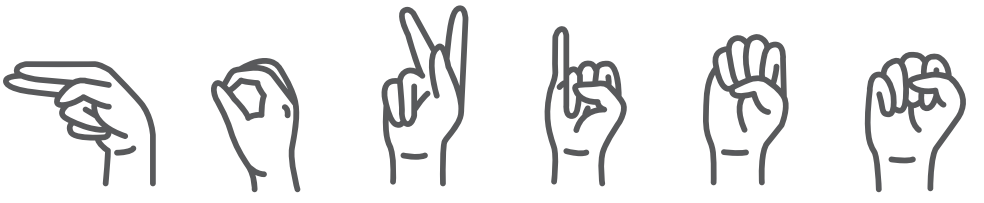
"It just became a perfect storm that I could learn sign language and then practice with Bennett," Buxton said. As a teacher, her top priority will be ensuring her classroom is accessible, she said.

Alexa Gardner, assistant director and senior instructor in the Child Development Center, said most of the center's field study students are human development majors who want to work with children and families. But many still are deciding what career path to take. Gardner said Buxton has a skill for connecting with children one-on-one and determining their individual development needs.

"It's beautiful to watch that unfold for her," Gardner said. "She sees the benefits for her own career aspirations, certainly, and how it's helping her in those vital skills. But the love she has for the children and the families, and just how she values that, is what's been really special." ■

The Child Development Center for Research and Learning provides care services for parents and experiential learning experiences for students under the guidance of teaching professionals. *Photo by Andrew Adkins for Virginia Tech.*

Bennett, 2, is learning social skills at the Child Development Center for Research and Learning. *Photo by Kelsey Bartlett for Virginia Tech.*



h o k i e s

Photo by Madi Haun Douglas for Virginia Tech.

WHAT IF COWS COULD TALK?

VIRGINIA TECH RESEARCHERS USE ACOUSTIC DATA AND ARTIFICIAL INTELLIGENCE TO LEARN MORE ABOUT WHAT COWS "TELL" US ABOUT THEIR WELL-BEING

By Marya Barlow

You may not know it, but cows share information every time they burp, moo, and chew that speaks volumes about their health and welfare.

Through the work of researchers in Virginia Tech's College of Agriculture and Life Sciences, we may soon know more about what cows are "telling" us and be able to use that information to improve their well-being.

James Chen, an animal data sciences researcher and assistant professor in the School of Animal Sciences, is using a $650,000 grant from the U.S. Department of Agriculture's National Institute of Food and Agriculture to develop an acoustic, data-driven tool to help enhance animal welfare and lower methane emissions in precision livestock farming.

"Vocalization is a major way cows express their emotions, and it is about time to listen to what they're telling us," Chen said.

Because sound data can be collected from cows individually and continuously, Chen said it's better than video or other observation methods for monitoring cows' emotions and health, including even subtle changes in breathing.

Chen and his co-investigator, Virginia Cooperative Extension dairy scientist and Associate Professor Gonzalo Ferreira, plan to collect audio data from cows, their calves, and beef cattle in the pasture. The researchers will then use machine learning to analyze and catalog thousands of points of acoustic data and interpret cow vocalizations such as mooing, chewing, and burping for signs of stress or illness.

Chen and Ferreira are particularly interested in identifying vocal patterns for how cows communicate distress. By analyzing the frequency, amplitude, and duration of cow's moos and vocalizations and then correlating the sound data with saliva cortisol samples taken from the cow, they can classify whether cows are experiencing no stress, mild stress, or severe stress and begin to decode their "language."

As part of the project, Chen is building a computational pipeline that integrates acoustic data management, pre-trained machine-learning models, and interactive visualization of animal sounds. The resulting data will be shared in an open-source, web-based application available to scientists, producers, and the public. Chen said his hope is that the information will help guide future protocols to improve animal welfare.

"Our eventual goal is to use this model on a larger scale," Chen said. "We hope to build a public data set that can help inform policy and regulations." ■

Researcher Gonzalo Ferreira places a harness outfitted with a tiny recording device on a cow to capture its vocalizations. *Photo courtesy of James Chen.*

FEATHERED FRIENDS

TAKING STEPS TO PROTECT NORTH AMERICAN BIRD SPECIES

By Margaret Ashburn

North American bird populations have declined by approximately 2.9 billion birds since 1970, a loss of more than 1 in 4 birds, according to recent data. Experts say this bird loss will continue to grow unless humans make changes in their daily lives.

"Habitat loss due to agricultural intensification and urbanization is arguably the biggest threat to birds, along with climate change," said Ashley Dayer, associate professor in the College of Natural Resources and Environment and affiliated faculty member at Virginia Tech's Global Change Center.

Birds are indicators of environmental health for their own species, other wildlife, and people, Dayer said. They also eat pests and other carriers of disease, such as mosquitoes.

Ecological and social scientists and other conservationists are working vigorously to address the losses. In January, nearly 200 leaders in bird conservation, including Dayer, came together at the National Conservation Training Center in Shepherdstown, West Virginia, to talk about how to improve bird conservation efforts and ensure that the population declines of more than 100 species are reversed.

"It's critical that we improve our approach to bird conservation by all working together to do our part," said Dayer.

Baltimore oriole. *Photo courtesy of Gary Mueller, Macaulay Library at Cornell Lab of Ornithology.*

TAKE OFF

Ashley Dayer joins Virginia Tech's "Curious Conversations" podcast to talk about the positive effects of bird feeding.

HOW YOU CAN HELP:

Keep cats indoors. They make great pets, but both feral and pet cats roam freely in nature. Cats instinctively hunt and kill birds, even when well fed. Cats are estimated to kill more than 2.4 billion birds annually in the U.S. and Canada.

Make windows safer for birds. Data shows up to 1 billion birds die each year after flying into windows. Birds perceive reflections in glass as a habitat they can fly into. Install screens or use film or paint to break up reflections. Grow native plants to create a better habitat for birds.

Drink bird-friendly coffee to ensure tropical habitat is not lost. The coffee is certified organic, but its impact on the environment extends even further. It is cultivated specifically to maintain bird habitats instead of clearing vegetation relied on by birds and other wildlife.

Participate in studies about birds. Project Feederwatch and eBird provide opportunities for the public and lead to important conservation science discoveries. ■

IMPROVING DIGITAL HEALTH

By Margaret Ashburn
Illustrations by Natalie Ferguson

Changing passwords, deleting old files, and clearing out digital photo albums are digital security steps that you can take to keep your information safe. But is that enough?

Virginia Tech information privacy and cybersecurity experts France Bélanger and Donna Wertalik, co-founders of Voices of Privacy and professors in the Pamplin College of Business, have five tips to protect your information and make your digital health a priority.

1. CLOSE OLD ACCOUNTS

If you never log-in, shut them down so a little less of you is online. These accounts may be using old passwords or have weak security that put you at risk of someone hacking into them.

2. REMOVE UNUSED APPS

The more apps on your smartphone, the more power and storage space they consume. That in turn affects performance and likely shares a lot of information about you. They can also be used as a gateway to hack your phone if they have vulnerabilities. Whatever apps you don't delete, check the settings to see what they have access to on your phone, such as your camera or microphone.

3. REDUCE PUSH NOTIFICATIONS

Other than phone and text messages, push notifications have been shown to reduce productivity and increase stress.

4. CHECK ALL PRIVACY SETTINGS

Have you done updates recently? If you have, did you recheck privacy settings after each? If not, it is possible that some settings were turned on or off by default or that new settings exist. Fortunately, many apps have started to ask that you confirm your privacy settings. Nevertheless, now is the time to decide again what you agree to share with which app.

5. PERFORM A SOCIAL MEDIA CLEANUP

Studies show that four to six hours of social media time a day leads to increased isolation and depression. Removing extra apps can increase your focus, too. An additional step for those with iPhones is to use the focus mode. With this, you can customize your day with "do not disturb" time and specify when and from whom you want to receive messages. ■

GET FIT

Using technology to achieve your physical health goals? Scan for more digital security tips.

Students interested in conducting research on plants native to Virginia will be able to take advantage of approximately 50 specimens from the 1840s that were recently sent from London to Jordan Metzgar (at left), curator of Virginia Tech's Massey Herbarium. *Photo by Clark DeHart for Virginia Tech.*

A RARE HARVEST

LONDON MUSEUM CONTRIBUTES SPECIMENS TO VIRGINIA TECH'S MASSEY HERBARIUM

By Jimmy Robertson

An herbarium is a room or building that houses a collection of dried plants within a climate-controlled setting to preserve them for use in education, research, and conservation. Jordan Metzgar, a professor in the Department of Biological Sciences within the College of Science, is the curator of Virginia Tech's Massey Herbarium. He oversees more than 100,000 specimens, including a recent contribution from a curator at the Natural History Museum in London.

Metzgar received the box of quality condition plant specimens from the 1840s earlier this year, a rare harvest.

"I was really excited," Metzgar said. "It's unusual to get that kind of opportunity, so I was super excited to add to our holdings here. We have a specimen from 1829 and a few things around that age, but getting a set of about 50 specimens from the 1840s and in good condition, that's a first for me since I've been here."

Norbert Holstein, a curator at the Natural History Museum in London, was working through a backlog of that museum's specimens. With an excess of specimens from across the southeastern United States, Holstein inquired of Virginia Tech's interest in the surplus.

"My thinking was, 'How and with whom could the material benefit the most?'" Holstein said. "The specimens are often not identified to the latest taxonomic concept, so they would benefit from access to botanists knowing the local flora."

The collection includes flora from Virginia, the Carolinas, and Tennessee. Holstein stacked approximately 50 specimens on top of each other with sheets of newspaper in between before shipping them to Virginia Tech. He used cardboard for support to bundle the specimens before tying them tightly to prevent shifting while in transit.

Once in Blacksburg, Metzgar stored the specimens in a freezer for two days to kill any insects.

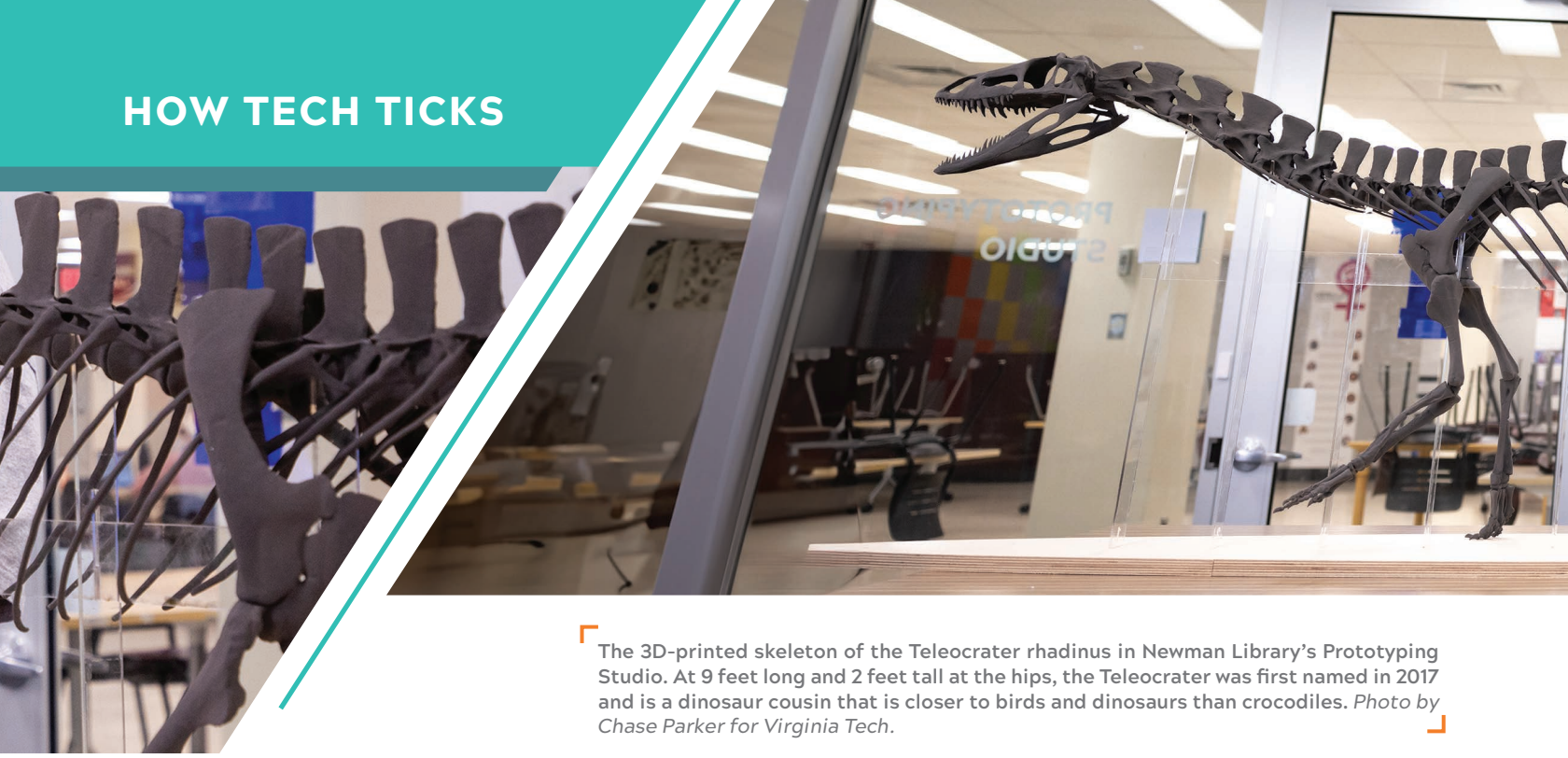
Metzgar and his staff permanently mounted the specimens on standard museum paper and attached a label to each one. They also added the names and collecting information to a database. People with an interest in a group of plants can get the data, or if they need a plant for DNA research, they can borrow it from the herbarium. ■

The Massey Herbarium has worked with herbaria, museums, universities, and research centers in 12 countries and five continents. It holds more than 100,000 specimens, making it the largest scientific preserved plant collection in Virginia.

The maps show transfers of specimens to (maroon lines) and from (orange lines) the herbarium over the last 20 years.

SOW AND GROW

Scan and tap with your phone camera to watch a video and learn more about the Massey Herbarium.



The 3D-printed skeleton of the Teleocrater rhadinus in Newman Library's Prototyping Studio. At 9 feet long and 2 feet tall at the hips, the Teleocrater was first named in 2017 and is a dinosaur cousin that is closer to birds and dinosaurs than crocodiles. *Photo by Chase Parker for Virginia Tech.*

BONE BY BONE

TECHNOLOGY THAT CAN RESURRECT A DINOSAUR

UNIVERSITY LIBRARIES' PROTOTYPING STUDIO PRINTS 3D REPLICAS OF EXTINCT SPECIES

by Elise Monsour Puckett

Skeletons once thought lost to history are being recreated one fragile fossil at a time in the University Libraries' Prototyping Studio.

Through technology like scanners and printers, university scientists are constructing 3D replicas of the extinct Teleocrater rhadinus using ancient fossils from more than 240 million years ago. Funded through an Institute for Creativity, Arts, and Technology grant, University Libraries is showing how technology can illuminate the past and bring long-extinct organisms face-to-face with the present.

A team, led by Sterling Nesbitt and Michelle Stocker of the Department of Geosciences in Virginia Tech's College of Science, had access to collections, which included about 80 percent of the skeleton that had been unearthed from two fossil sites in Tanzania, to use to replicate the bones in the studio.

"By harnessing the power of 3D printing rather than relying on traditional casting methods, we can bring extinct species back to life for a fraction of the cost and weight, making it accessible to the world via digital files," said Max Ofsa, manager of the Prototyping and 3D Scanning studios. "A museum-grade exhibit of cast fossils of this size would likely get into the hundreds of thousands of dollars in cost to develop and fabricate whereas the printed fossils are only in the hundreds."

Prototyping Studio Specialist Rob Jackson used the skeleton's 3D render to prepare it for printing by converting individual fossil pieces into larger segments with additional supports and interlockings. The approach means parts can be manufactured in large easy-to-assemble segments.

These skeletons are accompanied by an innovative app built by students and staff in the Applied Research in Immersive Experiences and Simulations Program in University Libraries as well as Jonathan Bradley, assistant director of studios and innovative technologies. The app will animate the creature and provide additional information, creating an immersive educational experience.

The first of the skeletons is going to the Natural History Museum in Dar es Salaam, Tanzania. The second replica will be on display in the Virginia Tech Museum of Geosciences.

In addition to Nesbitt, Stocker, Ofsa, and Bradley, the project team includes Thomas Tucker, associate professor in the School of Visual Arts; Scott Fralin, exhibits program manager, learning environments librarian; Phyllis Newbill, associate director of educational networks, and Todd Ogle, executive director of applied research in immersive experiences and simulations. ■

“

TELEOCRATER IS THE PERFECT SPECIMEN FOR THIS PROJECT AS IT GIVES US A FIRST LOOK AT HOW DINOSAURS INHERIT THEIR FEATURES. THE SMALLER SIZE ALSO MAKES IT EASIER TO PRINT.”

Sterling Nesbitt,
professor of geobiology

Prototyping Studio Specialist Rob Jackson ensures all parts fit together before smoothing out any imperfections. *Photo by Jack Micallef for Virginia Tech.*

TAILGATING: A time-honored tradition

Illustrations by Natalie Ferguson and Steven White

As the days get shorter and summer vacations slip into the rear-view mirror, Hokie fans' thoughts turn to Blacksburg, Virginia Tech football, and tailgating.

As time-honored as the game itself, tailgating is more than a pre-game party or picnic. It's a part of the university's culture. Tailgating brings families and friends together. There are games to play, foods to eat, friends to meet, and memories to make.

And of course, the day wouldn't be complete without some good-natured pregame competition while the fans from those other teams set up their spaces.

If you've ever wondered about the history of tailgating, or if you are curious about the foods and games that most Hokies prefer, keep reading. This story will introduce you to some of the characters you may meet while tailgating this fall and offer some answers that may help when you step out for your next trivia night.

There's even some "trash" talk to help keep your tailgate green.

And though we hope you won't need it, we've included some campus do's and dont's to keep you safe and prevent pregame fouls.

Why is it called tailgating?

No one really knows who coined the term "tailgate." Some historians suggest that the tradition grew from the tradition of fans gathering around the tailgate of a horse-drawn wagon used to transport the team's equipment, creating an unofficial meeting spot prior to games. Others attribute the term to the use of the tailgate at the back of a pickup truck to serve food and drinks.

Information curated from history.com and Popular Mechanics.

(top) For 30 years, friends of the late Tim Swecker '86 have happily gathered around "Swecker's Bar" before Hokie games. *Photo by Travis Carr for Virginia Tech.* (middle) Julie Rosenberger '97, MBA '01 and her best friend, Jason Hamby '98, have tailgating down to a science. *Photo courtesy of Julie Rosenberger.*

DID YOU KNOW?

The summer 2009 edition of Virginia Tech Magazine offered a glimpse into the tailgating traditions that were popular 14 years ago. Scan to take a look back.

Nicole Arnold '19 married Alex Paulini '13 on the Thursday before the spring football game in April. The couple met 30 family members and friends in Blacksburg for a tailgate that included wedding cupcakes and champagne. *Photo by Travis Carr for Virginia Tech.*

Pro tailgate tips

Tailgating before home football games is a Virginia Tech tradition. Follow these tips for a safe and enjoyable experience.

If you're grilling

- Never leave grills unattended.
- Use grills outdoors and away from buildings.
- Dispose of hot coals in designated containers.

If you have a generator

- Use generators outdoors in well-ventilated areas.
- Avoid using generators in wet conditions.
- Use appropriate extension cords to avoid hazards.

Secure your belongings

Lock your vehicle and place valuables out of sight.

Mindful tailgating

Ensure your setup does not block roadways or walkways for emergency vehicle access.

Have a first aid kit handy

Include essentials such as bandages, antiseptic wipes, adhesive tape, pain relievers, and personal medications for prompt care of minor injuries.

Stay informed with VT Alerts

Sign up for VT Alerts for timely updates and instructions in case of an emergency at alerts.vt.edu.

Tips courtesy of Virginia Tech's Environmental Health and Safety, Police, Emergency Management, and Sustainability teams.

GAME DAY INFO

Visit hokiesports.com for more football game day parking and tailgating policies.

PEOPLE WATCH // TAILGATE PERSONALITY

COORDINATOR CASS

About me

The ultimate "tailgate parent." Always has sunscreen, always overfeeding, makes sure everyone is hydrated. Has everyone's tickets, always on time, and ensures the tailgate runs smoothly. If you need anything, has it or knows where to get it.

PEOPLE WATCH // TAILGATE PERSONALITY

AMATEUR ADDY

About me

Just happy to be here. New to the scene and is just starting to learn all about tailgating traditions. Wide-eyed and eager to learn. Comes in Virginia Tech bibs with the tag still attached. May occasionally bumble with setting up a chair or cooler but always does so with a smile and a sense of humor while trying to understand the ins and outs of tailgating.

Favorite Hokie celebrity to spot on campus while tailgating?

62%
HOKIEBIRD

FRANK BEAMER 27%
GROWLEY 12%

Hot dog or hamburger?

58%
HAMBURGER

HOT DOG 42%

PEOPLE WATCH // TAILGATE PERSONALITY

PITMASTER PAT

About me

Expert in all things barbecue. Chef of over-the-top food, especially premium meats and an array of sauces and belly rubs. Found monitoring the grill, offering samples, and enthusiastically discussing cooking techniques, hosting impromptu demonstrations, and sharing tips on achieving the perfect char and seasoning.

The Main Event: Virginia Tech Football

2024 FOOTBALL SCHEDULE

Saturday, Aug. 31, *noon*
at Vanderbilt University
Nashville, Tennessee

Saturday, Sept. 7, *4:30 p.m.*
Marshall University, HOME

Saturday, Sept. 14, *6 p.m.*
at Old Dominion University
Norfolk, Virginia

Saturday, Sept. 21, *time TBA*
Rutgers University, HOME

Friday, Sept. 27, *7:30 p.m.*
at University of Miami
Miami Gardens, Florida

Saturday, Oct. 5, *time TBA*
at Stanford University
Stanford, California

Saturday, Oct. 12 OFF

Thursday, Oct. 17, *7:30 p.m.*
Boston College, HOME

Saturday, Oct. 26, *time TBA*
Georgia Tech, HOME

Saturday, Nov. 2, *time TBA*
at Syracuse University
Syracuse, New York

Saturday, Nov. 9, *time TBA*
Clemson University, HOME

Saturday, Nov. 16 OFF

Saturday, Nov. 23, *time TBA*
at Duke University
Durham, North Carolina

Saturday, Nov. 30, *time TBA*
University of Virginia, HOME

For more information about Virginia Tech football and other fall sports, visit hokiesports.com.

"I LOVE THE ATMOSPHERE IN BLACKSBURG ON GAME DAY. OUR FAN BASE IS THE MOST KNOWLEDGEABLE AND PASSIONATE IN THE COUNTRY AND PLAYS A CRUCIAL PART IN OUR SUCCESS. **WE CANNOT WAIT TO SEE THE FANS BACK IN LANE STADIUM THIS FALL."**

Brent Pry, head coach, Virginia Tech Football

(top) Hokies have fun on the field. (left) Brent Pry enters the stadium. *Photos by Jackson Sirbaugh.*

PEOPLE WATCH // TAILGATE PERSONALITY

FANATIC FRANK

About me

Fantastic fan and seasoned tailgater with Hokie gear for days. Engages in deep football conversations, predicts plays, and debates strategies with fellow tailgaters while juggling a burger and beverage. Controls the tunes and only plays the official Hokies Game day Playlist, ensuring the energy stays high and everyone around is pumped for the game. Leads the periodic "Let's go, Hokies" chant.

Favorite hype song before the game
(Besides "Enter Sandman")

"TECH TRIUMPH"
Marching Virginians

"THUNDERSTRUCK"
AC/DC

"ARE YOU READY FOR IT?"
Taylor Swift

PEOPLE WATCH // TAILGATE PERSONALITY

LEISURELY LANE

About me

Sits back, relaxes, engages in casual conversation, and enjoys the atmosphere. Enjoys a laid-back approach, focusing on relaxation and socializing. Gear includes comfortable chairs, a cooler filled with drinks, and sometimes a book or magazine. Here to just be here. The go-to person for a laid-back chat or to borrow a bottle opener.

Can't make it to the game?

If you want to have the fun of a tailgating party but you're not able to make it to a stadium parking lot or a local college game, get creative!

Coordinate with alums in your community—Virginia Tech alumni chapters are a great place to start. Many offer pregame events and watch parties.

Or simply invite a group of friends to meet up at a local park, parking lot, or in your own backyard and host your own pregame party. Bring food and drinks, dine at a picnic table, fire up a grill, and organize some games to promote a little friendly competition until it's time to watch football. If you have a projector and outdoor screen, you could even watch outside.

HOKIE PARTY PLAYLIST
Official Hokies Game Day Playlist

“THANKS FOR HELPING VIRGINIA TECH BECOME A **ZERO-WASTE CAMPUS**.”

Emily Vollmer, sustainability coordinator

Maroon, orange, and green

Game Day Green Team takes on Virginia Tech’s carbon footprint

Green Team initiative

Football tailgaters bring energy and excitement to Lane Stadium, but they also contribute tons of additional waste. As part of Virginia Tech’s continuing commitment to sustainability, the Office of Sustainability’s Game Day Green Team initiative helps tailgaters recycle effectively.

Recycling program

During home football games, the student-run Green Team encourages fans to recycle their bottles and cans at the recycling bins located at the ends of nearly all parking rows in the main tailgating lots. There are also designated recycling trash bins available in the Chicken Hill and Litton Reeves parking lots.

Additional ways to go green on game day

- Carpool or walk to the game.
- Use propane to grill.
- Bring reusable plates, cups, utensils, and grocery bags.
- Buy in bulk instead of single-serving snacks to reduce packaging waste.
- Bring a separate bag so you can sort your waste at your tailgate. (Remember to empty your bag into the recycling bin since plastic bags aren’t recyclable.)
- Buy local.

(above) Students on the Green Team help tailgaters recycle. *Photo by Sarah Myers for Virginia Tech.* (below) Recycling bins can be found in nearly all parking lots. *Photo by Noah Alderman for Virginia Tech.*

WHAT **CAN** BE RECYCLED?	WHAT **SHOULDN’T** BE RECYCLED
Plastic bottles	Paper plates
Glass bottles	Napkins
Aluminum cans	Styrofoam
Plastic cups	Food waste
Clean cardboard	Plastic bags

A tailgating timeline

The modern tailgate traces its roots back to fall harvest celebrations in Ancient Greece and Rome, where people gathered for a last feast before winter with abundant music, food, and drink.

1825

On July 21, 1861, people who lived in nearby Washington, D.C., traveled in buggies and carriages to the Virginia countryside to watch the Civil War showdown now known as the First Battle of Bull Run. Union Capt. John Tidball recorded witnessing a "throng of sightseers."

1850

In 1869, Rutgers and Princeton played what is believed to be the first organized college football game, and it is likely fans dined from a wagon as they watched the game unfold.

1875

In the 1880s, newspapers shared reports of fans sipping champagne and enjoying refreshments in luxury carriages parked on the sidelines at the Yale-Princeton Thanksgiving game in New York.

1900

In 1906, as wealthy alumni purchased the first automobiles, motorists organized what may be the first pregame tailgate in New Haven, Connecticut, for the Harvard-Yale game.

1925

In the 1920s, automobile ownership grew, making it possible for more fans to travel to games. Colleges constructed larger stadiums to hold thousands of fans, and restaurants couldn't feed the crowds.

1950

As the car culture in the U.S. continued to grow and plastic coolers and portable grills came on the scene in the **1950s,** tailgating traditions exploded across the nation.

1975

How early should you show up before the game?

3-4 HOURS
38%

2-3 HOURS 32%
4+ HOURS 22%
1-2 HOURS 7%

Best month to tailgate in Blacksburg?

71%
OCTOBER

SEPTEMBER 24%
NOVEMBER 6%

Photo by Travis Carr for Virginia Tech.

HOKIES!

Homecoming Weekend:
The jewel in the crown

Every year, Hokies of all ages from far and wide flock to Blacksburg for Homecoming Weekend.

In 2024, Virginia Tech will celebrate Homecoming Weekend Oct. 25-26 with activities for students, alumni, community members, and friends, culminating in Saturday's football game when the Hokies will take on Georgia Tech.

On Friday night, the Homecoming parade will march through downtown Blacksburg before fireworks over the Drillfield. On Saturday, catch the biggest tailgate of the year at the Holtzman Alumni Center, which will include lawn games, a petting zoo, inflatables, and more.

Homecoming is a great time to catch up with old friends and make some new ones. ■

(top) A Hokie-themed car drives in the 2008 Homecoming Parade. (middle) 2022 Homecoming royalty. (bottom) Homecoming's pre-game festivities offer something fun for everyone. *Virginia Tech photos*

HOCO INFO

For more information on Homecoming and how to participate, visit vt.edu/homecoming.

THE VIRGINIA TECH CARILION SCHOOL OF MEDICINE

A PRESCRIPTION for the future

By Josh Meyer

How do educators train medical professionals to care for people in a future that is yet unknown?

Just over a decade ago, Virginia Tech teamed up with Carilion Clinic in Roanoke to tackle that challenge, laying the foundation for a medical school that would not only produce new physicians, but ensure that those physicians would become thought leaders, equipped to practice in and lead the changing world of medicine.

In the 14 years since the first class stepped through the doors, the Virginia Tech Carilion School of Medicine has established itself as a prominent destination for medical students seeking proven, innovative, real world learning experiences that incorporate valuable opportunities for research and discovery.

Those experiences have inspired numerous students to return to the region to begin their medical careers, a valuable secondary benefit for the greater Southwest Virginia community.

A BRIEF MEDICAL HISTORY

In the early 2000s, the idea of a research university partnering with a regional health system to develop a medical school in a primarily rural region seemed unorthodox. No new medical schools had been developed in the U.S. for more than two decades.

But as the plan took shape, the benefits came into focus.

The Virginia Tech Carilion School of Medicine sprang from a vision inspired by the late Charles W. Steger, Virginia Tech's 15th president, and the late Ed Murphy, then Carilion Clinic CEO, along with industry and community leaders who were committed to investing in medical education and biomedical research in Roanoke. At its core: serving the growing health care needs in the community and across the commonwealth.

Recognizing the statewide implications for the project, the team steering the process collaborated with Virginia officials from concept to execution. And on Jan. 3, 2007, when they officially announced that Roanoke would indeed become home for a new medical school, they were accompanied by then Virginia Gov. Tim Kaine.

According to Lee Learman, current dean of the medical school, building community remains an integral part of the school.

"When I interviewed for this position, I could tell that something very special was happening in Roanoke. There was so clearly an alignment between Virginia Tech and Carilion Clinic on the importance of building a school and serving the community," Learman said. "Since arriving, we've continued to innovate our curriculum in service of our mission to train future physician leaders who work to improve the health of patients and communities."

Learman is the second dean of the medical school, following Cynda Johnson, who was named the founding dean in 2008 following a nationwide search.

In 2014, the first class graduated from the new school. And new graduates have joined the ranks of the school's alumni every year since, taking the skills they've acquired to some of the most prestigious health systems in the country, where they are now ambassadors for the school. From 2014-24, more than 99 percent of students matched into residencies with more than 95 percent going to their first-choice specialty. Alumni have matched in 36 states plus Washington, D.C.

But in the early days of planning and organizing, such successes were simply goals without any guarantees.

In 2009 when the Virginia Tech Carilion School of Medicine received preliminary accreditation from the Liaison Committee on Medical Education (LCME), greenlighting recruitment of the first students, there was a calculated risk for those individuals pinning their dreams of becoming a doctor on the brand-new school.

It was one of four new medical education facilities adding students that year, and Johnson admitted to a great deal of anxiety leading the formation of the school and inviting the first class. Would anyone enroll, she wondered?

"The first thing we did was crystalize what would make the school distinctive and represent the two partners. For Virginia Tech, the most important thing was to be research intensive. For Carilion, it was a community focus with small classes so students could do their clinical rotations locally," Johnson said. "We wanted to make sure the pillars were in place and that we wouldn't wander from them as some other medical schools have done. We stuck by them and sought out students who would subscribe to our values."

Johnson's fears were assuaged when about 1,100 applied to join the inaugural class of 40 students.

"What you must remember is that we didn't have full accreditation yet from the LCME or the Southern Association of Colleges

(left) The Virginia Tech Carillon School of Medicine is part of Virginia Tech's Health Sciences and Technology campus in Roanoke. (below) Dean Lee Learman (at left) and Carter Gottschalk, president of the Class of 2026, at the Student Clinician Ceremony in May. The ceremony honors the students' achievements and provides encouragement as they embark on their clinical rotations. *Photos by Ryan Anderson for Virginia Tech.*

BACK TO WHERE IT BEGAN

"When I was giving talks about the new medical school in the early years, community members would always ask if the students would all stay," said Cynda Johnson, founding dean of the Virginia Tech Carilion School of Medicine. "I had to explain how residencies and fellowships work and that most would leave. I said some will come back and others will go elsewhere, but they will all carry our message. My real dream, though, was that the next generation of faculty at our school would be our graduates. And that is coming true."

One of the returning physicians hailed from the inaugural class. Matt Joy was the first plastic surgery residency graduate from the Carilion Clinic-Virginia Tech Carilion School of Medicine program and, following a fellowship in reconstructive microsurgery at the University of Pennsylvania in Philadelphia, he returned to practice at Carilion. Joy also teaches as an assistant professor of surgery. His feelings about the community were cemented early in his time at the school and stuck with him as he developed career plans.

"I remember we had a reception where dozens of well-known and involved members of the community came to introduce us to Roanoke and help us and our spouses make important connections. The mayor of Roanoke also visited and passed out certificates welcoming us," he said. "To have that kind of roll out to medical school students was exceptional. It was very telling of the interest and gratitude the community had for us to come here and to see us succeed."

and Schools Commission on Colleges. That would come later—before they graduated," said Dan Harrington, former vice dean. "So those students were pioneers. They were coming in with an incredible amount of trust that we would do what we said we would do and that the school would be successful."

In succeeding years, the school's reputation for excellence has grown, attracting applications from the most prestigious undergraduate institutions, nationally and internationally. Just 51 students from a pool of 6,184 applicants were accepted into the Class of 2027, making the Virginia Tech Carilion School of Medicine one of the most selective medical schools in the country.

DIFFERENTIAL DIAGNOSIS

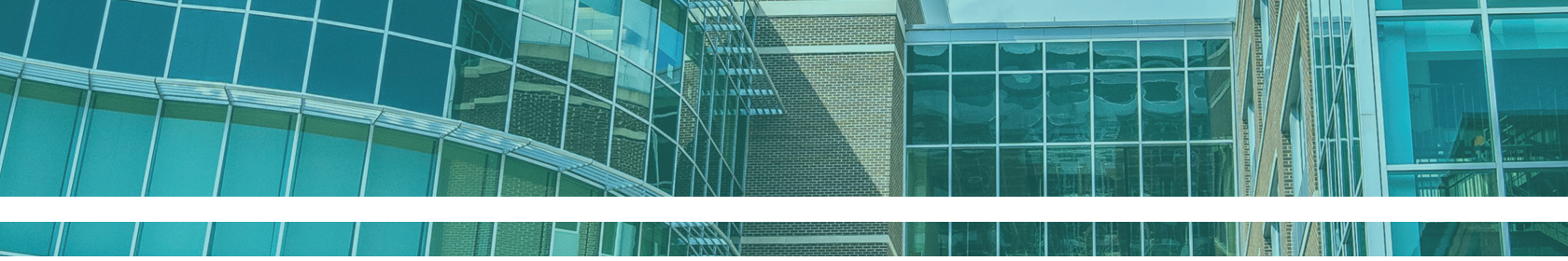
The 40 alumni who made up the charter class would help pilot a new curriculum, which unlike that at many larger medical schools emphasized problem-based learning.

"We really had an incredible class. They kept everyone on their toes. If something wasn't going right, they would let you know. We had weekly meetings with them from the beginning," Harrington said. "It was like you were building a plane while you were flying it. You would not be able to change curriculum so quickly now that it is established, but back then, students came to us with suggestions, and we could adjust."

Problem-based learning (PBL) is a student-centered approach to education. Students learn about a specific subject by working together to solve a problem. Understanding and solving the problem drives motivation and learning. At the Virginia Tech Carilion School of Medicine, students met weekly in small groups to independently investigate and propose treatment for a medical scenario.

Problem-based learning proved effective in helping students think beyond the textbook and develop a patient-centered approach.

"The PBL classes were unique and immediately impactful. Many medical schools have started doing something similar now because it is very effective in teaching you to think clinically and work within a team to treat a medical issue," said Raeva Malik, who came to the medical school from a suburb of Washington, D.C. "The part that was the best was getting to meet with the actual patient at the end of the week and having the opportunity to discuss their case."



Problem-based learning encourages students to analyze a problem, determine what they need to learn and where they can find the tools required to define a solution, and to evaluate possible solutions. Eventually, the students solve the problem—in this case a patient diagnosis and plan for care—and report on their results.

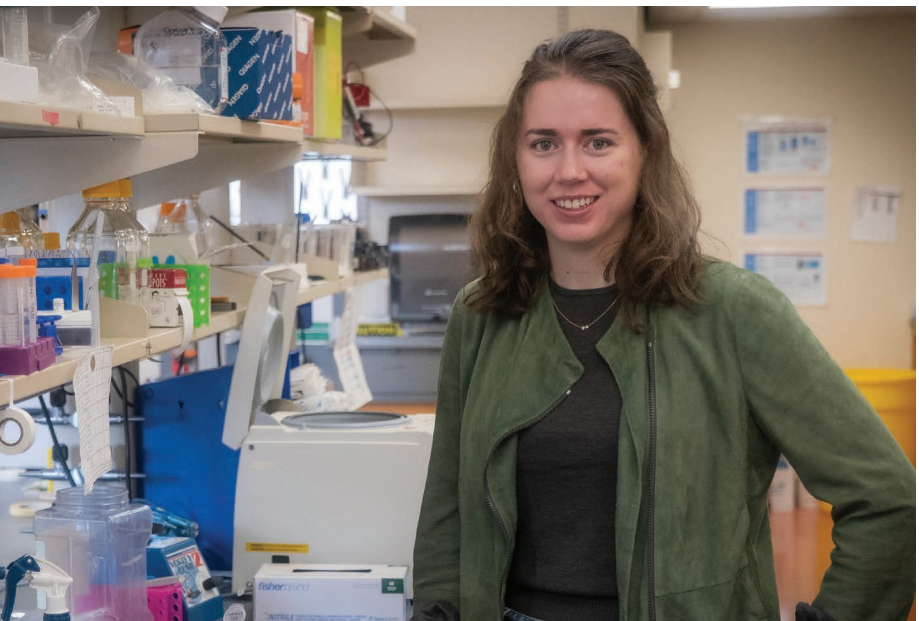
"With the small-group work and the pass-fail grading, it made for a very positive and supportive learning environment," said alumnus Matt Joy. "We were much more concerned about making sure everyone had the knowledge to succeed rather than worrying about beating out each other for class ranking as happens at some larger medical schools."

Joy completed an undergraduate degree at the University of Southern California and was pursuing a music career in Los Angeles before changing his path to medicine. As a more experienced and married student, he took on a leadership role, hosting regular get-togethers for classmates. Joy was elected class president, a role he held throughout his time at the school.

Additionally, the Virginia Tech Carilion School of Medicine dedicates more than 1,200 hours of its curriculum to research. The goal: developing scientist physicians.

All students are expected to conduct original, hypothesis-driven research of sufficient scope to span their time at the school. Each student is allotted funding in years two through four for research supplies.

(left page) Dean Cynda Johnson (at right) greets Class of 2014 President Matt Joy at the podium at the charter class' graduation ceremony. (below) Ellen Shrontz of the Class of 2023. *Virginia Tech photos*



"There are so many skills and mindsets that relate directly to clinical medicine that you develop through research," said Ellen Shrontz. "Aside from just understanding how to read research articles and approaching scientific topics in a better way, it encourages you to tackle difficult problems, shows you it's OK to reach out for help, and teaches you to persevere through challenges."

Shrontz was one of nine students to receive a Letter of Distinction for her research in 2023, and she presented it at the Virginia Tech Carilion School of Medicine's annual Medical Student Research Symposium. Shrontz couples-matched along with Patrick Barrett for a residency in general surgery at the Swedish Medical Center in Seattle.

"While some schools offer tracks in research or health systems science, we require all our students to successfully complete these curricular domains," Learman said. "In addition to becoming scientist physicians, we are developing system citizens who understand how health care systems operate and how to improve health equity. Because the knowledge and skills needed for evidence-based practice change rapidly, it's equally important that our students become master adaptive learners who excel at self-directed lifelong learning."

Beyond the classroom, every milestone established new traditions. The White Coat Ceremony, Match Day, and graduation all set the standard for future classes. Johnson fondly remembered picking out the colors for the graduation hoods: maroon for Virginia Tech, blue for Carilion Clinic, and green for medicine. Even the required national testing for medical students took on added importance.

"One significant moment when I knew we had something special was during the [United States Medical Licensing Examination] STEP 1 process. It is the first major standardized testing in medical school at the end of the second year, and it goes a long way to determining if you will become a doctor and how you will do in the residency match process," said Don Vile, who attended Harvard University for his undergraduate degree and worked in software engineering before attending the Virginia Tech Carilion School of Medicine. "We performed extremely well as a class with one of the highest average scores in the country. It served as confirmation that we were on the right path and was one of the early signs the class and the school were going to be successful."

A POSITIVE PROGNOSIS

As the members of the Class of 2014 matriculated to residencies and fellowships and continued into their specialties, the school where they had begun their medical training also evolved.

On July 1, 2018, it became an official college of Virginia Tech, and a year later, Learman joined the medical school as the second dean.

Students from the Class of 2014 toss their graduation caps after officially becoming medical doctors. *Virginia Tech photo*

Increasing enrollment among Virginia residents and expanding graduate medical education positions, also known as residencies and fellowships, in the region in response to growing physician shortages, are the top priorities for the Virginia Tech Carilion School of Medicine (VTCSOM).

A 2020 study by the Virginia Hospital and Healthcare Association found that about 32 percent of physicians attending medical school in the commonwealth remain in Virginia to work, while more than 64 percent who attend medical school and their graduate medical education positions in Virginia stay.

"We are seeking support from the commonwealth to lower financial barriers for in-state students attending VTCSOM" Learman said. "Right now, many Virginians who get accepted into medical schools must leave the state for that education. As we grow our enrollment and seek support for in-state students, we expect more of them will stay in Virginia and serve our communities as physicians."

Carter Gottschalk, the Class of 2026 president, grew up close to Roanoke, graduating from Staunton River High School in 2016. He attended Virginia Western Community College and completed his bachelor's degree at Virginia Tech before entering medical school.

"I remember hearing about a medical school opening in Roanoke, and I thought how amazing it was that we were getting a center for medical education and research," he said. "I would have picked VTCSOM even it wasn't in Roanoke. The mission of the school truly resonated with me, and I appreciated how well-supported the students I met with were. The fact that VTCSOM was local was just the cherry on top of what appealed to me here."

As the school develops enrollment growth proposals, it also is planning an expansion that will more than double its physical size with a new building in Roanoke's Innovation Corridor. Currently, the school shares a building with Virginia Tech's Fralin Biomedical Institute at VTC, and the proposed building site is nearby. The Virginia General Assembly recently approved $9 million in initial planning funds for the new facility and renovation of the vacated space to support further growth for the institute.

"The new building will be an essential component to increasing our class sizes and recruiting more faculty to instruct the students. The new space will be built to accommodate up to 100 students per class, with an expected opening in 2028," Learman said. "We see this as a critical evolution but will not forget what has made us distinct. The special connection our students make with faculty and with each other in small groups is a hallmark of what we do. When we think about growth, we are being very deliberate in making sure we maintain what makes us great."

ANOTHER DOSE

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

WHERE ARE THEY NOW?

When the new Virginia Tech Carilion School of Medicine opened in 2010, Virginia Tech Magazine celebrated the addition with a story about the school. The cover featured three of the first students: Don Vile, Raeva Malik, and Robert Brown.

Vile returned to Roanoke in 2020 after a residency in internal medicine and a fellowship in hematology and oncology from Wake Forest Medical School. He now is an oncologist at Blue Ridge Cancer Care, where as a student he performed clinical studies with many of the physicians he now calls colleagues, and serves as an assistant professor of internal medicine.

"More than anything, I feel a great deal of gratitude for the investment the school and the community made in the charter class. I think all my classmates have gone on to become great successes," he said. "The reason many of us have returned is so that we can give back to the community and the school that helped get us where we are today."

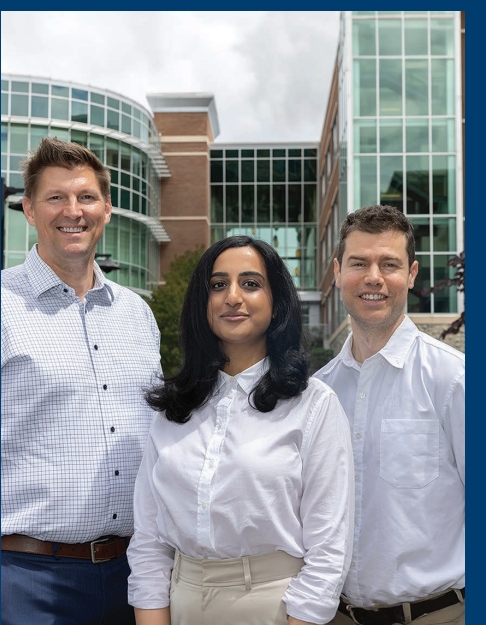
While Malik has not come back to work in Roanoke, she has maintained close relationships with many of her charter classmates–one in particular. Malik and Shervin Mirshahi started dating near the end of their medical school education and continued through their residencies, Malik in internal medicine at George Washington University and Mirshahi in radiology at Virginia Commonwealth University.

They were married in 2018 and have a son who is nearly a year old. Both now practice and teach at the Medical College of Wisconsin in Milwaukee, where Malik is a hospitalist and Mirshahi is an interventional/endovascular surgical neuroradiologist.

"Roanoke and the school hold a special place in our hearts," Malik said. "We love to come back when we can to see the places where we first started dating. It's also great to be able to catch up with classmates who have returned."

Brown is one of the first eight members of the charter class who are practicing in Roanoke. He completed a combined residency in internal and emergency medicine as well as a fellowship in critical care at the University of Maryland Medical School in Baltimore. He said that seeing his classmates and friends return and support the Virginia Tech Carilion School of Medicine was the best recruitment tool possible.

Charter class members (from left) Don Vile, Raeva Malik, and Robert Brown in 2014 and today. *Photos by Jim Stroup and Ryan Anderson for Virginia Tech.*



"There are outstanding schools and medical centers across the country, but many of them are very established and in metropolitan areas, where it is hard to see your impact. It's unique here because we are developing something in an area where there is a clear need," Brown said. "As graduates, we are in that lucky position that we can stay and be part of building something amazing."

DEFINING MOMENT

Sadly, a defining moment for the first class at the Virginia Tech Carilion School of Medicine involved the loss of one of its own. Caroline Osborne was diagnosed with cancer during her third year and died in 2014.

Osborne's classmates contributed patches from their white coats to create a memorial quilt that is a centerpiece for a remembrance wall in the school. Also, they have supported a memorial scholarship in her name.

"Caroline wasn't just anyone. She was among the smartest in the class and a true leader. It was heartbreaking to all of us when she was diagnosed," classmate Robert Brown said. "To the end, she gave of herself to help advance medical knowledge. Caroline really represents the spirit of this class."

(above) Caroline Osborne practiced her clinical skills with fellow charter class student James Light. (below) The charter class created a quilt while she was undergoing cancer treatment made from patches of their white coats. It is featured on her remembrance wall at the school. *Virginia Tech photos*

MEDICAL SCHOOL MOMENTS

Curated by Catherine Doss

Life in medical school is a journey of intense dedication, sometimes grueling hours, and profound transformation.

These photos provide an inside look at the Virginia Tech Carilion School of Medicine and the unique experiences of its students.

We hope to capture not just the academic rigor but also the personal growth and commitment that define the path to becoming a physician.

1 ACHIEVABLE DREAM

2 RESEARCH

1 Anatomy is also taught digitally. Nancy Wu of the Class of 2025 demonstrates the ins and outs of anatomy with a fingertip for high school visitors from the Achievable Dream program. *Photo by Ryan Anderson for Virginia Tech.*

2 Kenneth Young finishes up his doctoral research as part of Virginia Tech's Translational Biology, Medicine, and Health Graduate Program at the Fralin Biomedical Research Institute at VTC. Medical students who enroll in the program are able to pursue their passions in both clinical medicine and translational research and graduate with both an M.D.and a Ph.D. *Photo by Ryan Anderson for Virginia Tech.*

3 During the 2023 White Coat Ceremony, Class of 2027 President Karima Abutaleb recites the guiding principles that her class developed. *Photo by Natalee Waters for Virginia Tech.*

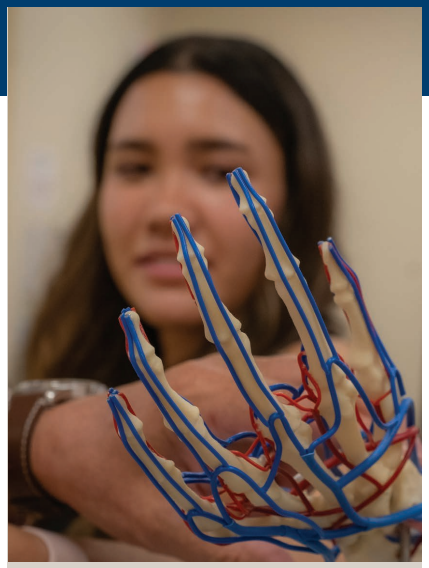
4 The most anticipated day for fourth-year students–even more so than graduation–is Match Day, when they find out where they will be going for residency. (from left to right) Brandon Ganjineh and Devra Asah celebrate their matches. The Virginia Tech Carilion School of Medicine matches students in some of the most competitive specialties and programs nationwide, and the school's overall match rate is 99 percent. *Photo by Natalee Waters for Virginia Tech.*

5 Rachel Ziegler (at left) and Sara Schroder get acquainted during orientation. With approximately 50 students per class, the Virginia Tech Carilion School of Medicine offers a close-knit learning cohort and plenty of individualized instruction. *Photo by Ryan Anderson for Virginia Tech.*

3 WHITE COAT

4 MATCH DAY

5 ORIENTATION



6 Mastering anatomy is essential in medical education. Jessica Urbanczyk, Class of 2026, examines a circulatory model of the hand. *Photo by Ryan Anderson for Virginia Tech.*

6 ANATOMY

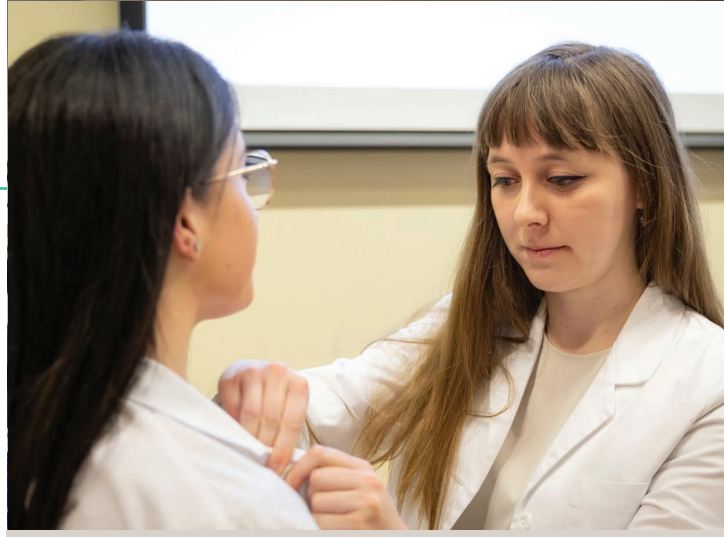
7 Fourth-year student Benjamin Tintera celebrates his graduation in Hokie style. *Photo by Natalee Waters for Virginia Tech.*

7 GRADUATION

8 Varun Mishra (at left) and Sydney Dinn on inpatient rounds at Carilion Roanoke Memorial Hospital. Students start rotations through hospitals and clinics during their third year. This is an integral transition from theoretical learning to practical, hands-on medical practice. *Photo by Ryan Anderson for Virginia Tech.*

8 HOSPITAL ROTATIONS

9 One of the highest honors in medical school is to be inducted in the Arnold P. Gold Humanism Society, which recognizes those who display a dedication to health-focused advocacy, community service, personal excellence, and an empathetic heart. Chloe Lessard, Class of 2025 (at right) pins a fellow inductee. *Photo by Ryan Anderson for Virginia Tech.*



9 GOLD HONOR SOCIETY PINNING

10 In May, the school celebrated 42 new doctors at its 11th annual commencement ceremony. *Photo by Natalee Waters for Virginia Tech.*

10 GRADUATION

11 MLK DAY OF SERVICE

12 RESEARCH

13 RESEARCH

11 Christian Ostrowski of the Class of 2026 assists with building a ramp for a Roanoke home. It has become a tradition for medical students to use their Martin Luther King Jr. holiday to give back. *Photo by Ryan Anderson for Virginia Tech.*

12 For her research project, Kelly Ingram of the Class of 2024 studied the relationship between obesity during pregnancy and potentially harmful bacteria that may predict negative birth outcomes. *Photo by Ryan Anderson for Virginia Tech.*

13 Abhishek Bhutada of the Class of 2024 shows an optical magnetometry device that guides treatment options for people with drug-resistant epilepsy. The Virginia Tech Carilion School of Medicine is one of only a few medical schools with a highly intensive research curriculum. All students must complete a four-year research project before graduating. A number of students have their research published in academic journals before graduation. *Photo by Ryan Anderson for Virginia Tech.*

AROUND THE HOKIE NATION

Deseria Creighton-Barney has served as the president of the Virginia Tech Alumni Association board of directors, on the Alumni Advisory Board of the College of Liberal Arts and Human Sciences, on the Virginia Tech Foundation board of directors, and now as a tri-chair for Boundless Impact: The Campaign for Virginia Tech. *Photo by Lee Friesland for Virginia Tech.*

SAYING YES TO SERVICE

By Jimmy Robertson

Deseria Creighton-Barney grew up in Dinwiddie County, Virginia, just south of Richmond, and though her parents weren't farmers, they lived a mile off Route 460 with views of rolling farmland, tobacco fields, and livestock a part of their commuting experience.

When Creighton-Barney was accepted to Virginia Tech in 1981, she and her parents made the trip to Blacksburg to attend a university event devoted to Black students who recently were accepted to the school. After arriving, she found herself chuckling at the coincidence occurring.

"I said, 'My parents have driven me about 3.5 hours from home, and I'm still one mile off 460 and all I see is farmland and animals,'" Creighton-Barney said. "I said, 'This is not what I envisioned college being.'"

Yet the familiarity of the setting, the overwhelming size of Lane Stadium, and the friendliness of the people led Creighton-Barney to choose Virginia Tech as the place to earn her college degree.

And in a certain sense, the university has been her home ever since.

Never one to turn down an opportunity to support her alma mater, Creighton-Barney '86 these days serves a critical role as one of the tri-chairs of the steering committee for Boundless Impact: The Campaign for Virginia Tech.

In March 2023, the university announced the naming of Creighton-Barney, Liz Lazor '15, and J. Pearson '87 as the new tri-chairs, and together, they lead the university's ambitious $1.872 billion fundraising campaign designed to drive forward major initiatives and scheduled to run through Dec. 31, 2027.

Creighton-Barney received the invitation to participate in the campaign's leadership role two days after suffering a health scare that resulted in a two-night hospitalization. Angela Hayes, Virginia Tech's associate vice president for advancement and campaign director, went to Creighton-Barney's home to check on her following her release from the hospital, and as the hours passed between the two friends, Creighton-Barney commented that she needed to let Hayes go so she could safely make the three-hour drive back to Blacksburg.

> I WORK IN HUMAN RESOURCES, AND **I'M ALWAYS TRYING TO BE OF SERVICE TO SOMEONE.** I THINK THAT IS WHAT VIRGINIA TECH EMBODIES, AND I FEEL THAT'S WHO I AM."
>
> **Deseria Creighton-Barney '86**

"Well, there's something I wanted to talk to you about," Hayes said.

Creighton-Barney said yes as she always does and always with the support of her husband, Gary, the "cheerleader" of her Virginia Tech activities.

She had just completed a productive tenure as the president of the Virginia Tech Alumni Association board of directors, becoming the first Black female in that capacity at Virginia Tech. She helped to create the Black Alumni Society and increased the ever-growing number of engaged Hokies.

In addition, Creighton-Barney serves on the Alumni Advisory Board of the College of Liberal Arts and Human Sciences and also has served as a member of the Virginia Tech Foundation board of directors.

"People ask me all the time, 'What is it about Virginia Tech?'" Creighton-Barney said. "And I always say, 'I can't accurately put Virginia Tech into words,' and I mean that in the most flattering way.

"There's something special about Tech. There's something special about the students. There is something special about Blacksburg, and as cliche as it sounds, it really does embody the spirit of *Ut Prosim*.

"I work in human resources, and I'm always trying to be of service to someone. I think that is what Virginia Tech embodies, and I feel that's who I am."

Her willingness to serve may come as a surprise considering the many challenges she faced while attending Virginia Tech.

During her sophomore year, her mother passed away from cancer. Creighton-Barney decided to leave the university, but her great aunt—a woman who was like a grandmother to her—convinced her to return to Virginia Tech.

Then, in spring 1984, Creighton-Barney was diagnosed with mononucleosis, more commonly known as mono.

The illness, which typically lasts four to six weeks, forced the communication major to miss out on the summer internship that would have aided her dream of becoming a sports broadcaster.

(left) Deseria Creighton-Barney was named the Ut Prosim Alumna of the Year at the 2018 Black Alumni Reunion Influential Black Alumni Awards Ceremony. (right) The Ut Prosim Alumna of the Year Award. *Photos by Olivia Coleman for Virginia Tech.*

Finally, just before Creighton-Barney graduated, she lost her great aunt—almost two years to the day after her mother's passing.

"When I finished, I was struggling. I was depressed," Creighton-Barney said. "I just wanted it to be over. I said, 'When I leave campus, I'm never coming back to Blacksburg.' I laugh because I think about how much I come back to Blacksburg now."

Creighton-Barney, who lives outside of Richmond today, may not have become a sportscaster on ESPN, but she found a career of utmost importance and one arguably more fulfilling.

Those who work in human resources are of vital importance to an organization, especially to the employees who often reach out for personal and professional insight, and Creighton-Barney takes her role seriously.

"When it comes to my position, it is my job to keep the 'human' in human resources," she said.

Rest assured, she takes that same approach when serving in various capacities for her university. She understands that her role as a tri-chair is to help raise money, but from a deeper perspective, the goal is to ensure the students of tomorrow become future success stories.

For a woman from the rural farmlands of central Virginia, this Virginia Tech mission is yet another one worthy of her devotion.

"The university's and mine," she said, "our values align." ■

VIRGINIA TECH
BOUNDLESS IMPACT

The Campaign for Virginia Tech continues toward its 2027 conclusion with a fundraising goal of $1.872 billion. As of May 31, the campaign, which also has a goal to engage 120,000 Hokies, had raised $1.612 billion (86.14 percent of goal) and engaged 100,627 alumni (83.86 percent of goal).

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

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

Deseria Creighton-Barney (third from right) at the 2018 Black Alumni Reunion Influential Black Alumni Awards Ceremony.

COMMENCEMENT

HATS OFF TO THE NEWEST HOKIE ALUMS

Virginia Tech honored 6,355 bachelor's degree candidates during spring commencement 2024, which took place May 8-11. Mehul Sanghani '98, pictured at bottom, delivered the keynote address at the universitywide ceremony on May 10. This year, 3,088 graduating Hokies completed their baccalaureate degree programs with honors, having achieved cumulative GPAs of at least 3.4 on a 4.0 scale. In addition, 1,586 students received graduate degrees or certificates. ■

Photo by Clark DeHart for Virginia Tech.

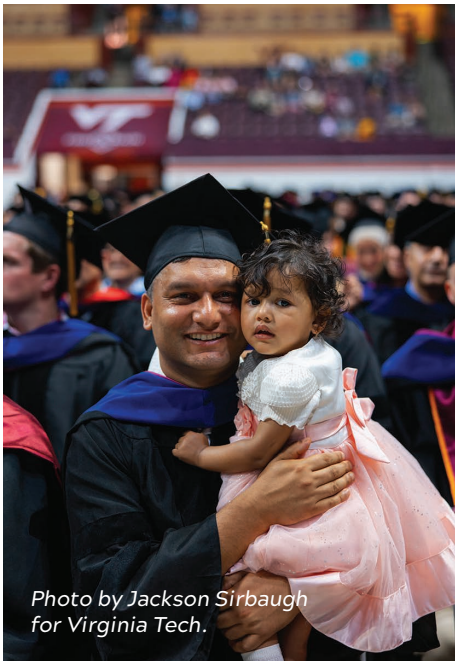


Photo by Jackson Sirbaugh for Virginia Tech.

Photo by Jackson Sirbaugh for Virginia Tech.

ADVICE FOR NEW GRADS

Mehul Sanghani offered guidance for new grads. Get four take-aways from his speech at alumni.vt.edu/grad-advice or by scanning the QR code.

Photo by Clark DeHart for Virginia Tech.

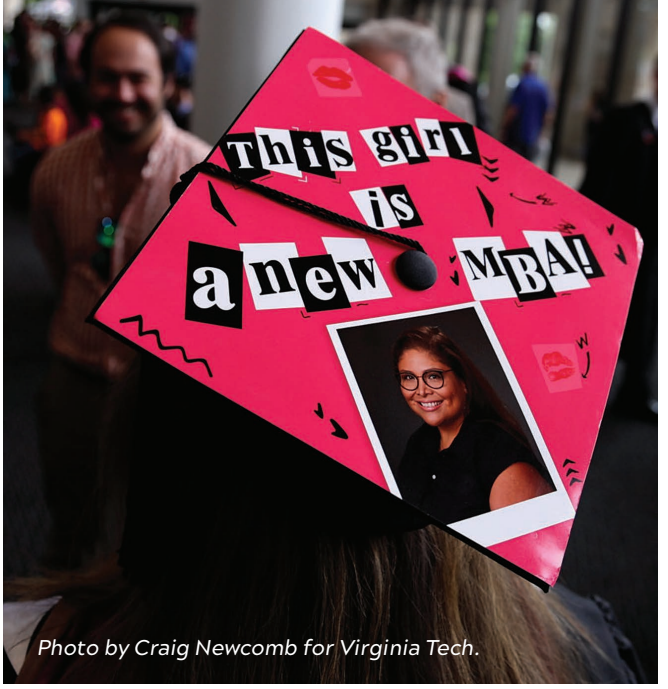


Photo by Craig Newcomb for Virginia Tech.

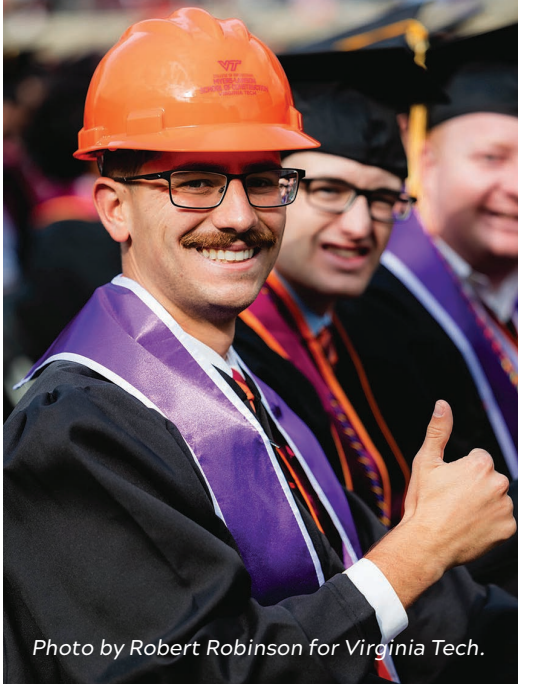


Photo by Robert Robinson for Virginia Tech.


Photo by Robert Robinson for Virginia Tech.


Photo by Clark DeHart for Virginia Tech.


Photo by Jackson Sirbaugh for Virginia Tech.

Photo by Clark DeHart for Virginia Tech.

FROM CLASSROOM TO CAREER

By Sarah Bourdeau, David Fleming, and Hayley Roulston

CAITLIN SHARKEY

PROTECTING PUBLIC HEALTH

As health administrator at the Bradley Free Clinic in Roanoke, Virginia, Caitlin Sharkey '23, who earned a Master of Public Health, puts her education into practice every day.

As part of her Infection Prevention and Control class, Audrey Ruple, associate professor of quantitative epidemiology and the Metcalf Professor of Veterinary Medical Informatics, asked students to create an infection control plan for a setting of their choice.

Sharkey chose the Bradley Free Clinic, where she's been involved since she began an internship in January 2020 as an undergraduate at Roanoke College.

What started as an assignment has become part of the clinic's standard operating procedure as Sharkey adapted a project that was part of her master's degree into an infection control plan.

Founded in 1974, the Bradley Free Clinic provides free medical, dental, behavioral health, and pharmacy services in the Roanoke Valley.

"Throughout the clinic, this plan is the standard for infection prevention and control of bloodborne and airborne pathogens. In the population we serve, we have many patients who have hepatitis C and HIV, so it's very important to not only have the proper precautions in place to prevent infection, but also to know what to do in case there is an exposure," Sharkey said.

The infection control plan came into play last summer, when a student volunteer was injured by a used needle. Thanks to Sharkey's plan, clinic staff had clear and specific guidelines to follow.

"Principles of Infectious Disease is where I learned about all of these disease states, and Infection Prevention and Control is where I learned what you do when exposure happens—every class I took in my two years of the MPH went into this infection control plan," said Sharkey.

In her role as health administrator at the clinic, Sharkey wears many hats. She handles scheduling and onboarding for about 300 volunteers, including students from the clinic's partnerships with the Virginia Tech Carilion School of Medicine, Virginia Commonwealth University School of Dentistry, and Virginia Western Community College.

ALEXIS GEORGE

WATCHING THE WEATHER

While most people commute to work by train, bus, car, or bicycle, winter travel for Alexis George '22 comes on the tracks of a snowcat, a track-laying vehicle often seen grooming the trails of ski slopes.

In winter conditions, the vehicle carries George up 6,000 vertical feet to her job as a weather observer and meteorologist for the Mount Washington Observatory, which is home to the world's most severe weather.

"I work the night shift at the observatory, where my primary responsibility is to take hourly weather observations at New England's highest peak," said

George, who graduated with a bachelor's degree in meteorology. "No matter the weather conditions, I head outside at least once an hour to take the temperature, look at the sky condition and precipitation type, and take other meteorological data. In the winter, I also free the weather instruments of rime ice accumulation using a mallet or crowbar, sometimes on an hourly basis."

The data set that George contributes to has been collected at the station since 1932 and is a critical resource for researchers exploring long-range patterns of meteorological change.

George had ample preparation to monitor weather instruments: As a Hokie, she participated in meteorology instructor David Carroll's field course, where meteorology students monitor field stations on some of the highest mountains in Virginia and West Virginia.

"While I was at Virginia Tech, I had the opportunity to take a course where we went out into the field and maintained a weather station that the college has," said George. "I really enjoyed that work, and it was a good experience for what I'm doing now."

The best part of her job now? "No day is quite the same, and by the end of every shift I enjoy feeling that I've worked my hardest," said George.

Alexis George removes ice from weather instruments. *Photo courtesy of Alexis George.*

HARJAS SINGH

LASTING CONNECTIONS

Harjas Singh '15 measures his time at Virginia Tech as the best four years of his life.

Singh, featured on Forbes' 30 Under 30 Europe in technology, is chief product officer and co-founder of Shares.io, an investment platform that allows friends and communities to share their investing knowledge. Since its launch in April 2021, the platform has raised $90 million in total funding and serves 170,000 customers in the United Kingdom.

From a young age in his home of New Delhi, India, Singh knew he wanted to be an entrepreneur. However, because of the red tape involved with his visa, that dream would have to wait until after college.

With this in mind, Singh used his free time to explore the hundreds of student groups available at Virginia Tech.

Despite growing up in India, he had never learned the Northern India dance, Bhangra. In Blacksburg, he not only learned the dance, but ultimately joined Bhangra at Virginia Tech, a cultural dance team that competes throughout the country.

The relationships he built on the team have lasted beyond graduation.

"Be part of something that's outside of your degree because it cements those bonds that last the rest of your life," Singh said, offering advice to current and future students.

Halfway through his studies, a scholarship from the Computer Science Resource Consortium, now called CS|Source, helped Singh land an internship with Deutsche Bank followed by a co-op with NetApp.

"My internship and co-op made me enjoy the rest of my college life even more. After I worked for six months, it made me relish every class, tackle each project with a better mindset, and realize the utopia of college," Singh said.

Singh went on to work at Deutsche Bank for four years, then cultivated his entrepreneurial drive working for Revolut, a global neobank and financial technology company that aims to simplify all things money. A year after moving to London, Singh joined Revolut as product owner for wealth and trading. The energy in the office and the quicker ship times gave him the push to develop his own company. ■

ALL ABOUT ALUMS

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

HOKIES IN FOCUS

1a-b HELPING HOKIES
Cornerstone Alumni from the New River Valley partnered with Pulaski County Public Schools to assist the school system's nutrition program. They packed weekend meal totes for the district's at-risk and low income students. *Photos courtesy of Deanna Sumners.*

2 HOKIES, HOOS, AND DUKES
Virginia Tech young alumni joined alums from University of Virginia and James Madison University this spring for the first-ever Mega Mixer at Wilson Hardware in Arlington. Young alumni from all three schools enjoyed fun times and networking. *Photo courtesy of Mariah Raskin.*


1a

1b

2

3 BEERS AND CHEERS
The Baltimore Hokies got together at Guinness Brewery for fun and fellowship. *Photo courtesy of the Baltimore Alumni Chapter.*

4 REAL ESTATE REAL DEAL
Charlotte young alumni gathered at Vintage Whiskey and Cigar Bar for the First-Time Home Buyer Happy Hour, where they got tips and tricks for purchasing a first home. *Photo courtesy of Sam Whitney.*

5a-b BIG EVENT
Alumni chapters across the country pitched in for The Big Event, completing a variety of projects to help their local communities. *Photos courtesy of the Roanoke and Southeast Michigan alumni chapters.*

CLASS NOTES

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.

'72

CAREER **Carmine T. Somma Jr.,** Virginia Beach, Va., published his fifth novel, "Last Lap."

'73

CAREER **Martin J. Helsley Jr.,** Edinburg, Va., who retired from Shenandoah County Public Schools after teaching middle school for 32 years and who presently operates a century beef farm, completed a term on the Shenandoah County School Board, serving from 2020-23. He served on the Shenandoah County Board of Supervisors from 1979-83.

Elva E. Tillman, Catonsville, Md., was inducted into the Monumental City Bar Association of the Baltimore City Hall of Fame for outstanding legal work in government and nonprofit pro bono organizations in June 2023. In November 2023, she received the Maryland Legal Service Corporation Arthur W. Machen Jr. Award, which is presented to a judge or lawyer who has demonstrated extraordinary commitment to increasing access to justice and improving civil legal service delivery to low-income Marylanders.

'78

CAREER **Christopher E. Mandel,** College Grove, Tenn., was promoted to assistant professor of practice at Embry-Riddle Aeronautical University and published his first journal article for the Journal of Risk Management in Financial Institutions, "Risk Appetite: A Crucial Consideration for Effective Board Risk Oversight."

'79

WEDDING **Thomas Nelson Lusk** and **Cynthia Sloane Croft '82,** Boones Mill, Va., 6/24/23.

'80

CAREER **W. Chris Wilds,** Tucson, Ariz., retired as a B767 captain after 34 years of flying for Delta Airlines.

'83

CAREER **Martin A. Payne,** Portsmouth, Va., is on the academic faculty at Riverside Regional Medical Center's Emergency Medicine Residency.

H. Wayne Carter III, Chase City, Va., retired as the county administrator of Mecklenburg County. He worked for Mecklenburg County for almost 35 years, serving as county administrator for nearly 20 years.

'85

CAREER **Catherine Bazel Barclays,** Crofton, Md., is the acting James Webb Space Telescope project manager.

'86

CAREER **Kevin C. Keating** was selected as senior vice president for the National Systems Group, effective Jan. 1, following a long and distinguished career in the intelligence community at the National Reconnaissance Office and most recently at the Central Intelligence Agency Directorate of Science and Technology.

'89

CAREER **Lynda M. Allen,** Manassas, Va., published a novel, "Flashes of Insight."

'90

CAREER **Michael P. Maxwell,** Hartland, Wis., was appointed by the chief justice of the Wisconsin Supreme Court to serve on the Commercial Court. Maxwell is the presiding judge of Branch 8 in Waukesha County.

'92

CAREER **Mark C. Popovich,** Troutville, Va., was promoted to principal/partner at Guynn Waddell, in Salem, Va.

Traveling HOKIES™

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.

Albuquerque Balloon Fiesta
Oct. 9-16

Sunsets and Cypresses
Oct. 15-25

Swiss Alps and the Italian Lakes
Oct. 23-Nov. 1

Renaissance Triumphs
Nov. 4-14

Montreal and Quebec City Christmas Market
Dec. 11-16

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.

'93

CAREER **Kristine E. Vick,** Wilmington, N.C., was named editorial manager for the Office of University Relations at the University of North Carolina Wilmington. She will guide editorial strategy and support for the university's print and digital platforms.

'94

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

Jennifer G. Bird, Roanoke, Va., has written three books: "Marriage in the Bible: What Do the Texts Say?" in 2023, "Permission Granted: Take the Bible into Your Own Hands" in 2015, and "Abuse, Power and Fearful Obedience: Reconsidering 1 Peter's Commands to Wives" in 2011.

'01

CAREER **Daniel E. Ruby,** Chesapeake, Va., was named a shareholder of Timmons Group.

'05

CAREER **Paul N. Bowles III,** Park Ridge, N.J., was named to Billboard Magazine's 2024 Top Music Lawyers list.

'06

CAREER **LaTron S. Brown,** Salem, Va., was named to Roanoke's 40 Under 40.

'07

CAREER **Andrew C. Goolsby,** Durham, N.C., received the AIA Young Architects Award for 2024.

Jonathan B. Murray, Richmond, Va., was named a shareholder of Timmons Group.

'08

CAREER **Andrew M. Lantz,** Virginia Beach, Va., co-owner of Restorative Therapy Co. in Virginia Beach has written a book, "The Purposeful Present" under the pen name L.M. Andrews, that delves into the practical application of mindfulness in daily life.

Manisha P. Patel, Greensboro, N.C., earned the Legal Elite distinction as published by Business North Carolina magazine.

'09

CAREER **Kristy J. High,** West Chester, Ohio, is a literacy coordinator who oversees the Imagination Library of Ohio and Reach Out and Read programs at Cincinnati Children's Hospital. She has published seven children's books and is vice president of the board of Winn Reading, a nonprofit organization that helps emergent readers in Cincinnati.

CHILDREN **Kathleen B. O'Brien**, St. Louis, Mo., a daughter, 5/11/23.

'13

CAREER **Zachary A. Kristofek,** West Hollywood, Calif., recently produced "Red Right Hand," a film starring Orlando Bloom and Andie MacDowell that premiered in February.

'14

CAREER **Jeffrey M. Britt,** Henrico, Va., was appointed senior vice president and chief government affairs officer by YMCA of the USA.

Joshua T. Smith, Dallas, Texas, a Bell Nunnally attorney, was named to the Texas Rising Stars list and to the Best Lawyers: Ones to Watch in America 2024.

'15

WEDDING **Ryan Burns** and **Lisa M. Hemphill Burns '16**, Arlington, Va., 7/1/23.

'18

CAREER **Harrison L. Talton,** Richmond, Va., was named the 2023 TAPPI Young Professional of the Year Award in the pulp and paper industry for contributions to the recyclability of consumer packaging.

'19

WEDDING **Leah R. Schwartz** and **Stephen E. Russell '20**, Glen Allen, Va., 5/4/24.

'21

CAREER **Gillian R. Barth,** Vienna, Va., has been promoted to associate production editor at Amplify Publishing Group.

SAVE THE DATES

We love celebrating the Hokie community. Attend one of our upcoming events in Blacksburg and beyond. To learn more, visit alumni.vt.edu/events.

JULY 21
VIRGINIA TECH NIGHT AT NATIONALS PARK

JULY 27
VIRGINIA TECH NIGHT AT THE NORFOLK TIDES

AUG. 22
WELCOME TO THE CITY (LOCATIONS ACROSS THE COUNTRY)

AUG. 22
VIRGINIA TECH NIGHT AT THE DIAMOND

SEPT. 12, 19, 26
CORNERSTONE SERIES: AGING IN COMMUNITY IN ROANOKE

SEPT. 20-22
VIRGINIA TECH CORPS OF CADETS REUNION

OCT. 5
STANFORD TAILGATE

OCT. 25-26
HOMECOMING WEEKEND: JOIN COLLEGES AND GROUPS AT THE HOMECOMING TAILGATE

FEB. 19-20, 2025
GIVING DAY

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

PRIDE AND PROGRESS

by Julie Flanagan

Virginia Tech held the first Hokie and Proud Weekend this spring. The event was a collaborative effort between the university and the Ex Lapide Society, a free Virginia Tech society for lesbian, gay, bisexual, transgender, queer, and questioning alums and allies.

It was a milestone. Dozens of Hokie alums, students, faculty, and staff gathered April 5-7 to honor the rich history of the LGBTQIA+ community at Virginia Tech. Attendees explored campus spaces dedicated to the queer community, volunteered alongside students for The Big Event, tested their knowledge at trivia night, and gathered for a denim and diamonds-themed drag brunch.

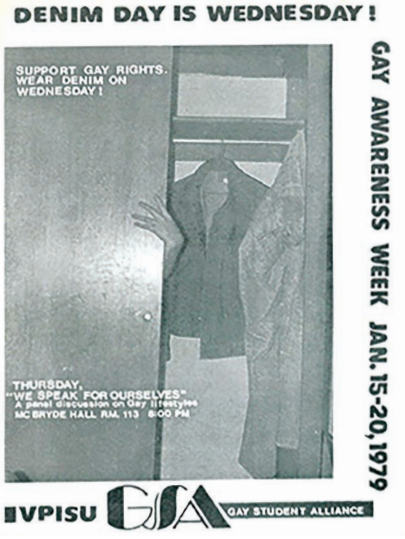
A highlight was commemorating the 45th anniversary of Denim Day at Virginia Tech. Many of the original organizers returned to campus to share their stories, which laid the foundation for a more inclusive environment on campus.

DENIM DAY

During the week of Jan. 15-19, 1979, the Virginia Tech Gay Student Alliance organized the first Gay Awareness Week, a multi-event effort to raise awareness of gay and lesbian individuals on campus.

The highlight was Denim Day, which encouraged everyone in the university community to show their support of gay rights by wearing denim. However, out of the 20,000 students and thousands of faculty and staff, only a few dozen participated. Gay Student Alliance members and other members of the gay community faced ridicule, taunting, and verbal and physical assaults.

Since then, the Ex Lapide Society and the entire Virginia Tech community has commemorated Denim Day annually during Virginia Tech's Pride Week as a way to demonstrate support and solidarity for LGBTQIA+ Hokies. ■



Virginia Tech photo

"It was amazing to see how far Virginia Tech has come since 1979. It was so empowering to see and experience all the supportive services Virginia Tech now has for the LGBTQIA+ community with the Pride Center and Lavender House. Never did I think I would say to someone, 'I'm going to hang out with the HokieBird at a drag show on campus.' I am grateful for all the hard work that has been done and that will continue."

***Sue Manero '82,** one of the original Denim Day organizers*

Photo by Luke Hayes for Virginia Tech.

"As queer and trans people, finding our histories is an act of liberation. Historically, queer and trans people have been removed from mainstream narratives, which limits our perceptions of ourselves and others. Denim Day is a fascinating tale of student activism and institutional and social oppression. Many students at Virginia Tech are not aware of the people that came before them and made their current way of life possible on this campus. It's important we know that we belong here and that people like us have always been here."

***Bing Bingham,** director of Virginia Tech's Pride Center*

Photo by Travis Carr for Virginia Tech.

Photo by Travis Carr for Virginia Tech.

Photo by Travis Carr for Virginia Tech.

Photo by Travis Carr for Virginia Tech.

"**The intentional, collaborative, and overwhelmingly supportive partnership** with the Ex Lapide Society, university Advancement, Alumni Engagement, Student Affairs, Career and Professional Development, the Pride Center, Lavender House, and student and alumni leaders extended into the weekend as attendees were surrounded with an outpouring of love and allyship from Hokies across the university and nation."

Danny Robertson '23, '25, member of the Ex Lapide leadership team

"**A year ago ,Virginia Tech brought together the university community** to develop a strategy for building a lifelong relationship with LGBTQIA+ alums. Hokie and Proud Weekend is one significant example of the progress being made to create a diverse and inclusive environment. There is more work to do, but there are also so many meaningful engagement opportunities to maintain and rebuild relationships."

Mark Weber '87, chair of the Ex Lapide Society

EX LAPIDE SOCIETY OF VIRGINIA TECH

Ex Lapide, Latin for "out of stone," is a vibrant community of Virginia Tech lesbian, gay, bisexual, transgender, queer, questioning alumni, and allies. The society was founded to celebrate and support the diverse LGBTQIA+ members of the Virginia Tech family.

The society aims to foster fellowship and advocate for the needs of Virginia Tech's LGBTQIA+ community. It strives to create an inclusive environment in which Hokie alumni from all backgrounds feel welcomed, empowered, and valued.

Explore Ex Lapide's new website to learn more and discover how you can get involved: alumni.vt.edu/exlapide.

EXPLORE EX LAPIDE

Explore Ex Lapide's website to learn more and discover how you can get involved: alumniv.vt.edu/exlapide.

VIRGINIA TECH

ALUMNI WEEKEND

OUR BIGGEST CELEBRATION YET

Story by Annie McCallum
Photos by Travis Carr

More than 1,100 Hokies gathered in Blacksburg this summer to explore campus, have fun, and celebrate what it means to be part of the Hokie community at Alumni Weekend.

The growing tradition included insider tours and seminars, campus tours, a town hall with President Tim Sands, class happy hours, dinner and fireworks on the Drillfield, and more.

There were plenty of memorable moments and special guests, including coaching legends Frank Beamer and Bud Foster.

Plus, 900 more Hokies joined the fun online, signing up for the virtual celebration. ■

MAKE PLANS FOR SUMMER 2025!

Save the date for next year's event
June 5-8, 2025

Registration will open later this year. Save when you sign up early.

Get the scoop at:
alumni.vt.edu/aw-25

DIEHARD DELIGHTS IN GAME DAY

By Jimmy Robertson

The 2023 Virginia Tech Homecoming football game featured the typical orange-and-maroon pageantry with splashes of other fall colors in the background and rays of sunshine bursting through partly cloudy skies.

The football team's performance against such a backdrop added to the weekend celebration. A 30-13 victory over Wake Forest left fans and alumni feeling fulfilled. Include Donald Bridges Jr. '84 among them. "That was a fun day," Bridges said. "It was a little more exciting than a regular day."

Bridges probably appreciates witnessing football games more than most. He tries to make a trip to Blacksburg for a game each fall, but doing so requires more effort and logistical planning for him than for the typical Virginia Tech enthusiast.

For 37 years, Bridges has navigated life as a quadriplegic. He needs assistance, a ventilator, and other special equipment just to survive. But neither that, nor a three-hour ride across crowded interstates from suburban Richmond, Virginia deters the Virginia Tech alum and his close friend Chet Willis '80 from doing something that they've been doing regularly since 1989.

"We plan every year," Willis said. "We sit down, and when the schedule comes out, we kind of look and say OK, that's our target game. Let's make it happen.' … We've figured out a routine. It's good. He really enjoys it."

Bridges' life changed May 2, 1987, when he suffered a dislocated neck and severed his spinal cord after a collision in an amateur sports league rugby match in Richmond. At the time, he was a graduate student pursuing a master's degree in health administration at the Medical College of Virginia (MCV), now known as the Virginia Commonwealth University Health System.

Donald Bridges '84 is a quadriplegic, but he doesn't let that stop him from trying to see at least one football game each year. *Photo by Luke Hayes for Virginia Tech.*

Bridges, who played in the extramural rugby club at Virginia Tech while pursuing a degree in biology from the College of Science, spent five months in intensive care at MCV following the accident. He later was transferred to the Shepherd Center, a hospital in Atlanta that focuses on rehabilitation from spinal cord and brain injuries.

"Without the help of others, I don't think I'd still be here in this world," Bridges said. "The older I've gotten, I've come to realize that material things are not nearly as important as your relationships with other people."

The lesson arguably to be learned from his life is that he manages to persevere, leaning into his faith in Christ and the support of his family and friends.

"A lot of times, I don't feel like I have a positive attitude," Bridges said. "It's maybe more of a 'don't quit' attitude. I know there are a lot of people who are in a worse situation than I am. I just keep trying, and I've come to realize that everybody has challenges."

Bridges said he takes life one day at a time. This fall, he and Willis are planning to attend the football game against Georgia Tech, continuing a tradition that Bridges said brings him joy.

Perhaps it's not coincidental that his life and approach to it does the same for so many others as well. ■

Congratulations to the chapters who earned Alumni Chapter Pylon Awards. The awards are given in recognition of alumni chapter volunteer groups that have gone above and beyond to support the advancement of Virginia Tech in their designated geographical regions.

2024 PYLON AWARDS

- AUSTIN
- CHARLESTON
- CHARLOTTE
- CINCINNATI
- DALLAS-FORT WORTH
- DENVER
- D.C. METRO
- EASTERN SHORE
- FAUQUIER
- FIRST STATE
- FREDERICKSBURG
- GREENSVILLE-SOUTHAMPTON
- MINNESOTA
- NASHVILLE
- N.C. TRIAD
- PALMETTO
- PENINSULA
- PHILADELPHIA
- RICHMOND
- ROANOKE
- SAN ANTONIO
- TIDEWATER
- WILLIAMSBURG

READY TO GET INVOLVED WITH **YOUR LOCAL CHAPTER?**

Scan and tap with your phone to find out more about alumni chapters

Joining your local alumni chapter for events or as a volunteer is a great way to keep the Hokie Spirit alive wherever you are. Get details about your chapter and how you can become involved at alumni.vt.edu/chapters.

THE SPIRIT OF TECH CELEBRATES 50 YEARS

By Lindsey Byars

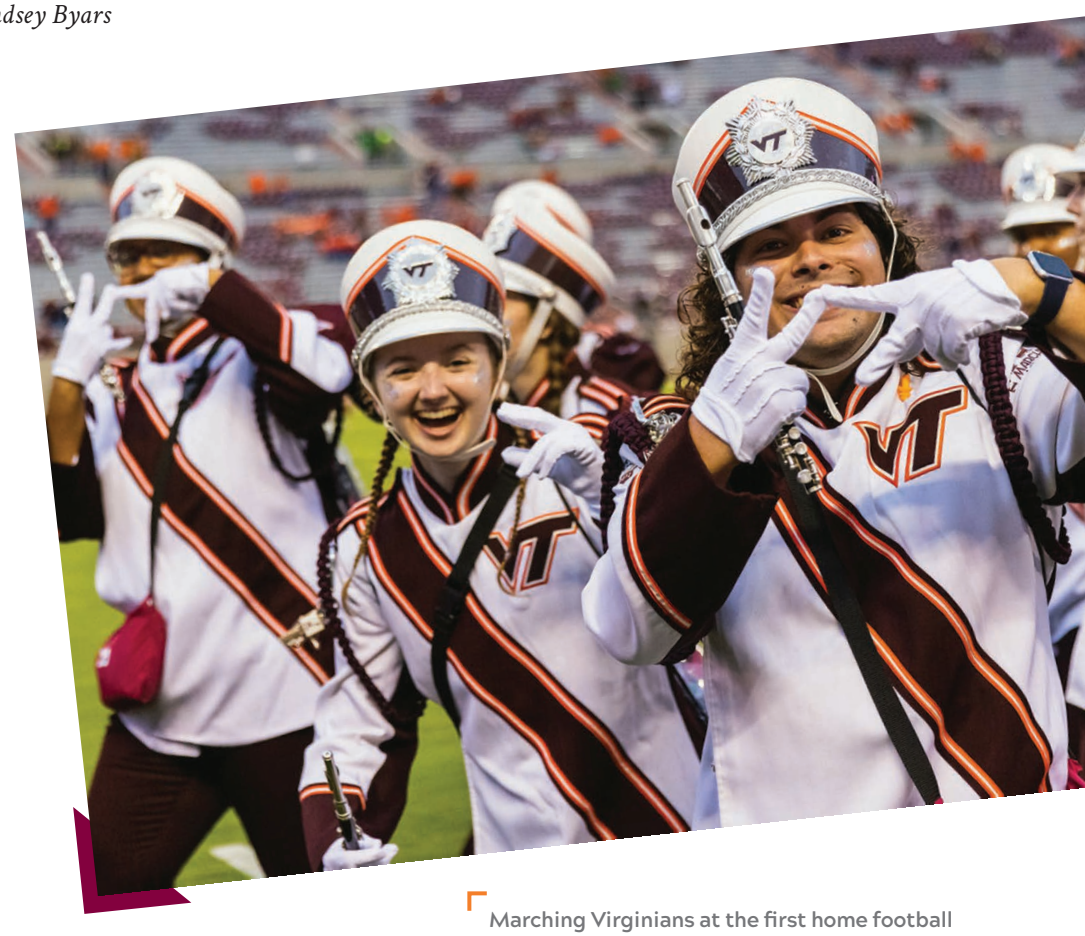
Roger Heath was hired in 1974 to create a new band at Virginia Tech, an all-university band. The Marching Virginians, only 10 days old and made up of nearly 100 mostly first-year students, debuted on Sept. 28 that year.

Fred Gibson '78 was among those first members and has enjoyed watching the Marching Virginians (MVs)—"The Spirit of Tech"—grow into the "330 Strong" band it is today.

"It has been a pleasure to watch over the years as the band transitioned from new into an integral part of the university experience for both participants and fans," said Gibson. "Not only do the MVs provide high energy and high-quality performances, but they live and breathe *Ut Prosim* through the service of the members both in and out of uniform."

The Marching Virginians later became a family tradition when both of Gibson's children joined the band—Freddie in 2002 and Mara in 2005. Their family is one of many who are generational members of the Marching Virginians.

Whether they played in the first band or they will march for the first time this fall, all MVs are part of a legacy that began with an idea and grew to become an important part of Hokie Nation. Being part of the Marching Virginians means something special to each member, and for all, the lessons they carry with them after graduation are invaluable. ■



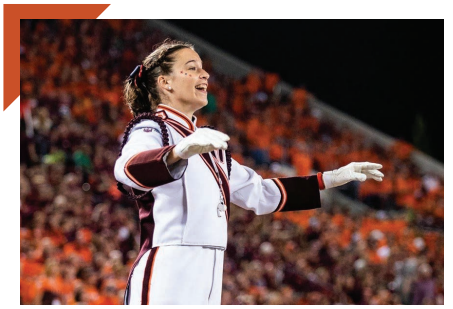
Marching Virginians at the first home football game of the 2022 season. Virginia Tech won over Boston College, 27-10. *Photo by Luke Hayes for Virginia Tech.*

The band back is getting back together again Sept.6-7

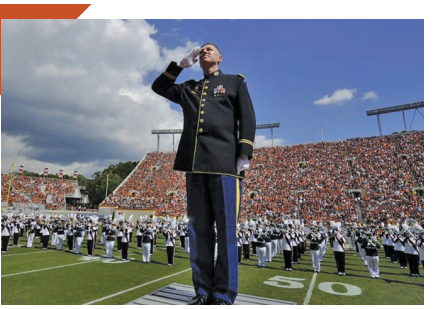
FRIDAY:
Reading session
50th anniversary party

SATURDAY:
Alumni tailgate and meeting
March at the VT vs. Marshall game

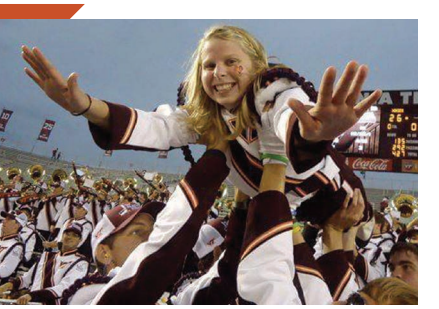
For more information, visit spiritoftech.com/mv50



"Joining The Marching Virginians was quite possibly the best decision I have ever made. It made me love music even more than I had before, and I made so many lifelong friends. Now, I am part of the Arlington Concert Band, which is a wonderful community band full of great people and fantastic music! I also have fun learning other instruments like piano and ukulele on the side."
Ashlyn McDonald '21, M.S.'23
Photo courtesy of Ashlyn McDonald.



"I will always remember my time as an MV with joy. I was a band kid in high school, and joining the MVs was a great way to start off college at a huge university by finding 330 others with a common interest before classes even started. But my biggest benefit of being a Marching Virginian was being part of an incredible team effort, and that shaped the leader that I eventually became. In college, being an MV was just fun; I didn't realize at the time I was getting an education in people management."
Lt. Col. Scott McKenzie '94
Photo courtesy of Scott McKenzie.

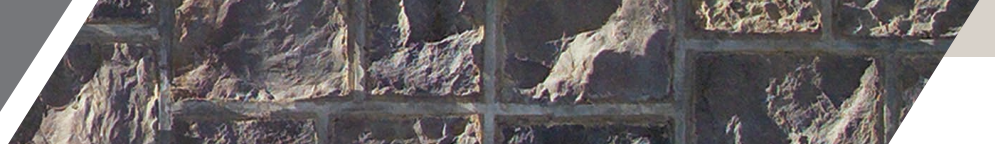


"I learned so many life and leadership skills that are essential in my current position. [Former Director] Dave McKee and [current Director] Polly Middleton taught me time management, musicianship, teamwork, leadership skills, and so much more. I would not be the leader I am today without their support. My students always made comments about how cheerful and energetic I was for a 7:30 a.m. rehearsal, and I would tell them that I learned from the best: Dave."
Kelley (Vaeth) McNamee '12, M.A. Ed. '13
Photo courtesy of Kelley McNamee.

Marching Virginians march in the 2018 Homecoming Parade through downtown Blacksburg to the Pylons on the campus. *Photo by Christina Franusich for Virginia Tech.*

"I want to make sure the MV opportunity is there for future students. Things may have changed since we were in the band, but the experience is still fun, spirited, and full of friends and the memories you loved. It's important that the newer members and VT community know the history of our group and we help to advocate to keep the MV experience amazing for another 50 years and beyond!"
Linda (Gross) Correll '03, M.A. Ed. '07
Photo courtesy of Linda Correll.

IN MEMORIAM



Listing includes notices shared with the university from Oct. 1, 2023, through Jan. 15, 2024.

'46

Fred O. Shanks Jr., Danville, Va., 10/15/2023.

'47

Della Cochran Booth, Charlottesville, Va., 12/20/2023.

Freda Polansky Perrotta, Bradenton, Fla., 9/3/2023.

'49

Paul A. Cannaday Jr., Kalispell, Mont., 10/10/2023.

Robert G. Moore Sr., Lexington, Va., 9/15/2023.

Wesley Witcher, Clemson, S.C., 11/9/2023.

'50

Benjamin F. Johnson Jr., Salem, Va., 12/10/2023.

Gilbert H. Piercy, Henrico, Va., 11/18/2023.

Samuel C. Redd, Bloomington, Ill., 9/23/2023.

Ira N. Schwarz, Denver, Colo., 9/22/2023.

Oliver P. "O.P." Strawn Jr., Blacksburg, Va., 11/13/2023.

Leonard M. Wolin, Deerfield Beach, Fla., 9/21/2023.

'51

James O. "Sonny" Ash, Callao, Va., 11/12/2023.

Malcolm H. "Mac" Crump, Middleton, Wis., 12/2/2023.

William Robert Wisman, Roanoke, Va., 10/29/2023.

'52

Ira P. Cromer, Midlothian, Va., 11/28/2023.

Richard E. Harman Sr., Roanoke, Va., 10/19/2023.

Thomas M. Hudson Sr., Roanoke, Va., 10/31/2023.

'53

James R. Beaty, Baldwin, N.D., 11/25/2023.

Richard M. Dailey, Royston, Ga., 9/24/2023.

Pence Farrier Ellis, Linden, Va., 11/6/2023.

William M. Harrison, Williamsburg, Va., 9/11/2023.

Susan E. Shelor, Meadows of Dan, Va., 11/11/2023.

'54

John D. Philpott Sr., Bassett, Va., 11/4/2023.

Howard R. Beck, Deerfield, Va., 9/30/2023.

Eugene C. Moncrief, Akron, Ohio, 10/22/2023.

'55

Benjamin L. Abramowitz, Melbourne, Fla., 10/1/2023.

Robert H. Daley Jr., Charleston, W.Va., 1/2/2024.

Helen E. Jordan, Staunton, Va., 12/31/2023.

Ezra D. Quesenberry, Southern Pines, N.C., 9/5/2023.

Jerome M. Sandvig, Minneapolis, Minn., 11/8/2023.

'56

Leo P. Burke Jr., Riner, Va., 10/13/2023.

Thomas C. Johnson Jr., Narrows, Va., 11/16/2023.

Leslie P. Langley, Virginia Beach, Va., 10/13/2023.

'57

Jack S. Bonham, Hesperia, Mich., 10/9/2023.

Alan D. Fetterolf, Bethlehem, Pa., 10/25/2023.

Robert E. Hale, Richmond, Va., 12/8/2023.

William G. Hurt, Fernandina Beach, Fla., 10/2/2023.

William D. Kilgore Jr., Abingdon, Va., 9/21/2023.

Robert H. McDonald, Salem, Va., 11/26/2023.

Jack P. Orr, Troutville, Va., 1/9/2024.

Bertice E. Walker Jr., Williamsburg, Va., 9/15/2023.

'58

Sidney W. Cox, Crofton, Md., 11/8/2023.

J.E. Causey Davis, Richmond, Va., 10/11/2023.

Leland D. Eisenhower, Ocoee, Fla., 1/3/2024.

Ryland J. "R.J." Hall Jr., Danville, Va., 10/2/2023.

Laurie E. Haynes, Decatur, Ga., 11/1/2023.

Marvin F. Hogue, Powhatan, Va., 10/31/2023.

William E. "W.E." Walls, Mechanicsville, Va., 12/8/2023.

'59

James A. Brockwell Jr., Philippi, W.Va., 12/18/2023.

John L. Cahoon, Roanoke, Va., 10/11/2023.

Charles W. Fox, Manlius, N.Y., 11/6/2023.

Rosalind Harman Fralin, Bent Mountain, Va., 11/1/2023.

Donald R. Lawton, Hopewell, Va., 11/17/2023.

Sandra Warren MacGregor, Norco, Calif., 10/12/2023.

Patsy Carr Reese, Scottsburg, Va., 9/9/2023.

Billy J. Sexton, Parkersburg, W.Va., 10/17/2023.

Frederick J. Turner, West Chester, Pa., 8/28/2023.

Albert J. Winton, Flower Mound, Texas, 10/4/2023.

Nathaniel E. Wray Jr., Richmond, Va., 11/21/2023.

'60

Charles L. Dunn Sr., Glen Allen, Va., 9/26/2023.

Jack H. Humphries Jr., Virginia Beach, Va., 11/17/2023.

Eldon E. "E.E." Kordes, Tehachapi, Calif., 10/3/2023.

Lewis E. Taylor, Pfafftown, N.C., 11/22/2023.

Douglas L. Testerman, Harrington, Del., 10/3/2023.

John C. Waddell Jr., Richmond, Va., 11/11/2023.

Ronald B. Wiles, Pinehurst, N.C., 10/16/2023.

'61

Raymond L. Beale Jr., Rocky Mount, N.C., 10/3/2023.

Eugene W. Carson Jr., Blacksburg, Va., 11/24/2023.

Larry G. Conner Sr., Roanoke, Va., 9/26/2023.

Lawrence E. Dye, Cincinnati, Ohio, 11/28/2023.

W. E. "Ed" Owens, Norfolk, Va., 7/24/2023.

George R. Robinson, Winchester, Va., 11/4/2023.

Patrick A. Robinson Jr., Carmel, Ind., 9/28/2023.

'62

Rudolph M. Albert Jr., Saint Johns, Fla., 10/18/2023.

Robert L. Clark Jr., Virginia Beach, Va., 11/19/2023.

James B. Gautier, Burke, Va., 10/6/2023.

Charles Vince Hardwick Jr., Tappahannock, Va., 2/2/2023.

William B. Hoffler, Manakin Sabot, Va., 10/29/2023.

Dennis R. Luck, Westminster, Md., 10/26/2023.

Robert van Luyn, Richmond, Va., 10/30/2023.

Fuller "Elijah" Moore Jr., Edgewater, Md., 11/1/2023.

Thomas Davis Sydnor, Columbus, Ohio, 10/12/2023.

'63

Thala D. Adams, Salem, Va., 12/5/2023.

William E. Clark, Roanoke, Va., 11/19/2023.

Henry J. Colavita, Haymarket, Va., 12/25/2023.

Andrew J. Dubovsky Jr., Social Circle, Ga., 11/19/2023.

Douglas O. Hubbell, Spartanburg, S.C., 9/26/2023.

Robert L. Hume, Garner, N.C., 10/22/2023.

Robert Donald Meek, Culpeper, Va., 12/1/2023.

Conway B. Moncure, North Chesterfield, Va., 12/7/2023.

Roger E. Scott, Duluth, Ga., 11/25/2023.

'64

Landon Craig Campbell Jr., Merritt, N.C., 9/8/2023.

Gordon Wayne Collins, Dinwiddie, Va., 11/14/2023.

James E. Gardner Jr., Asheboro, N.C., 10/7/2023.

Justian A. Kelly, Long Valley, N.J., 9/2/2023.

Thomas P. Pettigrew, San Antonio, Texas, 9/13/2023.

Anthony G. Riley Jr., Levelland, Texas, 9/29/23.

John W. Smith Jr., Davis, N.C., 11/28/2023.

Locke A. Taylor, Glen Allen, Va., 11/30/2023.

'65

Robert N. Allen Jr., Hampton, Va., 9/28/2023.

Jennie Stokes Howe, Gloucester Point, Va., 9/1/2023.

Arnie J. Riisen, Phoenixville, Pa., 10/16/2023.

Edwin W. Ruark, Deltaville, Va., 9/21/2023.

Paul L. Shepherd, Soddy Daisy, Tenn., 11/7/2023.

David W. Speidell Jr., Richmond, Va., 10/29/2023.

'66

Michael J. Eunice, Henrico, Va., 10/30/2023.

E.F. "Frank" Hart, Salem, Va., 12/24/2023.

Wesley E. Hughes Jr., La Plata, Md., 10/19/2023.

Basil G. Jennings Jr., Tarboro, N.C., 10/30/2023.

William A. McClintic Sr., Salem, Va., 9/22/2023.

Dan A. Williams, Danville, Va., 11/1/2023.

'67

James F. Arnold, Salem, Va., 1/5/2024.

Glenn A. Baum, Newport News, Va., 11/28/2023.

Robert L. Griffith Sr., Statesboro, Ga., 10/2/2023.

Chi-Ming Li, Blacksburg, Va., 11/26/2023.

James Scheiman, Jacksonville, Fla., 11/21/2023.

Michael S. Smith, Peoria, Ariz., 10/22/2023.

Robert H. Wolfe, Morehead, Ky., 10/22/2023.

'68

James W. Plowman, Chippewa Falls, Wis., 11/26/2023.

Larry A. Hollada, Selbyville, Del., 9/6/2023.

Wilhelm H. Horst, Sterling, Va., 9/21/2023.

Joseph D. Barkley II, Virginia Beach, Va., 12/28/2023.

James R. Hankins, Lebanon, Va., 11/22/2023.

George N. Canode Jr., Shawsville, Va., 11/21/2023.

Phyllis A. Hockman, Fairfield, Va., 11/14/2023.

John M. Friel, Herriman, Utah, 10/1/2023.

'69

Joseph E. Blair, Wilmington, N.C., 10/9/2023.

Carroll D. Bowman, Hillsville, Va., 6/11/2023.

Phyllis Forbush Kitchens, Polk City, Fla., 12/30/2023.

Robert C. Quillen, Kingsport, Tenn., 6/19/2023.

Lynn E. Smith, New York, N.Y., 10/12/2023.

Ronald E. Webb, Hardy, Va., 10/25/2023.

'70

Woodrow W. "W.W." Ashby Jr., Churchville, Va., 10/20/2023.

Kirby D. Matlick, Glen Allen, Va., 10/12/2023.

Paul M. Morrison Jr., Lynchburg, Va., 10/29/2023.

Michael B. Todd, Mooresville, N.C., 10/15/2023.

'71

James Harper Alexander IV, Water View, Va., 12/24/2023.

Terry D. Babbitt, Lynchburg, Va., 9/26/2023.

Richard B. Theis, Williamsburg, Va., 10/12/2023.

Dennis W. Gaines, Elkton, Va., 10/31/2023.

Nancy Duggins Gloss, Fredericksburg, Va., 10/29/2023.

Tony A. Martin, Roanoke, Va., 11/5/2023.

Richard W. McCanna, Little Switzerland, N.C., 11/6/2023.

Ronald E. Musiak, Westfield, Mass., 1/4/2024.

John M. Turner, Warrenton, Va., 11/17/2023.

William T. Waller, Denton, Texas, 6/1/2023.

'72

Dennis K. Brown, Roanoke, Va., 12/13/2023.

Hugh W. Dodson, Rock Spring, Ga., 9/18/2023.

James A. Stimmel Jr., Berryville, Va., 11/22/2023.

'73

Louis F. Atwell, Hampton, Va., 12/2/2023.

David C. Baron, Fairfax, Va., 11/26/2023.

Margaret Jane Carder, Bedford, Va., 11/28/2023.

Lemuel B. Battle Jr., Salem, Va., 10/3/2023.

Ronald W. Lane, Richmond, Va., 11/14/2023.

James L. Vogel, Leesburg, Va., 8/28/2023.

'74

Carl P. Absher, Blacksburg, Va., 9/23/2023.

Kenneth L. Black III, Sandy Hook, Va., 11/19/2023.

David P. Calvert, Roanoke, Va., 11/25/2023.

Melanie J. Retzke, Leicester, N.C., 11/1/2023.

William G. Snidow, Pembroke, Va., 11/5/2023.

Selby G. Venning III, Moneta, Va., 1/4/2024.

'75

James S. Riggs, Wise, Va., 10/6/2023.

Barbara Sanders Lucy, Abingdon, Va., 11/18/2023.

John R. Suter, Voorhees, N.J., 10/11/2023.

'76

Michael R. Cannon, South Bend, Ind., 11/14/2023.

John A. Coffey, Myrtle Beach, S.C., 11/15/2023.

Charles H. Gilliam, Auburn University, AL., 9/19/2023.

Robert M. Kelly, Smithfield, Va., 11/11/2023.

Bruce R. Keim, Bethlehem, Pa., 12/2/2023.

Michael E. Ohlson, Abingdon, Va., 11/13/2023.

Martha Trolinger Wallis, Wake Forest, N.C., 10/14/2023.

'77

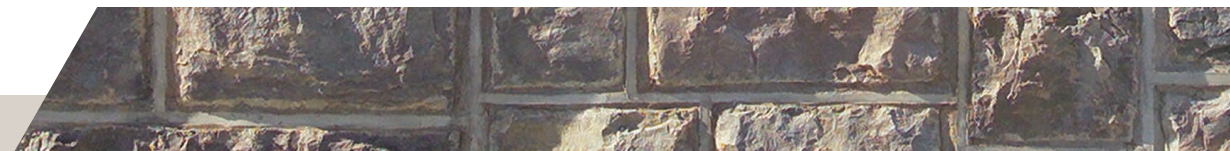
Ted R. Bardinelli, Durham, N.C., 9/28/2023.

Darrell W. Brubaker, Rocky Mount, Va., 12/7/2023.

Terry L. Bursey, Richardsville, Va., 12/12/2023.

Sheryl A. Coury, McLean, Va., 11/2/2023.

William C. Jordan III, Virginia Beach, Va., 9/11/2023.



Paul T. Morgan, Newport News, Va., 9/8/2023.

Roger L. St. George, Spofford, N.H., 12/11/2023.

Larry L. Stabler, King George, Va., 12/6/2023.

Carmon S. White, Grundy, Va., 11/8/2023.

'78

Denise Davis Peterson, Richmond, Va., 9/24/2023.

Charles L. Thomas Jr., Rancho Cucamonga, Calif., 11/5/2023.

'79

Russell D. Allison, Carrollton, Va., 11/9/2023.

Elizabeth C. Mills, Englewood, Colo., 9/4/2023.

Harold H. Scott III, Clarksville, Md., 12/27/2023.

Melinda P. Wilkins, State College, Pa., 9/7/2023.

'80

Scott T. Boiles, Wirtz, Va., 10/3/2023.

Richard F. Cooper, Blacksburg, Va., 12/19/2023.

Joel B. Hardison, Hixson, Tenn., 9/30/2023.

JoAnn Harvill, Newport, Va., 10/20/2023.

Virginia Layne, Ashland, Va., 9/1/2023.

Wallace Hodge Mann III, Spotsylvania, Va., 11/29/2023.

Eric L. Wells, Massillon, Ohio, 9/18/2023.

'83

Cynthia A. Beaudet Blaha, North Dinwiddie, Va., 11/16/2023.

Stephen J. Giebel, Germantown, Md., 10/22/2023.

Susan Thomas Merrill, Orange Park, Fla., 7/29/2023.

Thomas B. Patterson, Bedford, Va., 11/6/2023.

Donna L. Short Phillips, Gainesville, Va., 10/18/2023.

'84

William W. Binzer, Lorton, Va., 9/8/2023.

Steven A. Coleman, Greensboro, N.C., 10/16/2023.

Kraig K. Kelican, Stephens City, Va., 9/21/2023.

Sara Ketron Poole, Lebanon, Va., 9/6/2023.

Maggie Munns Priest, Thorofare, N.J., 10/30/2023.

Vernon Randall Tinsley, Summerfield, N.C., 10/25/2023.

Benjamin J. Underwood, Williamsburg, Va., 10/29/2023.

'85

Joseph J. Ballato, Charlotte, N.C., 11/21/2023.

Linda Morrison Combs, Winston-Salem, N.C., 10/19/2023.

Vicki Fain Leonard, Check, Va., 10/6/2023.

Steven H. Miles, Chester, Va., 11/5/2023.

'86

Robert M. Bennett, Raleigh, N.C., 9/8/2023.

Preston L. Brockman, Bristol, Va., 9/9/2023.

Joseph L. Miller, Chevy Chase, Md., 10/18/2023.

'87

Kevin J. Brogan, Falls Church, Va., 11/13/2023.

Mildred L. Wiggert, Blacksburg, Va., 12/12/2023.

'88

Gregory D. McFall, Leesburg, Va., 10/6/2023.

Sally E. Woody, Rocky Mount, Va., 1/3/2024.

'89

Landon S. Ambler, Stella, N.C., 10/8/2023.

Barbara Coe Doss, Dublin, Va., 9/15/2023.

Ann K. Felker, Ellicott City, Md., 12/2/2023.

'91

James J. Kupar, Evans, Ga., 9/14/2023.

Anne P. Langley Johnson, Blacksburg, Va., 10/25/2023.

'92

Tobie W. Blankenship Jr., Willis, Va., 10/30/2023.

Mary Oneil Credle, Suffolk, Va., 9/26/2023.

Dean H. Henderson, Richlands, Va., 11/26/2023.

'93

Geraldine Ella S. Martin, Ocean View, N.J., 10/28/2023.

Robert M. Mitchell, Manchester, Tenn., 11/8/2023.

James M. Yunker, Westport, Mass., 12/2/2023.

'94

Gregory D. Geisz, Mechanicsville, Va., 10/24/2023.

Dawit Teklu, Columbia, Md., 10/8/2023.

Jane Neely Wright, Woolwich, Maine, 12/5/2023.

'97

Kenneth K. Bieber, Berkeley Springs, W.Va., 10/4/2023.

'98

Julia B. Akers, Roanoke, Va., 10/19/2023.

Nell F. Doss, Christiansburg, Va., 1/1/2024.

Jane A. Wittmeyer, Boise, Idaho, 10/25/2023.

'99

Clare D. Klunk, Hanover, Pa., 12/5/2023.

'00

Lewis H. Waters Jr., Sterling, Va., 11/2/2023.

'04

Michele E. Lill, Altoona, Pa., 12/20/2023.

'07

Kelly M. Roseberry, Readfield, Maine, 10/28/2023.

'08

Craig K. Wilkes, Buchanan, Va., 10/24/2023.

'10

Larry A. Massie, Henrico, Va., 12/9/2023.

Jason E. Salyers, Seattle, Wash., 9/15/2023.

'11

Melissa M. Bandeff, Hagerstown, Md., 9/17/2023.

'14

Dillon P. McCarvill, Blacksburg, Va., 10/5/2023.

'15

Moira E. Dilks, Blacksburg, Va., 9/11/2023.

'18

Daniel G. Bartels, Mechanicsville, Va., 9/6/2023.

'20

Alexander L. Hahn, Charlottesville, Va., 10/9/2023.

OBITUARIES

NOTABLE ALUMNI

Irving L. Peddrew III of Hampton, Virginia, who integrated Virginia Tech's classrooms in 1953, died May 11.

Peddrew was the first Black student admitted to a historically white, four-year public institution in any of the 11 former states of the confederacy.

Although Peddrew chose to withdraw from the university before the start of his senior year, his academic performance and character impressed many, helping pave the way for other Black students. In 2003, Virginia Tech named Peddrew-Yates Hall for him and Charlie L. Yates, who became the university's first Black graduate in 1958. In 2016, Peddrew became just the ninth person to receive an honorary degree from Virginia Tech. Virginia Tech President Tim Sands conferred a bachelor's degree in engineering to Peddrew during that year's University Commencement.

Matthew Maurice Winston Sr., one of the first Black students to attend Virginia Tech and the second Black student to graduate, died May 14.

A Norfolk, Virginia, native, Winston graduated as his class valedictorian from Booker T. Washington High School in 1955. He enrolled at Virginia Tech, graduating with a bachelor's degree in mechanical and aerospace engineering in 1959. Winston later earned a master's degree in engineering administration from George Washington University.

Winston retired in 1994 after 35 years as an engineer, researcher, and administrator at NASA-Langley.

Winston's legacy and voice lives on at Virginia Tech. In 1991, Winston and his son, Matthew Winston Jr. '90, dedicated the mural entitled "Legacy" that sits outside of the Black Cultural Center in Squires Student Center. His story also has a place in the University Libraries' oral history archives.

Scan the QR code to view Irving Peddrew's in memorial video.

FACULTY/STAFF

Arvid Myklebust, professor emeritus of mechanical engineering at Virginia Tech, died April 10. Myklebust joined Virginia Tech in 1983. He was an early advocate of computer-aided design (CAD), establishing the Virginia Tech CAD Lab in Randolph Hall with a grant from IBM. He served as principal investigator for the Great Horned Owl Unmanned Air Vehicle Program, and he led the principal design team for the Future Combat Systems Organic Air Vehicle. Myklebust was part of the inaugural class of the Virginia Tech Faculty Entrepreneur Hall of Fame in 2012.

John M. Pinkerton, the SunTrust Professor Emeritus in the Department of Finance, Insurance, and Business Law in the Pamplin College of Business, died May 19. A member of the university community since 1977, Pinkerton retired in 2017. He served as chair of the finance department's undergraduate curriculum committee as well as Pamplin's research committee and was the director of the finance department's Ph.D. program for five years. He led many academic initiatives and was the co-advisor of the SEED Program, a student-run investment group for several years.

Barbara Jane Reeves, a retired Virginia Tech instructor, died Jan. 22. Reeves taught a variety of graduate and undergraduate courses from 1993-2019 in the College of Liberal Arts and Human Sciences.

David P. Roselle, former Virginia Tech mathematics professor, died April 15. Roselle was named dean of Virginia Tech's Graduate School in 1979 and served as provost from 1983-87. He left Virginia Tech to become the president of the University of Kentucky and was appointed president of the University of Delaware in 1990, a position he held for 17 years. He retired in 2007.

James P. "Jim" Wightman, professor emeritus of chemistry at Virginia Tech, died Nov. 20, 2023. His research focused on surface chemistry and adhesion science. He was one of the first scientists to study the impact of space on materials through vacuum chamber studies. Wightman was named an Alumni Distinguished Professor in 1987. He also earned the 1995 Virginia Tech University Sporn Teaching Award for excellence in teaching introductory subjects, the 1972 William E. Wine Award for Faculty Achievement, the 2001 SCHEV Outstanding Faculty Award, and the Clifford Department of Chemistry Award for service.

The Virginia Tech National Security Institute drone team participated in a drone competition sponsored by Raytheon at the Virginia Tech Drone Park in May. Students from five universities competed in the East Coast division of the competition.

During the event, teams worked to complete four exercises using two unmanned autonomous vehicles: a ground vehicle and an aerial vehicle. “They’re not just out there flying drones that they bought from a store. They are doing the engineering work of designing the whole system,” said Kevin Schroeder, associate director of the institute’s Mission Systems Division. Pictured here, Space Lab Engineer Minzhen Du preps the university’s aerial drone for competition. *Photo by Clark DeHart for Virginia Tech.*

DRONE COMPETITION
Watch the video at news.vt.edu/video.

Photo by Kristina Rose Photography for Virginia Tech.

LAYING THE FOUNDATION FOR EXCELLENCE

By Amy S. Sebring, executive vice president and chief operating officer

For many in academia, summer is a time to slow down, reflect, and rest up for the new academic year.

As someone who began my career in budget and finance, July—the start of the state's new fiscal year—is an important milestone to celebrate as we close the prior year and run full speed into the next. The same holds for virtually every other unit in University Operations, including human resources; information technology; facilities; policy and governance; equity and accessibility; audit, risk, and compliance; public safety; and auxiliary and business services in addition to finance. We will spend the summer months laying the foundation for the next decade and beyond.

We will be engaged in multiple efforts including the completion of our War Memorial Hall renovation and construction of the undergraduate science laboratory building, the transit center, and Hitt Hall, which will serve as home to the Myers-Lawson School of Construction. We also will launch a years-long project to migrate our finance, human resources, and student-facing administrative technology to cloud-based solutions and continue enhancing campus accessibility.

These are a few of the examples of the work done by University Operations to support the day-to-day processes at the university. We ensure that the university has the enabling infrastructure—the people, facilities, technology, and business processes—that are critical to our strategic goals. As we look ahead, we are embracing our work with an innovative mindset while preserving the traditions of community, partnership, and service that permeate Virginia Tech.

We are committed to providing an exceptional education to our students, being an impactful leader through our research, and being a strong partner to the communities we serve. Each of these goals is ambitious; taken together, they require us to think differently about how we carry out and resource our work. We are focused on improving our processes, leveraging technology to improve the user experience, optimizing our human talent, and reinvesting base resources to advance our efforts. And we are keeping the end user—our students, faculty, staff, alumni, and community—at the forefront of our work.

With each of our endeavors, the university starts from a strong position. Enrollment demand continues to buck national trends. The Commonwealth of Virginia continues to demonstrate its commitment to educating residents and growing the workforce of the future. Our alumni continue to give their time, talent, and treasures. These combined efforts push Virginia Tech forward in ways that differentiate us from other universities and create a margin of excellence.

As I reflect on my almost two years here, I understand what it means to say, "This is home." The sense of community is pervasive and impacts not only how one feels about Virginia Tech, but about the people that make it feel like home whether you're on one of our campuses or miles away.

Embrace the summer and know that Virginia Tech is positioned well for continued success. ■

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OCT. 26 | BLACKSBURG, VA

GO LONG!

Catch the biggest Hokie tailgate of the year at Holtzman Alumni Center. Join us for food, drinks, and fun. Enjoy lawn games, music, a petting zoo, inflatables, and more.