



THE UNIVERSITY OF ALABAMA IN HUNTSVILLE

SUMMER MAGAZINE ISSUE 2019

CREATING A COLLEGE-TOWN EXPERIENCE



ANNOUNCEMENTS

Dr. Darren Dawson named new president



ACADEMICS

UAH introduces new B.S. in Cybersecurity



CAMPUS

Theatre majors join cast of "Romeo & Juliet"



Named a
"hidden gem" in
the Southeast

-College Raptor

Among the best
college towns in
the South

-Southern Living

A STEM school
we love in the
Southeast

-Popular Mechanics

Whether you already live in the Rocket City or you're from farther afield, we invite you to visit the UAH campus this summer and see for yourself what life is like in the Charger Nation.

Each campus visit is broken into two parts – an information session with an admissions counselor and a campus tour with a student tour guide.

The information session covers what it's like to be a part of the Charger Nation and provides you the opportunity to ask any questions you may have about the admission process, financial aid, scholarships, student life, and housing.

The campus tour features personal insight from your student tour guide and allows you to explore our beautiful 505-acre campus. Highlights include one of our suite-style residence halls, the University Fitness Center, and Charger Union.

Schedule your visit today by calling 256.824.2773 or 800.UAH.CALL, or by emailing admissions@uah.edu. You can also schedule an additional appointment with a faculty or staff member prior to your campus visit time with Admissions!

Summer campus visits are offered at the following times:

Monday
10 and 11 a.m.

Tuesday
8 a.m., 10 a.m.,
and 1 p.m.

Wednesday
8 a.m., 10 a.m.,
and 3 p.m.

Thursday
8 a.m., 10 a.m.,
and 1 p.m.

Friday
8 a.m., 10 a.m.,
11 a.m., and 1 p.m.

VISIT UAH!

Not able to visit UAH in person? Take a virtual tour instead! uah.edu/visit



2

UP FRONT

Plans are underway to transition a 58-acre tract of land adjacent to campus into a mixed-use district that will offer residents and visitors a signature “college-town” experience.



4

ANNOUNCEMENTS

UAH welcomes Dr. Darren Dawson as its ninth president, the College of Business’s accreditation is extended, and the university is designated a military friendly school.



7

ACADEMICS

A “mock hospital” experience gives nursing students the opportunity to apply their clinical skills in a high-pressure, real-world setting.



13

RESEARCH

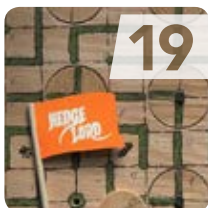
UAH will administer a \$2 million, three-year Intelligence Community Center of Academic Excellence grant awarded by the Department of Defense.



15

CAMPUS

A new ocean-themed room at UAH’s Early Learning Center provides a respite for students with sensory processing issues.



19

ALUMNI

The popular board game “Hedge Lord” is the brainchild of UAH alumna Molly Timbrook and her husband Dustin.

A COLLABORATIVE APPROACH

9

Future filmmakers learn that success starts with communication.

LAST-MILE FUND

11

A new initiative seeks to help students with unmet financial need.

A SEAT AT THE TABLE

14

Climatologist Dr. John Christy will join the EPA’s Science Advisory Board.

TAKING TO THE SKIES

17

A student-run UAV group hosts its first intercollegiate drone race.



CREATING A COMMUNITY

UAH unveils plans for campus expansion that would create a college-town experience

The University of Alabama in Huntsville has made tremendous strides during the past decade by a transition from a commuter campus into a more traditional university campus.

One element was missing — a space where students, faculty, staff, alumni and friends could have a true college experience.

That has changed with the purchase of 58 acres across Sparkman Drive from the Bevill Center, a former business park known since the 1970s as Executive Plaza.

“This property is giving us the opportunity to create a signature ‘college-town’ experience,” said President Altenkirch at a spring meeting of the Board of Trustees for the University of Alabama System.

FEATURES OF THE DEVELOPMENT INCLUDE:

- ▶ **Walkable Housing Options:** A robust offering of student housing options that provides campus-adjacent living
- ▶ **College-Town Vibe:** A lively cluster of student-focused retail, food, and beverage options that builds the college-town experience
- ▶ **Entertainment Anchors:** The district will be anchored by a new multipurpose facility that houses UAH hockey, basketball, volleyball, and events, as well as a performing arts theatre
- ▶ **Collaborative Opportunities:** Providing office space for Huntsville’s private sector, the district can increase collaboration and offer world-class job opportunities for students
- ▶ **Talent Acquisition:** Enhanced recruiting and retention of the most talented students and faculty from around the world

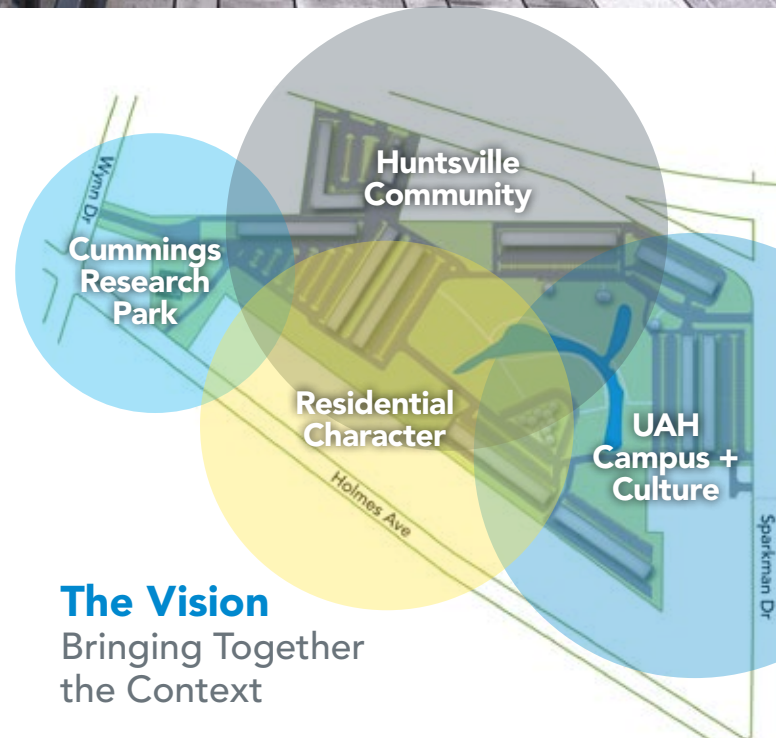


Plans for the development also include an elevated pedestrian bridge across Sparkman Drive that would provide easier access to the development. The plan calls for housing for 2,000 students as well as 170,000 square feet of ground floor commercial retail development. A 165,000-square foot multi-purpose facility would house athletics, performance arts, and community events. Another 3.5 acres would be preserved for parks and open spaces.

The school purchased land

west of Sparkman Drive in 2017 for the expansion. It is largely an abandoned office park. The project would be paid for primarily by private developers, Altenkirch said. The multi-use facility could be funded through a public-private partnership, he said.

Dr. Altenkirch said he discussed the proposed development with incoming president Dr. Darren Dawson. “Darren’s reaction was, and I quote, ‘The concept looks fantastic, especially the multi-use facility,’” Altenkirch said.



The Vision
Bringing Together
the Context



CHANGING of the GUARD

Dr. Darren Dawson, Dean of Engineering at Kansas State University, has been named UAH's ninth president and began his tenure this summer upon the retirement of Dr. Robert Altenkirch. The national search was launched last October and conducted by a 21-member advisory committee chaired by Board President Pro Tempore Ron Gray. It concluded this spring with a unanimous vote for Dr. Dawson by the University of Alabama System Board of Trustees.

"He seems like a perfect fit for UAH," says University of Alabama System Chancellor Finis St. John IV, who per Board bylaws is responsible for recommending the appointment of campus presidents to the Board of Trustees. "His background and training is consistent with the strengths here. He is extremely excited about the prospects for this university. I think it is on a platform with unlimited potential and he does, too. We've had great progress under Dr. Altenkirch. He's got it in a position to be a different place than it has ever been before. This is the campus that will be the next big story in our system."

Dr. Dawson says he and his wife Kim, who are the parents of daughter Jacklyn, a junior at Kansas State, and son David, a high school freshman, are looking forward to moving to Huntsville. "I'm gratified with the confidence demonstrated by Chancellor Finis St. John and the board of trustees in being selected as the next president of The University of Alabama in Huntsville," he says. "UAH is a well-respected, nationally recognized institution of higher learning. The

campus is enjoying momentum under Bob Altenkirch's leadership and I look forward to continuing the legacy of excellence and growth for the university."

Known for building partnerships with public- and private-sector entities, Dr. Dawson earned degrees in electrical engineering from Georgia Tech. His extensive research background includes emphasis on controls and robotics with more than \$20 million in grant and contract awards. He has industry experience with Westinghouse at the Bettis Atomic Power Laboratory.

Prior to his successful five-year tenure at K-State, during which he oversaw record enrollment and fundraising growth, Dr. Dawson served at Clemson University for 24 years in positions of ascending responsibility: Chair of the Department of Electrical and Computer Engineering, Professor, and Graduate Coordinator. During his time as department chair, research expenditures and Ph.D. enrollment more than doubled and undergraduate enrollment increased by 160 percent.

Dr. Dawson's academic awards include the NCR Undergraduate Teaching Award (1992), the Office of Naval Research Young Investigator Award (1994), the National Science Foundation Young Investigator Award (1994), the Georgia Institute of Technology Council of Outstanding Young Engineering Alumni Award (1995), the Centennial Professorship (2000), the Murray Stokely Award for Excellence in Teaching Award (2003), and the COES Collaborative Research Award (2007).

Want to know more about Dr. Dawson? The fall issue of "UAH Magazine" will include a feature-length profile about the president, his family, and his vision for UAH!

WELL-DESERVED RECOGNITION

Accreditation for UAH's College of Business has been extended by the Association to Advance Collegiate Schools of Business (AACSB) for another five years, a distinction that has been earned by only 5 percent of the world's schools offering business degrees at the bachelor level or higher.

"This extension of accreditation reflects our commitment to excellence in providing outstanding undergraduate and graduate business programs that serve the needs of Huntsville, our state, and beyond," says Dr. Jason Greene, dean of the college. "We are proud



that AACSB has again recognized our faculty and staff for their dedicated pursuit of our mission to fuel innovation in business, spark ideas through research, and launch the careers of our students."

Founded in 1916 and synonymous with the highest standards of quality, AACSB is the longest-serving global accrediting body for business schools, and the largest business education network connecting students, educators, and businesses worldwide. Today, 831 institutions across 54 countries and territories maintain AACSB Accreditation.



HELPING SERVE THOSE WHO SERVE

UAH was designated a 2019-2020 Military Friendly® School in recognition of its efforts to help veterans make the transition from the military to school and, ultimately, to satisfying careers in the civilian world. UAH is one of just 766 schools to earn the prestigious designation this year.

"We are honored to be recognized for the services we offer our student veterans and their families and the support we provide them, from priority registration and benefits processing to our VA-Work Study Program and our UAH Veterans Network," says Brittany Howard, veterans services coordinator in UAH's Military & Veterans Programs Office. "Our student veterans are valued members of our campus community, and we take very seriously the role we play

in helping them pursue their academic and professional careers."

Military Friendly ratings are determined by using public data to assess an institution's ability to meet minimum thresholds for student retention, graduation, job placement, and loan repayment rates for all students and specifically for student veterans. This assessment is supplemented by an institution's score on the Military Friendly Schools Survey, which comprises six sections critical to helping student veterans thrive on campus and after graduation: academic policies and compliance, admissions and orientation, culture and commitment, financial aid and loan repayment, graduation and career outcomes, and military student support and retention.

MEETING A GROWING NEED

UAH's Department of Electrical and Computer Engineering and UAH's Center for Cybersecurity Research and Education (CCRE) have launched a brand-new Bachelor of Science in Cybersecurity program. This highly technical cybersecurity undergraduate degree is intended to prepare graduates for a career in cybersecurity engineering, secure software development, cybersecurity test and evaluation, offensive security, systems architecture, reverse engineering, and/or emerging cybersecurity problem-solving.

"Our new bachelor's degree in cybersecurity program is unique in the state of Alabama as it prepares students to work in cybersecurity-intensive jobs that require students to have a thorough understanding of modern computing systems from both a hardware and software perspective," says Dr. Tommy Morris, CCRE director and computer engineering professor. "They will be able to identify and mitigate computing system vulnerabilities and apply security principles and practices to the design and implementation of the physical, software, and human components of the system."

The 124-credit-hour program of study includes UAH's "Charger Success: First Year Experience for Engineers" course, foundational courses in the liberal and fine arts, laboratory sciences, mathematics, computing fundamentals, a technical elective, and the following cybersecurity courses: Introduction to Cybersecurity, Systems Security, Mobile Digital Forensics, Secure Software Development, Cybersecurity Management, Network Security, and Software Reverse Engineering. Students will also be

expected to complete a cybersecurity capstone course, in which they will work as a team to conduct and document a risk assessment for a target system and then design, implement, and test cybersecurity controls to mitigate any threats to the system.

Graduates of the program will have a thorough understanding of modern computing systems from both a hardware and software perspective; be able to identify, investigate, and mitigate computing system vulnerabilities of various types; be able to design, deploy, and configure secure computing systems and software; understand cyber ethics, cyber policy and law, cyber risk management, and human behavior relating to computing systems and operations; be able to apply security principles and practices to the design and implementation of the physical, software, and human components of the system; and be able to analyze and evaluate cyber systems with respect to security and maintaining operations in the presence of risks and threats.

Ultimately, the hope is that this new program, along with UAH's existing Master of Science in Cybersecurity program, will be able to help address the growing demand for cybersecurity experts. "Cybersecurity is a national, state, and local priority for both industry and government," says Dr. Morris. "This Bachelor of Science in Cybersecurity is a reflection of and response to that growing cybersecurity momentum and will serve both the region and the state by developing a workforce in a growing, high-technology field that historically has very high salaries."

UNDER PRESSURE

Mock hospital allows nursing students to practice rescuing “patients”

UAH’s College of Nursing takes the old adage that practice makes perfect to heart – or rather, to the hospital! Each semester, before nursing students are matched to an acute-care or in-patient facility in Northern Alabama or Southern Tennessee to complete their clinical hours, they are required to successfully demonstrate their clinical skills and reasoning in the College’s simulation hospital as part of the Leadership and Management in Nursing course.

“Our job is to ensure that each student is capable of handling a critical event,” says Dr. Angela Hollingsworth, a clinical assistant professor of nursing. “So these pressured-time simulations are wonderful because they give the student nurses a chance to stimulate their critical-thinking skills in a short period of time.”

The vision for this immersive, competency-based experience was articulated in 2015 by Dr. Lori Lioce, executive director of the College’s Learning and Technology Resource Center, in response to the College’s transition from content-based learning to concept-based learning under the leadership of its dean, Dr. Marsha Howell Adams. It was subsequently implemented by a team comprising Dr. Hollingsworth; Dr. Elizabeth Barnby, a clinical associate professor of nursing; and Dr. Mark Reynolds, a clinical assistant professor of nursing.

The course imparts selected theories of management and leadership in health-care systems, with the simulation hospital experience – known as SimDay – taking place early in the semester. “That way we can then assign them to a precepting facility that

matches their interest and abilities,” says Dr. Reynolds.

On SimDay, each student is given 45 minutes to manage three emergency scenarios in a hospital setting. “These are real-life, life-threatening scenarios to solve in real time,” says Dr. Barnby. “We serve as the off-going shift nurse and give them a report, and then we leave them there with the patient.” Whatever they encounter, however, the student has to manage the situation and save each patient within 15 minutes. “In a perfect world we’d have plenty of time and only one patient to care for, but this environment augments the reality that newly graduated nurses will endure,” says Dr. Reynolds.

Once the three scenarios have been completed, the student’s care for each patient is then evaluated by the relevant course faculty. Of course the ultimate proof of success comes once the students have graduated and are tasked with saving lives in a real hospital, not a mock one. But so far, the feedback from the College’s precepting partners has been nothing but positive. “Our students,” says Dr. Barnby, “not only rise to the level that we hold them accountable to, but they set the standard higher.”





A NEW PERSPECTIVE ON BUSINESS

Last December, five students took part in the College of Business's International Business in Asia Pacific Program. Led by Dr. Dilcu Barnes, a clinical assistant professor of management, they spent 10 days in Australia in fulfillment of MGT 450 – International Business, a course required for most business majors.

The program was hosted by Global Academic Ventures and facilitated by Dr. Nigel Bairstow, a lecturer in marketing at the University of Technology Sydney. Through lectures, assignments, and guest presentations, the students were introduced to the basic concepts of international business in the Asia Pacific Region; the key political-legal, socio-economic, and technological issues impacting international trade in the region; and the cultural and ethical challenges confronting small-medium and multinational enterprises that operate there. The course then culminated in a final project that tasked students with conducting a health check of a selected country in the Asia Pacific Region using SWOT and PESTEL analyses.

Guest presenters included Alex Lynch, Government Relations and Public Policy Manager at Google; Ingrid Thompson, Founder of Healthy Numbers; Merlin Luck, Manager, Commercial Sales at Salesforce; Peter Scrine, Business Development Director at Crescent Capital Partners; David Irving, Director of Research and

Development at Red Cross Blood Service; Nish Vithlani, CFO and Company Secretary at Costco; and Peter Kollar, Head of International Training and Development at Cruise Lines International Association; among others.

"It was an extensive list of companies that came and talked to us, giving a presentation and then leaving it open at the end for questions," says supply chain management major Courtney Fields. "It was awesome because we got to talk and mingle with people who were high up in these companies, and now we have that connection."

When they weren't learning the ins and outs of business in the region, the students were immersed in the rich cultural heritage of the city surrounding them. In addition to exploring local landmarks like the Bondi to Coogee Coastal Walk, the Sydney Opera House, and the Sydney Harbour Bridge, they participated in excursions to the country's Southern Highlands region, the Australia Walkabout Wildlife Park, and the coast of Cairns, where they snorkeled and scuba dived the Great Barrier Reef.

Now that they are back stateside, the students' focus has inevitably returned to more pressing pursuits, such as graduation. But none will forget their one-of-a-kind experience Down Under. "If you can make it happen," says accounting major Destine' Brown, "studying abroad is the best thing you can do for yourself."

A COLLABORATIVE APPROACH

▲ Dr. Joseph Watson, assistant professor in the Department of Communication Arts, recently traveled to the Lower Ninth Ward in New Orleans to complete filming on his upcoming documentary "Jazzland: Present Yet Absent."

CREDIT: Dr. Joseph Watson

If there's one lesson that Dr. Joseph Watson hopes the students in his film classes take to heart, it's that communication is an essential part of the filmmaking process. "You can't do it by yourself – you have to rely on other people," he says. "Because the arts are collaborative by nature."

He should know. After a 20-year career as a professional in the live theater and film industries, Dr. Watson went on to earn a Ph.D. in communication studies before joining UAH's Department of Communication Arts as an assistant professor. His teaching load last semester included two courses in film production and one in writing for visual media; he also serves as the faculty advisor for Charger Productions.

Dr. Watson's focus is not just on improving his students' understanding of the subject matter, however; it's also on encouraging their passion and nurturing their abilities. "I tell them, you all have talent or you wouldn't be trying to refine these skills," he says. "But my job is to help you format and structure them in more nuanced and professional ways."

This past spring, for example, Dr. Watson helped them submit an entry to the Spooky Scramble

filmmaking competition. The result was "Johnny," in which a young man receives a package intended for his creepy, clown-obsessed neighbor and ends up getting trapped in her house when he tries to return it. "We didn't win, but I didn't expect to," he says. "The point was to get screened at the festival, because it puts UAH on the map."

He's also recruited students to help with two of his own projects: "Armor of My Heart," a feature film screenplay, and "Jazzland: Present Yet Absent," a passion project he began long before arriving at UAH. The hope is that he can leverage these efforts, as well as those of his students, to bring more attention to UAH as an up-and-coming player on the arts scene.

"We already have a great theatre program, a great communication program, a great art program, and a great music program, so a great film program would complete the picture," he says. "And the way you not only recruit but retain students is by producing content and being active in the community through screenings and collaborations, both on and off the UAH campus. People have to know you're here."

In other words, it's all about communication.

UAH's animation program was named **#1 IN ALABAMA** by Animation Career Review, which just released its 2019 college rankings of the top animation school programs in the state. Congrats to our Department of Art, Art History, and Design for this superlative achievement!



From SILICON VALLEY to the TENNESSEE VALLEY



▲ Former Silicon Valley executive David Chan, who is the administrator for the Pei-Ling Chan Charitable Trust, will be teaching a UAH Honors seminar this fall.

David A. Chan left Huntsville when he was 16 to pursue his undergraduate and graduate degrees from MIT, after which he enjoyed a long and successful career as a Silicon Valley executive focused on the semiconductor and medical-capital equipment industries. So he was somewhat surprised to find a much different city than he remembered upon his return nearly 40 years later. "Every day I am amazed at the amount of opportunities – scientific, commercial and cultural – that exist in this area," says Chan, whose parents are well-known Huntsville-based philanthropists Tony and Kathy Chan.

As the administrator for the Pei-Ling Chan Charitable Trust, a family-run non-profit established in 1988 in honor of his paternal grandparents, Chan has returned to the Southeast to carry out its mission of making local, national, and global contributions, chiefly in the areas of art and education. "I'm hopeful that I will be capable of allowing the trust to continue to exist and to focus

the contributions more locally," he says, adding that he decided to make UAH his first stop. "My family has been associated with the university for almost 50 years," says Chan. "So I knew that after coming back to Huntsville, I wanted to also be part of it."

Following in the footsteps of his father, Tony, who once taught as a UAH faculty member, Chan reached out to Dr. William Wilkerson, dean of UAH's Honors College, and Dr. Christine Curtis, UAH's Provost and Executive Vice President for Academic Affairs, with an idea of sharing his technological expertise in the classroom. "After some brainstorming, the idea of teaching a seminar on practical applications of micro-controllers came about," he says. "So I really need to thank them both for developing and supporting this chance for me to contribute to the UAH community."

Chan plans to teach the course – "Rapid Prototyping with Raspberry Pi," – this fall, in his capacity as the

Honor College's first Honorary Faculty Fellow. "It is targeted to those who may not have a hardware or programming background but who would like to use single-board computers for prototyping or control projects," he says. While on campus, he will also be lending his insight into the field of systems engineering and technology with UAH's business incubator, the Innovation to Invention Center (I²C).

It's a unique opportunity Chan couldn't have envisioned before coming back home; after all, both the Honors College and the I²C are relatively new additions to the UAH campus. But as he and many others are learning, the Rocket City has steadily been making a name for itself as a high-tech hotspot over the last decade. "I spent the last 30 years in Northern California," he says, "and honestly, a motivated individual will find as much, if not more, opportunities and success here as in Silicon Valley."

NAMED AMONG
THE NATION'S "NEW
SILICON CITIES"

- WALL STREET JOURNAL

#2 ON THE LIST OF
UP-AND-COMING TECH
HOTSPOTS BEYOND
SILICON VALLEY

- LIVABILITY.COM

#1 ON THE LIST OF THE
BEST PLACES TO LIVE
IN AMERICA'S NEW
TECH HUBS

- TRULIA



Join us in celebrating Dr. Robert Altenkirch's extraordinary contributions during his tenure as president by supporting the UAH Last-Mile Fund!

For almost a decade, Dr. Altenkirch has made it his mission to ensure that as many students as possible have the opportunity to earn their degree from UAH. With his departure, we hope to carry on this remarkable legacy with an exciting new initiative to help some of our most deserving undergraduate students get the help they need to cross the finish line and embark on a successful future as a UAH graduate.

INTRODUCING THE UAH LAST-MILE FUND!

Two-thirds of UAH's undergraduate students receive financial aid, yet even after working one or more jobs to make up the difference, a significant number end up leaving UAH within a year of graduating because of unexpected financial setbacks. The UAH Last-Mile Fund is intended to help those students meet their financial obligations so that they can focus on earning their degree instead of balancing their bank account.

This year's inaugural effort honors UAH's 50th anniversary. Funds will be disbursed to eligible upper-level, degree-seeking, undergraduate students who have completed the annual UAH Scholarship Application, with preference given to seniors who have demonstrated satisfactory progress toward graduation and whose financial status reflects the greatest need.

We hope you will take this opportunity to help deserving undergraduate students achieve their dream of earning a UAH degree – and in the process, add to the value that a degree from UAH conveys. However much you choose to donate, know that your support will make a meaningful difference today – and ensure that Dr. Altenkirch's legacy of making UAH more accessible will continue to endure long after.

HERE ARE THE WAYS TO GIVE:

- ▶ **Mail:** Use the attached envelope to mail your check, made out to The UAH Foundation, to UAH's Office of Development. Be sure to include "The UAH Last-Mile Fund" on the memo line with college designation if desired.
- ▶ **In Person:** Bring your check, made out to The UAH Foundation, to UAH's Office of Development, Shelbie King Hall 316A, Huntsville, AL 35899. Be sure to include "The UAH Last-Mile Fund" on the memo line with college designation if desired.
- ▶ **Online:** Visit uah.edu/giving. Choose your gift designation, and then click on the yellow "Give Online" button.
- ▶ **Phone:** Call 256.UAH.GIVE to give by credit card or to make a pledge.

AGE IS MORE THAN A NUMBER

Today's workforce now comprises four distinct generations, which offers both challenges and opportunities to companies



▲ Dr. Pavica Sheldon, chair of UAH's Department of Communication Arts, conducts research in the area of social media and communication about body image. She is the author of the 2015 book "Social Media: Principles and Applications" and the co-author of the forthcoming book "The Dark Side of Social Media."

When it comes to diversity in the workplace, "a lot has changed – not only with technologies, but also with world events," says Dr. Pavica Sheldon, chair of UAH's Department of Communication Arts. "Younger workers grew up witnessing a lot of social movements like Black Lives Matter and Occupy Wall Street, and events post-9/11."

Diversity has also become more situational, with workplace diversity serving as a prime example. There are currently four generations working together: baby boomers (1946-1964), Gen Xers (1965-1980), Gen Yers or millennials (1980-1996), and Gen Zers or zappers (1996-current). "All these generations have different work preferences and skills, especially when it comes to technology," says Dr. Sheldon. "Gen Yers make up the largest percentage at 35 percent of the workforce today, and Gen Xers follow."

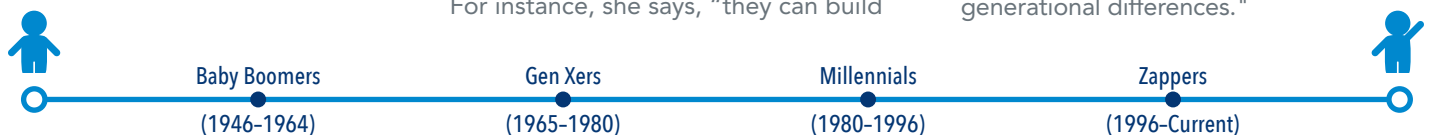
In addition to these distinct generations, there are also "digital natives" and "digital immigrants" to consider. "Digital natives are younger millennials and zappers, who are shaped by technology from birth. They are what we call tech innate," she explains. "Technology influences how they communicate. They value speed over accuracy and they multitask, spending more time on online social networks compared to digital immigrants." Although often criticized for shorter attention spans and a lack of focus, digital natives are very creative. For instance, she says, "they can build

apps and games without coding."

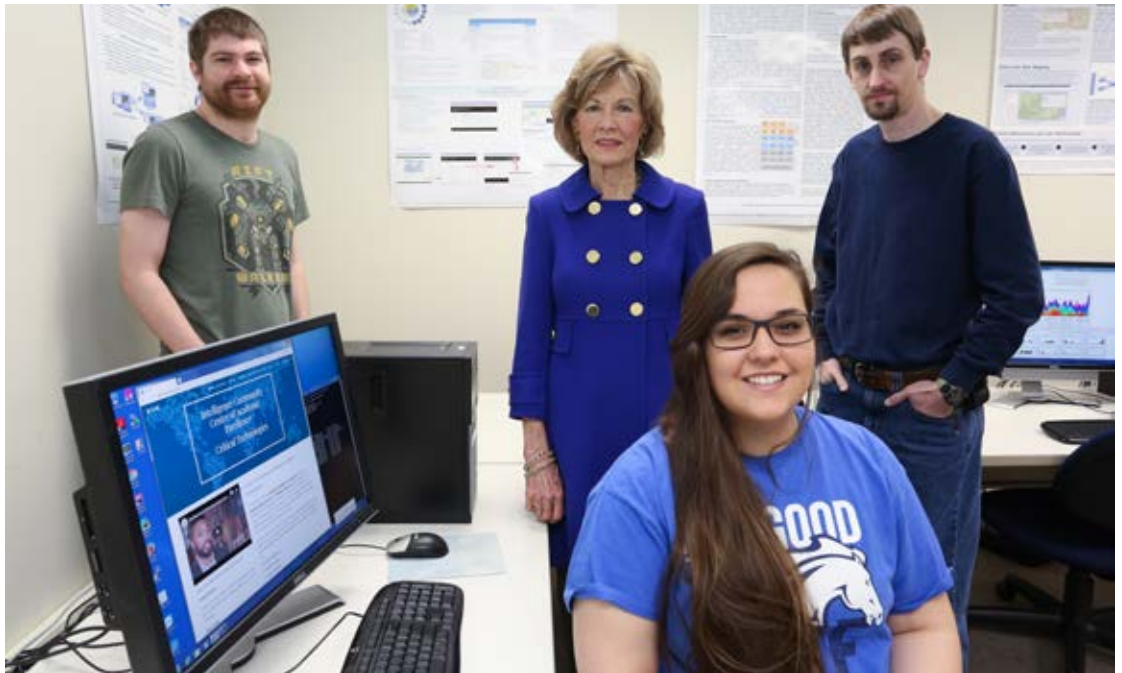
There are many pros and cons for employers to seriously consider when it comes to hiring the best person for the job. "Mature workers can be good mentors, as younger workers – especially millennials – expect a lot of feedback," she says. "If they feel dissatisfied or emotionally exhausted, millennials and other young workers are more likely to quit their job." But while baby boomers may be more experienced, disciplined, and loyal, they pose other challenges to employers, like not always being able to keep up in a tech-savvy world. "Millennials are true techies. In fact, Gen Xers are not as tech-savvy as millennials or even zappers," says Dr. Sheldon, explaining that, while millennials typically communicate by texting, zappers rely more on images.

Another interesting takeaway from the research is that younger generations tend to perceive social pressure from superiors more acutely than older generations do. "Because they grew up with social media, they are used to some kind of approval, for instance, 'likes' on social media," she says. "The communication style of younger workers is more direct; they expect honest and open discussion. I see this in the classroom as well."

Overall, however, a multigenerational team can be seen as more of an asset than a liability to companies. "Research shows there are more similarities than differences among generational cohorts," says Dr. Sheldon. "The key is to value generational differences."



▶ IC CAE Scholar Corinne Peacher, front, and research scientists Jason Toone, left, and Charles Collins, right, with Dr. Sara Graves, center, in the IC CAE laboratory.



INVESTING in INTELLIGENCE

UAH's Information Technology and Systems Center will administer a \$2 million, three-year Intelligence Community Center of Academic Excellence grant awarded by the Department of Defense

A consortium comprising UAH, Alabama A&M University, and Tuskegee University was awarded a \$2 million, three-year Intelligence Community Center of Academic Excellence (IC CAE) grant by the U.S. Department of Defense.

UAH's Information Technology and Systems Center (ITSC) will administer the grant, which provides funding to develop curriculum in critical technologies, enhance faculty expertise, and prepare students for careers in the intelligence community.

"The IC CAE program benefits UAH by providing training for faculty in emerging areas of computer science; new opportunities for UAH students to acquire skills in high-demand critical technologies; and opportunities for

increased research collaboration with the intelligence community," says Dr. Sara Graves, director of the ITSC and professor of computer science.

As part of the grant, the consortium will develop an IC CAE Critical Technology Studies Program that provides the opportunity to earn credentials in critical technologies at both the undergraduate and graduate levels. Key areas of study in the program are artificial intelligence, machine learning, data visualization, computational statistics/algorithm design, and computer science analytic writing and briefing.

Students selected as IC CAE Scholars will participate in workshops and colloquia, interact with distinguished speakers, and travel

to conferences as they complete the course requirements. They will also work with faculty and research staff to conduct critical technologies research and gain the experience necessary to become eligible and competitive for internships and careers across the defense agencies. Upon completion of the program, they will be awarded IC CAE Certificates.

"The program will be evaluated based on the number of students placed in jobs with the intelligence community," Dr. Graves says. "The specialized training, internships, opportunities, and interactions with the intelligence community are expected to yield enhanced job placement opportunities within the intelligence community for students."



A SEAT AT THE TABLE

Dr. John Christy, Alabama's state climatologist and the director of UAH's Earth System Science Center (ESSC), was recently appointed to a three-year position on the U.S. Environmental Protection Agency's (EPA) Science Advisory Board by Trump administration EPA Acting Administrator Andrew Wheeler. He joins seven other experts appointed to serve on the 44-member board, which has four committees involved with agricultural science, chemical risk, drinking water, and radiation.



"The Science Advisory Board advises the EPA on the big questions about environmental protection that need scientific inquiry and how can we judge what evidence is there to establish science-based regulations to protect people and the overall environment as best as possible," says Dr. Christy, who had applied to be considered for the position. "My expertise was considered due to my climate research, so I will be speaking to that issue, but the board works on many more issues than just climate."

Like all nominees to the Science Advisory Board, Dr. Christy was vetted by the EPA for potential conflicts of interest. "In a fair, open, and transparent fashion, EPA reviewed hundreds of qualified applicants nominated

for this committee," says Wheeler. "Members include experts from a wide variety of scientific disciplines who reflect the geographic diversity needed to represent all 10 EPA regions." Those selected have committed to remaining financially independent from EPA grants during their tenures.

Dr. Christy joined UAH in 1987, after earning his M.S. and Ph.D. in atmospheric sciences from the University of Illinois. He is a distinguished professor in the Department of Atmospheric Science and the director of UAH's Earth System Science Center. He is also currently serving as the interim dean of UAH's College of Science.

Together with Dr. Roy W. Spencer, a principal research scientist at UAH, Dr. Christy has developed a global temperature data set from microwave data observed from satellites beginning in 1979. In 1991, the Spencer-Christy team was awarded NASA's Medal for Exceptional Scientific Achievement in recognition of this effort, and in 1996, they were selected to receive a Special Award by the American Meteorological Society.

Since Nov. 2000, Dr. Christy has served as Alabama's State Climatologist. In Jan. 2002, he was inducted as a Fellow of the American Meteorological Society.

**UAH is ranked #12 in federally financed atmospheric sciences
research expenditures (\$9.8M)**
- National Science Foundation

The relaxing sound of the ocean greets you as you take in the soft glow of twinkling lights and the smooth billows of white satin overhead. Sinking into the cozy hug of an oversized bean-bag chair, your mind begins to calm. You've found peace at last – that is, until the school bell rings and reminds you that you're not at the spa. You're in the calming sensory room at UAH's Early Learning Center (ELC).

Unveiled last fall, the room was made possible by the generous financial support of the Daniel Foundation of Alabama and the Boeing Company, each of whom provided a \$25,000 grant. "I had always dreamed of having a space that allows our kids to regulate their senses and be a little more ready to learn," says Deana Aumalis, ELC director. "We're beyond thankful for the funding that enabled us to turn that dream into a reality."

The sensory room is not only an integral component of the ELC's Preschool Autism Language and Social Skills program. It also allows education majors with a focus on autism spectrum disorders to gain hands-on experience in differentiated instruction, thanks to the ELC's role as a service and outreach unit for UAH's College of Education.

Pursuant to its under-the-sea theme, the room features a giant ocean mural painted by UAH alumna Theresa Cordier, a projector that displays underwater imagery, a lighted bubble tube, stackable cube lights, and a SMART Table. The pièce de résistance, however, is a sensory swing that was designed and built by UAH students in Dr. Christina Carmen's two-semester product-realization course.

"While there have been various industry customers for my student teams over the years, none has been more exciting to work with than Deana Aumalis, the ELC teachers, and their precious students," says Dr. Carmen. "The best part is knowing that they will be able to use and benefit from the product."

Fortunately, there are plenty more opportunities for Dr. Carmen and the ELC's other community partners to provide support going forward. Among other plans in the works, Aumalis is hoping to create an active sensory room for those children who seek sensory stimulation rather than relaxation. "Our calming sensory room has been such a great success," she says. "Now I would like to be able to replicate that and help even more children experience the social, cognitive, physical, and emotional growth essential to a high-quality education."

TRANQUILITY BASE

CALMING, OCEAN-THEMED ROOM PROVIDES A RESPITE FOR THOSE WITH SENSORY PROCESSING ISSUES



▲ The ELC's ocean-themed sensory room is an integral component of its Preschool Autism Language and Social Skills program.



▲ The room's sensory swing was designed and built by engineering students in Dr. Carmen's two-semester product-realization course.

TODAY'S STUDENTS, TOMORROW'S LEADERS

Engaging with the community to advance business and business education is not just an aspiration for UAH's College of Business. It's also one of four carefully selected goals detailed in its strategic plan, "Establishing New Frontiers in Business."

"We want to engage with area high schools and community colleges, and be a visible sponsor of business-related activities in the community," says Dr. Jason Greene, who as dean of the College recently oversaw the extension of its AACSB accreditation for another five years.

To execute this goal, he began by approaching business leaders in Decatur to propose a high school-based entrepreneurial initiative he had been involved with before coming to UAH – the Creating Entrepreneurial Opportunities (CEO) program. Operated by the Midland Institute for Entrepreneurship, it provides business, school, and community leaders with curricula, training, and operating support to establish and launch entrepreneurial education programs in their local school districts. Students who are selected for the program then attend a daily class over the course of the academic year, learning from entrepreneurs and business professionals about how to start and operate a business through mentorship, collaboration, hands-on training, and networking opportunities.

The Decatur business community was immediately receptive. With Ellen Didier, CEO of Red Sage Communications

Inc., at the helm, they set to work establishing an exploratory committee with supporters across Morgan County. "There has been tremendous enthusiasm and support for the CEO program in Decatur and throughout Morgan County," says Ms. Didier. "They immediately see the value of this program in helping young people in our community start businesses."

Their first task was to secure funding. "A principle of the program is that it is offered without any cost to the local school districts, so the College was one of five seed-money donors to fund the program's launch," says Dr. Greene. "We also committed to hosting the CEO class on the UAH campus a few days each year and to having our faculty speak to the class." In addition, the team recruited nearly three-dozen individual investors willing to provide an annual donation to cover affiliated operating expenses.

Now their focus is on recruiting student participants in advance of the program's rollout this fall. Those chosen will meet each school day for 90 minutes, during which they will hear presentations from guest speakers, visit area businesses, and learn the problem-solving, communication, and collaborative skills needed to be a successful entrepreneur.

"This program isn't just helping students develop into businesspeople," says Dr. Greene. "It's helping them become more innovative, entrepreneurial, and successful in whatever field they pursue."



decided to do this race to jump-start healthy, solid competition between schools in the Southeast region, and eventually nationwide."

Instrumental in race planning and preparation, he adds, were club vice president Alex McGowan, UAH Rotorcraft Systems Engineering and Simulation Center (RSESC) Director Dave Arterburn, and RSESC Director of Unmanned Aerial Systems (UAS) Programs Jerry Hendrix.

By holding the first intercollegiate race in the region, the club hopes to establish both UAH and the AUVSI Pathfinder Student Club as leaders in the ever-growing sport. "This race has afforded us many partnerships and even a couple corporate sponsorships, which will help us grow our team and increase the scope of our club at UAH," says Roever.

In the future, the club is planning to hold drone races on the UAH campus and turn them into community-oriented events, providing a premium viewing experience of the races, as well as demos for people to try flying for the first time.

TAKING TO THE SKIES

The Association for Unmanned Vehicle Systems International (AUVSI) Pathfinder Student Club hosted its inaugural, intercollegiate, first-person-view drone race earlier this year, filling the Von Braun Center South Hall with the buzz of unmanned aerial vehicles.

"First-person-view racing as a sport is exploding in popularity right now; however, there is very little competition happening at the collegiate level," says junior computer engineering major Aaron Roever, who serves as the club's president. "We

A STAR TURN

UAH's Association of Nursing Students, a campus organization run by students in the College of Nursing, was awarded the prestigious National Student Nurses Association (NSNA) "Stellar School Chapter Recognition Award" at the NSNA's annual conference in Salt Lake City this spring.

The highest honor a chapter can receive, the award's criteria include official NSNA constituency status and chapter leadership participation, dean/director/chair and faculty support of professional development of students through NSNA, facilitating professional development and participation in NSNA, NSNA program involvement and service learning, and support of NSNA membership.

"Only four chapters from across the nation were selected this year, and we were one of them," says clinical assistant professor and the organization's faculty advisor Dr. Mark E. Reynolds, who accepted the award along with fellow faculty advisor and clinical assistant professor Dr. Donna Guerra, Dean of the College Dr. Marsha H. Adams, and several nursing students.





▶ Jer'Howard Paige (right) performed as a Capulet in the Huntsville Ballet's production of "Romeo and Juliet."

From **PASSION** to **PROFESSION**

One of the perks of being a theatre major at UAH is the opportunity to take dance classes – for free – with the Huntsville Ballet. And one of the perks of taking those classes, as freshman Jer'Howard Paige and sophomore Anoop Dharmendrakumar discovered, is the opportunity to audition for and perform with the company at the Von Braun Center Concert Hall. Both were selected for this past spring's production of "Romeo and Juliet," with Dharmendrakumar playing Tybalt and Paige playing a Capulet.

"It was a pleasure to collaborate with UAH Theatre for our production of 'Romeo and Juliet,'" says Phil Otto, the Huntsville Ballet's Artistic Director. "Both Anoop and Jer'Howard performed with elegance and style."

The students' ability to blend seamlessly with their professional counterparts during the performance's three-day run was the result of weeks of rehearsals. "It was a whole lot of practice, which was tough with classes," says Dharmendrakumar. Once the curtains rose on opening night, however, both agreed that the sacrifice was more than worth it. "It was just an unbelievable experience," says Paige. "We had no issues. We started strong and each day got stronger."

Given their successful debut, it may come as a surprise that neither Paige nor

Dharmendrakumar arrived at UAH with much experience as performing artists. "I am from a small town where we weren't really allowed to express ourselves a lot," says Paige, who was raised in Marion, Ala. "So when I got to college, I was like, something has to change!" They decided to double major in theatre and communication arts, which would allow them to pursue their passion for acting while at the same time prepare them for a professional career in journalism. Dharmendrakumar, meanwhile, enrolled in UAH as a mechanical engineering major but has since switched to become a theatre and music double major. "I just couldn't stay away from dancing!" he says with a smile, recalling a childhood spent in Bangalore dabbling in Bollywood and hip-hop.

Now, both are looking forward to spending their summer as working professionals – Paige as a prop intern and actor for "The Stephen Foster Story," and Dharmendrakumar as a dancer in the acclaimed stage drama "Unto These Hills." And they're just as excited about their long-term career prospects, given the support and encouragement they've received from the UAH Theatre Program. "I came in not knowing what I wanted to be," says Paige, "and they're helping me figure out and reach my full potential. One day, you'll see me at the American Ballet Theatre!"

▶ Anoop Dharmendrakumar's love of dance prompted him to switch from a mechanical engineering major to a theatre and music double major.



An A-maze-ing Invention



Hedge Lord, a popular handmade board game, is the brainchild of UAH alumna Molly Timbrook and her husband Dustin

Visitors to the historic Biltmore in Asheville, NC, tend to be overwhelmed by all there is to see throughout the 250-room Gilded-Age mansion and its 30 acres of manicured gardens. But after a 2017 vacation to the estate, UAH alumna Molly Timbrook and her husband Dustin were more preoccupied with what they didn't see: a hedge maze. That got them thinking about hedge mazes in general, which in turn led them to imagine what a hedge-maze board game might look like should they ever decide to invent one. "We spent the drive home to Huntsville talking about our theoretical game," says Molly, who graduated from UAH with her master's degree in English and now works as a technical writer at Hexagon Safety & Infrastructure. "And in Knoxville, we came up with a name – 'Hedge Lord'."

Once home, Dustin, a visual artist who serves as director of beautification at Lowe Mill ARTS & Entertainment Center, set about designing the artwork and technical mechanisms. The couple then spent months fine-tuning the rules of the game with the help of friends and turning their paper prototype into a final screen-printed and hand-assembled wooden version.

Molly, meanwhile, used her communication skills to write instructions for the game. "Honestly," she laughs, "writing the instructions for Hedge Lord was even more nerve-wracking than writing and editing my Capstone project!"

The game pits up to four players against each other; each takes on the person of a manor lord accompanied by a beastly avatar. "You and your lordly peers have made a dangerous wager," says Molly. "Whoever is the first to escape the mysterious maze or the last to escape attacks from the fearsome beasts will become the Hedge Lord and the inheritor of all the other lords' ill-gotten estates."

Since its debut in the spring of 2018, the Timbrooks have sold about 110 games through their company, Timbrook Toys, and are working on filling approximately 150 pre-orders. "We thought Timbrook Toys might be a fun, short-lived experience," says Molly, who along with Dustin makes each copy of the game by hand in their Huntsville home. "But now there are copies of Hedge Lord all across the country and pre-orders don't seem to be slowing down!"

Of course, it's not easy balancing a day job as a technical writer and a side job as a toymaker. But Molly's decision to earn her graduate degree before pursuing her professional career may just prove to be the key to her success. "I realized that I was not fully prepared to enter the workforce as a professional writer," she says. But now? "I feel that I am a more thoughtful, better-rounded person and writer as a result."

A TIME TO REMEMBER

In 1979, Virginia Kobler made history as the first woman to earn a doctoral degree from UAH – and one of only three women to graduate with a Ph.D. from an Alabama university. Forty years later, another historic milestone was achieved: more women than men received their UAH doctoral degrees at this past spring's commencement ceremony, which featured keynote speeches from Huntsville Mayor Tommy Battle and Chairman of the Madison County Commission Dale Strong.



ATHLETICS



WOMEN'S LACROSSE captured the program's first-ever Gulf South Conference (GSC) Championship, while boasting the GSC Player of the Year and a program-record 17 victories in the 2019 campaign.

UAH had over 200 student-athletes honored for academic success, including multiple CoSIDA Academic All-District selections.

MEN'S LACROSSE had an especially strong end to the season, winning three straight contests including its first-ever over Great Lakes Valley Conference (GLVC) rival Young Harris. A pair of Chargers earned All-GLVC status.

WOMEN'S CROSS COUNTRY finished second at the GSC Championships with a total of three First Team All-GSC performers.

MEN'S CROSS COUNTRY earned second place as a team at the GSC Championships, as the squad was paced by three All-GSC performers. Jay Day earned a berth to Nationals and is just the third runner in program history to earn an individual bid to the NCAA championships.

SOFTBALL earned its 17th straight NCAA tournament appearance after being nationally ranked throughout the entire season. The team featured four First Team All-GSC performers along with four All-South Region selections.

HOCKEY reached the WCHA postseason in consecutive seasons and the third time in program history in 2018-19, as four seniors went on to play with NHL-affiliated clubs following the campaign.

BASEBALL earned a berth to the GSC tournament for the eighth time under head coach Hunter Royer, who became the program's all-time career-wins leader this past season. The squad also featured a pair of All-GSC performers.

SOCIAL MEDIA



UAH held its spring 2019 commencement on Thursday, May 2, 2019.

<https://on.uah.edu/2JhwSn9>

Huntsville Mayor @TommyBattle declares May 8, 2019 "Dr. Robert Altenkirch Day" by proclamation.

<https://on.uah.edu/2Yst0ml>

Five UAH programs ranked among the nation's top 25 by NSF.

<https://on.uah.edu/2HkHspT>



Ever wonder about the history of UAH's team name and colors? Well, it's gone through some changes over the years...

<https://on.uah.edu/2LFmlyD>

UA System announces tuition freeze for in-state students.

<https://on.uah.edu/30h5rPw>

UAH once again receives a shoutout – this time as "a top university for NASA research funding"...

<https://on.uah.edu/2JliCtj>



MEN'S TRACK & FIELD finished second overall in the team standings at the GSC Championships, as the squad accumulated nine All-GSC honorees. Trevian Jenkins earned a berth to nationals as a 400-meter dash qualifier.

WOMEN'S TRACK & FIELD garnered second overall for the second straight season with a total of nine All-GSC performances accrued. Both Jade Johnson and Rebekah Voss will represent UAH at nationals in the triple jump and javelin, respectively.

WOMEN'S BASKETBALL posted a winning record and advanced to the GSC tournament for the first time since 2016, and Baylee Johnson became the program's seventh 1,000-point scorer on her way to being named an All-GSC performer.

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of its education and employment programs
and services.

GRAND OPENING



Alabama Gov. Kay Ivey led the June 10 ribbon-cutting ceremony for UAH's **Invention to Innovation Center (I²C)**, which was attended by elected officials, government and business leaders.

"Today, we are celebrating a new era of innovation in the city of Huntsville and the entire state of Alabama," Governor Ivey said. "I look forward to seeing the many bright ideas produced at this remarkable facility for generations to come!"

The I²C is a regional initiative that fosters, promotes, and accelerates the commercialization of technology-based ventures through incubation, co-working, mentorship, funding, and strategic support. The construction of the I²C building was made possible in part by U.S. Senator Richard Shelby, the state of Alabama, the U.S. Economic Development Administration, the Tennessee Valley Authority, the UAH Foundation, Huntsville Mayor Tommy Battle, and Madison County Commission Chairman Dale Strong.

For more information, visit uah.edu/i2c.