

CSMCONNECT

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COLLEGE OF SCIENCE AND MATHEMATICS BIENNIAL NEWSLETTER

ECOLOGY, EVOLUTION, AND ORGANISMAL BIOLOGY

CHEMISTRY AND BIOCHEMISTRY

MATHEMATICS

MOLECULAR AND CELLULAR BIOLOGY

PHYSICS

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.

BOARD OF REGENTS APPROVES KENNESAW STATE PH.D. PROGRAM

Ph.D. in analytics and data science one of the first of its kind in the U.S.

The Board of Regents of the University System of Georgia approved at its meeting February 2015 a new Ph.D. program in analytics and data science at Kennesaw State University. The program is one of the first of its kind in the nation.

The innovative program, which will be launched in fall 2015, is designed to train individuals to translate complex large, structured and unstructured data into information to improve decision-making. The doctoral coursework will include programming, data mining, statistical modeling and the mathematical foundations to support these concepts.

The McKinsey Global Institute has predicted the demand for deep analytical talent in the U.S. will outpace the supply by almost 200,000 people before the end of the decade. McKinsey's 2011 "Big Data Report" and subsequent studies point to the need for universities to educate and train data scientists to address this demand.

"Developing new Ph.D. programs is one of Kennesaw State's top strategic priorities, and this program directly ties to the University System of Georgia's goal of increasing programs that contribute to a global Georgia," said Ken Harmon, the university's provost and vice president for academic affairs. "Graduates of this program can either pursue a position in the private or public sector as a practicing data scientist - where demand is expected to greatly outpace the supply - or pursue a position within academia, where they would be uniquely qualified to teach these skills to the next generation of practitioners."

The decision to develop a program in analytics and data science stems from the success of the university's existing Master of Science in Applied Statistics, whose graduates are in great demand and continue to have a 100 percent placement. Another factor was the minor in applied statistics and data analysis, which has undergraduate demand from every college across the university and similarly strong placement.



College of Science and Mathematics

Ph.D. in Analytics and Data Science

“ This program will help close the talent gap in the area of data science... ”

- Mark Anderson, dean of the College of Science and Mathematics

"Given the success of our outstanding master's degree program in applied statistics, it is natural to build upon that and create a Ph.D. program," said Mark Anderson, dean of the College of Science and Mathematics, which will house the new program. "This program will help close the talent gap in the area of data science and further enhance the university's regional and national recognition in applied analytics, while expanding the pool for analytical talent in Georgia."

Continue reading this story at bit.ly/CSMPhDProgram

Learn more about the Ph.D. program at datascience.kennesaw.edu.

KSU/SPSU CONSOLIDATION

The Board of Regents of the University System of Georgia voted to approve the consolidation of Kennesaw State University and Southern Polytechnic State University on January 6, 2015.



(ABOVE) Photograph collage of KSU and SPSU signs.

The College gained three new departments. The Department of Biology and Physics combined faculty and staff from SPSU and KSU to form 3 new departments. The Department of Physics will offer courses of study in general physics, electrical engineering, mechanical engineering, and physics education. The biology focus has been reorganized to create two departments. The Department of Ecology, Evolution, and Organismal Biology will offer courses of study related to the environment, plants, and pre-professional careers. The Department of Molecular and Cellular Biology concentrates on areas of study in sub-disciplines of cellular biology, as well as biotechnology, bioinformatics, cytogenetics, and microbiology.

The Department of Chemistry and the Department of Mathematics increased faculty and staff from their respective SPSU departments.

The Department of Computer Science transferred from the College of Science and Mathematics. The department is now in the College of Computing and Software Engineering and will be located on the Marietta campus starting Fall 2015.

More information about the consolidation can be found at <http://www.ksuspsuconsolidation.com/>

MEET OUR NEW CHAIRS



Philip Patterson, Ph.D.
Department of Physics
Interim Chair and Associate
Professor of Physics

Photo courtesy of Southern Polytechnic State University

Dr. Philip Patterson is the prior chair of the Department of Physics and Astronomy at SPSU. He received a Bachelor of Science in Mechanical Engineering Technology from Purdue University. Dr. Patterson received a Masters of Science in Technology Management from Southern Technical Institute and a Masters of Science in Physics from Clark Atlanta University. He received a Ph.D. in Science Education from the University of Georgia.

When he is not teaching, Dr. Patterson plays the piano and is an occasional musician at his church. He also enjoys cars, traveling, and cooking for friends and family.



Mark Sugalski, Ph.D.
Department of Ecology,
Evolution, and Organismal
Biology
Interim Chair and Associate
Professor of Organismal Biology

Photo courtesy of Southern Polytechnic State University

Dr. Mark Sugalski is the prior chair of the Department of Biology and Chemistry at SPSU. He received his Bachelor of Science in Biology and Environmental Chemistry from Roger Williams University. Dr. Sugalski received a Masters of Science in Zoology and a Ph.D. in Zoology from Miami University of Ohio.

Outside of teaching, Dr. Sugalski enjoys practicing Kendo, and camping and hiking.

NEW CSM DEPARTMENTS

The Department of Biology and Physics restructured as of January 6, 2015



College of Science and Mathematics
Department of Molecular
and Cellular Biology



College of Science and Mathematics
Department of Ecology, Evolution
and Organismal Biology



College of Science and Mathematics
Department of Physics

CARMAX SCHOLARS



CarMax Auto Finance Analytics scholarships were awarded in January 2015 to 10 students enrolled in the Department of Statistics and Analytical Sciences Master of Applied Statistics program or Applied Statistics and Data Analysis minor program.

The CarMax Auto Finance Analytics Scholarship fund — \$50,000 over two years — will provide merit-based scholarships for eligible students in the increasingly critical fields of data analytics and applied statistics and are enrolled in Kennesaw State's Master of Applied Statistics program or those seeking an undergraduate minor in Applied Statistics and Data Analysis.



Back L to R: Kevin Duck (CarMax), Guillermo Henrici (CarMax), Ben Zhou (CarMax), Dennys Rosales, Bogdan Gadidov, William Ward, Kevin Robinson, Ruban Hilliard

Front L to R: Jon Daniels (CarMax), Erica Cain (CarMax), Melony Parkhurst, Sherrie Rodriguez, Holly Deal, Kendrick Pulver

KENNESAW STATE RESEARCHERS USE BMI TO HELP INCREASE THE NUMBER OF HEALTHY PREMATURE INFANTS

Kennesaw State University researchers have developed a new tool that will provide a more complete assessment of preterm infant size, helping individualize nutritional care to optimize growth and other health outcomes in preterm infants.

The study "BMI Curves for Preterm Infants," published in the March issue of Pediatrics, the Journal of the American Academy of Pediatrics (KSU authors Irene E. Olsen, M. Louise Lawson, A. Nicole Ferguson, Rebecca Cantrell and Shannon C. Grabich), shows that when standard growth curves take the infant's body mass index (BMI) into account, this can result in improved nutrition for the preterm infant. These new measurements provide more information for doctors and clinicians and ultimately help premature infants grow better.



Photo courtesy of Kennesaw State University.

"We developed gender-specific BMI-for-age percentile tables and growth curves that, when used in conjunction with weight-, length-, and head-circumference-for-age growth curves, help reveal disproportionate growth in infants that is not detected by current size-for-age methods," said Louise Lawson, professor of statistics at Kennesaw State and one of the authors of the study.

Continue reading this story at bit.ly/CSMNewsFeb1715

CONGRATULATIONS!

CSM honors outstanding faculty and staff

College Distinguished Awards

Mentoring: **Anda Gadidov**, Ph.D., Associate Professor of Mathematics

Service: **Scott Nowak**, Ph.D., Assistant Professor of Biology

Scholarship: **Bo Yang**, Ph.D., Professor of Mathematics

Teaching: **Yuliya Babenko**, Ph.D., Associate Professor of Mathematics

Professor: **Paula Jackson**, Ph.D., Professor of Biology

Staff: **Rhonda Eswine**, Administrative Associate II for Mathematics





College of Science and Mathematics

Kennesaw State University
College of Science and Mathematics
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Dr. Anda Gadidov
Associate Professor of
Mathematics

Our hearts are heavy with the passing of Dr. Anda Gadidov. Dr. Gadidov had a profound impact on the lives of many KSU mathematics and statistics students, past and present. She was also a valued colleague and friend, one whose legacy is marked with great humility and heart. Dr. Gadidov was known most for selflessly sharing her time, energy and great intellect with colleagues and students.

Anda joined KSU in 2003, earning tenure and promotion in 2008. She was an instrumental member of a small group of faculty who created the very successful MS in Applied Statistics program, the first graduate program in the College of Science and Mathematics.

Plant the seed of Education

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Learn more about the new Ph.D. program:



Get the Data!



DataScience.kennesaw.edu

Kennesaw State University
College of Science and Mathematics Alumni group
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