Programs Offered by COSAM Outreach

AU Explore

AU Explore is COSAM’s annual Open House Day for 5th - 8th graders. On Thursday, April 30, approximately 1450 students from 31 schools all over Alabama attended this free event on Auburn’s campus. Students had the opportunity to experience live animals up close, as well as interact with University faculty and students at the Science and Math EXPOs. Make-n-Take Science Fun Shops and Demo Shows presented by Auburn’s finest also occurred throughout the day.

Funding Source: COSAM, Food & T-shirt sales during the event

AU Math-a-thon

The second annual AU Math-a-thon Tournament was held on Saturday, January 24, 2009. Teams of high school students from across the state competed in this one-day tournament featuring individual tests, team tests, and ciphering. A total of 130 students from 8 schools competed in the 2009 Tournament.

Funding Source: Self-supporting through participant fees

2009 BEST National Conference

The 2009 BEST National Conference was co-hosted by the College of Sciences and Mathematics and the Samuel Ginn College of Engineering in June 2009. Approximately 180 students, teachers, mentors, hub personnel and industry leaders attended this 4-day conference. Session topics included BEST practices, team management, BRAIN training, and much more. The conference included a banquet dinner with keynote speaker, Celeste Baine, Director of the Engineering Education Service Center, and a networking luncheon with industry personnel.

Funding Source: Conference Fees, BEST, Inc., Industry Sponsors

D.A.M.E.S. (Daughters and Mothers Exploring Science)

On November 14, 2009, 46 mothers and daughters came to Auburn University to experience science Auburn University style. D.A.M.E.S. aims to inspire and encourage young women to pursue careers in sciences and mathematics. D.A.M.E.S. is a one-day mini-conference that includes a variety of short hands-on courses, including Glamour Girls, DNA Jewelry, Exploring the Amazon Basin, and Shrinky-Dinkin’, taught by female students and faculty and women from industry, followed by a luncheon and keynote speakers, Dr. Patricia Wade and her daughter, Jessica Williams, a senior in Biomedical Sciences in COSAM.

Funding Source: Participant Fees, SWSM Sponsorship
**Eagle Ranch Education Partnership**

Beginning in 2009, AU COSAM Outreach began a partnership with the Eagle Ranch Christian Children’s Home in Flowery Branch, Georgia. On Saturday, February 7, 2009, seven Outreach Staff traveled to Eagle Ranch to host science courses for 38 students in grades 4-10. Courses such as Water Bugs, Genes in a Bottle, and Lemon Batteries were taught in one hour sessions throughout the day.

Funding Source: COSAM

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**G.E.A.R.S.E.F.**

Co-hosted with the Samuel Ginn College of Engineering, the Greater East Alabama Regional Science & Engineering Fair (G.E.A.R.S.E.F.) was held on March 12, 2009. Schools from 23 counties in Southeast Alabama are eligible to compete in the fair. A total of 80 projects from students in grades 6-12 were judged at this inaugural fair. Students that placed 1st or 2nd in their division and category moved on to compete at the Alabama State Science & Engineering Fair in Huntsville in April. Two exceptional students from our region advanced with an all expense paid trip to the International Science & Engineering Fair in Reno, Nevada in May. One of G.E.A.R.S.E.F.’s Finalists, Nicholas Christensen, from Wetumpka High School, went on to win 2nd place in his category at ISEF and was chosen as one of only forty students nationwide for the Intel Science Talent Search.

Funding Source: Participant fees, COSAM, Samuel Ginn College of Engineering, Society of Women in Sciences and Mathematics, AU WISE Institute

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**G.U.T.S.**

G.U.T.S. is a monthly program for kids in grades 1-8 and their parents or grandparents. Each evening session includes dessert followed by a 90-minute science activity featuring a “Getting Under The Surface” theme, such as the G.U.T.S. of Halloween, the G.U.T.S. of the Deep Sea, and the G.U.T.S of DNA. In 2009, three sessions were held in the spring, and 3 sessions held in the fall. In May, to conclude the 2008-2009 school year, we held a Backyard Bash with a CrAzY cHeMisTrY Show, hosted by Dr. Suzanne Striegler, as the year-end finale. Throughout the year, a total of 594 students and parents attended a G.U.T.S. session. In October 2009, we had the highest number to date, with 50 total pairs of students and parents.

Funding source: Self-supporting through participant fees
**Science Olympiad**

Science Olympiad is a one-day academic track meet, consisting of up to 23 different competitive events. On February 28, 2009, thirty teams of 15 students each in grades 6-9 converged on Auburn’s campus to compete in events ranging from Anatomy to Robots. Winners from the middle school division qualify to compete at the state Science Olympiad.

Funding Source: COSAM, T-shirt donation from AU Bookstore

**T.E.A.M.S. (Tests of Engineering Aptitude, Mathematics, and Science)**

COSAM Outreach and the Samuel Ginn College of Engineering co-sponsored the T.E.A.M.S. competition for students in grades 9-12 held on February 27, 2009. Eighty-one students from 10 schools worked together as teams and used the principles of engineering, math, and science to solve real world challenges. T.E.A.M.S. is sponsored by the Junior Engineering Technical Society (JETS).

Funding Source: School-based fees, Corporate Sponsorship (Southern Company)

**The Y.E.S. Program (Youth Experiences in Science)**

**Spring Y.E.S.** was held on Saturday, April 4, 2009. Spring Y.E.S. is a free program offered every spring for students in grades 3-6. Hands-on courses for the 2009 Spring Y.E.S. included Carnivorous Plants, Kitchen Chemistry, Earning Your Stripes and Getting a Jolt Out of Juice. A total of 91 students attended the 2009 event.

**Summer Y.E.S.** 2009 consisted of three 4-day camps for rising 1-9 graders.

- **Cub Camp**, for rising 1-3 graders, had 54 students with three courses - Clue Seekers, Mysterious Mixtures, and Slimy Science and was held July 6-9, 2009. Camp ended on Thursday, July 9 with a small ceremony for participants and their parents.
- **Tiger Camp**, for rising 4-6 graders, had 67 students attending and offered 4 courses - CHAOS (CHemistry And Other Sciences), Forensic Investigators, LEGO Mania, and Soda Pop Science. Tiger Camp was held July 13-16, 2009.
- **Eagle Camp**, for rising 6-9 graders, was held July 19-23 and had a total of 41 participants. Students were offered 4 courses - Claymation Science, Nano-Nonsense, Physics of Toys, and River Creatures. Participants were allowed to take one morning and one afternoon course throughout the week.

Funding Source: Participant fees
Boosting Engineering, Science, and Technology (BEST) Robotics

What do you get when you cross robots, a playing field, referees, cheerleaders, and pep bands? The BEST competition ever! BEST is an organization whose mission is to inspire middle and high school students to pursue careers in engineering, science and technology through a sports-like, science- and engineering-based competition. Started in 1993 with 14 schools and 221 students, today BEST has 35 hubs with over 650 middle and high schools and over 12,000 students participating each year. In 2009, Auburn University was named the national headquarters for BEST Robotics and hosted the first-ever BEST National Conference. BEST Robotics at Auburn University is a partnership between COSAM, the Samuel Ginn College of Engineering, and the College of Architecture, Design, and Construction.

War Eagle BEST

Formerly Alabama BEST, War Eagle BEST had 25 schools compete in 2009. Kickoff was held on August 29, 2009 in the new Student Center Ballroom, where teams were given the game theme - High Octane - and the task for this year - make iso-octane from other elements on the playing field. Five weeks later, on September 27, 2009 a practice “Mall Day” was held at Auburn / Opelika Colonial University Mall. On Saturday, October 10, approximately 600 students came together to compete in “High Octane”. The BEST Award winner was Wetumpka High School, while the Game winner was Lee-Scott Academy of Auburn.

Tennessee Valley BEST

Tennessee Valley BEST, hosted by Calhoun Community College, had 19 schools compete in 2009. Kickoff was held on Saturday, September 12, 2009. Teams were given the task for this year - make iso-octane from other elements on the playing field. Five weeks later, on October 11, 2009 a practice “Mall Day” was held. On Saturday, October 24, approximately 600 students came together to compete in “High Octane”. The BEST Award winner was the Decatur Austin Robotics Coalition, while the Game winner was Life Christian Academy. TV BEST is a partnership between Auburn University and Calhoun Community College in Decatur, AL.
On Saturday, December 12, 2009, Alabama Governor Bob Riley joined the crowd of over 3500 students, teachers, parents, and industry mentors at the 2009 South’s BEST Regional Robotics Championship. South’s BEST hosted 55 teams from 9 hubs and 11 states over the weekend of December 11-12, 2009. Notebook judging began on Monday, December 7 and continued on Wednesday, December 9. The 3rd annual Women in Science and Engineering Luncheon, sponsored by the WISE Institute and Toyota Motor Manufacturing, was held on Friday, December 11 and had over 160 attendees. The Friday night “Celebrate BEST” activities included a team video competition and a trivia challenge. Students answered trivia questions related to Auburn University, BEST Robotics, and general science and math while watching videos sent in from competing schools. Over $5000 in door prizes were also given out to students and teachers throughout the evening. The top four winners advanced on to the first BEST National Championship to be held in April 2010 in Dallas, Texas. The 2009 BEST Award winners were: 1st Place - Wetumpka High School (War Eagle BEST), 2nd place - W.P. Davidson High School (Jubilee BEST), and 3rd place - Wheeler High School (Georgia BEST). The 2009 Game winners were: 1st place - McFadden School of Excellence (Music City BEST), 2nd place - Milton High School (Emerald Coast BEST), and 3rd place - Decatur Austin Robotic Coalition (Tennessee Valley BEST).
2009 Sponsors

**Platinum Level ($5,000 - $14,999)**
- Alabama Power (Auburn)
- Alabama Power Generations (Birmingham)
- Auburn University, Vice President for Outreach
- Briggs & Stratton Foundation (Auburn)
- Donaldson Foundation (Auburn)
- Hyundai Motor Manufacturing of Alabama (Montgomery)
- Neptune Technology Group (Tallassee)
- Southern Company (Atlanta)
- Southern Nuclear Company (Birmingham)
- Wiregrass Foundation (Dothan)

**Gold Level ($2,500 - $4,999)**
- Brasfield & Gorrie Construction (Birmingham)
- First Year Program, School of Architecture, Auburn University
- Honda Motor Manufacturing (Lincoln)
- South's BEST Robotics Participating Hub Sites:
  - Calhoun Community College, Decatur (Tennessee Valley BEST)
  - David Lipscomb University, Nashville (Music City BEST)
  - Jubilee BEST (non-profit organization)
  - Mississippi State University, Starkville (Bulldog BEST)
  - School District of Philadelphia, PA (Philadelphia BEST)
  - Southern Polytechnic State University, Marietta (Georgia BEST)
  - University of Alabama at Birmingham (Blazer BEST)
  - University of West Florida, Pensacola (Emerald Coast BEST)
  - Wallace State Community College, Hanceville (North Alabama BEST)

**Silver Level ($1,250 - $2,499)**
- Auburn-Opelika Tourism Bureau
- CAD Academy (Surprise, AZ)
- DEPCO (Dependable Education Products Company, Pittsburg, KS)
- Rheem Manufacturing (Montgomery)
- Technical Training Aids (Pelham)
- Toyota Motor Manufacturing (Huntsville)
- VWR International (West Chester, PA)

**Bronze Level ($500 - $1,249)**
- Dr. George Blanks, Ginn College of Engineering, Auburn University
- GEARS Educational Systems (Hanover, MA)
- GKN Aerospace (Tallassee)
- Hoar Construction (Birmingham)
- Instrumentation Society of America (Birmingham Chapter)
- SERVO Magazine (Corona, CA)
- Women in Science and Engineering (WISE) Institute, Auburn University
Other Programs Affiliated with COSAM Outreach

**Advanced Placement Summer Institute for Teachers**

COSAM partnered with the Outreach Program Office and the Truman Pierce Institute to offer 10 different Advanced Placement workshops to 250 high school teachers during the week of June 22-26.

Funding Source: COSAM offers an in-kind sponsorship of facility space for the workshops and staff time to coordinate the program.

**Advanced Placement Summer Institute for Administrators**

COSAM partnered with the Outreach Program Office and the Truman Pierce Institute to offer an institute for administrators and counselors planning an Advanced Placement curriculum. The institute was held July 13-14, 2009.

Funding Source: COSAM offers an in-kind sponsorship of facility space for the workshops and staff time to coordinate the program.

**Arboretum Days**

Fall Arboretum Days were held once a month on Saturdays in September, October, and November. Programs targeted students in grades K-5, and were nature-based events and lasted approximately 1 hour. There is no fee for the programs, but registration is recommended.

Funding Source: COSAM

**Women’s Leadership Symposium in Science & Mathematics**

Held on August 21, 2009, the Women’s Leadership Symposium hosted 50 local high school girls at the Auburn University Hotel and Dixon Conference Center. Students participated in a panel discussion lead by female COSAM alumni and current students. Following the panel discussion, students had the opportunity to join the panelists in roundtable discussions. The day was capped off with a luncheon and keynote speaker, Dr. Kathy Pearson, Senior Consultant and Director of Executive Education for Decision Strategies International, Adjunct Associate Professor at the Wharton School, and Auburn University mathematics alumna from 1984.

Funding Source: Society of Women in Sciences and Mathematics; internal and external sponsorship.