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University of North Alabama Undergraduate Research

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Call for papers, posters

The 93rd Annual Meeting of The Alabama Academy of Science
Joint with the Alabama Junior Academy of Science,
Gorgas Scholarship Program
at UNA on February 17-19, 2016

Papers and Posters are invited for each of several sections of the Academy, including Biological Sciences; Chemistry; Physics and Mathematics; Engineering and Computer Science; Social Sciences; Anthropology; STEM Education; Industry, Environmental Science; and Earth Science; Health Sciences; Bioethics and History and Philosophy of Science. At least one author must be a member of the Academy; membership application is available at http://www.alabamaacademyofscience.org/paydues.php.

All titles and abstracts must be submitted online (www.alabamaacademyofscience.org) no later than January 18, 2016.

COEHS majors team with 2nd graders on ‘PawPrints’

A pilot program at Webster Elementary has some second-graders on the cutting edge of technology while re-enforcing their reading and language skills.

The PawPrint Partnership was designed to intermingle University of North Alabama education majors with second-graders,

according to UNA Associate Professor of Education Lisa Clayton.

For much of this semester, students from Clayton’s early childhood reading and language arts class spent Wednesdays with students in the classes of Connie Jones and Wendi Thornton during the reading period.

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Math matters

Students and faculty attend KMUMC

UNA's Math/CS Undergraduate research team participated in KMUMC 2015 (Kennesaw Mountain Undergraduate Mathematics Conference) on October 24, 2015. Presentations included Joy Ashford (faculty mentor Dr. Cindy Stenger) entitled, "Does Computer Programming Improve Instruction?;" John Carr (faculty mentor Dr. Mark Greer) entitled, "Amalgamation, Latin Squares, and Hamiltonian Decompositions;" Audrey McGee (faculty mentor Dr. Jillian Stupiansky) entitled, "The Spread Process of Reinvading Otters;" Katelyn Payton (faculty mentor Dr. Cindy Stenger) entitled, "Student and Teacher Generalization over Direct Variation;" and Andrea Shipley (faculty mentor Dr. Cindy Stenger) entitled, "The Effectiveness of Supplemental Instruction in Introductory College Mathematics Courses."

In addition, UNA faculty member Dr. Ashley Johnson gave a pedagogical talk at the conference. Math Professors Dr. Miranda Bowie, Dr. Cindy Stenger, and Dr. Jillian Stupiansky also attended the conference held in Kennesaw, Georgia.

Western Carolina professor is guest speaker

The UNA Math Department Colloquium Series welcomed Dr. Andrew Penland from Western Carolina University to campus the morning of November 13 for a special colloquium for students interested in research in mathematics. The talk titled “Symbolic dynamics and groups” started with a calculator activity that uncovered patterns leading to problems in symbolic dynamics.

For information concerning upcoming Math Department Colloquiums of interest to undergraduate STEM majors, please contact Dr. Mark Greer at mgreer@una.edu or Dr. Cynthia Stenger at clstenger@una.edu.

REMINDER!

QEP DATA FOR FALL is due for all departments DECEMBER 3, 2015.

Secondary Ed majors move ahead in research

The Secondary Education research team in the College of Education and Human Sciences is hard at work! Under the direction of Dr. Jessica Mitchell and Dr. Gary Padgett, secondary education students William T. Davis and Mariann J. Jahraus are excited about moving forward with their research plans. To date, the team has received training through the QEP’s undergraduate research symposium, prepared a research proposal, and submitted an application for a presentation at the Teaching and Learning with Technology conference in Missouri.

Currently, the group is preparing

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As a UNA undergraduate studying Health, Physical Education and Recreation, Rachel Kerstiens accomplished something that would be the envy of many professionals in her field: she had a paper published in the peer-reviewed *International Journal of Exercise Science*.

Rachel’s paper focused on exercise as an intervention and treatment modality for individuals with Down Syndrome, and was written as part of her work in Dr. Matt Green’s HPE 353w (Exercise Physiology) course.

Dr. Green said, “In my estimation it is uncommon for undergraduate students to publish papers and it is essentially unheard of to be lead author on a publication in a journal of international scope. This accomplishment sets Rachel apart and truly is a PawPrints, (Continued from page 1)

In a typical week, the UNA students start by reading with and monitoring the young students one on one. Then, the elementary students rotate to the UNA students for lessons on comprehension, phonics, vocabulary strategies and grammar.

This week’s lesson was on letter writing, a skill that will come in handy as the students write letters to war veterans in preparation of Veterans Day.

“They’ve really taught us a lot of words, real tricky words,” second-grader Charli Givens said.

Clayton said the idea for the program, which she hopes will spread throughout the school and to other systems in the future, came from a conversation with Jones.

“Connie said she had a real need for greater (reading) comprehension,” Clayton said. “At the time, I was teaching my students those very concepts, and it just clicked that my students could work with her students and help them and gain experience themselves.”

The idea not only caught on, it started producing results immediately.

“The children are so excited after a lesson with the UNA students, and they come to us sharing what they’ve been taught,” Thornton said. “They’re building their reading and language skills beyond anything we could have imagined.”

Eric Cagle said he’s appreciated the opportunity to be in a teaching situation before he officially begins student teaching.

“We’ve seen the gains the students have made,” he said. “Small groups are really helpful for us because we see where the students are individually, and can adapt our lesson to them.”

Lauren Trull, a UNA education major, agreed teaching in small groups has given her not only a good base for helping the students, but prepared her for her own classroom one day.

“We’ve had the time to plan thoroughly for the students, but then determine what works and what doesn’t,” she said. “We just regroup and use a different approach when we’re not getting through with a concept.”

The partnership program also involved the younger students learning to do research, bringing technology into the process.

For two weeks the students researched animals from Australia. Jones will travel to Australia next week. She will blog and communicate with her class about the animals and characteristics they’ve studied. The students used Chromebook computers and Thinglink, a program for compiling information in one place.

“I’ve learned about Tazmanian devils, but they’re really bears,” second-grader Kylee Hanback said. “We went on YouTube and looked them up. They are interesting animals.”

Clayton said her students submit their lesson plans on Mondays for their Wednesday teaching assignments, which gives them time to tweak them, if necessary, before they teach.

“My students have done a phenomenal job with this program, and it’s exciting to see them getting this much-needed experience,” she said. “It’s yet another preparation tool for them before they actually get in a classroom, and they take it very seriously.”

*Article by Lisa Singleton-Rickman, for the TimesDaily. Used with permission. Photo by Jim Hannon, TimesDaily.*
ENGLISH STUDENTS PRESENT AT FLA. CONFERENCE

English majors Teena Patel and Ashley Scruggs presented their research at the Sigma Tau Delta Southern Conference at Flagler College, St. Augustine, Florida, on October 2 and 3, 2015.

Patel presented her original creative non-fiction, “The Salt Mine of Dharasana,” as well as her research on “The Male Gaze in The Castle of Otranto” as part of a Gender and Sexual Perspectives Panel.

Scruggs presented her research on “Grandfather’s Last Words” as part of a panel on 20-21st Century American Literature. Sigma Tau Delta is the International English Honor Society.

English majors Teena Patel and Ashley Scruggs are accompanied by Sigma Tau Delta advisors Latsha Howell and Alaina Patterson at the Sigma Tau Delta Southern Conference.

Secondary Education majors (Continued from page 2)

documentation necessary for the IRB process to receive official approval to conduct their study in the spring semester.

The student perspective of this experience has been positive overall. Taylor Davis shared some of his thoughts which may benefit other undergraduate students.

What influenced you to participate in undergraduate research?

During this stage of my academic career, I have spent a lot of time in my teaching discipline field through Music Education. I wanted a chance to go more in-depth as a Secondary Education major to experience the issues that will concern me in my future as an educator.

How did you initially connect to this project?

My professor, Dr. Mitchell, mentioned some of her previous research in our assessment course, ED 401, and she mentioned if anyone was interested that they could see her to talk more about conducting research in the topic of social media in education.

What interests you about this project?

I think exploring what administrators think about social media practices will be beneficial for future job opportunities for myself and my fellow classmates. I would love the opportunity to see first-hand how these perceptions potentially shape hiring practices as I know this is something that I will be facing in my near future.

What do you hope to gain from this experience or how do you see this experience benefitting you in the future?

I hope I will be able to learn more about the research process. I could potentially attend graduate school, and this project gives me a way to explore if that would be something that I would be interested in pursuing one day.

Article submitted by Dr. Jessica Mitchell, assistant professor, Secondary Education.
UNA REPRESENTS, PROF WINS AWARD AT SEDAAG

Geography students Simon Bevis, Trevor Collier, Kathryn Kelsoe, Md Abu Sayed, Robert Thompson, and Dan Wanyama attended the annual Southeastern Division of the Association of American Geographers Conference (SEDAAG) in Pensacola, Fla., in November.


Dr. Mario Mighty, assistant professor of Geography, presented his research “Never Settle: Maintaining Economic Sustainability in the Jamaica Coffee Industry.” Dr. Michael Pretes, professor of geography, won the 2015 SEDAAG Outstanding Teacher Award.

PSYCH STUDENTS AT CALI, PHILLY CONFERENCES

In November, Alexandra Priester, psychology student, presented her research entitled “Righteousness and Riotousness in Radio Bluegrass Music” at the 2015 annual meeting of the Society for the Scientific Study of Religion in Newport Beach, Calif. Other student authors included Haley Hubbert and Audrey Beitel. Their work was supervised by Dr. Larry Bates, professor of psychology, and Dr. Richard Hudiburg, chair and professor of psychology.

Also in November, Sarah Schiavone, social work and psychology student, presented her research entitled “Bluegrass Festival Music: Depravity and Deliverance” at the 26th annual meeting of the Mid-Atlantic Popular and American Culture Association in Philadelphia, Pa. Other student authors included Laci Willis, Micheala Mashburn, and UNA graduate Caleb Cupples. This research was supervised by Dr. Larry Bates, professor of psychology, and Dr. Richard Hudiburg, chair and professor of psychology.