

UAH Institutional Presentation  
Meeting of The Board of Trustees of The University of Alabama  
April 12, 2019

This presentation will be in two parts, the first being an up-to-date look at UAH and the second being the information item listed on the Physical Properties Committee meeting agenda from yesterday, Executive Plaza Development. Trustee Wilson, who has reviewed much of what will be presented regarding Executive Plaza, asked that I include this information item as part of the Institutional Presentation.

In 1950, the University of Alabama Huntsville Center was established. The Center's direction changed when Wernher von Braun and his rocket team came to the US under Operation Paperclip and helped create a research institute to provide engineering and science education to NASA scientists and engineers. 1969, 50 years ago, with the addition of Wilson Hall, University Center, and the Louis Salmon Library, The Board of Trustees of The University of Alabama made UAH a campus of The University of Alabama System. That same year, man landed on the moon for the first time, propelled there by the Saturn V launch vehicle, of which von Braun was the principal architect.

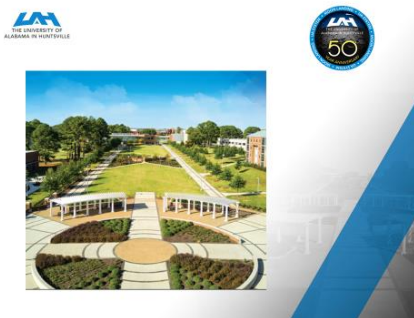


The campus was different in the early years, and has evolved over time architecturally from the Madison Hall era to the Student Services Building era,

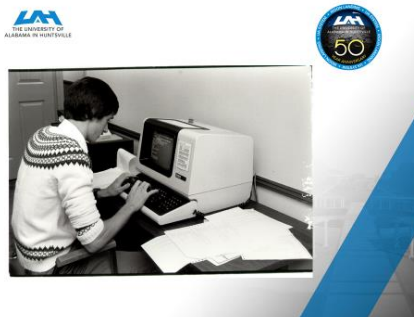




from the central campus subdivision era to the current Greenway spine.



Technology evolved as well.





For the past few years we have worked from a Strategic Plan, Expanding Horizons, with priorities to

Recruit and retain an outstanding and diverse student body, to  
 Recruit and retain an outstanding and diverse faculty and staff, to  
 Broaden and expand the research portfolio,  
 To be a recognized leader in select areas of research and education, and to  
 Engage our stakeholders more fully

I want you to hear from a few faculty as to the type and quality of the student who comes to UAH, some of the recruitment strategies, and from some students as to why they chose UAH.

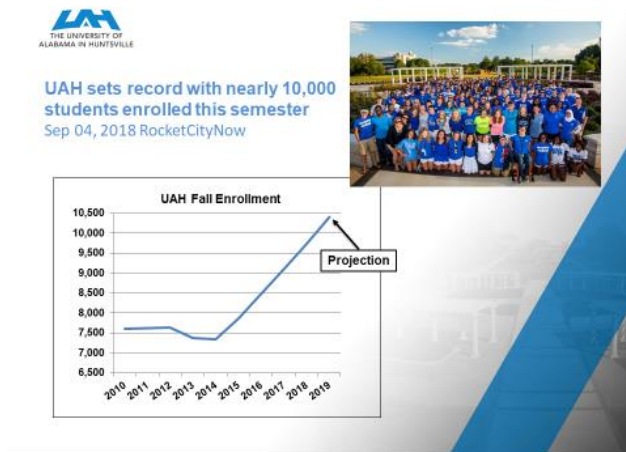
You heard Lori Lioce mention online programs in Nursing. We will be partnering with The University of Alabama starting this summer to offer an online PhD in Nursing Science degree.



Recruiting efforts have been fairly successful after forming the Division of Student Affairs in 2014.



An enrollment objective has been to grow to 10,000 students by 2020 to improve student life, the intellectual student environment, and enhance UAH's resource base. Projections are that we should reach the 10,000 mark a year early.

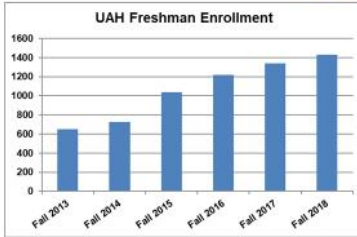


Large freshman classes propagating through have contributed greatly to the overall enrollment growth.



### Largest freshman class in UAH History

UAH News SEP 04, 2018 | Ray Garner

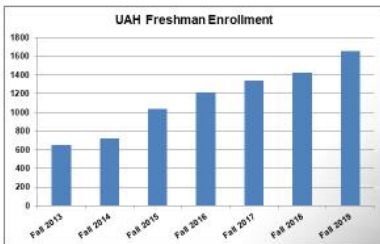


Next fall should bring another record freshman class.



### Largest freshman class in UAH History

UAH News SEP 04, 2018 | Ray Garner

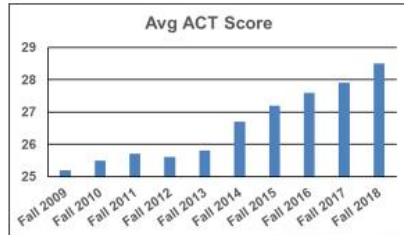


As the enrollment has grown, so has the quality of the incoming freshman class as indicated by the increase in average ACT score. Enrollment growth coupled with increasing ACT score is due in part to the scholarship program, opportunities for co-operative education and internships, job opportunities in the Huntsville community, and an enhanced student life program.



### Highest ACT test average in UAH history

UAH News SEP 04, 2018 | Ray Garner



45%  $\geq$  4.0 HSGPA; 45%  $\geq$  30 ACT

The Honors College, started in 2014, has contributed to enrollment growth as well as you heard from Bill Wilkerson.



Growth is also in part due to improvement in the physical appearance of the campus and expanded facilities, as you heard earlier from Lori Lioce regarding the Nursing facilities. This past fall we opened up a sixth residence hall, which was full on opening day, a new sorority house, and Morton Hall is now under renovation that will include an addition housing larger classrooms and a black box theatre.





We continually strive to recruit and retain an outstanding and diverse group of faculty and staff. As you heard, we have a productive faculty and we have been able to retain them as well.

Sara Graves, Board of Trustees University Professor, who has been with UAH for a number of years, recently secured funding for a Department of Defense Intelligence Community Center of Excellence, and Gary Zank, who was recruited to UAH in 2008, is Alabama's only member of the National Academy of Sciences. In addition to what you see on the screen, he serves as Director of the Alabama NSF EPSCoR program.



Sara Graves, Professor, Computer Science; Board of Trustees University Professor; Director of the Information Technology and Systems Center; PI on UAH's DoD Intelligence Community Center of Academic Excellence



Gary Zank, Professor, Space Science; Eminent Scholar; Director of the Center for Space Plasma and Aeronomic Research; Board of Trustees Trustee Professor; Member, National Academy of Sciences; Selected by NSF to Head Decadal Survey for Plasma Physics

Andrei Gandila joined us in 2013. He is a prolific historian. His book *Cultural Encounters on Byzantium's Northern Frontier circa AD 500 to 700: Coins, Artifacts and History* was recently published by Cambridge University Press, the world's oldest publishing house and the second largest university press in the world.

Anthony D'Costa, Eminent Scholar in Global Studies, joined us last fall. D'Costa has written extensively on the political economy of steel, auto, and information technology industries covering themes of global capitalism, economic development, innovations, inequality, and international mobility of talent.



Andrei Gandila, Assistant Professor, History; Author of *Cultural Encounters on Byzantium's Northern Frontier c. AD 500-700; Coins, Artifacts and History*, Cambridge University Press, 2018



Anthony D'Costa, Professor, Economics; Eminent Scholar in Global Studies

Tommy Morris joined us as he said in 2015 to support one of our select areas of emphasis in research and education, namely Cybersecurity and Big Data, and also to assist in broadening the research portfolio. While Morris secures DoD funding and supports the Arsenal, he also receives substantial funding from the National Science Foundation and from the National Security Agency and so has contributed significantly to broadening the funding portfolio.

To continue with our emphasis on Cyber Security and Big Data, in the next clip you will hear a little more from Tommy Morris and Sara Graves. Following Morris and Graves, John Christy will highlight some of his work that is contributing to the focus area of Earth, Atmospheric, and Space Science and following Christy will be Dale Thomas speaking about the emphasis area of Aerospace and Systems Engineering.



You can see from these research expenditure rankings that we continue to do well in the three focus areas about which you just heard.



## Research

FY17 (FY16) Federally-Financed  
Research Expenditure Rankings

#11 (#13) NASA

#28 (#25) DoD

- #5 (#5) Aeronautical/Astronautical Engineering
- #9 (#18 Business and Management) Economics
- #10 (#10) Computer and Information Sciences
- #12 (#11) Atmospheric Sciences
- #21 (#20) Astronomy

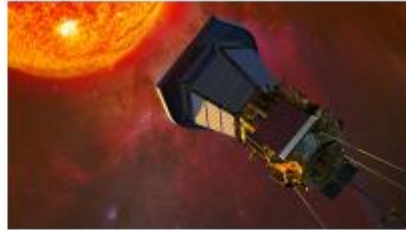


A particular project in the area of Earth, Atmospheric, and Space Science is NASA's Parker Solar Probe now orbiting the sun. The probe is streaming an incredibly large amount of data from the Solar Wind Electron Alphas and Protons, or SWEAP instrument, to NASA and then to UAH where the SWEAP team is analyzing it. The entire Parker Solar Probe team including UAH received the 2018 American Astronautical Society Neil Armstrong Space Flight Achievement Award for its work. Pictured here is Gary Zank who said "The Award is a great acknowledgement of all the hard work that went into making this mission and SWEAP a success."

A Faraday Cup that is part of the SWEAP array was designed, created and tested by a partnership among UAH, Marshall Space Flight Center and the Harvard Smithsonian Astrophysical Observatory.



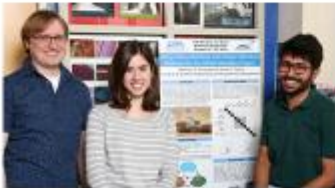
**UAH Space Science  
Department Chair talks  
Parker Solar mission**  
POSTED 11:59 AM,  
DECEMBER 30, 2018,  
BY [WHNT NEWS 19](#)



Supporting the focus area of Aerospace and Systems Engineering is Chang-kwon Kang through NASA's Innovative Advanced Concepts program. Kang and his collaborators and students are investigating the feasibility of flapping-wing aerospace architectures in a Martian environment to compensate for the low density of that environment.



Marsbees was one of only 25 selected for NASA's 2018 Innovative Advanced Concepts program, which funds early-stage technology that has the potential to revolutionize future space exploration.



Some of the work we do is classified, some at the highest levels of classification. In order to carry out that work, we manage a security program. Established in 1966 in honor of the late Air Force Col. James S. Cogswell, the first chief of industrial security within the Department of Defense, thirty nine security facilities were chosen to receive the award in 2018 out of 13,300 cleared facilities throughout the US. UAH was the only university to receive the award. Our facility is under the leadership of Denise Spiller pictured here and I want to congratulate her on securing this prestigious award.



2018 James S.  
Cogswell Outstanding  
Industrial Security  
Achievement Award



We take partnerships with our stakeholders seriously, and a priority of the past few years has been to engage our stakeholders more fully. In the next clip, you will hear from faculty as to how we engage and plan to engage the community in which we live.

The Invention to Innovation Center was conceived of a couple of years ago. Here is a photo midway through the construction, and



photos of the current state of the project are shown here. The front facing Sparkman Drive in the upper left and the back facing the Greenway. A grand opening is not far away.





The Early Learning Center is comprised of the UAH Rise School modeled after the Rise School on the campus of The University of Alabama, Alabama's Office of School Readiness 4-year-old grant classrooms, The US Department of Health and Human Services' Early Head Start and Head Start Classrooms, and more recently the ELC's Preschool Autism Language and Social Skills, or PALS, program, which seeks to meet the needs of children with autism spectrum disorder. These preschool classes serve the greater Huntsville community.

The ocean-themed sensory room, made possible through generous gifts from the Daniel Foundation of Alabama and the Boeing Employees Community Fund, is an integral component of the PALS program. The sensory room is a one-of-a-kind sensory oasis that encourages the children to relax and refocus their minds, and allows them to concentrate better on what they're learning outside of the sensory room and inside the classroom. The PALS program allows education majors with a focus on autism spectrum disorders to gain hands-on experience in differentiated instruction. The sensory swing at the lower right was designed and built by engineering students in Professor Christina Carmen's two-semester product-realization class.



Calming, ocean-themed room offers tranquility for those with sensory processing issues

MAR 28, 2019 | [Diana LaChance](#)

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



Our educational focus is to prepare students for careers, and Career Services assists them in job placement. Based on recent data, of the graduating seniors who contact Career Services, 94% of them are placed. A UAH degree is not only a good a good spring board for employment, but it is an affordable degree.

Let me switch gears now and talk about an exciting vision for UAH and a draft mixed-use redevelopment plan for what is called Executive Plaza across Sparkman Drive from the Bevill Center. As mentioned earlier, the draft plan I'll walk you through shows as an information item on the Physical Properties Committee agenda, and Trustee Wilson asked that I make the presentation as part of this Institutional Presentation.





The draft plan was developed by the Atlanta Office of Perkins and Will, a global architecture and planning firm who also developed the recent Master Plan for Cummings Research Park, and a UAH campus committee that worked with them. Perkins and Will engaged a number of partners in the planning process, including the Atlanta Office of Jones Lang Lasalle, a global professional services and investment management company specializing in real estate, Pugh Wright McAnally, civil engineering, from Decatur, Alabama, Fuqua & Partners Architects in Huntsville, architects on the Invention to Innovation Center, Nelson\Nygaard, a Perkins and Will subsidiary specializing in the development of transportation systems that promote accessible communities, and Bostick Landscape Architects in Huntsville, who have done quite a bit of work on the campus.

## Contents



- 1 The Charge
- 2 The Site
- 3 The Process
- 4 The Crossing
- 5 The Master Plan

The charge is to develop a mixed-use plan for the campus.

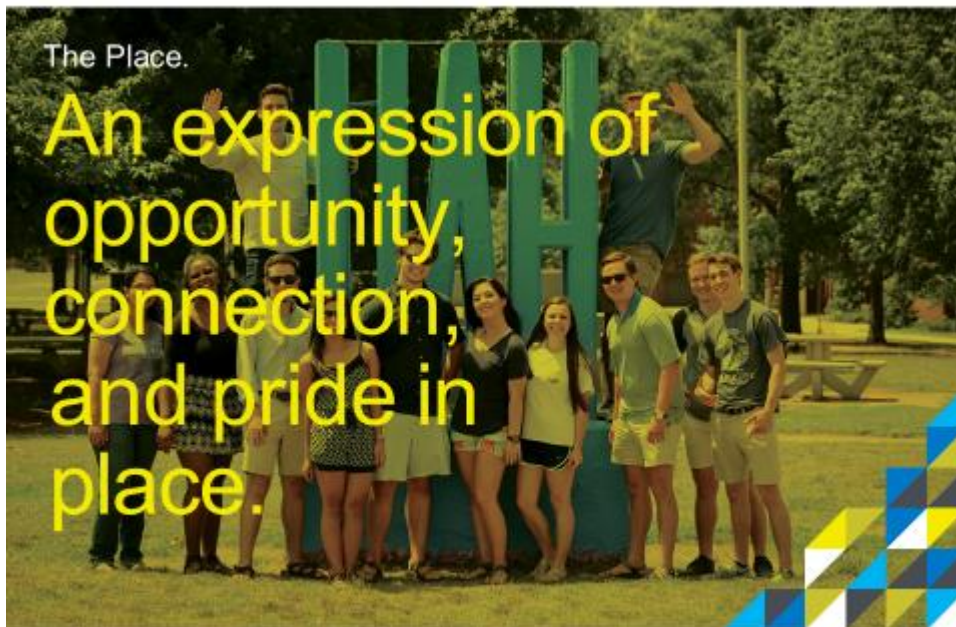
# The Charge

A New Mixed-Use District for UAH

with its own character



that expresses pride in place



and is charismatic, engaging, and authentic.



## The Site

58-acres of Opportunity

The shaded study site is Executive Plaza. A rather tired office building complex of 1970s vintage that we acquired in 2017.





The light colored strips you see are one story office buildings. Many of the buildings are not useable. We have a few tenants in some of the buildings including a number of future incubator tenants in a proof of concept space.



There are about 5 acres of wetlands on the site.



The process Perkins and Will used to develop the Master Plan, through which I will walk you to end the presentation, was to do research on UAH, survey the UAH population as to what amenities and services they would like to see in Executive Plaza, and benchmarking against other university mixed-use projects.

## The Process

Research, Surveying and  
Benchmarking

Perkins and Will delved into the culture of UAH through stories told in photographs and spending time on campus.



## Campus Stories



And, they studied how students, faculty and staff gather in other mixed-use districts. These districts usually have a long main street along which there are multiple gathering or stop-off places.

## University Mixed-Use Districts



One of the challenges for the site is the crossing of Sparkman Drive.

# The Crossing

## Connecting Across Sparkman

Pedestrian overpasses are tricky to design. There is an overpass on University Drive by the Early Learning Center. In seven and a half years, I don't recall seeing anyone on the overpass. Its issue is traversing the maze that takes you up to the crossing level and then a maze that takes you to ground level. People simply won't use such a bridge; they will cross at street level.



## Pedestrian Overpass



# The Master Plan

## A Walk Through the District

In order for an overpass to be used by pedestrians and bicyclists it needs to be at grade. As you will see, the elevation change from the Morton Hall site to Executive Plaza can be used to advantage in the design of an overpass across Sparkman.

What you see here is a footprint rendering showing building locations as well as a Central Park and a Wetlands Park. A pedestrian and bicycle overpass is shown starting

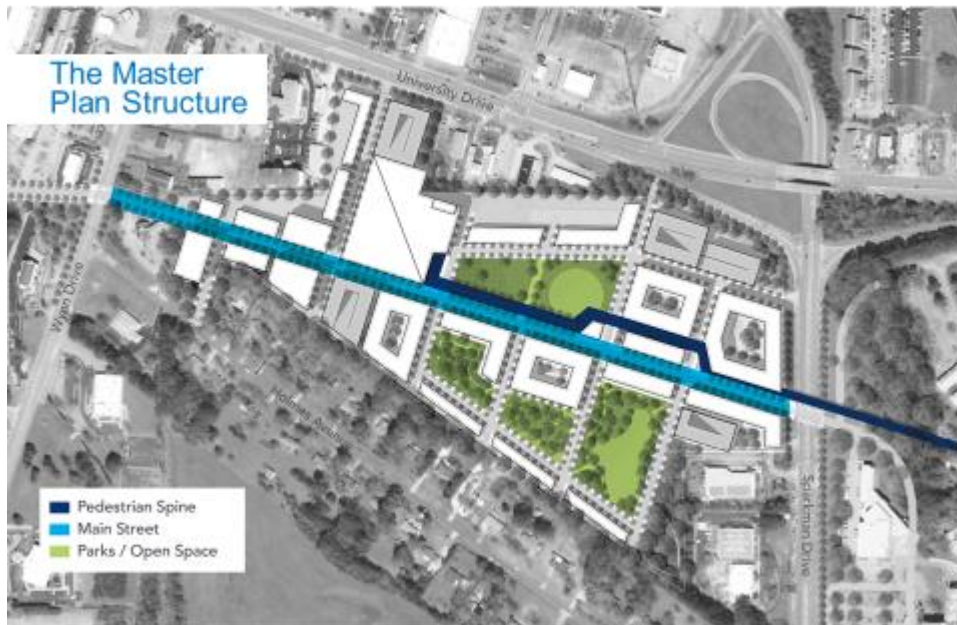


at grade behind Morton Hall and entering Executive Plaza one story above ground and continuing toward a multi-purpose facility with several opportunities to descend to ground level along the way. There is also a redesigned street grade crossing with enhanced signal lighting.

The multi-purpose facility is part of the current Campus Master Plan but located between Spragins Hall and the Early Learning Center on the north end of campus east of Sparkman Drive. It's planned to accommodate basketball, hockey, and volleyball competition events, concert-type events open to the public, a practice sheet of ice that would accommodate community skating as well, and a performing arts venue for both UAH and community performances.



So the Plan Structure consists of the pedestrian spine, the Main Street concept, and green space.



Possible building usage is shown here. The orange showing residential, likely student housing, with retail on the ground floor and the yellow showing pure residential, maybe faculty and staff or students as well, backing up to the residential community along Holmes Avenue and backing up against the Central Park. The pedestrian spine enters between an institutional facility and student housing.



The next few slides show artistic renderings of what experiences you might encounter in a stroll through the District. You see here the pedestrian overpass entering Executive Plaza above ground.



The next slide will show typical spaces after descending between two buildings from an above ground structure to ground.

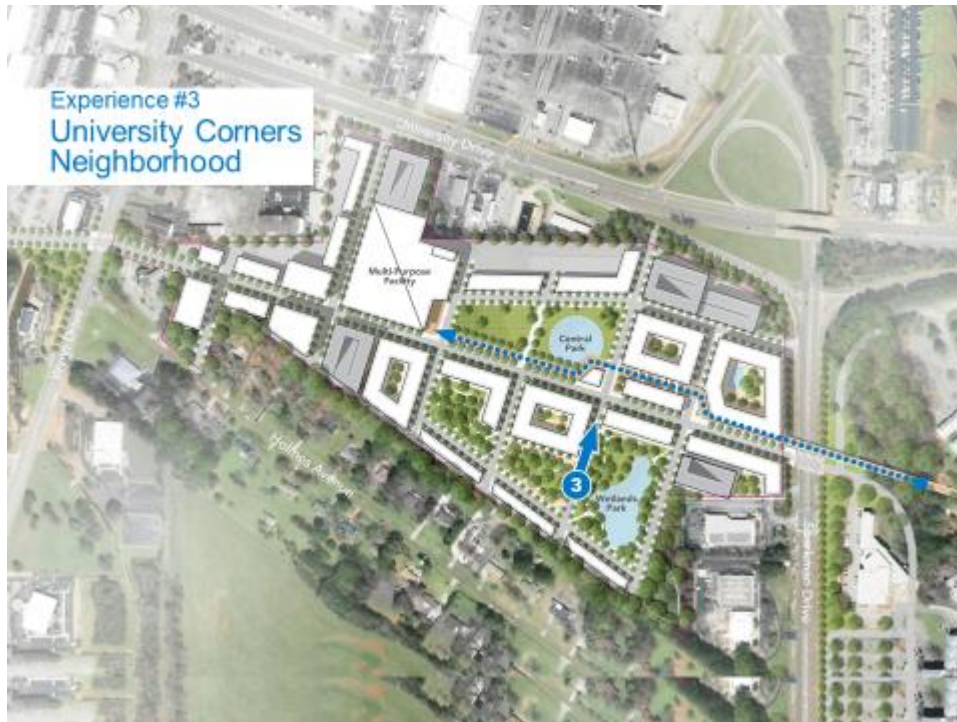




Experience #2  
The Canyon



Next is a major gathering corner in the heart of the District on the Main Street



The next rendering will show a corner kiosk in Central Park.





Experience #4  
Park Kiosk



Next is a view at the edge of Central Park looking in.



Experience #5  
Central Park



and the Wetlands Park





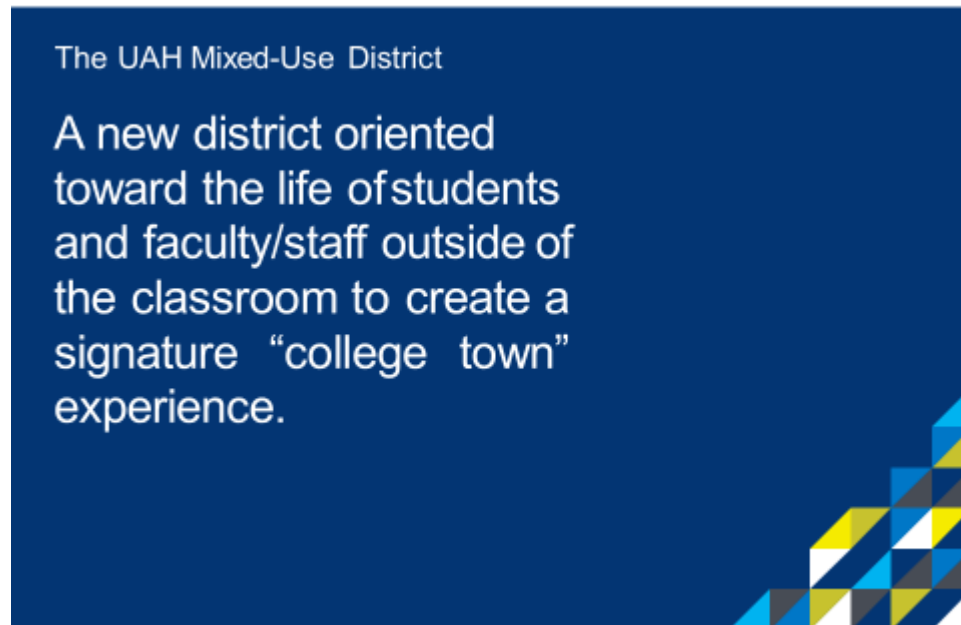
Experience #6  
Wetlands Park



before the walk terminates at the Multi-Purpose Facility. There is a common lobby entrance. The athletic/events arena is to the left showing an escalator up to the concourse level, and the performing arts venue is to the left, a theatre of about 800 to 1,000 seats, a venue to accommodate both university and community performances.



The district is to create the experience of a college town, now lacking at UAH, that should impact retention, persistence and graduation rate, connect the university more closely to the community, and its alumni family.



I shared this plan with Dr. Darren Dawson, whom Chancellor St. John will recommend later today serve as the next President of UAH. Darren’s reaction, and I quote, was “the concept looks fantastic; especially the Multi-Purpose facility.”

Let me close with a brag slide and say that it has been an honor, a privilege and a please serving as President of UAH and Beth and I appreciate the support that we and UAH have received from the community, from the System Office, from the Chancellor, and from the Board. It’s been a great ride for us.



9,700+  
STUDENTS

4 STRAIGHT YEARS  
OF RECORD ENROLLMENT  
Projecting a 9% Fall 2019 at 10,400 students

STUDENTS FROM  
69 COUNTRIES  
50 STATES



#1 IN ALABAMA  
FOR EARLY CAREER  
SALARY \$54,200

3.88 and 28.5  
AVERAGE GPA      AVERAGE ACT  
2018 Freshman Class



\$99 MILLION IN RESEARCH EXPENDITURES

CARNEGIE FOUNDATION  
LISTS UAH AMONG  
"HIGHER" RESEARCH INSTITUTIONS

FIVE RESEARCH PROGRAMS RANKED IN THE  
TOP 25 IN THE NATION

UAH RATED AS  
**VERY COMPETITIVE**  
- BARRON'S GUIDE

11<sup>TH</sup> IN THE U.S. FOR NASA RESEARCH  
28<sup>TH</sup> IN THE NATION FOR DOD RESEARCH  
- NATIONAL SCIENCE FOUNDATION

