



AUBURN UNIVERSITY
COLLEGE OF SCIENCES
AND MATHEMATICS

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Engaging More
Community Connections



Volume 9: Issue 5



COSAM Outreach Newsletter
November/December 2017



Upcoming Events & Programs

Summer Science Institute

Application Deadline: February 9, 2018

The Summer Science Institute is for outstanding students who are currently in the 10th or 11th grades and are interested in science and mathematics. Students engage in real-world applications of science, perform experiments using cutting edge research equipment, & partner with COSAM researchers to gain lab skills not taught in high school.

The program is offered at no cost to accepted students. Interested students will need to download the full application and recommendation forms online. **For these forms and further information, please visit our website at www.auburn.edu/cosam/ssi.**

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Upcoming Events



AMP'd Save-the-Date!

Middle and High School Competition Date: January 27th, 2018
Registration for both middle and high school opens December 1st!

The Auburn Mathematical Puzzle (AMP'd) challenge is held each year for middle and high school – this year both middle and high school competitions are occurring on the same date. The event is a problem solving challenge in which student teams work together while answering real mathematical puzzles. The focus of AMP'd is for students of all math ability levels to engage in math in a way that is fun, interesting, and different from a traditional math class. AMP'd has two separate competitions—one each for middle and high schools. Information about AMP'd can be found at www.auburn.edu/cosam/ampd.

Middle School Contact: Kristen Bond: 334-844-5769 or kristen.bond@auburn.edu
High School Contact: Josh King: 334-844-8123 or josh.king@auburn.edu

Greater East Alabama Regional Science and Engineering Fair

Time to start registering projects!

GEARSEF is a regional affiliate fair of the Intel International Science and Engineering Fair (Intel ISEF), the world's largest international pre-college science competition. GEARSEF is open to all students in grades 6-12 who have advanced from their local science fair (school, county, district, or community fair) and reside within the following Alabama counties: Autauga, Barbour, Bullock, Butler, Chambers, Coffee, Crenshaw, Dale, Elmore, Geneva, Henry, Houston, Lee, Lowndes, Macon, Montgomery, Pike, Russell, and Tallapoosa.

Students should present their projects at a school or county science fair and only top winners should advance to GEARSEF. Schools (or school systems) planning to send their winning students to GEARSEF on March 6 should now be registering in the new digital science fair system, "Scienceteer," and students should now be registering their projects also. If you would like your school to participate in GEARSEF this year but are not registered in Scienceteer, please contact Josh King at josh.king@auburn.edu. For more information about GEARSEF, visit our website at www.auburn.edu/cosam/gearsef.

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Outreach Calendar

November

- 2 PLTW Biomed Day
- 16 Fall GUTS
- 30 Science Pub

December

- 2 South's BEST – Day 1
- 3 South's BEST – Day 2

January

- 22 PLTW State Conference
- 27 AMP'd Competition

The AU Science Café & Pub

Join us **each month** for a night of science, good drinks, tasty food, and great conversations! At the AU Science Café & Pub, you'll have the opportunity to sit down and talk about new and exciting science and technology with experts in our community, all the while relaxing in a great local food and drink venue. The event alternates between a "pub" version at Red Clay Brewery and a "café" version at Mama Mocha's Coffee Emporium.



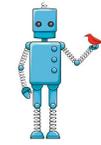
The event is **FREE**, open to the public, and **family-friendly** whether hosted at Mama Mocha's or Red Clay Brewery. **No science background is required**, and no question is too silly to ask! For more info, including parking directions and the event schedule, visit us online at <http://auburn.edu/cosam/sciencecafe> or contact Josh King at josh.king@auburn.edu.

Next Science Café/Pub Dates:

November 30th – "Enter the CubeSat" by Dr. Michael Fogle @ Red Clay Brewery
No December Café – Starts back up again in January!

Activity of the Issue

7 Online Citizen Science Experiments You Can Do in 15 Minutes or Less!



scistarter.com

“Citizen science” is scientific research performed, in part or in whole, by amateur (or nonprofessional) researchers. It provides an opportunity for the general public to collect real scientific data and contribute to real research.

The following experiments are 7 citizen science experiments pulled from SciStarter.com that you can try out on your own! If you're interested in finding other citizen science projects, check out SciStarter.com to search for others (including many off-line projects).

1 – Age Guess

AgeGuess is a simple project in which you guess the age of other people by looking at their pictures. In just a few minutes, you can help create a first of its kind research data set for the study of human aging. The project is studying the differences between how old you look to others and your actual age. Link: <https://scistarter.com/project/654-AgeGuess>

2 – EyeWire

Scientists need your help mapping the neural connections of the retina. All you have to do is color brain images! EyeWire is a fun way to learn about the brain and help scientist understand how the nervous system works. Link: <https://scistarter.com/project/566-EyeWire>

3 – Citizen Sort

Video games have the potential to do more than entertain. Citizen Sort is taking advantage of this potential by designing video games that make doing science fun. Citizen Sort is a research project at the School of Information Studies at Syracuse University in New York. Link: <https://scistarter.com/project/689-Citizen-Sort>

4– Project Implicit

Project Implicit offers the opportunity to assess your conscious and unconscious preferences for over 90 different topics ranging from pets to ethnic groups to sports team. In 10-15 minutes, you'll report attitudes toward or beliefs about these topics. It's that easy! The experience is both educational and engaging, and you get the chance to assist psychological research on thoughts and feelings. Link: <https://scistarter.com/project/93-Project-Implicit>

5– Be a Martian

NASA's Be A Martian is an interactive Mars science laboratory that allows visitors to help scientists learn about the red planet. You can help identify important features in images returned from previous Mars rovers, ask and vote on questions for NASA Mars experts in a virtual town hall, explore a Mars atlas to learn more about the planet's terrain, send postcards to Spirit (another Mars rover), and watch educational videos in the Two Moons theater. Link:

<https://scistarter.com/project/588-Be-a-Martian>

6 – Clumpy

When plants experience bacterial infections, the chloroplasts inside the plant cells appear to “clump” together. This can be a bad sign for plants. To help understand these bacterial infections, scientists need help classify images of clumpy chloroplasts. All you have to do is arrange the images from least clumpy on the left to most clumpy on the right. Link: <https://scistarter.com/project/643-Clumpy>

7 – MAPPER

Help NASA find life on Mars by exploring the bottom of the lakes of British Columbia, Canada. The Pavilion Lake Research Project has been investigating the underwater environment with DeepWorker submersible vehicles since 2008. Now with MAPPER, you can work side-by-side with NASA scientists to explore the bottom of these lakes from the perspective of a DeepWorker pilot. Link:

<https://scistarter.com/project/541-MAPPER>

Since the last issue

War Eagle BEST Winners

The War Eagle BEST (Boosting Engineering Science and Technology) Competition occurred on October 28, 2017. The event, co-hosted by the College of Sciences and Mathematics and the Samuel Ginn College of Engineering was a huge success. This year's game theme involved fire safety and rescue.

Over 800 students participated in the event. Teams advancing to South's BEST are listed below:

- Eastwood/Cornerstone Schools
- Wetumpka High School
- Southside Middle School
- Glenwood School

South's BEST Championship (www.southsbest.org), also hosted by Auburn University, is the Southeastern Regional Competition for BEST robotics and will take place on December 2 – 3 at the Beard Eaves Memorial Coliseum. South's BEST is open to the public to attend.

For more information about War Eagle BEST visit www.wareaglebest.org or for South's BEST visit www.southsbest.org.



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