

CSMCONNECT

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COLLEGE OF SCIENCE AND MATHEMATICS BIENNIAL NEWSLETTER

BIOLOGY
AND PHYSICS

CHEMISTRY
AND BIOCHEMISTRY

COMPUTER
SCIENCE

MATHEMATICS

STATISTICS
AND ANALYTICAL
SCIENCES

CSMConnect is the College of Science and Mathematics' (CSM) biannual newsletter designed to keep you informed of the latest activities and developments going on in the college. CSM is soaring into the next level of national prominence through cutting-edge research. The College is active in local and international scientific communities and promotes innovation in teaching.

CSM values the networks developed with partners on and off campus. You are important in our network of partners.

FROM THE DEAN

2014 has been a momentous year for the College of Science and Mathematics at Kennesaw State University. Just over 1 year ago, the Chancellor of the University System of Georgia announced that Kennesaw State University would be consolidating with Southern Polytechnic State University – forming an institution of nearly 32,000 students. This will make the new KSU one of the 50 largest universities in the country. The consolidation brings together 2 institutions with complementary strengths, and the point of overlap is found in the science and mathematics disciplines. Once consolidation is completed in January, the College of Science and Mathematics will grow to 170 full-time faculty, over 3800 majors, and will generate nearly 135,000 student credit hours during the academic year. These represent a nearly 35% growth in the size of the college! The college will have a significant presence on both the Kennesaw and the Marietta campuses, and will be one of the foundational colleges upon which the consolidated university will grow. These are exciting times at KSU as we enter our second 50 years.

In April, the Birla Carbon company generously agreed to sponsor 10 undergraduate students, allowing them to pursue research projects full-time during the summer. The Birla Carbon scholars program gives students a concentrated research experience allowing the students to focus their time and energy on discovery research projects directed by College of Science and Mathematics faculty. At the end of the summer, a symposium was held where the students had an opportunity to present their work to the public. The Birla Carbon Research Symposium was a huge success as the KSU community celebrated the research accomplishments of the students with scientists and management from the Aditya Birla Group. Mr. Sam Keenan, a senior majoring in Biology, who conducted research during the summer with Prof. Martin Hudson, was judged as having the best presentation, and he was awarded funds to support travel to present his research at an international conference. In recognition of the generous support of our students, lecture room 109 in the Science building was renamed the Birla Carbon Auditorium. We look forward to many years of our new partnership with the Birla Carbon company.



Dr. Mark R. Anderson, Dean

In September, Computer World magazine recognized the Department of Statistics and Analytical Sciences with its Data+ Editor Choice Award. Of the 20 organizations recognized by Computer World, KSU was the only university. Other awardees this year included Intel and AstraZeneca; and in past years, Harvard and Google. The award is in recognition of the innovative teaching of, and innovative use of, big data analytics. This award demonstrates the national reputation our statistics program has developed. A remarkable recognition given this program is only 8 years old. Congratulations to all of the students, staff, and faculty in our Statistics and Analytical Sciences programs.

None of this is possible without the support of our generous students, staff, faculty, alumni, and community partners. Kennesaw State University is setting a high standard for engagement and activity in the community, and I encourage you to connect with us. This is a time of great change at the university, and one of great opportunity. We will continue to grow and get stronger collectively by working together.



NEW CSM DEPARTMENTS

The former Department of Mathematics and Statistics has officially split into two departments, as of July 1, 2014.



College of Science and Mathematics
Department of Mathematics



College of Science and Mathematics
Department of Statistics and
Analytical Sciences

BIRLA CARBON SCHOLARS



Kennesaw State students earn research awards

Summer is usually a time when college students are either taking a break from their studies or looking for ways to make some extra cash. For 10 Kennesaw State University students in the Birla Carbon Scholars Program, summer has become an opportunity to advance scientific and mathematical research.

The new scholars program was developed in April 2014 with a \$250,000 pledge from Birla Carbon, a global manufacturer and supplier of carbon black additives, to support research opportunities for students in Kennesaw State's College of Science and Mathematics. The program kicked off this summer with 10 Kennesaw State students each receiving a \$4,000 stipend.

Each student scholar worked side-by-side with faculty researchers on projects dealing with topics from coastal ecosystems to traffic patterns on I-75. Their research findings were presented at the end-of-term symposium in August, and the top student, Samuel Keenan, received \$2,000 toward travel expenses to present his research at a national scientific conference during the upcoming academic year.

"Many students are not able to explore summer research programs because they must work full time between the spring and fall semesters," said Jonathan McMurry, associate dean of research of the College and Science and Mathematics. "This stipend allows them



(ABOVE) Photo of Birla Carbon Scholars 2014's inaugural recipients:

Top Row, Left to Right: Daniel Hoffman, Dennys Rosales, Meredith Sapp, Samuel Keenan, Bradley Norvel.

Bottom Row, Left to Right: Aaron Pital, Alberto Romero, Amber Caldara, James Law, Alden Lathrop.

Faculty mentors not shown: Troy Mutchler, Anda Gadidov, Susan Smith, Martin Hudson, Daniela Tapu, Heather Abott-Lyon, Carol Chrestensen, Jonathan McMurry, Chris Alexander, John Salerno

time and financial freedom to expand their research skills outside of the classroom and continue Kennesaw State's tradition of academic excellence."

Continue reading at bit.ly/CSMBirlaCarbon

2014 DATA+ AWARDS

KSU was one of only two universities ranked by Computerworld in its annual Data+ Editors' Choice Awards

Kennesaw State University was one of only two universities ranked by Computerworld in its annual Data+ Editors' Choice Awards, which recognize organizations for big data initiatives that have delivered significant business value.

Kennesaw State was among 20 organizations such as Google, Intel, Cisco, ThomsonReuters and Merck & Co., to earn the 2014 award. Only two universities were named to the list: Kennesaw State and Emory University, both Georgia higher education institutions.

Computerworld's Data+ Editors' Choice honorees were selected not only for their innovative use of analytics to achieve business benefits through big data, but also for their ability to demonstrate real-world results and help establish best practices for other IT practitioners in a rapidly expanding technology area.

According to Jennifer Lewis Priestley, professor of statistics and data science at Kennesaw State, the university was honored for its Master of Science in Applied Statistics program, which uses real-world data in the classroom in partnership with the SAS Institute, the largest independent vendor in the business intelligence market.

"This year's honorees have clearly demonstrated how their innovative strategies use data and analytics to make better business decisions, streamline processes and, in some cases, generate new revenue by tapping into new markets or creating ancillary data-based services," said Scot Finnie, editor in chief, Computerworld.

Continue reading online at bit.ly/CSMBigData



(ABOVE) Photo of Dr. Mark Anderson (left) and Dr. Jennifer Priestley (right) accepting the Data+ Award on September 8, 2014.

SCHOLARSHIPS



CarMax Auto Finance has established a two-year scholarship fund for Kennesaw State students in the increasingly critical fields of data analytics and applied statistics.

The CarMax Auto Finance Analytics Scholarship fund — \$50,000 over two years — will provide merit-based scholarships for 12 students enrolled in Kennesaw State's Master of Applied Statistics program or those seeking an undergraduate minor in Applied Statistics and Data Analysis. The scholarships will be awarded beginning Spring 2015.

IDROP

Congratulations to Dr. Chrestensen, Dr. Ritter and Dr. Salerno!



(ABOVE) Photo of Dr. Mark Anderson and Dr. Carol Chrestensen accepting awarded check at the Fall 2014 College-wide meeting.

IDROP project, "Connecting primary eNOS signaling data with computational analysis to assess the complexities of eNOS signaling," awarded \$75,000 research funding during the Fall 2014 College Wide Meeting.



Gifts to the departments of Computer Science, and Statistics and Analytical Sciences received 3 gifts totaling \$150,000 pledged by Lexis Nexis. A portion of the gift will be used to sponsor "R Day," a mini-conference hosted by the Department of Statistics and Analytical Sciences. Another portion of the gift will create a certification program that will give students, industry professionals and practitioners a comprehensive overview of real world big data projects.

"The Computer Science Department is proud and excited about these gifts as the first step toward an anticipated long-term partnership with LexisNexis involving their 'big data' and analytics technologies," said Interim Chair Ken Hoganson. "Our students will benefit with research opportunities in a hot area of computing, sponsored by and using LexisNexis HPC Systems (High Performance Computing Cluster) technologies."

LOCKHEED MARTIN SUPPORTS MATH EDUCATION



(ABOVE) Photo courtesy of Kennesaw State University.

Lockheed Martin is partnering with Kennesaw State University to invest dollars and talent in high school students interested in mathematics. The company awarded a \$16,000 gift to help fund a summer camp program for high school students on the Kennesaw campus, as well as provide funds to promote and support women in science and mathematics.



The courtyard between the College of Science and Mathematics buildings has undergone a drastic transformation, resulting in The Oasis. The outdoor classroom includes a water basin containing a diverse array of plant species in and around the basin. The Oasis, planned for the study of ecosystems in biology courses, opened on November 14, 2014.

The college is gratefully thankful to Dr. Joseph Cook for his generous donation to make this learning opportunity possible. The Oasis will provide our biology students unique hands-on experiences to study native Georgia plant life. Professor Cook first

visited the campus several years ago, recalling it as "a vibrant place," similar to the campuses in Florida where he established a career in higher education. Dr. Cook found KSU as his new home to directly impact the student learning environment.

Dr. Cook holds several degrees from the University of Florida and received his doctorate in 1968. He grew up throughout the South, spending childhood summers with his grandfather and extended family in Braselton, Ga.



(ABOVE) Photo of The Oasis, outdoor classroom opened November 14, 2014.

CONGRATULATIONS!

KSU honors outstanding faculty and staff

KSU Foundation Distinguished Research and Creative Activity Award:

Nikolaos Kidonakis, a professor of physics, was acknowledged for his career as a prolific, both nationally and internationally, recognized scholar in high energy physics who has written more than 100 articles and book chapters with more than 5,000 citations.

KSU Foundation Prize for Publications or Creative Activity:

Nikolaos Kidonakis was recognized for his article "Next-to-Next-to-Leading-Order Collinear and Soft Gluon Corrections for T-Channel Single Top Quark Production."



(ABOVE) Photo of Dr. Nikolaos Kidonakis receiving awards at the 2014 Annual KSU Foundation Distinguished Awards ceremony.



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This newsletter is a collaboration between the College of Science and Mathematics and the KSU Alumni Association.



College of Science and Mathematics



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ATLANTA SCIENCE FESTIVAL
March 21-28, 2015

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