# A PUBLICATION OF THE UNIVERSITY OF ALABAMA IN HUNTSVILLE

# COLLEGE OF ARTS, HUMANITIES AND SOCIAL SCIENCES REACHES OUT AT

ACADEMICS NEW EARTH2SKY EAGLE CROWN HONORS DUAL ARTEMIS STUDENT CHALLENGE WINS RESEARCH BRIGHTEST GAMMA-RAY BURST ON RECORD CAUGHT BY THREE CSPAR RESEARCHERS CAMPUS UAH CELEBRATES HEALTHY CAMPUS GOLD ON INTERNATIONAL DAY OF UNIVERSITY SPORT

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# **UAH**Magazine

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COVER STORY

# THE Arts OF OUTREACH

UAH studio partnership with Lowe Mill A&E opens opportunities for everybody

atch the arts in action at Studio 1047, site of a new partnership between the UAH College of Arts, Humanities and Social Sciences (CAHS) and Lowe Mill ARTS & Entertainment. Organizers see it as a labor of love, an effective teaching tool and a smart business decision.

The UAH project space opened at Lowe Mill A&E on June 1 with four art students working in residence. The space served as studio, gallery, workshop and lecture hall at various times during the summer test run. Fall semester has brought even more events, and future plans include performances and holiday celebrations. A space at Lowe Mill A&E – the largest privately owned arts facility in the U.S. and a major Huntsville tourist draw – has long been a CAHS dream. Dr. Sean Lane, dean of the college, and Marcia Freeland (B.A., art, 2009), Lowe Mill executive director, discussed it early this year and turned dream into reality.

"This is a very genuine partnership," Lane says, lauding Freeland's advocacy for UAH. "Certainly on this scale, we couldn't do this on our own. We're excited about it, and we are focused on making the most of it to benefit both of our organizations."

Community engagement, he notes, is "one of the key areas in the CAHS and UAH strategic plan."

"We have emphasized the importance of partnerships like this one. The studio allows our students and faculty incredible opportunities to communicate the work they do to visitors of the Mill, to collaborate with the artists and staff, and for the student fellows who run the space to learn important skills from interacting with visitors."

For some visitors, the studio could be an introduction to UAH and CAHS.

"Because a large proportion of Mill visitors are from out of town," Lane says, "the space allows us the opportunity to market our programs to people who might not have heard about us otherwise. We are particularly interested in utilizing this opportunity to recruit new students."

About 70% of visitors on Fridays and Saturdays, the busiest days, are out-of-towners, Freeland says.

"They spend four hours or more at the Mill on average – a big number compared to most places."

Ensuring quality content to attract those visitors is Freeland's job. The CAHS/UAH space provides a fertile source. Freeland is a UAH alumna and a member of the CAHS advisory board, so she appreciates this chance to support her employer and university.

"It's cool for me to see the students working with established artists here," she says. "A student seeing artists being successful and making a living here in a working studio – and seeing the different types of artists – is a huge benefit."

These hands-on experiences outshine the myth that it's hard to get a real job with an art degree.

"Art exemplifies something we're trying to make sure people understand about our entire college," Lane says. "We work hard to make sure our students take the excellent education that they get and find jobs that showcase their great communication skills, great thinking skills, great creativity. On top of what they get from the classroom, we give them experiential learning opportunities. The things that are going on at the Mill are just one example."

Summer's test run delighted Jill Johnson, chair of the Department of Art, Art History and Design and professor of art, painting and drawing, and Katie Baldwin, associate professor of art – printmaking.

"Community engagement is one of the key areas in the CAHS and UAH strategic plan." -Dr. Sean Lane, Dean

The residency that opened the space developed into part of the exhibition on view through Nov. 15: "How I Spent My Summer Vacation." The show includes works by residents Jess Braden, Tiffany Hawkins, Michael McGinley and Erin Yother plus UAH faculty members.

"For professional artists, residencies are really important," Johnson says. "They're prestigious. They're an opportunity to connect with other artists and have time and space to work. A mini-residency gives our students some experience that they can share when they're applying to other programs, grad school or large residencies."

Studio 1047 also expands the ability to showcase more students. B.F.A. students typically have an exit show on campus, but this isn't required for B.A. students. "Fire Becomes Her" by multimedia artist Ace Lemley, who is getting a B.A., was on display at the studio July 29-Sept. 27.

"This was a nice other possibility for a student who did a serious body of work," Baldwin says. "It was a perfect match."

The focus of the space, Johnson says, "is all about the whole college, all the things we do, connecting with the community."

Music Tech Thursdays, free public workshops held June 8-July 27, forged one of those community connections. Matthew Westmeyer, a recording engineer/sound designer/composer and music technology faculty member, offered instruction on synthesizer building, live electronic music production and analog synthesizers, plus simple projects participants could take home.

Baldwin continued the arts and sciences meld with "First Impressions of Data Driven Printmaking" on June 22. Last spring semester, she and her daughter, Helen Parache (B.S., Earth system science, 2019; M.S., Earth system science, 2021), research associate, applications data management, NASA-IMPACT, led students to engage with data to develop content for printmaking projects. They shared the creative process and students' final projects during an evening at the studio.

"We had people from NASA, from the Mill, from the art department," Baldwin says. "We could have done it on campus, but I feel like there was something special about that location. We're thinking this is a way to broaden our audience."

# UNIVERSITY ANNOUNCEMENTS









UAH added a new administrative position in 2023 when Kristina Hendrix became the first vice president for strategic communications on Feb. 1. Along with providing leadership for a comprehensive communications strategy, she oversees the Office of Marketing and Communications. She holds a master's degree in journalism from the University of Memphis and a bachelor's degree in public relations from The University of Alabama. She is an award-winning public relations executive with extensive expertise in promoting aerospace, national security and advanced manufacturing hardware programs within the Department of Defense, NASA and private industry. Before coming to UAH, she had been communications director at Dynetics since 2016.

Dr. Bryan D. Samuel became UAH's new vice president for diversity, equity and inclusion on July 12, 2023. He holds a doctorate in educational leadership and higher education administration from the University of Nebraska-Lincoln with a specialization in higher education law. Previously, Samuel served as vice president for diversity, equity and inclusion at the University of Texas Arlington. His leadership in developing innovative programs, such as MavREAD and the institutional Diversity Certificate Program, resulted in increased employee engagement and institutional recognition from Insight into Diversity Magazine and Excelencia in Education.

Lauri Millot became UAH's Title IX coordinator in early 2023. In her previous job, she was director for Title IX Equity and Compliance at the University of the Arts in Philadelphia, Pa. She also served as institutional compliance officer, Title IX coordinator and Section 504 coordinator at Truman State University in Kirksville, Mo. She holds a B.S. in art education from the University of Wisconsin - Whitewater and a Doctor of Law Jurisprudence degree from the University of Toledo College of Law. Now Millot coordinates the efforts of UAH staff members who are responsible for carrying out Title IX investigations.

The Osher Lifelong Learning Institute (OLLI) at UAH is marking 30 years of educational exploration during 2023-2024. The milestone celebration started on Aug. 3, Alabama OLLI Day, with a luncheon at the UAH Conference Training Center featuring Huntsville's own Homer Hickam, best-selling author of "Rocket Boys" and 17 other books. Other special guests included OLLI members from The University of Alabama and Auburn University. The UAH Propulsion Research Center contributed a rocket demonstration to the festivities. Offering more than 60 courses on a wide range of topics, OLLI is open to anyone age 50 and up. Register at osher.uah.edu.

# A message from UAH President **Charles L. Karr**

very day, I am impressed by the outstanding accomplishments of our students, faculty and alumni, and I enjoy sharing the great things happening on and off campus with our community.

Our team is focused on increasing UAH enrollment. We have a wealth of achievements to highlight as we introduce prospective students to everything that defines UAH as special.

Fall is a great time for celebrations, and we have much to be proud of this year.

UAH became the first and only university to win two NASA Marshall Space Flight Center-led Artemis Challenges in the same year when our student teams took first place in the 2023 Human Exploration Rover Challenge and the Student Launch Challenge. Now we're calling this dual achievement the Earth2Sky Eagle Crown. Our goal is to be crowned again next year.

I am excited about another "first" that directly benefits the lives of everyone on our campus: UAH recently achieved Gold certification from the Fédération Internationale du Sport Universitaire (FISU) as part of the organization's Healthy Campus program. Not only are we the first university in the United States and North America to be registered in the FISU, we are the first in the U.S. to reach this level.

UAH faculty members are working hard to provide physical fitness opportunities to the whole community. Our Ability Sport Network (ASN) received a \$58,200 grant as the sole sponsor of Alabama's adapted youth sport league focusing on Paralympic sports. ASN held two big events that brought the community to campus this spring: Adaptive Cycling Community Day and Development Clinic with coaches and a mechanic from the U.S. Olympic/ Paralympic Committee and beep baseball with the Alabama Institute for Deaf and Blind.

UAH began a wonderful new community outreach opportunity in June. The College of Arts, Humanities and Social Sciences (CAHS) partnered with Lowe Mill ARTS & Entertainment for a project space at the Mill. The creative minds throughout CAHS have a long list of events and activities planned for Studio 1047 to engage the public and showcase all the many fascinating things happening in the college.

Along with celebrating our successes on and off campus, we set aside time to honor our 2023 Alumni of Achievement and inductees into our Athletic Hall of Fame during Alumni Weekend, Sept. 21-24. It means a lot to all of us to see our UAH alumni do well, and we are delighted when they return to campus.

UAH's future looks bright, and the upcoming Center for Cybersecurity Research, Education and Advanced Training will be a strong part of it. The University of Alabama System Board of Trustees approved Stage 1 of the \$24.4 million project. The 45,000-square-foot renovation project will establish UAH's Bevill Center as the new home of the existing UAH Center for Cybersecurity Research and Education. The new interdisciplinary space will help UAH remain a vital employment pipeline as it continues to support booming state and local cybersecurity workforce needs.

With our students, faculty and alumni consistently achieving remarkable milestones and the university embarking on pioneering projects, UAH stands as a beacon of excellence and innovation, promising a brighter future for our community.

We're always glad to see community members cheering on our student athletes, exploring our art galleries, or attending a concert, play or public lecture. We invite you to experience these and more on the UAH campus.

Go Chargers!

Charles L. Kan



eams from UAH claimed the top prize in two 2023 NASA Artemis Student Challenges: the Human Exploration Rover Challenge (HERC) and the Student Launch Challenge, both led by NASA Marshall Space Flight Center and held in Huntsville. No other university has won two NASA Marshallled Artemis Challenges in the same year, so UAH named the achievement the Earth2Sky Eagle Crown.

NASA holds nine Artemis Student Challenges, annual national and international events aimed at fostering student ingenuity to support NASA's return to the moon under the Artemis program in preparation for human exploration of Mars.

"The 2022-2023 academic year has been special, and I would daresay spectacular, for our mechanical and aerospace engineering seniors," says Dr. Shankar Mahalingam, dean of the UAH

# **NEW EARTH2SKY EAGLE CROWN** HONORS UAH TEAMS' DUAL ARTEMIS STUDENT CHALLENGE WINS

College of Engineering. "We will refer to this from now on as Earth2Sky Eagle Crown to inspire future UAH teams to even greater accomplishments in the future."

Both team challenges are part of senior design courses in the UAH Department of Mechanical and Aerospace Engineering with students majoring in one or both disciplines.

The UAH Charger Rocket Works team competed against 51 university-level teams from 20 different states and Puerto Rico to win the Student Launch Challenge. This competition involves the design, documentation, fabrication and testing of a rocket and payload in support of a particular NASA mission.

In addition to the overall victory, the UAH team placed first in the American Institute of Aeronautics and Astronautics Reusable Launch Vehicle Innovative Payload Award; took second place in the Safety Award, and placed third in the Altitude Award, the American Institute of Aeronautics and Astronautics Reusable Launch Vehicle Award and the STEM Engagement Award.

The UAH HERC team went up against 49 teams from 20 states and eight countries at the U.S. Space & Rocket Center. The UAH rover, nicknamed HERCules, was guided by a two-person crew. Rover crews were tasked with designing, developing, building and testing human-powered rovers capable of negotiating difficult terrain, as well as a task tool for completion of various mission tasks.

Both teams were funded by Alabama Space Grant Consortium, UAH College of Engineering, UAH Department of Mechanical and Aerospace Engineering, Jacobs Space Exploration Group, Women in Defense Tennessee Valley Chapter, National Space Club, UAH Propulsion Research Center, Northrop Grumman, American Institute of Aeronautics and Astronautics, National Association of Rocketry, Relativity Space, Bastion Technologies, Siemens Digital Industries Software and other sponsors.





ACADEMICS

# The VON factor WEEK OF WELCOME GREETS NEW, RETURNING STUDENTS WITH FOOD, FUN, TIPS FOR SUCCESS AS A VAN CHARGER

# WOW

asking questions and playing games as you make new friends. chowing down on lots of fine food. singing along with the UAH Pep Band to the fight song and alma mater. finding out how to land a good co-op job or a part-time gig. expressing your true self by flinging neon paint on everyone around you.

OW (Week of Welcome) is how UAH celebrates new and returning students at the start of each fall semester. The nine days of WOW 2023, Aug. 11-19, were packed with a wide variety of social and educational programs encouraging interaction among students, administrators, faculty and staff.

The WOW experience is designed to help students figure out ways to fit in and stand out as a Charger.

"They can make new connections, become acclimated with campus, refresh information from orientation, and receive a lot of Charger gear," says Nikki Goode, director of Student Life, which coordinates WOW.

WOW featured 19 Tradition Events that began with Taste of Huntsville and Chargers After Dark and ended with Service Saturday and Glow Rage Paint Party. In between were programs to address various student needs and interests, including civic engagement at This is Community and physical fitness at Rock the Rec.

Tradition Events have taken place since WOW began at UAH in August 2011. They're hosted by a variety of Student Affairs departments and sponsored student organizations.







## UAH SPRING 2023 GRAD ERIN CANNON PURSUES PHYSICAL THERAPY DREAM WITH FULL-RIDE FELLOWSHIP



rin Cannon (B.S., kinesiology, 2023) is on a fast track to becoming a leader in the world of physical therapy (PT). Not only did she get into a PT program – a highly competitive achievement – but it's paid for 100%.

On May 4, she received her degree in exercise science from the UAH College of Education's kinesiology department. A couple of weeks later, she began her post-graduate work at Tennessee State University as a recipient of the Preparing Our Tomorrow Uniquely in STEM (POTUS) Fellowship – estimated annual value, \$50,000.

POTUS aims to increase African American representation in science,

technology, engineering and math disciplines. Recipients "serve as research and teaching assistants, produce scholarly works and engage in professional development opportunities," according to the TSU website. They are expected "to ensure their place among the leaders of tomorrow."

At UAH, Cannon established herself as a strong leader while preparing for her PT career. She was a member of the track team for four years, and she served as an ambassador for the Office of Diversity, Equity and Inclusion. Last fall, she devoted more than 200 hours to UAH's Early Learning Center, working with 2-year-olds, some of whom had cerebral palsy or spinal issues.

# 2023 GRAD ELLA JAMES TO CONTINUE PHYSICS STUDIES AT UAH WITH NDSEG FELLOWSHIP

Ila James (B.S., physics, 2023) has been awarded a National Defense and Science and Engineering (NDSEG) Fellowship, which she will use for graduate studies at UAH.

The fellowship pays full tuition and required fees (excluding room and board) as well as a monthly stipend and health insurance.

James says her graduate research in physics will concentrate in optics, likely quantum entanglement. This phenomenon involves two photons that are somehow linked no matter how far apart they are.

"If you do something to one particle, it instantly changes the other. Optical communications can only travel as fast as light can. So, how can photons that are 100 light-years away from each other instantly communicate?"

No one has answered that question yet, but the answer isn't necessary to make the phenomenon useful.



"Using the fact that they are able to communicate instantly," she explains, "that will help create secure quantum computers."

The NDSEG Fellowship was established by Congress in 1989 to increase the number of U.S. citizens receiving doctoral degrees in science and engineering disciplines of military importance. The highly competitive program has awarded nearly 4,700 fellowships from more than 70,000 applications.

# UAH GRADUATE STUDENT NEIL LAYA RECEIVES NSTGRO FELLOWSHIP

eil Laya (B.S., aerospace engineering, 2022) has received a NASA Space Technology Graduate Research Opportunities (NSTGRO) Fellowship to help pursue his goal of revolutionizing space travel.

"This is a huge deal for me. It means I'm funded for four more years," says Laya. "I had started in my master's program. Getting this fellowship has allowed me to begin pursuing my doctorate."

The NSTGRO Fellowship is sponsored by NASA's Space Technology Mission directorate to help U.S. citizen and permanent resident graduate students "contribute to NASA's goal of creating



innovative new space technologies for our nation's science, exploration and economic future," according to the NASA website.

Laya's research involves magnetic reconnection, a physical process occurring in highly conducting plasmas in which magnetic energy is converted to kinetic energy, thermal energy and particle acceleration to produce thrust for space propulsion. "The specific system that I'm working on has the potential, if given enough power in space, to become one of the highest-performing propulsion systems out there in terms of balancing high Isp, which is specific impulse, and the thrust levels."

Laya works in UAH's Plasma and Electrodynamics Research Lab. ■

UAH WELCOMES 40 NEW FACULTY MEMBERS TO CAMPUS WITH THE START OF FALL SEMESTER 2023 orty new associate and assistant professors, instructors and lecturers joined the faculty at The University of Alabama in Huntsville with the start of the fall 2023 semester on Aug. 14.

The College of Nursing welcomed the most new faculty members with 10, closely followed by the College of Science with nine. There were seven in the College of Arts, Humanities and Social Sciences; four each in the College of Business and the College of Education, and six in the College of Engineering.

"We are excited that these new faculty members chose to join an amazing group of colleagues," says Dr. David A. Puleo, provost and executive vice president for academic affairs at UAH.

"We are invested in their success and look forward to supporting their engagement in UAH's academic learning and scholarly environments. Through their teaching, they will positively affect the course of their students' lives, and through their scholarly and creative activities, they better the community and the world."

# Giving that Grows

our gift today will plant the seeds for tomorrow. Choose how you want to give, whether it be general beguests, retirement beneficiary gifts, gifts of stocks, charitable IRA rollovers, donor advised funds or life insurance gifts.

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Established in 1956, UAH Foundation, a 501(c)(3) nonprofit organization, supplements the university's fundraising activities. Tax-deductible gifts to UAH Foundation advance the UAH mission to explore, discover, create and communicate knowledge.

When you include UAH Foundation in your will or estate plan, you join other supporters and friends as members of the Richardson Shaver Thrasher Society, which honors those who plant the seeds of UAH's future.

You can cultivate your passion to give back in a way that empowers you, your family and UAH.

Visit uahlegacy.org to learn how leaving a legacy can help support the causes you care about the most.

"We have chosen to establish a legacy fund to provide ongoing aid for the JoAnn Sloan Memorial Scholarship. This will perpetuate JoAnn's spirit, enthusiasm and passion for nursing by supporting and empowering future medical providers' academic and career goals by reducing some financial burdens."

- JOE AND BETH SLOAN

THERE ARE BENEFITS TO GIVING: It's personal; you choose the college, department, program, sport or other

- It's **easy**; it requires no complicated arrangements, and you don't have to
  - It's **advantageous**; it could yield tax be wealthy to do it.
  - deductions, relief from capital gains or even an income stream. It's **flexible**; gifts can co-exist with other >
    - beneficiaries and personal priorities, and you can always update the plan if your philanthropic goals change. It's enduring; you leave a legacy that ensures UAH's students and our
      - community continue to succeed.

THE UNIVERSITY OF ALABAMA IN HUNTSVILLE

> OFFICE OF DEVELOPMENT

# UAH FALL CAREER FAIR ATTRACTS MORE THAN 135 COMPANIES, APPROXIMATELY 1,000 STUDENTS AND ALUMNI



top goal of getting a quality education is finding a good job. UAH helped connect currently enrolled students and alumni in all majors with prospective employers during the fall Career Fair on Aug. 30 at the University Fitness Center.

More than 135 companies were represented with booths at the Career Fair, and approximately 1,000 UAH students and alumni participated. The event featured employer-led information sessions and workshops as well as workshops presented by UAH Career Services.

Nearly 75% of UAH graduates remain in Alabama to fuel the state's workforce. According to Payscale, UAH graduates rank No. 1 in Alabama for both early career pay (\$71,000) and mid-career pay (\$127,000).

UAH Career Fairs are held once at the beginning of each fall and spring semester.

Along with supporting the Career Fairs, UAH Career Services offers a variety of support services to UAH students and alumni, including resume building and review, interview preparation, networking assistance, and comprehensive education and career planning. The office also serves as a repository for employment, internship, and co-op opportunities, connecting job seekers with federal, private-sector and nonprofit organizations.

# Scientists and Engineers

Currently Recruiting Electrical Engineers Rechanical Engineers Aerospace Engineers Sputer Engineers



# **GOING WITH THE GOLD!**

# UAH CELEBRATES INTERNATIONAL DAY OF UNIVERSITY SPORT, ADVANCED HEALTHY CAMPUS CERTIFICATION

ven before UAH celebrated the International Day of University Sport (IDUS) on Sept. 20 across campus, the university was already basking in the glow of a big win. UAH achieved Gold certification from the Fédération Internationale du Sport Universitaire (FISU) as part of the organization's Healthy Campus program. UAH is the first university in the United States to reach this level.

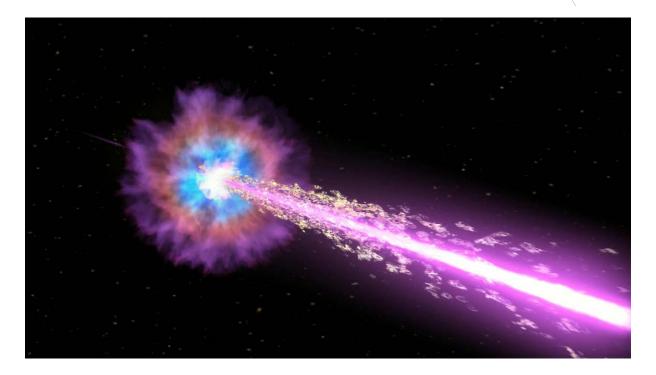
The Healthy Campus initiative aims to enhance student and campus community well-being by providing opportunities for all students to participate in physical activity for their health. The program addresses seven Healthy Campus domains, including healthy campus management; physical activity and sport; nutrition; disease prevention; mental and social health; risk behavior, and environment, sustainability and social responsibility.

The program organizes these domains into a series of administrative, physical and mental well-being activities – 100 separate criteria in all. After the second year in the program, each participating university receives a certification status depending on the number of validated criteria achieved. "This year's event celebrates UAH's Gold status in the International University Sports Federation Healthy Campus certification, which means we have achieved certification in 81 out of 100 items," says Dr. Noemi Zaharia, a clinical assistant professor and program coordinator, sport and fitness management, in the UAH Department of Kinesiology.

"In addition to being the first and only university in the U.S. to achieve this certification, UAH is also one of only nine universities in the world to have achieved it since we began the program last year. Only 61 of the 127 universities that signed up to get certified have achieved various levels of certification. The highest level of certification is Platinum, which requires approval of 91 items."

UAH first celebrated IDUS in October 2022 with sporting events organized by the Sports and Fitness Management Club.

"The day has now evolved into a multifaceted event," Zaharia says. "It includes a wellness fair where various university departments showcase and share the valuable resources available to students, faculty and staff, as well as individual and team competitions and open practices conducted by the athletic department."



# UAH RESEARCHERS FIND BRIGHTEST GAMMA-RAY BURST ON RECORD

hree researchers associated with the UAH Center for Space Plasma and Aeronomic Research (CSPAR) have discovered the brightest gamma-ray burst (GRB) ever observed. Located approximately 2.4 billion lightyears away in the constellation Sagitta, GRB 221009A is believed to have been triggered by the collapse of a massive star. It was accompanied by a supernova explosion, giving birth to a black hole.

"We expect to see one like this only every 10,000 years or so," says Dr. Peter Veres, an assistant professor with CSPAR.

He collaborated on the discovery and analysis of the burst with Dr. Michael S. Briggs, CSPAR principal research scientist and assistant director, and Stephen Lesage (M.S., space science, 2021), a UAH graduate research assistant. They operate the Gamma-ray Burst Monitor (GBM), an instrument in low-Earth orbit aboard the Fermi Gamma-ray Space Telescope. The monitor can see the entire gamma-ray sky not blocked by the Earth.

"We routinely detect GRBs at a rate of about five per week and keep an eye out if any of the GRBs are special in some way," Veres says. "This one was so bright, the instrument couldn't keep up with the large number of incoming photons. Most of the work, led by Stephen Lesage, was to figure out how to reconstruct the lost counts."

The development of the monitor and analysis of its data are a collaborative effort between the National Space Science and Technology Center in the U.S. and the Max Planck Institute for Extraterrestrial Physics in Germany. It is managed at NASA's Marshall Space Flight Center in Huntsville. The monitor has discovered more than 3,500 GRBs, and 221009A is by far the brightest ever detected.

"During a GRB, we see the death of a massive star, approximately 30 times more massive than the sun, and the formation of a black hole," Veres explains. "The black hole launches a very fast jet close to the speed of light, and the jet will produce the gamma-ray burst.

"At later times, GRBs are visible at other wavelengths as well, from radio or optical through very high-energy gamma-rays, which is called the afterglow of the GRB. This GRB was so bright, the afterglow showed up in the Gamma-ray Burst Monitor, which is very uncommon, and we could follow it for almost three hours."

GRB 221009A is also one of the nearest and possibly most energetic GRBs ever found, as detailed in an upcoming paper for a scientific journal. UAH Showcases AI, Cybersecurity, Directed Energy, Aerial Systems, more at 2023 SPACE & MISSILE DEFENSE SYMPOSIUM

NSIVE

he Alabama State Legislature recently passed one of the most significant appropriations in UAH's history, funding for the \$24.4 million Center for Cybersecurity Research, Education, and Advanced Training, that better positions the university to fulfill Huntsville's STEM workforce needs.

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**RANKED** GRADUA PROGRA

Among the Be

UAH highlighted its extensive capabilities in cybersecurity as well as artificial intelligence, directed energy, information systems, rotorcraft systems, supply chain management and hypersonics during the 2023 Space and Missile Defense (SMD) Symposium at the Von Braun Center in Huntsville Aug. 8-10.

The annual symposium brings together the top government and industry leaders in space and missile defense, and is the leading educational, professional development and networking event in the space and missile defense community, widely attended by leaders and professionals from the United States and allies around the world.

"UAH faculty, researchers and students embrace the challenges on display at the Space and Missile Defense Symposium," says Dr. Robert Lindquist, UAH vice president for research and economic development. "The partnerships created between UAH and the SMD community provide local opportunities that have global impact and help develop a high-quality technical workforce that drives a growing economy."

JG

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Throughout the symposium, experts were available to discuss three major units located at the university.

UAH research regularly ranks among the top 20 universities in research funded by NASA and by the Department of Defense. UAH also performs cutting-edge research for the National Science Foundation, the National Oceanic and Atmospheric Administration, the Department of Energy and the National Institutes of Health.

The UAH Graduate School has more than 70 degree, certificate and interdisciplinary programs.

The UAH Office of Professional and Continuing Education (OPCE) offers mission-ready and responsive professional development in a variety of flexible formats, including online, in-person and hybrid programs to make professional learning convenient. UAH's professional network consists of subject-matter experts, researchers and leaders at the forefront of technological advances. The OPCE serves federal government, business enterprise, individual learners and UAH affiliates with Commercial Off-the-Shelf programs, customized training, symposium logistics and independent courses.

## Congressman visits UAH cybersecurity center, views donated flight simulator

S. Rep. Dale Strong visited the UAH Center for Cybersecurity Research and Education (CCRE) on Aug. 10 to view a flight simulator donated by CACI International Inc. The simulator will be used to demonstrate the principles of cybersecurity.

Alabama's District 5 congressman expressed appreciation for the leadership of UAH President Dr. Charles Karr and the support of the University of Alabama System (UAS) Board of Trustees:

"Without UAH, this community wouldn't be what it is today. Dr. Karr is invigorating this university. The UAS Board has been phenomenal, and their help to UAH is great. People need to know who we are and where we are, and that is Huntsville."

The flight simulator is a Federal Aviation Administration-approved Redbird King Air 350 Advanced Aviation Training Device. CACI used it to provide scenario-based training to more than 100 pilots before deployment to Afghanistan. The company said it was glad to help develop the cybersecurity workforce of the future by giving the machine a second life at UAH. With NASA's Marshall Space Flight Center, various Department of Defense contractors and an extensive medical establishment, the Huntsville area needs a strong cybersecurity workforce. UAH is meeting the need with one of the largest academic cybersecurity centers in the United States.

The CCRE offers an interdisciplinary approach to defending networks, data and computer operating systems from adversarial attacks. In addition to providing educational opportunities such as camps and scholarships, the center also engages in cutting-edge research on a wide variety of cybersecurity-related topics, including identity management, supply chain security, intrusion detection, vulnerability analysis, medical device security and digital forensics.

UAH currently holds the designations National Center of Academic Excellence in Cyber Defense and National Center of Academic Excellence in Cyber Research, both awarded by the National Security Agency in cooperation with its federal partners.

# Save the Date!

FRIDAY, DECEMBER 8 UAH STUDENT SERVICES BUILDING

Join us for **Holiday Jazz** featuring student and faculty talent from the UAH Department of Music, Theatre and Film.

Ticket information will be announced in early November.



The University of Alabama in Huntsville

COMMUNITY

**Lead** Able. View of the second secon



# FROM PARACYCLING TO BEEP BASEBALL, ABILITY SPORT NETWORK AIMS TO HELP EVERYBODY PLAY

he Ability Sport Network (ASN) at UAH is all about fun and games – but there's a serious purpose behind its activities.

"People with disabilities are underserved in terms of sport and physical activity," says Dr. David Kyle, UAH's network director and a clinical assistant professor in the Department of Kinesiology in the College of Education.

He's also a former athlete with a disability. He did para-triathlon for about 10 years before working with ASN, which focuses on middle and high school students with functional limitations based on physical disabilities.

"Poor health comes not so much from the disability but from the lack of activity," Kyle says. "It is a public health issue. We want people to have a better life and to be healthy, and we use sport and games as a tool to provide that."

ASN at UAH received a big boost in 2023: a \$58,200 grant as the sole sponsor of Alabama's adapted youth sport league focusing on Paralympic sports. UAH had been receiving a portion of the state's ASN funding each year since 2016. The grant comes from the Alabama Education Trust Fund through the Alabama Commission on Higher Education.

The grant means ASN can offer more specialized wheelchairs for wheelchair basketball, more electronic balls for beep baseball and more sports options for the community.

"The equipment is so expensive," Kyle says. "One wheelchair – \$3,000. The beep baseballs, the beep kickballs, those are about \$50 a piece, and they're very temperamental. I had four brand new ones, and they all got destroyed just within one event."

Along with several wheelchair basketball practices this grant cycle, ASN at UAH presented two big events on campus this spring: Adaptive Cycling Community Day and Development Clinic with coaches and a mechanic from the U.S. Olympic/Paralympic Committee on May 21 and beep baseball with the Alabama Institute for Deaf and Blind on June 5-6.

ASN held a boccia clinic on July 22 at the Optimist Recreation Center in partnership with Huntsville Parks and Recreation. Boccia, a Paralympic sport, is a precision ball sport originally designed to be played by people with cerebral palsy. A bowling type of game involving strategy and accuracy, boccia is played sitting down in a wheelchair or regular chair.

ASN also offers professional development training workshops to show others how to share the fun. It provided training for Athens City Schools in April and for Florence City Schools in August and held two state workshops at Athens State University in July.

"We focus on P.E. teachers, coaches and adapted P.E. teachers," Kyle says. "Sometimes it's para-professionals we work with. We've done professional development for Huntsville Parks and Rec."



# ALUMNI OF ACHIEVEMENT, OUTSTANDING YOUNG ALUMNI AWARDS HONOR SEVEN UAH GRADUATES

he UAH Alumni Association honored seven graduates at the Alumni of Achievement Awards Dinner on Sept. 21 on the UAH campus during Alumni Weekend 2023. The Alumni of Achievement Award recognizes graduates from each academic college, and the Outstanding Young Alumni of Achievement Award is presented to a graduate age 40 or younger.

- Kevin Long, College of Business (B.S.B.A., management, 2012)
- Dr. Jeff Sparks, College of Science (M.S., chemistry, 2005; Ph.D., biotechnology, science and engineering, 2007)
- Dr. Erin Davis Doggette, College of Education (B.A., English, 2006; M.A., English, 2009)
- Dr. Ellise D. Adams, College of Nursing (B.S., nursing, 1983)
- Dr. Kimberly Robinson, College of Engineering (M.S., industrial and systems engineering, 1999; Ph.D., industrial and systems engineering, 2010)
- Tammy Paltchikov, College of Arts, Humanities and Social Sciences (B.A., Slavic studies, 1992; M.A., public administration, 2000)
- Dr. Albert Patterson, Outstanding Young Alumnus (B.S., mechanical engineering, 2013; M.S., industrial and systems engineering, 2014)

# Cody Jones uses communication skills to help move Artemis mission forward

STORY BY: LANE POLAK/NASA | POSTED: NASA.GOV

ody Jones (B.A., communications, 2011) never imagined a career working with rockets when he was pursuing his degree in communication arts at UAH, but one of his professors did.

That professor urged him to apply for an internship working as a payload communicator in the International Space Station Payload Operations and Integration Center at NASA's Marshall Space Flight Center. The position was intended for someone with a technical background, but Jones' communication skills, persistence and willingness to learn about the aerospace industry got him the job.

Jones' success in that initial role led to his current position as project manager for the ICPS (interim cryogenic propulsion stage) for NASA's SLS (Space Launch System) Program, managed by Marshall. It will help NASA land the first woman and first person of color on the moon under Artemis. "I deliver messages across the program to different tiers of individuals," he says, "but along the way I try to prevent the message from getting watered down. I also work with the contracting partners to ensure that our team at Marshall has the resources and help that they need."

Jones also is responsible for visiting numerous manufacturing sites. The ICPS is made up of more than 6,500 components that require testing and review before being integrated with the stage.

"I review every last detail to make sure that the hardware we're adding meets the requirement."

He appreciates the human components, too.

"My goal is to make everyone feel comfortable to ask whatever they want so that they get the answers they need."

AH alumnus Michael Wicks (M.S.E., mechanical engineering, 1994) was one of six honorees inducted in the 2023 class of the Alabama Engineering Hall of Fame on Feb. 25 at the Renaissance Montgomery Hotel and Spa.

Wicks' career has been devoted to providing innovative engineering and technical services to the nation's defense, both as a United States Army civilian and as a private contractor for the Department of Defense.

As a successful business owner and entrepreneur, Wicks founded Summit Research Corporation and i3. Later, he joined Houston-based Diakonos Research in 2022 as its president and is leading the company's development of state-of-the-art cancer immunotherapies.

"As a UAH graduate student, Mike led a team of 10 students who won first place in the AIAA Missiles System Design Competition in 1994," says Dr. Robert Frederick, director of the UAH Propulsion Research Center. "This work involved designing a multi-mission missile, estimating production costs and putting together an organization structure for a company to build the missile system.

"Mike demonstrated his leadership and technical abilities though this achievement, and he has continued to excel throughout his remarkable career. Mike has been an avid supporter of the UAH Propulsion Research Center."



ALUMNI

UAH alumnus Michael Wicks inducted into Alabama Engineering Hall of Fame



## ATHLETICS



## UAH ATHLETICS HALL OF FAME INDUCTS SEVEN NEW MEMBERS

The UAH Department of Athletics welcomed seven new members into the UAH Athletics Hall of Fame during the 2023 Hall of Fame Induction Ceremony on Sept. 23:

- LENNIE ACUFF | MEN'S BASKETBALL COACH | 1997-2019 Career record of 437-214 with the Chargers. Four-time NABC District Coach of the Year. GSC Coach of the Year a league-record eight times.
- LANE DAVIS (B.A., PSYCHOLOGY, 2002) | SOFTBALL | 1998-2001 87 victories, 685 strikeouts, 35 shutouts and a 1.23 ERA with Chargers. Ranks second all-time in GSC record books in career no-hitters.
- ANNETTE FLETCHER | WOMEN'S BASKETBALL | 1982-1987 Ended UAH career as program's all-time leading scorer with 1,487 points; held that record until 2014. In 1986-87 season, set and still holds program records for points (655), points per game (24.3), field goals made (299) and steals (84).
- GODWIN GBENIMACHO (B.A., POLITICAL SCIENCE, 1981) | MEN'S SOCCER | 1977-1980

Program's career leader with 30 assists, while also scoring 27 career goals to rank eighth in program history with 84 career points. Member of UAH's 1978 NAIA Championship runner-up squad.

DEREK PUPPA (B.S., CHEMICAL ENGINEERING, 2000) | HOCKEY | 1992-1996

Ranks in top three of program's career records for goals against average (2.73), save percentage (.911), games played (94), minutes played (5,291), saves (2,480) and shutouts (7). Member of UAH's 1994 NCAA Division II Championships runner-up squad.

- TANYA WIGLEY BROADWAY (B.A., SECONDARY EDUCATION, 1994) | VOLLEYBALL & WOMEN'S BASKETBALL | 1989-1993 Ranks in Chargers' top 10 for volleyball in kills (1,433), kills per set (2.83), hitting percentage (.259) and sets played (504). All-Gulf South Conference for volleyball in 1993.
- AUDREY WILLIAMS (B.S., MANAGEMENT INFORMATION SYSTEMS, 2002) | SOFTBALL | 1998-2001

Second Team All-American at shortstop, First Team All-South Region choice and First Team All-GSC selection in 1999, 2000 and 2001. Helped Chargers win three straight GSC tournaments in 1999, 2000 and 2001 plus NCAA South Region titles in 1999 and 2001.

## uahchargers.com

The UAH Athletics Hall of Fame was established in 2020 to honor the extraordinary accomplishments and contributions of former student-athletes, coaches and administrators.

## 2021 class

- Melanie Carter (B.S., biological sciences, 2003) | softball | 2000-2003
- Jim Harris | director of athletics | 1995-2010
- Matt Jansen (B.S., chemical engineering, 2002) | baseball | 1998-2002
- Becky Stitt Plott (B.S., biological sciences, 1999) | women's basketball & volleyball | 1995-1999
- Doug Ross | hockey coach | 1985-2007
- Taso Sofikitis (B.S., business administration, marketing, 1996) | hockey | 1992-1996
- Wendy Hurst Stewart (B.A., elementary education, 2000) | softball | 1996-1999
- Tony Vann | men's basketball | 1975-1979
- Erin Zellers (B.A., psychology, 2009) | women's cross country & women's track and field | 2005-2009
- Tafadzwa Ziyenge (B.S., business administration, management, 1997) | men's soccer | 1993-1996

### 2022 class

- Adam Bass (B.S., finance, 2003) | baseball | 2001-2003
- Thomas Jones (B.S., management, 1991) | men's basketball | 1986-1990
- Ellen LaFiore (B.S., electrical engineering, 2002)
  volleyball | 1998-2001
- Shana Levett (B.S., marketing, 2007) | women's track and field | 2005-2007
- Stephanie Pinto (B.A., history, 2008) | softball | 2004-2007
- Kayo Willis | men's basketball coach | 1973-1984
- Kim Young Wilks | women's basketball | 2000-2002



## Celebrate 55 years of The University of Alabama in Huntsville in 2024

## "Opportunity goes where the best people go, and the best people go where good education goes."

– Dr. Wernher von Braun

In 1969, UAH officially became an autonomous university within the University of Alabama System.

Today, UAH is a Carnegie R1 top-tier research university with eight colleges, more than 100 areas of study and 17 high-tech research centers. The university achieved a record \$169.5 million in research and development expenditures in fiscal year 2022, and it has a \$615 million annual impact on the state.

Throughout 2024, UAH will highlight its historic milestones and celebrate the many people who have helped the university reach its goals and plan for future growth.





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University of Alabama System



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