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Where can research take you?

*Student researchers from the University could be found this summer everywhere from Germantown, Tennessee, to Berlin, Germany*

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**FALL 2017**

Inside this issue

- Student researchers in biology share what research means to them.  
- Candice Gonzalez presented her research at the National Science Teachers STEM Forum and Expo in Orlando, Florida.  
- Dr. Paul Zhang and his student have published their paper in a prestigious Information Systems journal.

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On the Cover

Photo One: History students worked with Dr. Ansley Quiros and Dr. George Makowski on the New Bethel Cemetery project in Tennessee. Photo Two: Berlin was one of the many places UNA students had a chance to explore during Study Abroad programs during Summer 2017. Photo courtesy of Sydney Miller.

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Research is formalized curiosity. It is poking and prying with a purpose.  
- Zora Neale Hurston

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Save the date!  
APRIL 24-26, 2018  
Research Days

See pages 4 & 5 for stories and more photos from these research trips.
Research News from around campus

During June 2017, recent UNA graduate Shannon Hogan and current student Baylee Harrell traveled to Albuquerque, New Mexico, to present their research on human trafficking at the Society for the Psychological Studies of Social Issues international conference. Their research entitled Global Human Trafficking: Invisible Axioms and Increasing Consequences dealt with the multiple facets of human trafficking, its growing presence in the modern world, and its effects on individuals and societies. They presented their work to fellow SPSSI members in a 60-minute interactive discussion.

Shannon Hogan and Baylee Harrell represented both the Department of Psychology and the Department of Politics, Justice, and Law. Psychology’s Dr. Gabriela Carrasco served as the mentor on the project, assisting and guiding them in their research along the way.

Dr. Carrasco, Shannon, and Bailey expressed their appreciation to Vice President for Academic Affairs John Thornell, Dean of the College of Arts and Sciences Carmen Burkhalter, and the Center for Sustainability for contributing funds to allow the students to present their research on behalf of UNA.

What does Research mean to these undergraduate students (and their mentor)?

“During my time as an undergraduate researcher here at UNA, I have had countless opportunities to better myself both professionally and academically. I am currently conducting research in the lab of Dr. Lisa Ann Blankinship in the Department of Biology. We are a microbiology lab that is interested primarily in antibiotic resistance and microbial identification.

“I have had the pleasure of contributing to two projects while under the wing of Dr. Blankinship. My most recent project was a microbial identification study entitled Forensic sample digestion: what microbes are eating human proteins. I had the opportunity to present our findings of this research during poster presentations at the Association of Southeastern Biologists annual meeting in Montgomery, Alabama, the annual Research Days events here at UNA, and the National Conference on Undergraduate Research in Memphis, Tennessee. The latter conference is a four-day conference that exhibits thousands of student research presentations from across the nation.”

--Jason Floyd

“Doing research has expanded my grasp of what ‘understanding disease’ really means. It has helped provide me the context for a richer understanding of pathophysiology and the process of advances in scientific understanding. It has enriched my application portfolio for dental school and helped to expand my interest in dental health.”

--Brian Johnson

“I absolutely love working with my research students – they are such a wonderful group to work with! I love watching them grow in confidence as independent researchers, struggle with writing grants, and the excitement of their first presentations and especially their successes with grants and even manuscripts. To me, this is what teaching is all about.”

--Dr. Lisa Ann Blankinship
Candice Gonzalez presented her research on undergraduate female STEM major selection at the 2017 National Science Teacher’s Association STEM Forum and Expo at the Orange County Convention Center in Orlando, Florida. Candice was able to receive feedback for the pilot of this project, and she plans to continue to work with her advisor, Dr. Jessica S. Mitchell, to continue this study. Candice is a Secondary Education major who hopes to inspire high school students to pursue careers in STEM fields.

Nicole Jane Gallups, a student in the university’s Honors Program majoring in molecular/cell biology and professional chemistry, was awarded a research position in the Summer Program in Neuroscience at the University of Alabama – Birmingham’s School of Medicine.

Sarah Beth Looney presented her research findings in a poster session during Research Days in the spring. Secondary Education Department Chair Dr. Leah Whitten was Sarah Beth’s mentor for her research on the evolution of teacher preparation.

CIS Undergraduate Research Accepted by IACIS 2017 and IIS

A computer information systems (CIS) undergraduate student, Tony J. Hunkapiller, teamed up with his faculty mentor and collaborator, Dr. Xihui “Paul” Zhang, Associate Professor of CIS, had a research paper accepted for presentation by the 57th Annual Conference of International Association for Computer Information Systems (IACIS 2017), which will be held in Philadelphia, Pennsylvania, on October 4-7, 2017. Furthermore, their paper has also been accepted for publication in the 18th volume of *Issues in Information Systems*, a journal that is listed in Cabell’s Directory of Publishing Opportunities in Management and Marketing. Their research is funded and supported by UNA’s 2016-2017 Undergraduate Research Grants for Student and Faculty Teams sponsored by the Office of the Quality Enhancement Plan.

Their research paper, titled *Sources of Conflict between Software Developers and Testers: A Comparison and an Integration of Two Models*, has two objectives: (1) to better understand sources of conflict between software developers and testers by comparing the two leading models in the IS literature, and (2) to build an integrated model of sources of conflict between software developers and testers by consolidating the two leading models.

The IACIS Annual Conference gives professors and other Information Systems professionals the opportunity to meet and discuss timely issues, and to participate in the presentation and discussion of research, applications and other technology related topics. The Conference also provides a forum for individuals from diverse geographical locations and varied working and teaching environments to come together and share information on technology education and other important topics.
Drs. Larry Bates, Gabriela Carrasco, and Ryan Zayac led a team on an exciting trip to Europe this summer (June 29-July 15) as part of a Study Abroad/Research Project. Students on the trip included Michael Anders, Kirby Chrysler, Tia Crowder, Sarah Edmonds, Sarah Johnson, Clair Kennedy, Kristina McMahan, Sydney Miller, Graham Pugh, Lacie Rowe, Jessie Wampler, Mikhala Wolfe, and Raven Wright. Sydney Miller was one of co-principal investigators on the project; read her reflections in the story below.

By Sydney Nicole Miller

This summer, I was given the exciting opportunity to travel abroad to Germany, Switzerland, and Austria and serve as a Co-Principal Investigator in a research study being conducted by a team from University of North Alabama’s Psychology department. For about 9 months, I have been collaborating with Dr. Ryan Zayac on this project, in which we are examining the effects of a cultural scavenger hunt within a study abroad program on intercultural competence in college students. We were awarded two grants (QEP Research Grant and Psi Chi National Honor Society Undergraduate Research Grant) in order to help fund our research and our travel expenses, as we collected data and conducted the cultural scavenger hunt while in Wurzburg, Germany. We are currently in the process of data analyses and will be presenting our results at the Southeastern Psychological Association conference, as well as developing our results into a manuscript to submit to a peer-reviewed journal.

Overall, the experience of conducting research abroad has been one of the most rewarding and exciting experiences of my life. We visited 3 countries and 9 cities in just 18 days - making countless memories along the way. When we weren’t conducting research or learning about the history of psychology at museums and lectures, we were visiting breathtaking castles, hiking the Swiss Alps and paragliding off the tops of mountains. As we tried new things, drank a lot of great coffee and hung out with some truly extraordinary locals, we also formed close bonds with each other - each ending our trip with 12 new friends and many hilarious stories to share.

I think I speak for the rest of our group when I say that I can’t even begin to explain the impact that this experience has had on us. By getting outside of our comfort zones and exposing ourselves to a different way of life, we have all gained a broadened perspective and fresh vision for our futures. With such a newfound thirst for adventure and for challenges, I am very excited to see all of the places we will go and all of the things we will accomplish!
I always told my parents I never wanted to step foot in a graveyard until I was actually six feet under. As a child, graveyards always creeped me out. When I entered one, I could automatically feel chills run through my body. If you would have told me when I was younger that one of my classes would be centered around a cemetery, I would have probably laughed at you or looked at you like you were crazy. I never thought I would be finding unmarked graves or cleaning monuments. However, the New Bethel Project was just that.

New Bethel Missionary Baptist Church was established in the 1800s by slaves who obtained the land from Mrs. Florida, a prominent white woman from the area. Because they needed to practice their religious services in secrecy, service was held in a bush harbor. After emancipation, slaves continued to worship on this site but later saw a need to expand. Thus in 1869, New Bethel Missionary Baptist Church began under the leadership of Reverend Isaac Cotten and has never split since. This spirit of freedom, passion, and persistence continues in the church today.

The purpose of the New Bethel Project was to give UNA students the chance to understand the church’s significance and the relationship between African American religion and history as a whole. The class had two sections: fieldwork taught by Dr. George Makowski and oral history taught by Dr. Ansley Quiros. During the first two days of class, we learned a variety of techniques that would aid us in both aspects of the class. During the fieldwork portion of the class, the students learned skills such as reconnaissance, plane tabling, mapping, and how to properly document monuments. To prepare for the oral histories, we learned different interviewing techniques such as gaining consent, doing background research on the interviewee, and having questions already prepared. In addition, we read Canaan Land by Albert J. Raboteau. The book provided us with a background of African American religion in regards to slavery, Reconstruction, the Civil Rights Movement, and today. This helped us understand why religion is significant in African American culture as seen with the New Bethel Missionary Baptist Church.

After these two days of class, we traveled to Germantown, Tennessee, to conduct our
research. On the first work day, we worked on reconnaissance and sizing the cemetery. This helped us become more aware of our surroundings as well as locate unmarked graves. After this task was completed, we worked on an elevation sketch of the church. During the oral history portion, half of us conducted interviews with the church members while the other half worked on scanning documents that were crucial to the church’s history. These documents included different church programs, family trees, and documents detailing the church’s history. The next day the main task was finding unmarked graves. Two of the students found an entire family! The church members were extremely thrilled about this because this helped fill gaps within the church’s history and their ancestors could finally rest in peace. As the week progressed, more members of the church signed up for interviews. Many of the members were either directly involved with the Civil Rights Movement or could recall important events that were crucial to it such as the lynching of Emmett Till or the assassination of Martin Luther King, Jr. When asked why they chose to participate in the Civil Rights Movement, one of the most notable answers came from Mr. Marvin Newsum, a founding member of the Civil Rights Museum at the Lorraine Motel, who said “You can’t die but one time so you might as well die for something meaningful.”

On the last day of class, we worked on plane tabling and documenting monuments. This information will be used so that the members of New Bethel will have a map of their cemetery. In addition, the interviews and scanning helped us connect the current church members with history that was long lost in the cemetery. Combined, these two aspects of the New Bethel Project aided the city of Germantown, Tennessee to make the church a historic landmark.

Prior to beginning the New Bethel Project, I never would have thought that I would describe a cemetery as a place of solace or comfort. The cemetery at New Bethel Missionary Baptist Church is not a place of mere dead bodies, but a place of rich history whose roots extend all the way back to slavery. Because of the New Bethel Project, I came to realize the real reason why graveyards gave me chills as a child. These chills did not come from fear but rather from a spirit who was eager to tell their story.