

Safety  
First



# SCIENCES AND MATHEMATICS OUTREACH ANNUAL REPORT

AUGUST 2023 - JULY 2024



**AUBURN**  
Sciences and Mathematics  
Outreach

## DEAR SCIENCE AND MATH ENTHUSIASTS,

Budding scientists of all ages participated in scientific engagement and exploration through more than 60 programs offered by COSAM Outreach during the 2023-24 calendar year. STEM programs ranged from intimate gatherings discussing a recent scientific discovery to large, statewide competitions. COSAM Outreach impacted more than 8,400 lives this year.

In addition to inspiring and engaging K-12 students, COSAM Outreach is an avenue for sharing resources and educating teachers about scientific, mathematical and technological resources and advancements. Teachers inspire and expose students to the joy of learning about STEM topics. Their knowledge and thematic excitement is contagious.

Looking ahead, the COSAM Outreach office remains dedicated to sharing our passion for science, technology, engineering and mathematics. The joy of witnessing new concepts being grasped, excitement of discovery and hope to inspire fuels our commitment to continue making a difference in the coming years.

War Eagle!



Mary Lou Ewald

Director COSAM Outreach

## OUR MISSION

College of Sciences and Mathematics Outreach at Auburn University aims to promote scientific and mathematic literacy and interest among K-12 students, teachers and communities in our region, state and nation

*"Curiosity is the wick of the candle in learning."*

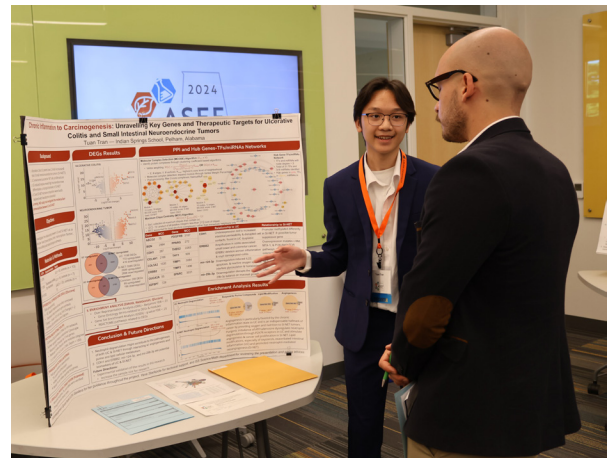
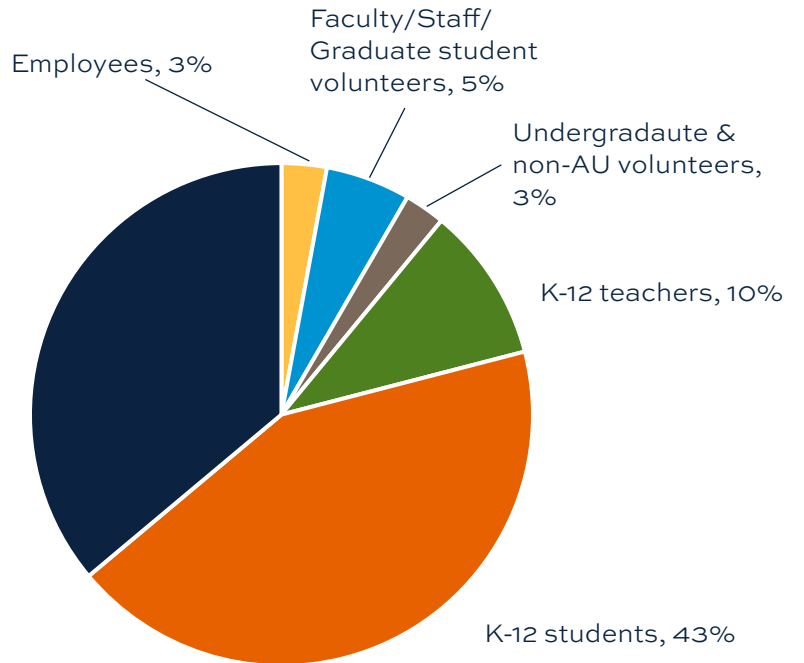
*- William Arthur Ward*

# COSAM OUTREACH INDIVIDUALS IMPACTED



**TOTAL IMPACTED**  
**8,400+**

General participants, 36%



# AUGUST 2023 - JULY 2024 IMPACT NUMBERS AT A GLANCE

## INDIVIDUALS

8,435+

## AGES

*ALL*

## DAYS

133

## PROGRAMS

## NUMBER IMPACTED\*\*

COSAM Campfire, 8/29/2023	52 participants
Destination STEM, 10/6/2023	1,137 participants
Physics tailgate, 10/21/2023	548 participants
COSAM Campfire, 10/25/2023	89 participants
EmpowHER, 11/6/2023	256 participants
AJAS Paper Reading Competition, 1/30/2024	9 participants
Elementary Science Olympiad, 2/10/2024	413 participants
MaPP, 2/17/2024	164 participants
State Science Olympiad, 3/23/2024	475 participants
ASEF, 4/13/2024	718 participants
Science Fair Teacher Trainings (thirteen trainings)	270 participants
Science Fair Judging & Service (five opportunities)	217 participants
GUTS (4/25/2024)	46 participants
Summer Science Institute, 6/2- 6/8/2024	54 participants
Anatobee competitions (two)	48 participants
Science Matters Camps (six weeks)	540 participants
Science Cafe/Pub (fourteen)	752 participants
Science Olympiad Teacher Training (five)	108 participants
Collaborative Programs*	2,639 participants

\*Collaborative programs are a partnership between STEM Outreach and another entity. During the 2023-2024 year these included GEARSEF, College Quest Academy STEM Day, AP Summer Institute, Modeling the Future Challenge Workshop, Science in Motion, Fort Moore Earth Day Fest, Science Olympiad South Regional, Science Olympiad North Regional, ASTA, Seal the Deal, COSAM Center and Institute Development, Flat Rock Middle School visit, Meet me at the VIC, COSAM before Convocation & Camp War Eagle.

\*\*Number of participants includes students, teachers, faculty, staff, volunteers and other attendees.

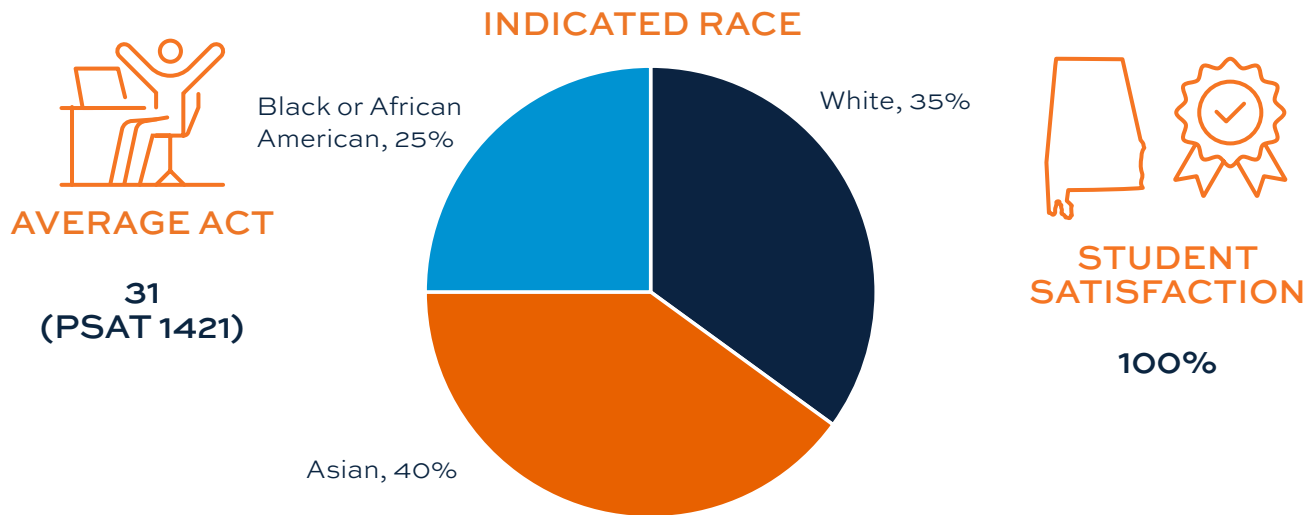
# PROGRAM SPOTLIGHTS

## SUMMER SCIENCE INSTITUTE

The Summer Science Institute (SSI) is a residential, week-long camp that partners high school scholars with more than 20 Auburn University science and math research faculty to engage in advanced topics. Through lab instruction and unique, hands-on opportunities, they get to explore cutting-edge science in research areas across COSAM's five departments.



Institute scholars experienced atmospheric chemistry testing, wild bird study field work, modeling experimental data of the universe, a herpetology hunt, solar energy experiments, using the physics of musical instruments to design and make a flute, and much more. SSI Scholars received a expense-free week of campus life thanks to faculty NSF broader impacts funding.



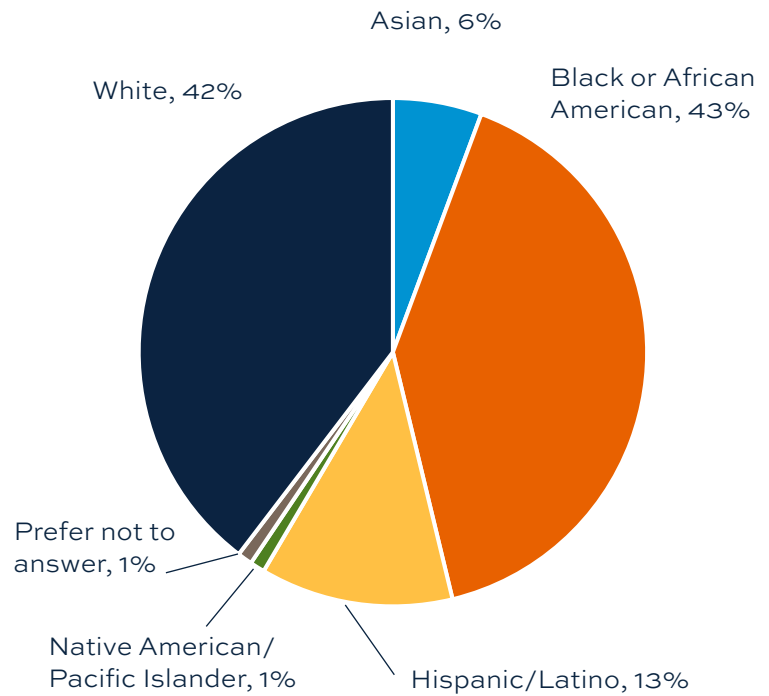
*“SSI has been such an amazing experience, and I will hold these memories for a very long time. I am truly grateful to have been chosen for this, and I am very thankful for everyone that has worked on this for providing us with such an amazing week.”*

*- 2024 SSI Scholar*



## EMPOWERHER

More than 180 girls and educators from 12 schools participated in EmpowHER — a unique opportunity for middle and high school students to engage with inspiring female role models and envision futures as STEM professionals. This event empowers and exposes a diverse group of young women to fields outside of what they think STEM encompasses and gives them the confidence to become innovators, problem solvers and leaders.



*“I will come back every year because these girls don’t get these experiences regularly. Programs like this expose them to a whole new path for their future. I want them to see the possibilities they don’t get to normally see.”*

*- Amy Harrell, Electic Middle School Teacher*

Attendees participated in break-out sessions, a discussion from keynote speaker Rhonda Broome and hands-on learning experiences during the STEM expo which showcased research and COSAM departments. The exhibits gave girls an opportunity to see animals up close, participate in scientific experiments, and learn about STEM degrees at Auburn. Breakout sessions during the event highlighted marine life, leaf pigmentation, drones, enzymology, physics and gave the participants a chance to hear from a panel of pre-health students.



## SCIENCE PUB/CAFE

Science Pubs/Cafés are monthly lecture style events in a casual setting across the Auburn and Opelika area. Scientists and Mathematicians from COSAM give presentations on research/interests at local businesses to members of the community. During the month of February, COSAM Outreach partnered with the Office of Academic Engagement, Innovation and Opportunity to highlight Black faculty and staff's contributions to Auburn. Science Cafe/Pub greatly increased its community impact this year.



PROGRAM GROWTH

201%



BUSINESS REVENUE INCREASE

95.2%



## PROFESSIONAL DEVELOPMENT



COSAM Outreach experienced a resurgence in professional development opportunities for teachers this year. Through the Science Fair Disco teacher trainings, Science Olympiad Rodeos and Advancing STEM Research Teaching (ASRT) training many new resources have been provided to educators on how to properly build successful STEM programs in their schools. These workshops will continue to impact students for years to come.

*"I enjoyed learning about the new opportunities for students in science. I felt like it put fresh air in my lungs for teaching."*

*- Science Fair Disco teacher attendee*

## THANK YOU



Thank you to our countless employees, mentors, donors and volunteers during the 2023-24 academic year. We would not have had the impact we did without your support.

Your commitment to meaningful exposure to the sciences and mathematics enables our youth to learn and explore while increasing their scientific literacy. You are inspirational!



AUBURN

Sciences and Mathematics

*Outreach*

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