SUMMER 2025

UAH Magazine

A PUBLICATION OF THE UNIVERSITY OF ALABAMA IN HUNTSVILLE

FRESH LOOK, FIERCE SPIRIT

UAH ATHLETICS CHARGES INTO THE FUTURE WITH A BOLD NEW LOGO

CURIOUS ABOUT LIFE AS A CHARGER?

UAH AT A GLANCE
SATURDAY, NOV. 15

Designed for high school juniors, seniors and transfer students, UAH at a Glance is a great way for you to gain insight into the Charger experience.

At this event, you'll have the opportunity to:

- Learn more about UAH academic programs
- Speak with representatives from Housing, Career Services, Financial Aid and more at the Student Services Browse Fair
- Discover what life is like as a Charger and learn more about student organizations
- Take a student-led campus and residence hall tour

Registration is required.
Visit **UAH.EDU/ADMISSIONS** for details.

MORE WAYS TO VISIT

INDIVIDUAL CAMPUS TOURS

Individual campus tours can be scheduled on most weekdays at certain times. Visit **uah.edu/visit** for more information.

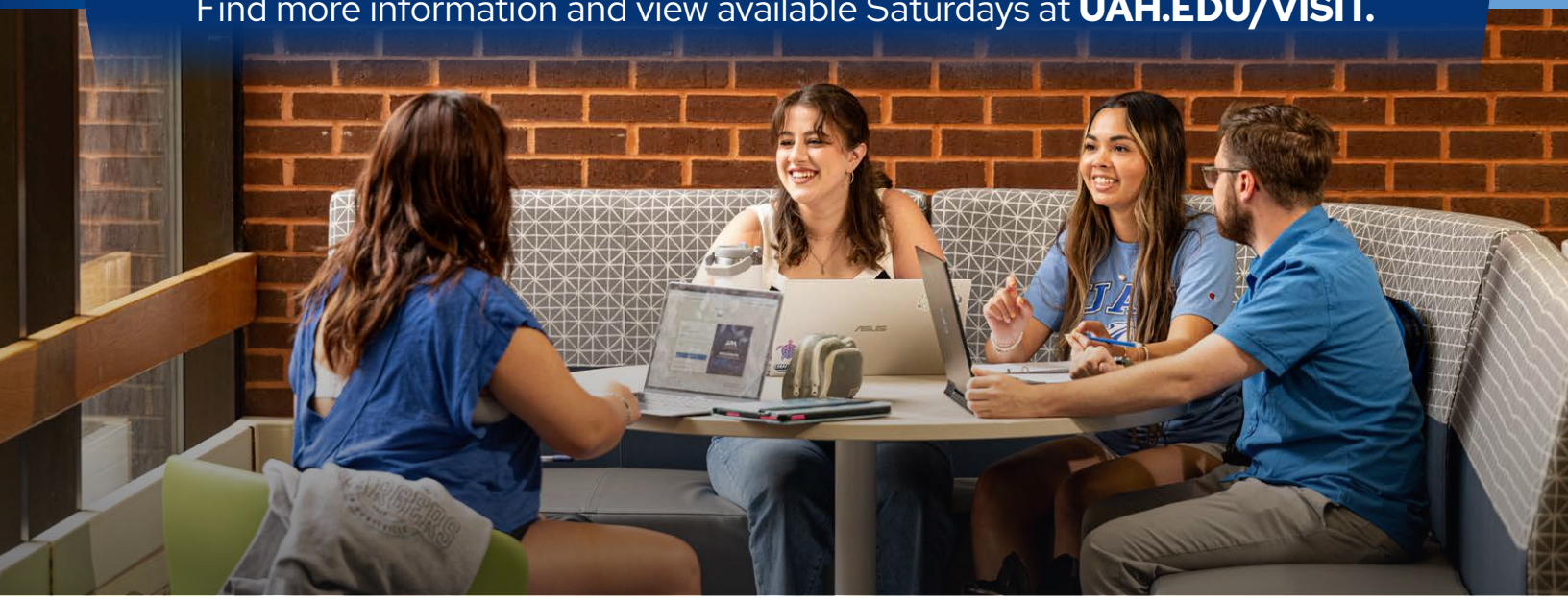
VIRTUAL CAMPUS TOURS

You can explore UAH through our virtual campus tour at **uah.edu/admissions/undergraduate/discover-uah/visit-campus.**

SOCIAL MEDIA

Engage and connect with us daily by following our Admissions Office on social media:

Can't make it to campus on a weekday? We now offer monthly **SATURDAY** tours! Find more information and view available Saturdays at **UAH.EDU/VISIT.**



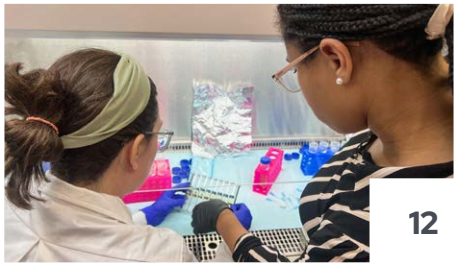
QUESTIONS?
256.824.2773 | **admissions@uah.edu** | **uah.edu/admissions**

PART OF THE University of Alabama System.

THE UNIVERSITY OF ALABAMA IN HUNTSVILLE.

Charged and Ready

UAH has entered a new era, unveiling refreshed branding that proudly represents Huntsville's team.



UAH Magazine

UAH Magazine brings together our academic accomplishments, innovative research projects, extracurricular organizations and alumni into one engaging source for all things UAH.

If you would like to receive a hard copy of this issue of UAH Magazine or be added to our mailing list to receive future issues, please contact **omc@uah.edu**.

UAH Magazine is published by the Office of Marketing and Communications at The University of Alabama in Huntsville.

VICE PRESIDENT FOR STRATEGIC COMMUNICATIONS
Kristina Hendrix

CONTENT COMMUNICATIONS AND OPERATIONS
Julie Jansen, Ann Marie Martin, Russell Nelson, Ellen McDonald

CREATIVE SERVICES
Pedro Rodriguez, Shalanda Edwards-White, Isabel Castañeda, Rylie Livingston, Michael Mercier

DIGITAL COMMUNICATIONS
Andrea Thompson, Jody Precise, David Heenan, Todd Page, Alexis Cortez

ADMINISTRATIVE ASSISTANT
Donna Hancock

UNIVERSITY **ANNOUNCEMENTS**

Dr. Donna Guerra has been selected as president of the Alabama League for Nursing (ALN). The College of Nursing faculty member has been a member of the ALN for 10 years and was nominated as president-elect in 2023 before being chosen president. The ALN's mission is to support the development and improvement of Alabama nursing services or nursing education.

Dr. Josh Wurman of the Earth System Science Center was named to the National Storm Chasing Hall of Fame. Wurman leads the Flexible Array of Radars and Mesonets (FARM) in the Severe Weather Institute – Radar & Lightning Laboratories (SWIRLL). The researcher has made critical contributions to tornado, hurricane, wildfire, hail and other severe weather studies, including Doppler On Wheels – truck-mounted Doppler radar used for severe weather research.

Dr. Nathan Spulak of the Department of Mechanical and Aerospace Engineering was awarded a $299,000 National Science Foundation EPSCoR Research Infrastructure Improvement fellowship to enhance safety for earth, air and space vehicles and habitation structures by examining the characteristics of composite materials. The widespread adoption of fiber-reinforced composites could lead to more fuel-efficient transportation, reduced pollution and faster and more maneuverable aircraft, as well as corrosion-resistant marine applications and biomedical implants.

Dr. Hanumanthrao "Rao" Kannan received a National Science Foundation (NSF) Faculty Early Career Development (CAREER) award to reimagine foundational aspects of systems engineering, an interdisciplinary field that involves designing, integrating and managing complex systems throughout their lifecycle. The researcher will act as principal investigator for the $500,000 initiative, which will run through February 2030. Kannan works in the Department of Industrial & Systems Engineering and Engineering Management (ISEEM).

Dr. Xiaotong Li in the College of Business was named to the Highly Cited Researchers list by Clarivate Analytics, a global provider of analytics in academia and government. The list identifies researchers who have published multiple papers that are frequently cited, placing them in the top one percent for citations in their fields. Li's expertise includes business analytics, big data, database management and electronic commerce.

A MESSAGE FROM THE PRESIDENT

Charles L. Karr

At The University of Alabama in Huntsville (UAH), summer is more than a break between semesters — it's a season of strategic planning and focused execution. Across campus, faculty, staff and leadership have been hard at work advancing key initiatives, from academic program development to campus improvements, ensuring we are positioned for an impactful year ahead. I am excited for what's to come.

This summer, I had the pleasure of meeting many of our incoming students during our retooled New Student Orientation, now known as Charger Camp. By summer's end, we will have welcomed more than 1,400 new Chargers who explored everything they need for a successful start — from class registration and academic advising to student involvement and campus resources. New "Fireside Chat" sessions added a fun, personal touch by bringing students together in small groups based on shared interests or backgrounds — from first-gen students and gamers to those interested in exploring Greek life — helping students find a place to connect and feel right at home.

One of the most visible changes this summer was the launch of our new Athletics brand identity, which debuted on July 1. With a unified visual presence, a dynamic new logo and renewed energy, this rebrand represents more than just a fresh look — it's a strategic investment in the future of UAH Athletics, strengthening our competitive edge in recruiting, enhancing fan engagement and boosting national recognition. Be sure to keep an eye out for our new logo around Huntsville and on Chargers merchandise — you'll be seeing a lot more of it soon.

Athletics isn't the only place we're making big moves. As part of our ongoing commitment to growing enrollment, UAH recently launched a targeted brand awareness campaign designed to help more students discover what sets us apart. UAH is a tech-forward university in a tech-driven town — and that message is resonating. We have already noted significant increases in visits to our website and additional requests for campus tours. This data-driven campaign is helping us refine our messaging, test outreach strategies in real time, and better connect with prospective students in Alabama, Tennessee and beyond. We are especially focused on engaging ambitious students who are seeking a campus experience rooted in innovation, research and real-world impact.

That same focus on innovation and opportunity was on full display in June at the Paris Air Show, where UAH was proud to join the North Alabama delegation. Our partnerships with both federal agencies and industry leaders make us a vital pipeline for applied research and technical talent — one that continues to attract high-tech companies to our state. When industry looks for innovation and workforce strength, they look to UAH. For students, this means real access to hands-on experience, career pathways and a front-row seat to the future of technology.

It's a great time to be a Charger. Whether in the classroom, the lab, on the field or on the global stage, UAH is building momentum and making real-world impact — serving as the engine that drives science and technology in Huntsville and beyond.

Go Chargers! ■

BLUE & WHITE—HOT!

NEW ATHLETICS LOGO RECHARGES UAH BRAND AS **HUNTSVILLE'S TEAM** READIES FOR THE NEXT ERA

One look — and you'll feel the heat!

The new Athletics logo struck ground on July 1. Bold blue, white and black letters proclaim "UAH" as the home of the Chargers. The proud head of a fierce Charger Blue stallion points forward, ready to run.

"It's new. It's original. It's ours," said UAH Vice President for Strategic Communications Kristina Hendrix, who led the project to supercharge the logo and the entire Athletics brand identity.

"This is a new look for a new era. We've had so many successes over the past few years, and we want to build on those successes."

The new brand package contains three major elements:

- Updated primary and secondary Athletics logos and spirit and specialty marks;
- Expanded color palette for the entire university, both the institution and Athletics;
- Custom typography for the entire university.

New brand guidelines are available on the UAH website.

"We'll begin rolling out new digital assets in the coming weeks and months," Hendrix said, "so you'll start seeing our new look all around Huntsville and out of town. We anticipate the entire implementation across our physical properties will take a few years."

The announcement invites campus, community and beyond to embrace this new Charger energy.

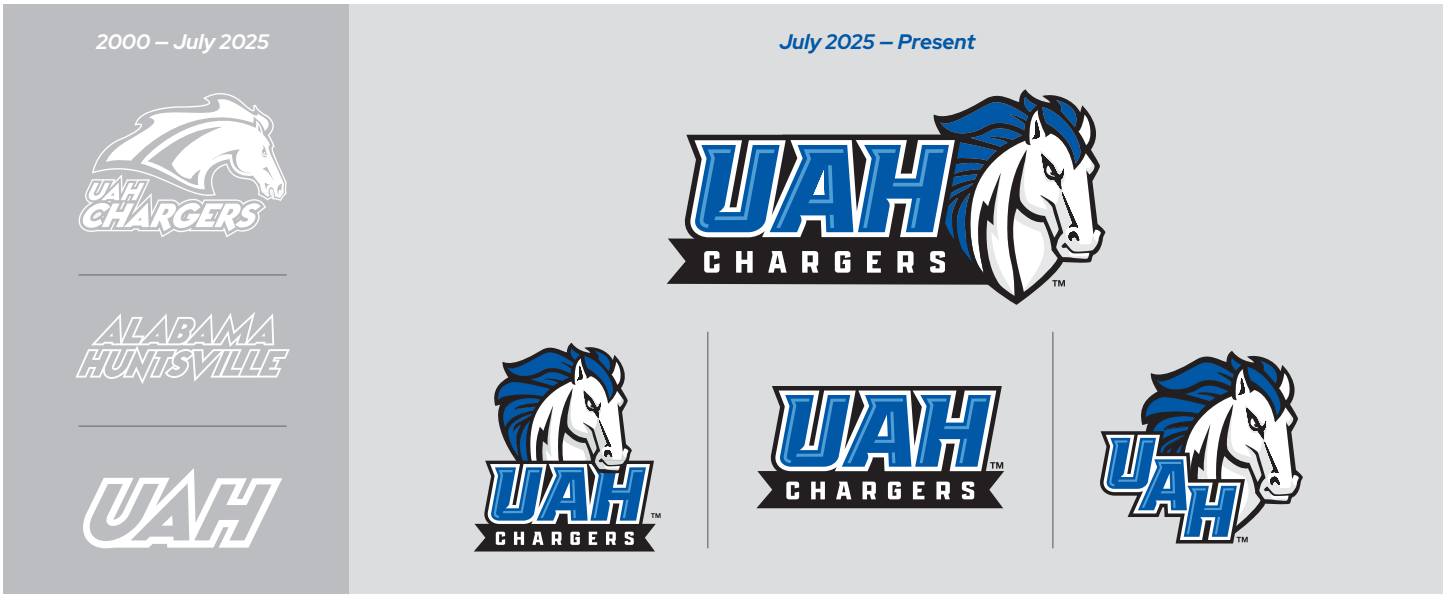
"We want people to be as excited about this new logo as we are," Hendrix noted. "This project has been two years in the making, and it deserves to have a true and fun reveal. Our students are preparing to come back to campus, so this gives them something extra to look forward to."

Students – and anyone else who loves the UAH Chargers – can find the new logo on merchandise at uahchargers.com. Fans can expect additional announcements about new merchandise later this year.

"We hope that people will see our new logo and want to be a part of UAH," Hendrix said. "We want you to come to a ball game. We want you to come to our events on campus. Yes, our athletic teams are wearing this logo, but it's also about awareness for the university.

Hendrix pointed out that UAH's team are "part of a winning culture."

▼ Tracing the transformation: the evolution of our brand



"We've seen the pride that our student-athletes have when they perform in competition. During the design process, we asked ourselves: Will they be proud of this logo on their uniform when they're hoisting the trophy in the air after they win a conference championship?"

UAH Director of Athletics Dr. Cade Smith expects a strong "Yes!"

"I was very pleased when I saw this logo," he said. "It's still the Chargers, but it's fresh. I'm excited about the different ways we might be able to use it. It's good for brand recognition; it's good for exposure. Just think about the recruiting and sponsorship opportunities! It's going to benefit our department and, hopefully, the school."

> ***"This is a new look for a new era. We've had so many successes over the past few years, and we want to build on those successes."***

WE ARE FAMILY!

The style of the new logo also forges a stronger connection to The University of Alabama (UA) System, of which UAH is a part. This Charger Blue could race around the same universe as Big Al from UA and Blaze the Dragon from The University of Alabama at Birmingham (UAB).

The UA System tagline – Individually Distinct. Altogether Stronger. – was a key point Hendrix emphasized during the project.

"I wanted to make sure that the stallion spirit mark looks like it belongs in the UA System brand identity family," she said, "everything from the shading to the fierceness, to how it's positioned on the page."

When Smith asked Hendrix for a new logo in 2023, she knew a lot would be riding on its back. The beloved old Charger had put in some 20 years of faithful service, but UAH student-athletes needed dynamic new spirit marks to reflect their ever greater achievements.

The lengthy process of developing and implementing new comprehensive brand identity standards occurs rarely at any institution. Hendrix saw this request as an excellent opportunity for the Office of Marketing and Communications (OMC) to showcase its strengths and make a lasting impact on UAH.

"We know what the university is trying to accomplish. We want to grow enrollment. We want to be the university that Huntsville deserves. Everything that we're doing in OMC focuses on that."

Hendrix began with multiple focus groups – students, faculty, staff, administration, Faculty Senate, Staff Senate, campus communicators – and a few questions: What do people know about us? How do they feel about us? What emotions do they gather from hearing "UAH"?

The overwhelming response – "We are UAH!" – emphasized the university's independent identity, stellar reputation and city location.

"We want people to know that UAH is our brand and our name," Hendrix said. "We are the only university in Huntsville that has Huntsville in its name. Huntsville is a hot name right now, and we want to lean into that. We want people to know that we are the Chargers, we are UAH and we are located in Huntsville."

NEW BLUE ENERGY

With marching orders understood, the OMC team worked through a request for proposals and chose Henderson Shapiro Peck (HSP) Marketing of Atlanta. UAH does its research thoroughly; so did HSP. This impressed Hendrix.

"They researched every university and college, from the junior college level all the way to Division I, and showed us what every horse, mule, donkey, any kind of equine mascot, looked like."

OMC and HSP considered differences and similarities to the current logo as well as a fierce or friendly attitude.

Blue was another important consideration. UAH the institution had one shade. UAH Athletics had another.

"We needed one good blue to show unity across the university," Hendrix said of the primary color choice.

Selecting the best typography involved examining countless hours of game films and photos from schools across the country for inspiration.

When the logos, colors and letters all came together and Hendrix presented options to Smith and UAH President Dr. Charles Karr, she knew right away that her team had succeeded.

"The first sentence they said was, 'You guys did exactly what we asked you to do.'"

Hendrix is grateful for the ongoing support Karr and Smith provided throughout the project, as well as encouragement and appreciation from the UA System Board of Trustees.

"We aimed for something iconic," she said. "We wanted current students, employees, alumni, potential students to say, 'I want that shirt. I go to school there, and I'm proud of my institution. I want to give that item as a gift.' We looked at everything with that intention."

While there are abundant academic reasons for a student to choose UAH, emotions – and a white-hot T-shirt – can strike a spark.

"So many potential students look at universities based on the emotion they feel when they visit campus," Hendrix said. "There's research that says the stronger the brand is, the better looking it is, the more it will encourage students to want to buy the merchandise. And then the students are interested in learning more about that institution.

"This all goes back to that winning culture. You see these teams playing their hearts out. You also look at the landscape of Division I, Division II programs around the country, and you see how everybody is trying their hardest to make sure that their brand is recognizable and lasting. We knew we needed to do that. Based on the responses, we did." ■

UAH Athletics is riding high and ready to jump into a new era after an outstanding 2024-25 year. Here are some highlights:

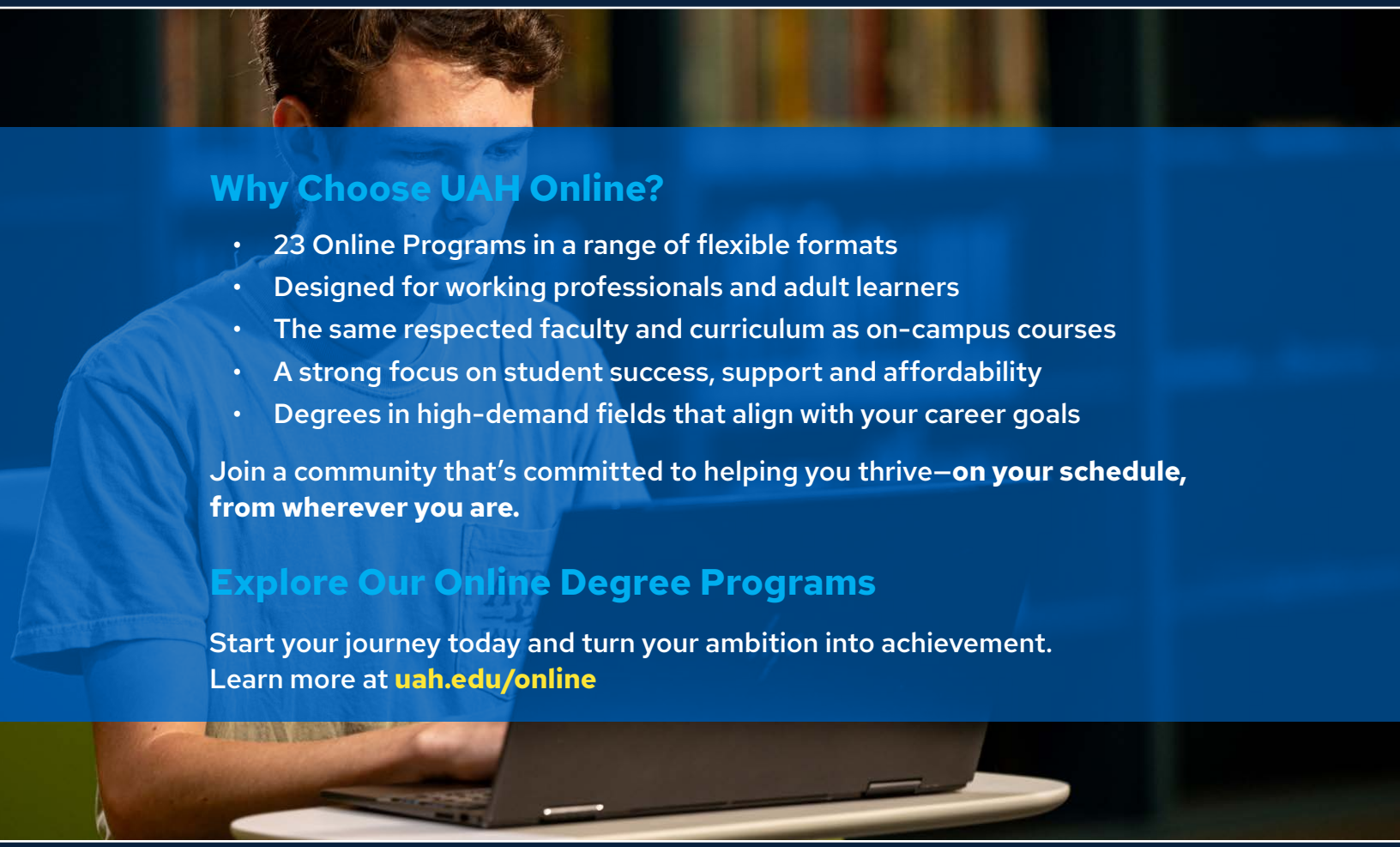
- **Basketball** – Men's team set a new school record for most consecutive wins on the way to a Gulf South Conference (GSC) championship. Women's team took second in their GSC championship series.
- **Track and field, indoor** – Men's team took the program's first GSC indoor championship. Women's team earned second in their division.
- **Track and field, outdoor** – Men's team captured fifth GSC outdoor championship. Women's team placed second in their division.
- **Volleyball** – UAH women fought to second place in the GSC championship.

ONLINE PROGRAMS AT UAH

LEARNING THAT FITS YOUR LIFE

At UAH, we understand that life doesn't pause for education—but that doesn't mean your goals have to wait. Our accredited online degree programs are designed to meet the needs of busy, working professionals who are ready to take the next step in their careers.

Whether you're pursuing a degree in business, nursing, engineering, education or another field, UAH delivers a flexible, high-quality online learning experience—without compromising on academic excellence.



Why Choose UAH Online?

- 23 Online Programs in a range of flexible formats
- Designed for working professionals and adult learners
- The same respected faculty and curriculum as on-campus courses
- A strong focus on student success, support and affordability
- Degrees in high-demand fields that align with your career goals

Join a community that's committed to helping you thrive—**on your schedule, from wherever you are.**

Explore Our Online Degree Programs

Start your journey today and turn your ambition into achievement.
Learn more at **uah.edu/online**

UAH STUDENTS RECEIVE PRESTIGIOUS NATIONAL SCHOLARSHIPS, FELLOWSHIPS IN SPRING 2025

Nine undergraduate and graduate students at UAH received national scholarships and fellowships during the spring 2025 semester. Two students were also recognized with honorable mentions in this competitive process.

"I am very happy to announce that we had a good scholarship application cycle," says Jennifer Staton, Senior Fellowship and Graduate School advisor and part-time faculty in the Honors College. "We have two National Science Foundation (NSF) Graduate Research Fellowship Program (GRFP) awardees – the first time we've had multiple recipients – as well as two NSF GRFP honorable mentions. I am immensely proud of all of our students who submitted scholarship applications this year."

In another first for UAH, she notes, "We have three Critical Language Scholarship (CLS) Spark awardees." Previously, UAH had only one CLS Spark winner.

Two Congress-Bundestag Youth Exchange for Young Professionals (CBYX) recipients, one Japan Exchange and Teaching (JET) Program recipient and one National Oceanic and Atmospheric Administration (NOAA) Ernest F. Hollings Undergraduate Scholarship recipient round out the year's prestigious awards.

Each student is listed with their class status at UAH during the spring 2025 semester when they received the awards.

Caroline Bendickson, a senior majoring in biological science and chemistry, and Emily "Ema" Gothro, a doctoral candidate studying biotechnology science and engineering, both received an NSF GRFP. Bendickson graduated from UAH in spring 2025.

This program supports "the quality, vitality, and strength of the scientific and engineering workforce of the United States," according to the website. "The five-year fellowship provides three years of financial support, including an annual stipend of $37,000."

Nicole Stark, a senior chemistry major, and Stephanie Manasterski, a master's student majoring in aerospace systems engineering, were named to the NSF GRFP Honorable Mention list.

The CLS Program gives U.S. students the opportunity "to learn languages of strategic importance to the United States' national security, economic prosperity and engagement with the world," notes the website. The CLS Spark initiative "allows students to have immersive language and cultural experiences with international communities" while learning online.

Kaitlin Wong, an Honors junior majoring in computer science, will study Mandarin. Katelyn Carr, a senior/JUMP student majoring in industrial and systems engineering, will study Japanese. Alejandro de los Santos Gallegos, a freshman computer engineering major, will study Korean.

Mackenzie Williams, a senior majoring in aerospace engineering, and Brian Niswonger, an Honors junior majoring in kinesiology, will travel to Germany for a full immersion experience through the CBYX scholarship program. This year-long study and work abroad program is jointly funded by the U.S. Congress and the German Bundestag.

Jaelyn Longino, an Honors sophomore majoring in atmospheric and earth science, was chosen for the NOAA Hollings Scholarship.

According to the program website, the scholarship "provides successful undergraduate applicants with awards that include academic assistance (up to $9,500 per year) for two years of full-time study and a 10-week, full-time paid ($700/week) internship at a NOAA facility during the summer. The internship between the first and second years of the award provides the scholars with hands-on, practical experience in NOAA-related science, research, technology, policy, management and education activities."

Emily Bethea, a senior communications major, will travel to Japan for the JET Program, which gives her the opportunity to work in schools, boards of education and government offices throughout the country. The JET website notes that "this program offers a unique cultural exchange opportunity to meet people from all around the world, living and working in Japan." Bethea graduated from UAH in spring 2025.

Congratulations to these outstanding Chargers! ■

NEW PROGRAMS, NEW POSSIBILITIES

UAH's new degrees equip students with credentials in high-tech fields

UAH recently announced several new academic programs, including two new bachelor's degrees, a master's degree and multiple certificate options aimed at meeting growing industry needs across the region and beyond.

"At UAH, we pride ourselves on being a high-tech university," said Dr. David Puleo, provost and executive vice president for academic affairs at UAH. "From integrating cutting-edge technologies and industry-relevant knowledge into the classroom to innovating creative programs of study to broaden student access to critical fields, we are committed to ensuring that our program offerings align with evolving workforce demands."

The newly approved offerings include:

- B.S. in Cyber Operations Technology
- B.S. in Game Design
- Certificate in Artificial Intelligence for Engineers
- M.S. and Post-Master's Certificate in Psychiatric Mental Health Nurse Practitioner (PMHNP)

The University of Alabama System Board of Trustees approved the proposals at its meetings on April 4, 2025, and June 6, 2025.

The Cyber Operations Technology degree, offered through the College of Science, is designed for students with a community college background and will be delivered online. It focuses on cybersecurity, network systems and digital defense. The program is expected to launch in fall 2026, contingent upon approval by both the Alabama Commission on Higher Education (ACHE) and SACSCOC.

UAH will soon offer a B.S. in Game Design, offered through the College of Arts, Humanities, and Social Sciences. This multidisciplinary program will blend art, animation, programming, psychology, business and communications, preparing students for careers in this growing industry. The program is expected to launch in fall 2026, contingent upon approval by both ACHE and SACSCOC.

Launching in fall 2025, the Certificate in AI for Engineers will provide a foundational understanding of AI and machine learning applications. This 12-hour, non-degree undergraduate certificate will be offered by the Electrical and Computer Engineering Department in the College of Engineering. It will equip students to understand fundamental AI architectures, training methods, and engineering applications, and to critically analyze social challenges associated with AI technologies. Students will gain proficiency in designing, developing, and optimizing machine-learning models.

Lastly, the UAH College of Nursing recently announced the addition of a Psychiatric Mental Health Nurse Practitioner (PMHNP) program, including both a concentration in the M.S. in Nursing (MSN) degree and a PMHNP post-master's certificate offering. Expected to launch in fall 2026, the master's concentration is designed for nurses who want to become nurse practitioners, while the non-degree PMHNP certificate is designed for individuals who have already earned an MSN degree. It provides additional education for advanced practice nurses who are clinicians focused on managing mental health conditions for patients across the lifespan. UAH will now submit the proposal to ACHE for final approval. The certificate will also be submitted for accreditation by the Commission for Collegiate Nursing Education (CCNE). ■

ENGINEERING AN IMPACT

NEW AI/ML FACILITY MADE POSSIBLE BY GENEROUS DONATION FROM DR. LOUIS AND BEVERLY WEINER

Dr. and Mrs. Louis B. Weiner have made a transformative gift of $143,814.88 to UAH, supporting the creation of the Dr. Louis B. Weiner Artificial Intelligence/Machine Learning Lab. The lab is just one of the state-of-the-art research and collaborative teaching facilities that will be housed in the Raymond B. Jones Engineering Building, currently under construction. The University of Alabama System Board of Trustees approved the gift at its meeting on April 4, 2025.

"Artificial Intelligence and machine learning are transforming the way engineers solve problems," says Dr. Shankar Mahalingam, dean of the College of Engineering at UAH. "Whether it's optimizing designs, improving efficiency or analyzing data to gain insight, these technologies help engineers work faster and more effectively."

The Weiners are longtime supporters of UAH. As co-founder and president of Delta Research, a Huntsville-based defense contractor, Dr. Weiner has often sought UAH engineers to join his ranks. "Over the years, I have taken on interns and hired graduates of UAH, and have always been very impressed by the programs and the work that the students do," he says. After more than 63 years in the defense sector, Louis continues to work full time and serve on the UAH College of Engineering advisory board, a position he has held for more than 20 years. Beverly Weiner, now retired, worked for 26 years as a teacher and librarian in the neighboring Limestone County public school system.

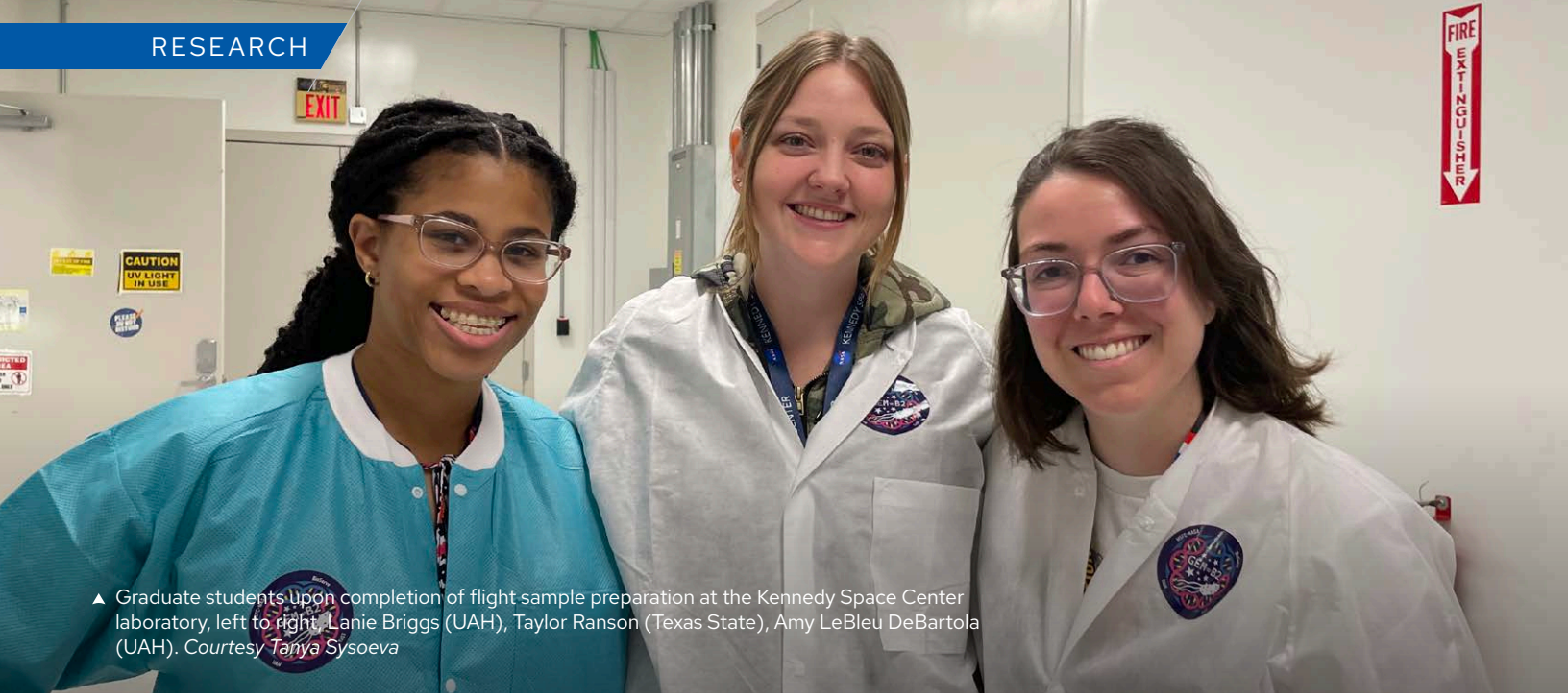
The couple understands the importance of supporting students in their educational pursuits. Over the years, their wide-ranging support of UAH has included donations to the College of Engineering; College of Arts, Humanities and Social Sciences, as well as the Last-Mile Fund, a program that provides crucial funding to students nearing graduation.

"We decided to take our support a step further and donate a naming gift," says Louis, noting their choice to donate to the new AI/ML lab – a cutting-edge facility that will better prepare UAH engineers for the needs of the future.

"Driven by his own professional experience, educational background, and modest beginning, he is committed to paying forward, by enabling our next generation of UAH engineering graduates to achieve their fullest potential," says Mahalingam. "We are humbled and honored that Dr. and Mrs. Weiner have chosen to make this gift as a lasting legacy of the impact Dr. Weiner has had on the College of Engineering at UAH." ■

Interested in making an impact on UAH Engineering?

For more information on naming opportunities in the Raymond B. Jones Engineering Building, contact Mallie Hale, Vice President for University Advancement and Executive Director of UAH Foundation via Mallie.Hale@uah.edu or 256-824-6501.



▲ Graduate students upon completion of flight sample preparation at the Kennedy Space Center laboratory, left to right, Lanie Briggs (UAH), Taylor Ranson (Texas State), Amy LeBleu DeBartola (UAH). *Courtesy Tanya Sysoeva*

Researchers launch experiment to address microbial gene exchange aboard ISS

Biotechnology Science and Engineering doctoral students Amy LeBleu DeBartola and Lanie Briggs launched samples from the UAH Biology Sysoeva Lab into orbit, an experiment designed to study how microgravity affects gene transfer amongst microbial cells. The research was part of a NASA SpaceX CRS-32 resupply mission to the International Space Station (ISS) called Genetic Exchange in Microgravity for Biofilm Bioremediation, or GEM-B2, a collaborative project between UAH, Marshall Space Flight Center, Texas State University and Bioserve at the University of Colorado Boulder.

The project was initiated by Dr. Yo-Ann Velez Justiniano and Dr. Tanya Sysoeva at UAH to find ways to address obstructive biofilms found in the ISS environmental control and life support systems. Biofilms are mats of microbial or fungal growth that can clog hoses or filters in water processing systems and potentially cause illness in humans.

The effort is part of the NASA POLARIS Program, an initiative that focuses on research and technological advancements related to human health, spaceflight impacts on the human body and developing technologies for extended space travel.

The Sysoeva Lab completed the ground pre-flight validation and optimization of the experiment, which included determining which bacterial systems and conjugative plasmids are best to use in measuring the transfer of conjugative plasmids in microgravity. Conjugative plasmids are extra-chromosomal DNA elements capable of horizontal transmission and are found in many bacteria, while conjugation refers to the transfer of plasmid DNA from a donor bacterium to a recipient cell.

"Conjugative plasmids tend to spread genes converting bacteria into antibiotic resistant strains, and thus are the main mechanism of the current global spread of antimicrobial resistance in human pathogens that we study in our group," Sysoeva notes. "This is a unique opportunity for us to continue mechanistic characterization of this fundamental process of gene transfer under reduced gravity conditions at ISS to add to the basic understanding as well as make the first steps to remediation strategies."

The goal is to develop a bioremediation method to reduce or prevent biofilm formation inside the water systems aboard ISS and other, future human space habitats, such as the Artemis Lunar Gateway. ■

ENGINEERING HEALTH

New economic development program spreads medical device manufacturing know-how

When whipping up a batch of realistic fake flesh, follow the recipe exactly. Swap steps in mixing the chemicals, and your human imitation looks more like alien goo.

Four teachers from the Albertville City School System learned this and other valuable tech tips for making high-quality, less-expensive nursing training devices through the Model Exchange and Development of Nursing and Engineering Technologies (MEDNET) program in the UAH Systems Management and Production (SMAP) Center.

UAH began offering this free economic development program for Alabama secondary school teachers during the spring 2025 semester.

MEDNET grew from a SMAP collaboration with the UAH College of Nursing. Primarily a U.S. Army defense contractor, SMAP began making personal protective equipment for area hospitals during the COVID pandemic.

"Our engineering students need to be trained before we put them on Redstone Arsenal," SMAP Director Dr. Gary Maddux says. "This is a good opportunity for them to work in house. They have to learn to communicate and capture requirements. They create what they think is the solution, and the College of Nursing vets it. If it works, they put it into the classroom."

SMAP has created a variety of models and processes that have helped the College of Nursing reduce training costs while giving its students the practice they need for proficiency. Now SMAP is ready to share these benefits.

"We want to improve our region by creating technologies that improve stuff," Maddux notes. "We can help students who are going into manufacturing, which is a huge part of our economy, and the ones going into health care."

The Albertville teachers – pictured left to right, Anna Frasier, Matthew Jackson, Katie Baugh and Corbin Holland – toured the SMAP facility and viewed some of the medical training products developed or in progress – from skin pads for injections, sutures and IVs to model hearts, femurs and other organs. Then they took MEDNET's chemical "cooking" class .

Dr. Bernard Schroer, professor emeritus, College of Engineering, led the tour and the lessons along with UAH students Delaney Enlow, Ann Metuge and Amy Jo Fogle.

Each participant returned to Albertville with a recipe book, flash drive with model information and a muffin-shaped hunk of pseudo skin that they'd made themselves.

Baugh, a UAH graduate, received more than she expected.

"It was fun to make the training models to take home with us. Doing it step by step with an excellent instructor helped us to be able to bring that knowledge back and begin brainstorming to start our own program." ■

Fighting fire with science

Data-driven solutions for a safer future

Researchers from UAH's Earth System Science Center (ESSC) are working with the Alabama Forestry Commission and NASA's FireSense initiative to study prescribed burns in Geneva State Forest in South Alabama. The goal: improve fire management practices using advanced technology and real-time data.

During a prescribed burn in March, UAH researchers deployed low-cost soil moisture and temperature sensors to examine how soil moisture affects fire behavior and ecosystem recovery. Developed in collaboration with the UAH Atmospheric Science Department and the Alabama State Climate Office, the sensors provide critical insights into fire dynamics.

The UAH team is led by research scientist Ryan Wade and Alabama's Associate State Climatologist Dr. Lee Ellenburg at the ESSC, working alongside the Alabama Forestry Commission and NASA to enhance the understanding of fire behavior and its ecological impacts. Controlled burns are a valuable research tool, offering critical data to refine strategies for wildfire prevention, response and recovery.

"Our goal is to gather real-time data to improve fire management and enhance safety," Wade explains. "By leveraging advanced weather and soil monitoring tools, we can predict fire behavior more accurately, allowing land and forest managers to better leverage prescribed burning to reduce the risk of uncontrolled wildfires."

NASA's FireSense program advances wildfire science through innovations in fuel mapping, detection and air quality forecasting. By combining UAH's sensors with NASA's satellite data, the team gains deeper insights into fire behavior and its environmental effects.

"We're focusing on understanding the role of soil moisture before, during and after a fire," Ellenburg notes. "This information is vital for assessing drought severity, understanding how moisture impacts fire intensity and evaluating how fire alters the soil's ability to absorb water."

This research supports safer, more effective prescribed burns across the Southeast's fire-prone forests. ■

Bye bye, Big Bang

New model of the universe doesn't need dark energy, dark matter

Dr. Richard Lieu has published a paper in Classical and Quantum Gravity proposing a new cosmological model built not on a single Big Bang event but on a sequence of multiple singularities. This step-like expansion model aims to explain the universe's growth and structure — without relying on dark matter or dark energy.

The researcher's work builds on an earlier model hypothesizing gravity can exist without mass that has garnered 41,000 reads and numerous citations since its publication in 2024.

"The new model can account for both structure formation and stability, and the key observational properties of the expansion of the universe at large, by enlisting density singularities in time that uniformly affect all space to replace conventional dark matter and dark energy," the researcher explains.

Rather than relying on exotic phenomena like "negative mass" or "negative density," the new theory introduces "transient temporal singularities" — sudden bursts of energy and matter that occur so rapidly they go undetected. These rare, unresolvable events could explain why dark matter and dark energy remain elusive.

"Sir Fred Hoyle opposed Big Bang cosmology and postulated a 'steady state' model of the universe in which matter and energy were constantly being created as the universe expands. But that hypothesis violates the law of mass-energy conservation," Lieu notes. "In the current theory, the conjecture is for matter and energy to appear and disappear in sudden bursts and, interestingly enough, there is no violation of conservation laws. These singularities are unobservable because they occur rarely in time and are unresolvedly fast, and that could be the reason why dark matter and dark energy have not been found. The origin of these temporal singularities is unknown – safe to say that the same is true of the Big Bang itself."

These singularities in space could also generate something called "negative pressure," a type of energy density, like that of dark energy, that has a repulsive gravitational effect, causing the universe to expand at an accelerating rate. ■

VIVA OUTREACH!

UAH and INTEC build global bonds through NASA HERC

This spring the UAH Human Exploration Rover Challenge (HERC) team hosted the Instituto Tecnologico de Santo Domingo (INTEC) from the Dominican Republic (DR) during NASA's 2025 HERC competition. The two student squads first bonded during a UAH team visit to the DR in 2024, an outreach opportunity that helped boost INTEC Team Apolo 27 to a second-place finish in this year's human-powered competition. That connection only grew stronger when the DR squad returned the favor, encouraging UAH Team ATHENA to overcome a catastrophic failure on day one. UAH rebounded to place third overall.

The HERC is one of NASA's eight Artemis Student Challenges, designed to inspire the next generation of explorers as NASA prepares for future Moon and Mars missions. The 2025 event featured 75 teams from 16 nations with squads representing 35 colleges and universities, 38 high schools and two middle schools.

To celebrate, the UAH team hosted a banquet for their DR guests, followed by a tour of the UAH mechanical and aerospace engineering rover shop facilities and assembly room.

"Our relationship with INTEC started last year when we witnessed their encouragement and spirit at the NASA HERC event," explains David Fikes, UAH team advisor. "Their advisor, Ezequiel Diaz, and I instantly felt a connection and continued to communicate as the year went along. Our banquet served as a conference between UAH and INTEC, highlighting HERC STEM outreach and collaboration."

UAH student team lead Taylor Simmons added, "The banquet was an amazing success... it also served as a chance to connect school faculty and officials, allowing them to collaborate on more opportunities for students in the future."

Following the visit, INTEC secured university approval for their rover team to become a senior design class — mirroring UAH's academic integration. ■

Left: Navy Lt. Cmdr. Joshua Rogers, right, swears in Lorin Carter. **Center:** U.S. Air Force ROTC cadets Dorian Cole, Jacob Padgett, David Hays, Quan Davis, Gabriel Rice, Madison Bipes and William Harper show their Charger spirit. **Right:** Stephen O'Neil, Ethan Oliver and Daniel Navarro were commissioned as second lieutenants into the United States Army.

Salute!

UAH ROTC cadets rise through the ranks of service

Eleven UAH students took major steps toward careers in the U.S. Armed Forces during the spring 2025 semester.

U.S. Navy

When UAH junior Lorin Carter enlisted in the U.S. Navy on Jan. 21, she was given one job: Excel in her studies as a civil engineering major at UAH. Her academic record had helped her stand out when she applied for the Navy's Civil Engineering Corps (CEC) Collegiate Program.

Lt. Cmdr. Joshua Rogers, who came to campus to swear her in, noted that Carter was the first candidate in the country to be chosen through the Navy's new immediate selection process for the civil engineering corps.

The Navy offers several collegiate programs that provide an active duty salary and benefits while students finish their degrees. There's no boot camp or uniform for Carter until after her expected graduation in May 2026, but her time in college counts toward pay and retirement.

U.S. Air Force

UAH's Air Force Reserve Officers' Training Corps (ROTC) program held an enlistment ceremony on March 26 for its first group of seven cadets to have been contracted into the U.S. Air Force Reserve (Officers Training Corps):

- C/3C Madison Bipes, meteorology
- C/3C Dorian Cole, information systems cybersecurity
- C/3C Quan Davis, computer science, cybersecurity
- C/3C William Harper, business
- C/3C David Hays, computer engineering
- C/3C Gabriel Rice, mechanical engineering
- C/3C Jacob Padgett, Ph.D., cybersecurity

The cadets' next big challenge is field training this summer at Maxwell Air Force Base in Montgomery. Those who complete it successfully will become UAH's first Professional Officer Course cadets.

UAH Operating Location 012A, the first of its kind in the country, was officially activated on Aug. 29, 2024, with Maj. Matthew Spinks and Capt. Brett Collins as its cadre officers.

U.S. Army

Three UAH students were commissioned as second lieutenants in the U.S. Army on May 2 at Charger Union Theater during the first Army ROTC commissioning ceremony to be held on the UAH campus.

The three seniors, who graduated from UAH on May 5, are listed with their Army assignments:

- 2nd Lt. Ethan Oliver, active duty, Chemical Corps
- 2nd Lt. Stephen O'Neil, active duty, Infantry
- 2nd Lt. Daniel Navarro, active duty, Air Defense Artillery

Lt. Col. Early Howard Jr., professor of military science at Alabama A&M University and UAH's primary military instructor, presided over the ceremony. UAH Army ROTC is an extension of the Alabama A&M University Bulldog Battalion. ■

Golden history, brighter future

College of Nursing marks 50 years of excellence, partners with award-winning Maury Regional

It's been a golden year for the UAH College of Nursing. Two events during the spring 2025 semester combined the college's half century of nursing excellence with plans for an even brighter future.

To mark its 50th anniversary, the college held the Golden Gala on April 5 at The Jackson Center. The event gave supporters an elegant evening of dining and dancing, plus plenty of laughs from local improv group Open to Suggestions.

But the Gala also had a serious purpose – raising funds to purchase a Laerdal MamaAnne, an advanced obstetrics simulator, to replace the aging model in the college's Simulation and Learning Innovation Center (SLIC).

"Our SLIC enhances hands-on learning and bridges the gap from classroom to clinical practice for nursing students," said Dr. Karen Frith, dean, College of Nursing.

A birthing manikin, or simulator, is an essential part of nursing education, because it's hard to predict what will happen in a delivery room. This machine replicates the anatomy and physiology of a pregnant patient, enabling students to practice and refine childbirth procedures in the safety of a classroom environment without risking real patient outcomes.

The SLIC received another major boost when Maury Regional Medical Center in Columbia, Tenn., committed $145,000 to the college. UAH and Maury celebrated the donation – and the strong partnership it represents – during a ribbon-cutting ceremony on April 18.

The Maury gift created the College of Nursing's first room naming within the SLIC. The Maury Lab, previously known as the Bed Lab, is a 16-bed mock hospital that provides realistic clinical experiences for student nurses and community partners. The lab is the largest room in SLIC's 10,615-square-foot state-of-the-art facility.

"We are purposeful in who we look to partner with because not all organizations are the same," says Jeff Pierce, Maury's director of human resources. "It is our privilege and our honor to partner with the UAH College of Nursing. The alignment that I see toward people, toward individuals, is really the foundation of our relationship."

Pierce says he was especially impressed by UAH's long-running Let's Pretend Hospital program for local first graders as well as its 100% pass rate for nursing students, two years running.

Maury Regional brings an outstanding reputation of its own to the partnership. The American Nurses Credentialing Center awarded the hospital its second Magnet recognition earlier this year because of its commitment to exceptional health care and the well-being of its nurses. This credential is the highest national honor for nursing practice. ■

ATHLETICS ON THE MOVE!

Three decisions announced during spring 2025 – a new financial pledge from a longtime donor, plans for a new competition venue and the retirement of a beloved coach – offer fresh opportunities for UAH Athletics.

The Chargers have represented a blue-chip investment for Bryant Bank ever since the bank started contributing annually to UAH's intercollegiate athletic program in 2019. A new pledge of $250,000 over five years emphasizes the bank's long-term support strategy. This gift is designated for the UAH Athletics Excellence Fund.

Bryant Bank's local leadership announced the donation on April 4 during a check-presentation celebration during The University of Alabama (UA) System Board of Trustees' annual meeting on the UAH campus.

"Bryant Bank does so much for us, our campus and our community already," said UAH Director of Athletics Dr. Cade Smith. "This further cements their impact upon UAH Athletics. All of these funds will make a significant impact on the experience for our student-athletes and our staff members. We could not be more thankful for their partnership!"

Plans for the new UAH Track and Field Complex took a leap forward at the same meeting when the UA System Board of Trustees granted Stage III approval for the project: the architectural design by Chapman Sisson Architects.

The complex will transform a field and parking lot on the west side of John Wright Drive across from Charger Park into UAH's first on-campus track. Noting the success the program has seen under Coach David Cain's leadership, Smith said he expects the complex to strengthen an already outstanding program.

Another outstanding program, UAH softball, will begin the 2025-26 year without coaching legend Les Stuedeman, who announced her retirement in June.

During her 30 years at UAH, 1996-2025, Stuedeman established the softball program and built it into a nationally recognized power with a career record of 1,297-453-1. She and her teams achieved 40 or more wins in 27 of her 30 seasons. She retires with the third most wins in NCAA Division II softball history and 14th most in NCAA softball overall.

"There is no way to express the gratitude I feel for 30 years of getting to be a Charger," Stuedeman said. "The women who have worn the UAH softball jersey have gifted me with a lifetime of memories, and we built something special TOGETHER."

▲ Bryant Bank pledged $250,000 over five years to UAH Charger Athletics. The Department of Athletics turns out to celebrate the investment on April 3, 2025.

▲ The architectural design for UAH's new Track and Field Complex has been approved by The University of Alabama System Board of Trustees. Designed by Chapman Sisson Architects, the facility will provide the UAH Chargers with their first on-campus track.

▼ UAH softball head coach Les Stuedeman announced her retirement after 30 seasons at the helm of the Chargers.

In memoriam:

Sam Baldwin

Sam joined UAH in 2014 as the Coordinator of Athletic Communications and steadily rose through the department, eventually becoming Director of Athletic Communications before being promoted to his final leadership role. He played a pivotal role in elevating the UAH Chargers brand through standout work in media relations, website development and social media. Fans frequently praised the engaging and dynamic presence he created for the Chargers online.

"This is devastating for all of us who loved Sam," says Dr. Cade Smith, Director of Athletics. "Sam was a great employee who loved the Chargers. Sam made us better. Most importantly, he was a good friend. He will be missed and he has left a void that will be hard to fill. Our thoughts and prayers are with his family and friends."

Originally from Willoughby, Ohio, Sam earned degrees in Sport Administration from the University of Akron and Sport Management from the University of Tampa. A proud Cleveland sports fan, he also supported local baseball as a scorer with the Rocket City Trash Pandas. Sam was a respected member of the College Sports Communicators Association. He will be deeply missed.

CAPS, GOWNS AND **CHARGER PRIDE**

Charger alumni ranks grew with the addition of some 1,280 new UAH graduates following spring 2025 commencement ceremonies on May 5 at the Von Braun Center Propst Arena. A few shared their UAH journey as they prepared for the big day.

First-generation college student Maggie Crosby, a College of Nursing graduate, emphasized the importance of finding a support community on campus. She urged fellow first-gen students to connect with First & Proud, a part of UAH's Academic Success Advocacy Program.

"Nursing school is one of the hardest things I've ever done. One thing they say to us in the College of Nursing is never forget why you started. This goes back to first-gen in general. You wanted it enough to start. You have to want it enough to finish and see it through. I had to keep telling myself that through nursing school."

College of Business graduate Daniel Navarro hit another big milestone just three days before commencement. On May 2, the ROTC cadet was commissioned as a second lieutenant in the U.S. Army.

He appreciated the opportunity to grow and explore his interests at UAH: "I started as an aerospace engineering major. Then I realized I really like economics. I was always interested in the business side of engineering."

Serving as a College of Business Ambassador helped him develop his social skills: "We are the face of this college. I feel like a lot of this person I have become is because of the College of Business."

Years before Evey Hensley graduated with her Bachelor of Science in Nursing, she learned a big lesson as a first grader participating in the College of Nursing's Let's Pretend Hospital.

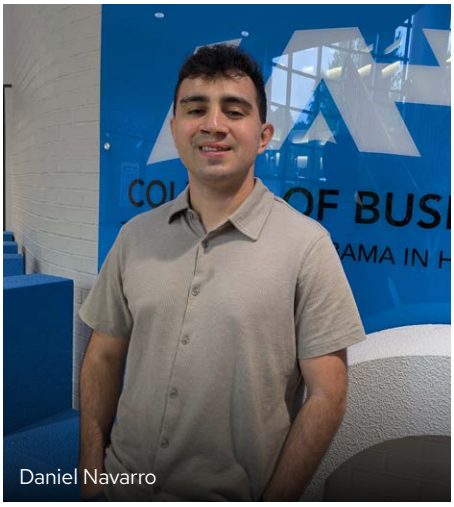
"Seeing how nurses do all these cool things – like putting on casts and starting IVs – made it not scary."

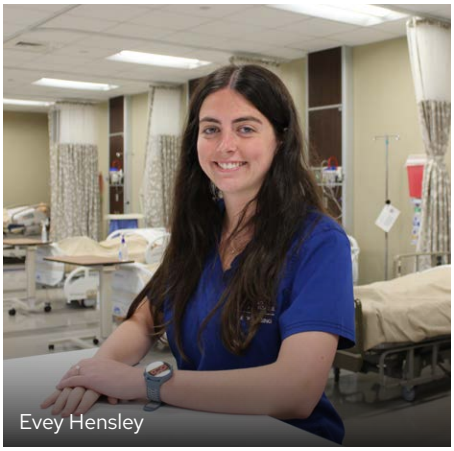
On March 25-28, she helped introduce a new generation to the medical world. To help the kids feel more at ease, she greeted them as Disney's Snow White.

"Probably the best part was seeing the kids so excited. I hope they can remember this as a vivid memory years on down the road. It was definitely a full-circle moment for me."

Master's graduate Sam Womack teaches history at Morris Middle School. He gained an "eye-opening" perspective on English language acquisition through the College of Education's Project DIAL (Designing Instruction for Academic Literacies).

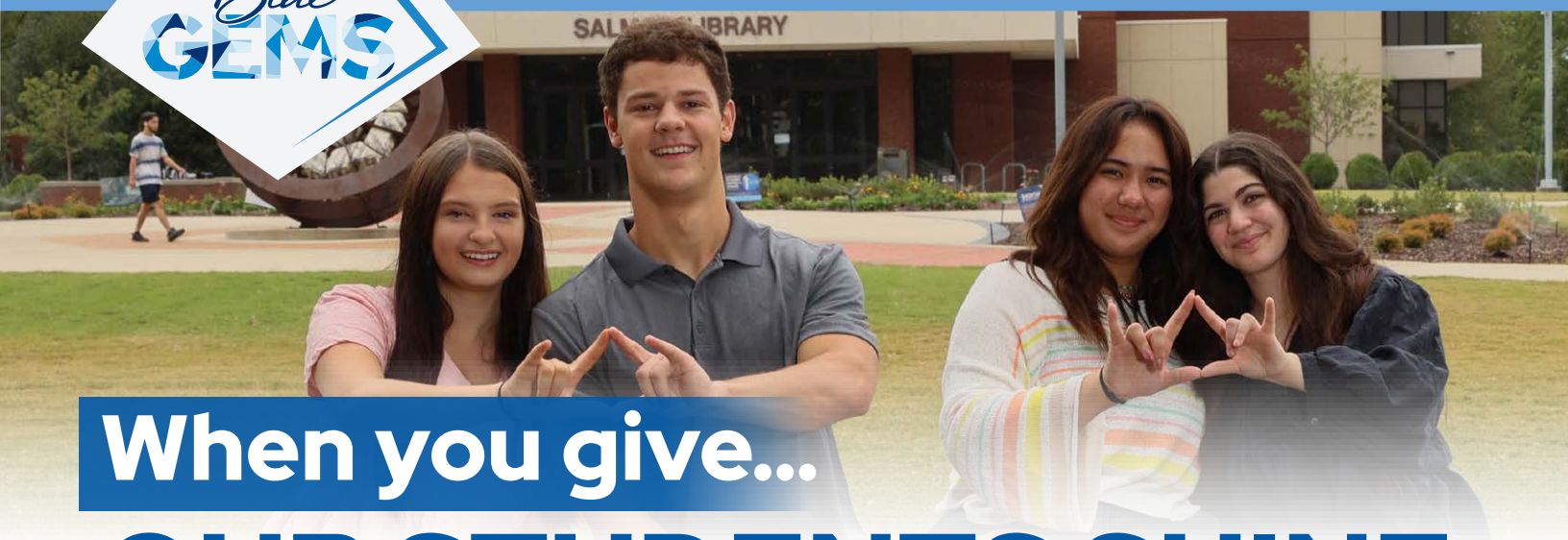
"You hate to see kids struggle, and you want to help them, but you also have to find the best way to go about it. The content and the skills that we learned are the building blocks for understanding the English language – and that goes for everybody. If you're teaching someone who knows a different language how to speak English, or you're teaching an English speaker how to use English more effectively, you are still breaking down the English language for people who need help understanding it or improving their skills." ■


Daniel Navarro


Evey Hensley

Maggie Crosby


Sam Womack



When you give...

OUR STUDENTS SHINE.

The **UAH Blue GEMS (Give Every Month Society)** is a special group of supporters who make recurring contributions to UAH, providing a reliable source of funding for our university's important initiatives.

Membership is:

- BUDGET-FRIENDLY
  Monthly giving is a budget-friendly opportunity to maximize your impact.
- TAILORED TO YOUR PASSION
  You can direct your donation to an area or program that is meaningful to you.
- EXCLUSIVE
  Blue GEMS members receive an exclusive Blue GEMS lapel pin as well as prominent recognition on our website and the opportunity to be featured on social media platforms.

Ready to shine as a Blue GEM?

It's easy! Simply visit ***uah.givingfuel.com/2025-blue-gems*** to set up your contribution.

Thank you for your support! Your ongoing gifts ensure that UAH can continue to educate and inspire tomorrow's leaders.

Want to maximize your giving impact and your benefits?

By making a monthly recurring gift of **$210 or more,** you'll not only be recognized as a **Blue GEM**, but you'll also join the **President's Council** – a community of our most dedicated and distinguished supporters who champion discovery, creativity and civic responsibility through high-quality education at UAH.

THE UNIVERSITY OF ALABAMA IN HUNTSVILLE®

PART OF THE University of Alabama System.

THE UNIVERSITY OF ALABAMA IN HUNTSVILLE®

Office of Marketing and Communications
Shelbie King Hall, Room 370
301 Sparkman Drive
Huntsville, AL 35899

Nonprofit Org.
U.S. Postage
PAID
Huntsville, AL
35899
Permit No. 283

PART OF THE University of Alabama System.

SAVE The DATE

Family & Friends WEEKEND

Join us for a fun-filled weekend as we welcome families, alumni and friends back to campus!

September 18–21, 2025