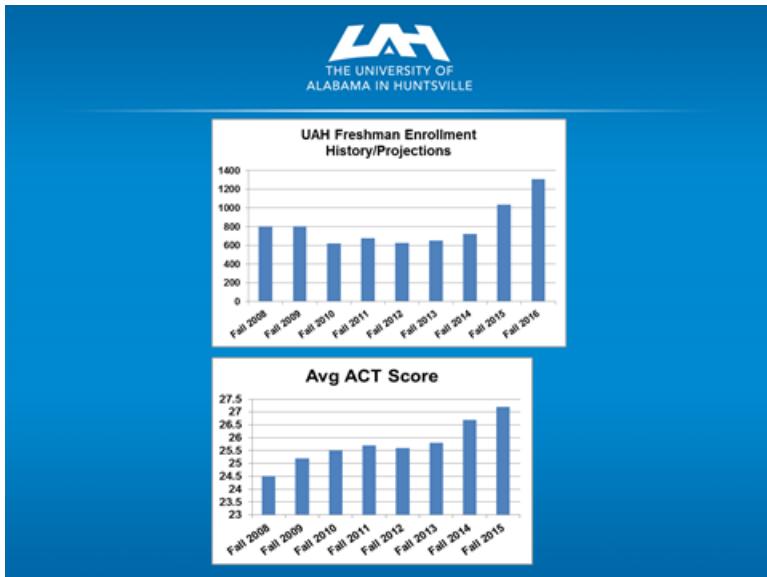


The University of Alabama Board of Trustees  
UAH Institutional Presentation  
Robert A. Altenkirch  
April 8, 2016  
Student Services Building  
The University of Alabama in Huntsville



Since September 2014 we have been working toward reaffirmation of accreditation by the Southern Association of Colleges and Schools Commission on Colleges. All the steps checked through the site visit of the Reaffirmation Committee have been completed. The Committee's report from the visit was received earlier this week, and by all accounts the visit was indeed a successful one. Our response, due August the 5<sup>th</sup>, will include follow up work to the visit regarding one standard and a response to a few recommendations regarding our Quality Enhancement Plan, Collaborative Learning.

I appreciate all the work that many did leading up to the site visit and during the visit as well. I want to particularly recognize the leadership team of Brent Wren, Associate Provost for Undergraduate Studies and SACSCOC Liaison, Provost Christine Curtis, Professor Sandra Carpenter of Psychology for serving as Faculty SACSCOC Committee Chair, Professor Al Wilhite of Economics who served as QEP Steering Committee Chair, and Ray Pinner, Senior Vice President for Finance and Administration for their hard work and guidance during the process.



In addition to a yeoman's effort on accreditation reaffirmation over the past year and a half, an equally intense effort has been put into undergraduate student recruiting under the leadership of Kristi Motter, Vice President for Student Affairs, the Admissions Staff, and extensive involvement of Christine Curtis and the Deans of the Colleges. Freshman enrollment has begun to increase and is predicted to increase further next fall and beyond.

At the same time, the average ACT score of incoming freshman has increased, to its highest level in history in fall 2015.



Strategies were put in place to accomplish both simultaneously. Establishing an Honors College under the very able leadership of Professor Bill Wilkerson of Philosophy was one such strategy. The Honors College enjoyed enrolling its largest freshman class last fall, 66% larger than the previous fall. 35% of those freshmen earned a 4.0 in fall 2015.

Honors students have recently started a Service Core and are rapidly making service a part of the Honors College culture. In less than a year, they raised funds to support Christmas gifts for children in need, painted the interior of the local Red Cross, and tutored local high school students in preparation for their Advanced Placement tests in a wide range of subjects.



The image shows the main entrance to the University of Alabama in Huntsville. A large modern building with glass windows is visible in the background. In the foreground, there is a paved driveway with a red brick wall on the left and a green lawn. Two stone pillars stand at the entrance, each inscribed with "The University of Alabama in Huntsville". The sky is clear and blue.

**JOB PROSPECTS**

THE UNIVERSITY OF  
ALABAMA IN HUNTSVILLE

Bestcolleges.com

- #33 ROI for public universities/in-state students

Payscale.com

- #1 ROI in Alabama

The Brookings Institution

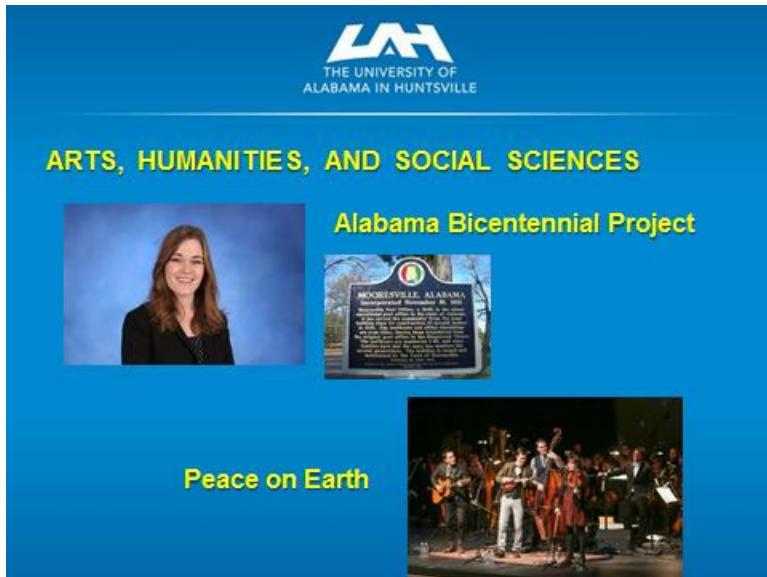
- Top 2% occupational earnings power of graduates
- Top 6% curriculum value

US Dept of Ed College Scorecard

- #1 in Alabama for median 10-yr earnings of graduates

According to a recent study conducted by UCLA, the top two reasons students choose a particular college or university to attend are a very good academic reputation and graduates get good jobs. The various rankings you see here from Bestcolleges.com, Payscale.com, The Brookings Institution, and the US Department of Education Scorecard do not go unnoticed by prospective students and their parents. And we aren't shy about pointing them out either! They undoubtedly have some impact on our recruiting in addition to the specific recruiting strategies we have implemented.

These rankings also come from the fact that the Colleges do a great job in educating students. I'd like to highlight some of our students and their accomplishments, some faculty who teach them, researchers who interact with them, and some notable College activities and events.



With Alabama just three years from its 200<sup>th</sup> anniversary, the Alabama Bicentennial Commission is laying the groundwork for a celebration worthy this milestone. Helping in that effort is Hannah Delp, a senior communication arts major and public history minor at UAH.

For the past few months, she has been interviewing residents of Mooresville, Alabama, for an oral history project to document the town's journey from its founding in 1818 to the present day.

Delp initially learned about the opportunity from Dr. John Kvach, an associate history professor specializing in public history. He suggested that Mooresville could serve as a template for other small towns across the state.

Delp has already traveled to Montgomery to present her experiences to the Commission so that they can begin expanding the project to other small towns across Alabama.

The College hosted the third annual Peace on Earth Holiday Extravaganza at the Von Braun Center on December 4, 2015. In addition to performances by the Huntsville Symphony Orchestra, the Huntsville Community Chorus Association, and the Army Materiel Command Band, the 2015 program featured special guest performers Act of Congress, a Birmingham-based “newgrass” band. Other highlights included a reading of ‘Twas the Night before Christmas by Huntsville Mayor Tommy Battle and performances by many talented UAH students and faculty.



Arinze Aginwa is UAH's Student Ambassador for Google. The Nigerian-born Aginwa is a junior majoring in business with a focus in cybersecurity. Among his responsibilities are planning and hosting Google-related events, staying up to date on new Google products and programs, acting as a liaison for Google's various teams, and helping Google understand UAH's campus culture.

Aginwa was selected through a competitive process. He said "That it wasn't about being super smart or super creative but about the ability to learn and connect with the people around you. They wanted someone who was a people person."

He went through a three-day training session at Google's corporate headquarters, the Googleplex, in Mountain View, California.

Dr. Jatinder (Jeet) Gupta has been rated as one of the top one hundred authors, #30, in production and operations management research. The findings were presented in the *International Journal of Production Research*.

Professor Gupta along with others in the College of Business Administration developed a Master of Science in Management Science in Business Analytics consistent with our Strategic Priority of being a recognized leader and nationally ranked in select areas of education and research, one of which is Cybersecurity and Big Data, of which Business Analytics is a part. Recent rankings of Big Data academic programs for 2016 by Value Colleges puts UAH's Business Analytics Program at #24 overall, the University of Chicago is #26, and #8 for online programs, UC Berkeley is #14. Great progress for a program receiving final Board approval in February 2015.



Since the late 1960s, there has been a growing achievement gap between low-income minority students and their middle-class non-minority counterparts. Despite the implementation of education reform initiatives to address this gap during the ensuing four decades, it remains today.

Dr. Monica Dillihunt, associate professor in Curriculum and Instruction, directed her research toward whether or not faith-based organizations could provide needed support and services not otherwise covered by the state.

The project drew the attention of UAH senior elementary education major Claudia Mesnil who said "I had been wanting to do research for a long time and I am very passionate about the education field so it seemed perfect." Mesnil is a bilingual native of Puerto Rico. "Being a Latina has also sparked in me a desire to help other minorities."

What they found was a wide spectrum of influencing factors, including unequal access to resources. While some states have government-funded programs in place to address the achievement gap, most do not. And that, says Mesnil, is exactly where faith-based organizations can step in and provide solutions

Our relatively new Department of Kinesiology coordinates an Ability Sport Network program associated with the Alabama Commission on Higher Education. The Network is an adapted youth sport league focusing on Paralympic sports and intended for middle and high school students with functional limitations based on physical disabilities. The purpose of the program is twofold: to encourage participation among North Alabama middle and high school students with physical disabilities in adapted physical activity, and to provide UAH students in the Department of Kinesiology with real-world experience in the oversight, maintenance, and growth of adapted physical activities and sports.



After watching her brother struggle with dyslexia, UAH student Kacey Tyra, 2<sup>nd</sup> from the left, knew the challenges facing those with a learning disability.

This led the senior mechanical engineering major to select for her Engineering Design – Product Realization course a project to develop a 3-D model of a brain that would serve as an outreach tool for visitors to Greengate, a Huntsville school for children with dyslexia. Tyra was joined by several classmates, including fellow senior mechanical engineering major Matthew Calahan, 4<sup>th</sup> from the right, who says he too was motivated by a personal connection to someone with dyslexia. During the course of two semesters, the team would be required to conduct research, design the product, named the Dyslexic Brain Display, and manufacture and test it before delivering it to Greengate.

The team presented the Dyslexic Brain Display to Greengate's staff and parents this past November to a very positive reception.

Nearly 300 national and international systems engineering researchers attended the *14th Annual Conference on Systems Engineering Research* this March hosted by UAH's Industrial and Systems Engineering and Engineering Management Department. This event occurred in Huntsville for the first time in 14 years. Aerospace and Systems Engineering is one of Strategic Plan priority areas of education and research.



The slide features the UAH logo at the top left. Below it, the word "NURSING" is written in yellow capital letters. To the right of "NURSING" is a portrait photo of a woman in a white lab coat. Next to her is the text "Electronic Nicotine Delivery Devices". Below this is a photo of five young women standing together, labeled "Bryant Bank Scholars". At the bottom left is a photo of a modern building with orange and blue panels.

Kelly Vazquez is a Master's student in Nursing. Her thesis topic is on the short- and long-term effects of the use of electronic nicotine delivery devices. She is focusing on UAH students using a Knowledge, Attitude and Practices survey, which asks recipients to answer questions about the understanding of and opinions on a particular issue. She found that while an overwhelming number of respondents were aware of electronic nicotine delivery devices, the majority did not know what chemicals were used in them. Most believed they were safer than traditional cigarettes.

This fall, the College of Nursing enrolled its first cohort into the Early Promotion into UAH Nursing Program, open to high-achieving incoming freshmen and offered in partnership with the Honors College. The program enables those who successfully complete their lower-division Nursing coursework at UAH to move on to the upper division without submitting an application for admission to upper division Nursing courses.

Pictured are 7 of the 8 early Promotion students who received Bryant Bank UAH Excellence in Nursing Scholarships that assist in supporting students in the program who meet the qualifications for the Early Promotion program, are Alabama residents, and completed high school in Alabama.



**SCIENCE**

**Gravitational Waves Detected 100 Years after Einstein's Prediction**

**Awarded the Asia Oceania Geosciences Society (AOGS) Axford Medal**

The newsletter header features the University of Alabama in Huntsville logo (UAH) and the word "SCIENCE". Below this, there are two images: one of two people (a man and a woman) sitting at a desk with a computer monitor showing a gravitational wave visualization; and another of a man standing in front of a large screen displaying the "AOGS" logo.

Shown here are Jessica Page, a graduate student in the Department of Space Science, and Dr. Tyson Littenberg, her mentor and Research Scientist in UAH's Center for Space Plasma and Aeronomics Research. They provided the LIGO team, Laser Interferometer Gravitational-Wave Observatory, operated by Caltech and MIT, with sophisticated computer algorithms to comb through data and extract physical information from LIGO detectors. UAH became a member of the LIGO team in 2015. Page and Littenberg analyzed data collected on September 14 to determine what the gravitational wave signal looked like. The existence of gravitational waves, predicted by Albert Einstein 100 years ago, had never been observed. Physicists have concluded that the waves observed were produced in the final fraction of a second of the merger of two black holes to produce a single, more massive spinning black hole. The finding completes the puzzle to Einstein's Theory of General Relativity. Bets are on that the observation will lead to a Nobel Prize for one to three scientists among the more than 1,000 people involved in the international collaboration, likely the pioneers of LIGO.

The Axford Medal is awarded in honor of Professor W. Ian Axford for, quoting the AOGS website, “developing fundamental theories for the structure of the magnetosphere, the origin of the solar wind, and cosmic ray particle acceleration.” Professor Gary Zank, Chair of the Department of Space Science and Director of the Center for Space Plasma and Aeronomics Research, received the 2015 Axford Medal, quoting the AOGS website, “for his seminal contributions to our understanding of evolution and properties of solar wind MHD turbulence, structures in the outer heliosphere, and particle acceleration and transport throughout the heliosphere.” Formation of the Department of Space Science, Jessica Page and Gary Zank’s academic department, was approved by the Board in September 2013, and the MS and PhD programs in Space Science approved in April 2015. Much progress in a short period of time. Earth, Atmospheric, and Space Science is also one of our Strategic Plan priority areas.



THE UNIVERSITY OF  
ALABAMA IN HUNTSVILLE

**VORTEX-SE**



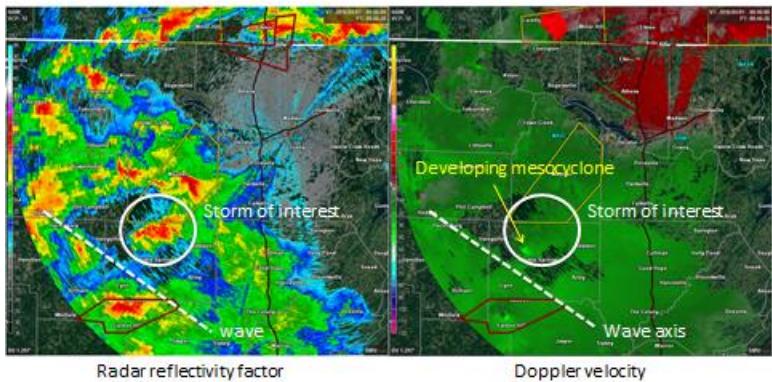
- March 1 through April 30 Field study
- 40 physical and social science researchers
- 20 research entities

**Deadly 'Dixie Alley' focus of new tornado-chasing campaign**  
USA TODAY 12:30 p.m. EST February 29, 2016



UAH's Severe Weather Institute-Radar and Lightning Laboratories, or SWIRLL, will serve as operations base for the Verification of the Origins of Rotation in Tornadoes EXperiment-Southeast, or VORTEX-SE, a research project coordinated by NOAA's National Severe Storms Laboratory. VORTEX-SE field study, set to run March 1 through April 30, will involve 40 physical and social science researchers from 20 research entities, many located in the Southeast. They will deploy approximately 13 vehicles, three mobile radars and one fixed radar from SWIRLL.

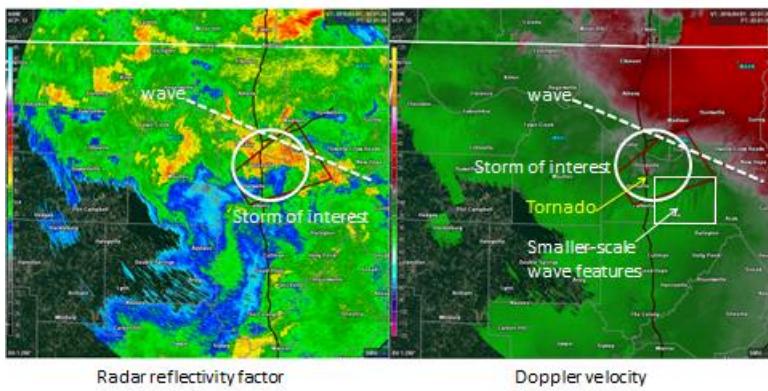
## 07:46 CDT: organizing circulation



VORTEX-SE partner Texas Tech along with UAH deployed equipment during the Hartselle-Priceville EF-2 tornado on March 31<sup>st</sup>.

Severe weather occurred near the Alabama-Tennessee line north to northeast of Muscle Shoals. A cluster of storms formed over Mississippi and moved rapidly. One storm in the cluster with large scale wave features produced the Hartselle-Priceville tornado.

## 09:01 CDT: tornado in progress



Topography appears to have influenced the tornado on short time scales and small spatial scales.

**RESEARCH**

FY14 Federal Expenditure Rankings

DoD	NASA
#15 University of Dayton	#9 New Mexico State
#16 Harvard	#10 U. of California, Santa Cruz
#17 Duke	#11 Arizona State
#18 Utah State	#12 U. of New Hampshire
<b>#19 UAH</b>	<b>#13 UAH</b>
#20 University of Pennsylvania	#14 Columbia
#21 University of Hawaii, Manoa	#15 Baylor College of Medicine
#22 University of Illinois	#16 Stanford



The University of Alabama in Huntsville logo

We continue to rank highly in federal research expenditures as reported by the National Science Foundation. In addition, if our total R&D expenditures for 2014 are normalized by the combined number of faculty and research staff, we rank 28<sup>th</sup> in the US.

We rank well in DoD and NASA funding as shown, 19<sup>th</sup> in DoD and 13<sup>th</sup> in NASA funding, and we are surrounded by pretty good company.

**OUTREACH**



**College Academy**

- Fall 2016
- Partnership with HCS
- 9<sup>th</sup>-12<sup>th</sup> Grade
- ≈ 30 per Grade
- Jemison High School
- 60 UAH Credit Hours

The University of Alabama in Huntsville logo

We are actively involved in the community and in outreach activities. The College Academy is a partnership between UAH and Huntsville City Schools. In spring and summer 2014 approximately 30 to 35 7<sup>th</sup> grade students were selected for the College Academy. These students will go through a bridge program this summer and enter the Academy as 9<sup>th</sup> graders at the new Jemision High School, which will house the College Academy. Professor Carolyn Sanders in Music will serve as Director of First Year Experience for the Academy and oversee the summer bridge program.

Each spring an additional 30 to 35 students will be selected to enter as freshmen with the steady state in all four grades reaching approximately 120. Selection is based on a student application, standardized test scores, grade point average, evidence of maturity, recommendations, and the goal of developing a diverse student body.

Courses will be taught at Jemison with a small number on the UAH campus during the students' junior and senior years. Upon high school graduation, the students will have earned 60 UAH credits. And, if they matriculate at UAH they will be eligible for our Merit Tuition Scholarship Program because they are considered first-time-full-time freshmen with respect to financial aid eligibility.

The image shows a blue and white flyer for 'OUTREACH' at 'THE UNIVERSITY OF ALABAMA IN HUNTSVILLE'. The title 'OUTREACH' is in yellow. Below it is a box for 'LET'S CONTINUE THE CONVERSATION: Race Relations and the Faith Community'. It includes details about the 'Our CommUNITY' public forum, the date 'OCTOBER 1 - 6:30 PM CHAMBER UNION THEATER', and the host 'OFFICE OF DIVERSITY'. To the right is a list of 'Community Forums' with yellow bullet points:

- Mobile in Black and White: Let's Start the Conversation on Race Relations in the 21st Century; April, 2015
- Let's Continue the Conversation Regarding Race Relations: CommUNITY Open Forum; July, 2015
- Charleston, a Faith Response and a Different Outcome: What Made the Difference?; October, 2015
- The "Color" of Law: Mass Incarceration and Prison Privatization; January, 2016

The UAH Office of Diversity, under the leadership of Delois Smith, Vice President for Diversity, hosted a successful year-long series of interactive and preventive community forums on race relations, in collaboration with the Huntsville Area Inclusive Community Initiative, the City of Huntsville Mayor's Office of Multicultural Affairs, and the Huntsville Human Relations Commission.

These forums were initiated and hosted on campus by the UAH Office of Diversity as part of its mission of campus and community outreach, engagement and programmatic leadership on diversity and multicultural issues. Forum panel and guest speakers included, City of Huntsville police department officers, members of the FBI, School Resource Officers, attorneys, judges, faith community members from multicultural congregations and a diverse cross section of audience members from the UAH staff, faculty, students and Huntsville community.

The goal, let's try a novel approach, let's talk about these issues and concerns and find solutions before there is an incident that forces us to do so. Let's actually come together as leaders and lead the way to open, engaging, challenging and honest dialogue about race relations and productive relationship building.



Our athletic programs draw very good community interest as well. Katelin Barber, women's track, and Luke Mould, baseball, are College Sport Information Directors of America Academic All-Americans. Mould won the Gulf South Conference Commissioner's Trophy, the GSC's most prestigious award for a student-athlete.

Men's basketball won the GSC championship, while men's basketball and



softball both recorded NCAA tournament appearances following their most recently completed seasons.

**A UAH INCUBATOR**

- 43,000 residents from 15 counties
- Redstone has more patents applied for and issued than any other entity in the SE US
  - DoD's mission focused on warfighter; commercialization not a priority
  - No N AL ecosystem for identifying dual use technologies

- UAH has
  - Small Business Development Center
  - Office of Technology Commercialization
  - Opportunity/ability to leverage regional assets

**UAH**  
THE UNIVERSITY OF  
ALABAMA IN HUNTSVILLE

We continue to enhance our physical plant. Yesterday, the Physical Properties Committee recommended Stage II approval of an incubator for the UAH campus. The facility will house and provide support services to start-up companies, some of which could be spin-outs from UAH developed intellectual property and some spin-ins from intellectual property developed in the region. The goal is to build a virtual network of relationships to engage and grow the innovation capacity within the region to assist in diversifying the Greater Huntsville region's industry base which is heavily dependent on Federal funding. While heavy dependence on Federal funding might pose an economic vulnerability, it also presents an opportunity in that the Redstone Arsenal has more patents applied for and issued than any other entity in the southeastern United States. Few of these inventions find their way to the marketplace for public benefit because the focus has been on the more urgent defense needs. To reposition those inventions for commercial applications requires a change in mindset and process for industry, government, and academia, thus creating the opportunity.



Construction of the incubator will be funded through a combination of funds secured from the US Economic Development Administration, won based on a proposal written by Dr. Suzy Young, Director of the Office for Proposal Development, the State, the UAH Foundation, and Madison County and The City of Huntsville. We plan to locate it between Wilson Hall and the College of Business Administration building with a physical linkage to the College of Business Administration building to encourage interaction between Business faculty and students and companies in the incubator.



You are located now in our current project, the Student Services Building and Welcome Center, which is almost done! You are in the done part.



This facility will consolidate student services and provide a one-stop shop for students to conduct business and receive career counseling, serve as a welcome center for visitors and for recruiting, and provide conference and meeting space as well as administrative offices that will relocate from the West side of Sparkman.

The Welcome Center will display a video informing the visitors about UAH.

What we have accomplished, some of which you have seen today, could not have been accomplished without hardworking, dedicated faculty, administrators and staff, an enthusiastic student body, and the extraordinary support we have received from the Board of Trustees. To the Board and everyone moving this institution forward, a well-deserved thank you.