



AUBURN UNIVERSITY  
COLLEGE OF SCIENCES  
AND MATHEMATICS

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Engaging More  
Community Connections



Volume 10: Issue 2



COSAM Outreach Newsletter  
March/April 2018



## Upcoming Events & Programs

### SCORE Summer Camps Registration now open!

SCORE (The Southeastern Center of Robotics Education) will be offering a variety of fun, educational robotics programs this summer for rising 3<sup>rd</sup> – 10<sup>th</sup> graders. SCORE is a new initiative at Auburn University that serves to inspire and prepare future generations of STEM professionals by developing and delivering student robotics programs, online robotics resources, and professional development for educators. A list of the upcoming SCORE camps follows:

Course	Grades	Dates	Topic
<b>VEX IQ Challenge Camp</b>	Rising 6 <sup>th</sup> – 8 <sup>th</sup>	June 3 <sup>rd</sup> -8 <sup>th</sup>	Challenge-based robotics education camp culminating in a friendly last-day competition
<b>SCORE Camp</b>	Rising 3 <sup>rd</sup> -6 <sup>th</sup>	June 11 <sup>th</sup> -15 <sup>th</sup>	Half-day camp introducing students to robotics at age-appropriate levels
<b>Drone Camp</b>	Rising 8 <sup>th</sup> -10 <sup>th</sup>	July 15 <sup>th</sup> -20 <sup>th</sup>	Configure, fly, and program drones

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To register or for more information, visit <http://scoreau.org> or contact TJ Nguyen at [tcnoo2@auburn.edu](mailto:tcnoo2@auburn.edu).

# Upcoming Events

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## Outreach Calendar

### Women's Leadership Symposium

Thursday, May 3<sup>rd</sup> 2018  
Registration now open!

The 2018 SWSM (Society of Women in Sciences and Mathematics) Women's Leadership Symposium will be held on Thursday, May 3<sup>rd</sup>, 2018 at the Auburn University Hotel and Conference Center. The Marie W. Wooten distinguished speaker is Dr. Jenny Oakes Sobera – Owner, Creator, and Dermatologist at Village Dermatology.

To register or for more information regarding this event, please visit <http://auburn.edu/cosam/swsm> or contact Kristen Bond at [Kristen.bond@auburn.edu](mailto:Kristen.bond@auburn.edu) or 334-844-5769.



#### March

- 6 GEARSEF
- 27 Science Café
- 31 State MS & HS Science Olympiad

#### April

- 17 Museum Science Café
- 26 GUTS

#### May

- 3 SWSM
- 22 Science Pub

## The AU Science Café & Pub

Join us **each month** for a night of science, good drinks, tasty sweets, 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 scientists in our community, all the while relaxing in a great local food and drink venue. The event typically 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 is **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](mailto:josh.king@auburn.edu).

Next Science Café/Pub Dates:

March 27<sup>th</sup> – "The Trouble with Ticks" by Emily Merritt @ Mama Mocha's  
April 17<sup>th</sup> – Dr. Sarah Zohdy @ Jule Collins Smith Museum of Art



## 2018 Core Teacher Training Registration Opens Early April

Each summer, Auburn University offers core training for Project Lead The Way (PLTW) Engineering, Biomedical Science, Gateway, and Launch programs to train teachers how to effectively use PLTW curricula with their students. According to the PLTW network agreement, only trained PLTW teachers may teach the curriculum.

Core training provides teachers with the knowledge to utilize the PLTW technology, software and associated curriculum. Classes are taught by master teachers and affiliate professors who bring hands-on teaching experience to the classroom. PLTW pays significant attention to assessing the teachers' readiness for the intensive two-week training. PLTW training courses at Auburn University this summer include:

- June 11-12: Launch Classroom Teacher Training
- June 10-15: Gateway: Medical Detectives (MD)
- June 14-15: Launch Lead Teacher Training
- June 17-22: Gateway: Design and Modeling (DM)
- June 24-29: Gateway: Automation and Robotics (AR)
- June 17-29: Principles of Engineering (POE)
- June 17-29: Digital Electronics (DE)
- June 17-29: Principles of Biomedical Science (PBS)
- July 8-20: Human Body Systems (HBS)

**For further information on registering:**

**<https://www.pltw.org/our-programs/professional-development/core-training>**

For more information on Alabama PLTW visit:  
<http://auburn.edu/pltw>

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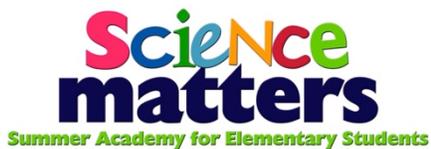
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Upcoming  
Events and  
Programs  
(Cont'd.)

# Upcoming Events



## Space still available in various grades!

**Science Matters** is a summer enrichment program for students in rising grades 1st – 8th offering youngsters a supercharged science experience. The program allows participants to explore the world of science through **real experiments, technology and art projects, and hands-on, project-based activities.**

There are still spaces available for multiple grades, but slots are going fast! For more information or to download our registration form, please click on: [www.auburn.edu/cosam/sciencematters](http://www.auburn.edu/cosam/sciencematters)

To add your child to our waiting list for our filled classes, please click on: [www.auburn.edu/cosam/sciencematters](http://www.auburn.edu/cosam/sciencematters)

Need more information? Contact Kristen Bond at 334-844-5769 or [Kristen.Bond@auburn.edu](mailto:Kristen.Bond@auburn.edu)

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## Upcoming Events and Programs (Cont'd.)



### Available Science Matters Course Offerings by Grade

Week	1st - 2nd Grade	3rd - 4th Grade	5th - 6th Grade	7th - 8th Grade
June 4 - 8	Full	Full	Full	No Offering
June 11 - 15	No Offering	No Offering	Full	No Offering
June 18 - 22	Full	Full	Can't Touch This	Ready, Set, Research
	Sound Off!			
June 25 - 29	Full	Beauty in the Beast	No Offering	No Offering
July 16 - 20	Full	Full	Person of Interest	Growing Greens & Gills
July 23 - 27	Full	Full	Curves Ahead	No Offering



## Earth Day Activities

Earth Day is April 22<sup>nd</sup>! Here's a list of a few activities around campus that we've been asked to share. The events below are free and open to the public.

- **“Merchants of Doubt” Film Screening:** On Thursday March 29 at 5pm in the Foy Hall Auditorium, AU Department of History and Geosciences will be showing this fun and enlightening film about “how a handful of scientists obscured the truth on issues from tobacco smoke to global warming.”
- **Earth Day Symposium:** On Tuesday April 24<sup>th</sup> from 11am to 1pm on the Student Center 2<sup>nd</sup> Floor Lobby, students will be presenting their work on the issues facing the Earth through a series of student-led poster displays.
- **Earth Day Celebration:** On Wednesday April 25<sup>th</sup> from 11am to 1pm on the Auburn University Cater Lawn, AU Department of Geosciences will have a series of games, prizes, and free pizza available for those who show up to support the environment.

For more information on the above events, contact Dr. Chandana Mitra from AU Department of Geosciences at [czm0033@auburn.edu](mailto:czm0033@auburn.edu).

## Upcoming Events and Programs (Cont'd.)

# GUTS

Getting Under The Surface  
April 26<sup>th</sup>, 2018

G.U.T.S. is an evening program for **1<sup>st</sup>-6<sup>th</sup> grade students and their parents or grandparents**. Each evening session includes snacks followed by a **hands-on 90-minute science activity** featuring a “Getting Under the Surface” theme designed to demystify science topics. The mission of G.U.T.S. is to enhance science literacy and engagement within our community by providing relevant science activities to students and their parents. **The cost of attendance is \$10 per parent/child team.** Slots fill on a first-come-first-serve basis.

### Spring GUTS Courses:

- Jungle Jinx – Cailin Kelley – Grades 1-3*
- The Great Escape – Dr. Brittney Duncan – Grades 1-3*
- Microbe Mix-up! – Rebecca Riggs – Grades 4-6*
- Mythbreakers – Will Tidmore – Grades 4-6*

Registration will open Friday, March 30<sup>th</sup>! To register, and for full course descriptions or other info, please visit <http://auburn.edu/cosam/guts>!

## Activity of the Issue

### Shaving Cream Rain Clouds

(A colorful opportunity to explain the weather)

#### Materials:

- A few clear glasses, vases, or bowls
- Food coloring (your choice of types)
- Shaving cream
- Small bowls or containers able to hold 1 to 2 ounces
- An eye dropper, syringe, or small measuring spoon

#### What to do:

1. Your small containers will be used to make a colored water mix. Start by filling these with water (as many as you have different colors). The less water you use, the more concentrated your food color mixture will be, and the the faster your “rain” will drop from the clouds.
2. Add food coloring to each of the small containers. 5 to 10 drops of food coloring works well for about 1 ounce of water, but you can add to your preference.
3. Fill your largest water container about  $\frac{2}{3}$  full and then top it off with a generous amount of shaving cream. This will be your “cloud.”
4. Use the eyedropper (or syringe or otherwise) to drop the different colors of water onto the cloud. The closer you squirt it to the edges, the faster it will go through and come down as “rain.”

#### How Clouds Work

This is a great and colorful way to visualize **precipitation** and explain to your young student how clouds and rain form. The model here is, of course, imperfect as you’ll want to note that clouds form when water vapor rises (from the ground, rather than above) into the air and then condenses. This condensed vapor floats about in the clouds, sticking together and forming rain droplets which eventually fall when the cloud becomes so “full” it can’t hold anymore.



### SHAVING CREAM rain clouds

onelittleproject.com



#### Make It An Experiment

The project above is a DEMONSTRATION. To make it a true experiment, you can try to answer these questions:

- Can you add food coloring in such a way that it “saturates” the cloud without rain falling?
- Does the shape and height of the “cloud” affect the rate of rain?
- Do different concentrations of the colored water (either with food coloring or added salt) affect the precipitation rate?

# Since the last issue

## Elementary Science Olympiad

### Overall Winners

- 1st – Ogletree Elementary School Team A
- 2nd – Fairhope Intermediate School
- 3rd – Pick Elementary School B
- 4th – Montgomery Catholic Preparatory School

For more information about Science Olympiad visit our webpage  
[www.auburn.edu/cosam/scienceolympiad](http://www.auburn.edu/cosam/scienceolympiad)

## GEARSEF

### Senior Division Best of Fair

- 1st – Lucas Lynn – Wetumpka High School
- 2nd – Elizabeth Melby – Carroll High School

### Junior Division Best of Fair

- 1st – Arnav Srivastava – East Samford School
- 2nd – Grace Greer – Auburn Jr. High School

For more information about GEARSEF visit our webpage  
[www.auburn.edu/cosam/gearsef](http://www.auburn.edu/cosam/gearsef)



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## For more information about any of our programs visit:

[www.auburn.edu/cosam/outreach](http://www.auburn.edu/cosam/outreach)

Or call us at 334-844-5745

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