Henson School of Science & Technology

Nursing Earns MHEC Grant

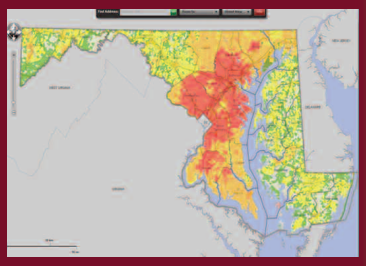
A new program to develop quality adjunct nursing faculty for area campuses, with an emphasis on recruiting multiethnic and multicultural faculty, has been awarded $376,498 from the Maryland Higher Education Commission (MHEC). The SU Nursing Department, in partnership with Chesapeake and Sojourner-Douglass colleges, is creating the Eastern Shore Faculty Academy and Mentorship Initiative. The grant is funded through MHEC's Nurse Support Program (NSP-2). Expected to start in late fall 2011, the Academy is taught twice per year by faculty teams from partner schools. It blends online learning with face-to-face sessions, simulated clinical teaching at SU's new medical simulation center, and mentoring workshops to support participants' first part-time teaching assignments. Graduates teach at least one clinical section per year for one of the partner schools. Initially, they earn continuing education units, and ultimately, the goal is to award graduate credit to encourage further education. Current SU faculty involved with the project include Drs. Tina Brown, Katherine Hinderer, Judith Jarosinski, Brenda Mister and Lisa Seldomridge. Funded through the Health Services Cost Review Commission, MHEC's NSP-2 helps address the statewide shortage of registered nurses and nursing faculty.

The Science Of Increasing STEM Graduates

SU is helping to recruit, retain and ultimately graduate more students in the fields of science, technology, engineering and math (STEM), supported by a nearly $1 million National Science Foundation grant. The new "Science Nights at SU" program provides unique learning opportunities for high school juniors and seniors in Wicomico and Worcester counties who are considering careers in the growing STEM fields. The free series features STEM experts presenting information on research and career options in earth science, chemistry, physics, computer science, engineering, atmospheric science, math and biology. During the evening program, the participants are engaged in active learning opportunities and interact with current SU STEM teachers and students. Other future scientists visited SU as it hosted the Maryland Science Olympiad's first regional tournament on the Eastern Shore. From exploring forensic evidence and modeling proteins to timing helicopter flights and battling robots, some 80 middle and high school students competed. Throughout the day, the high school students were asked to identify forensic evidence in crime scenarios, design complex Rube Goldberg-like devices, and build wind and percussion instruments. They also demonstrated astronomy and chemistry skills. Middle school students worked to characterize substances, create devices from "junkyard" materials, gather quantitative data, and answer questions about microbes, optics and the solar system. Both groups classified fossils, conducted an experiment, and took tests on anatomy and ornithology. More than 20 SU students and faculty served as judges for the event.

Mapping Project Sets SU Funding Records

After the first year of SU's work with the state's broadband mapping initiative, the Maryland Broadband Cooperative, Inc. (MdBC) extended its contract with the Eastern Shore Regional GIS Cooperative (ESRGC) to five years and increased it to more than $2.12 million. With this increase, the initiative is now the largest single externally funded project in SU history. Operating within a challenging schedule, the ESRGC, as the technical lead for the project, met or surpassed every grant requirement and developed leading practices that are benefiting the people and businesses of Maryland. The ESRGC is being emulated by other states and has been recognized by federal officials for its creative solutions to complex issues. Led by Dr. Michael Scott (far right), Geography and Geosciences Department, the best measure of the ESRGC team's performance is reflected by the National Telecommunications and Information Administration more than doubling its investment in Maryland's broadband mapping and planning initiatives. With the extension, the ESRGC is taking on a number of additional tasks related to expanding the scope of the online broadband map. Initially, the map showed the service areas of some 40 broadband providers that have their own physical infrastructure. The ESRGC is adding data about companies that rent the lines of these providers and resell broadband service to consumers. It also tracks WiFi hotspots.

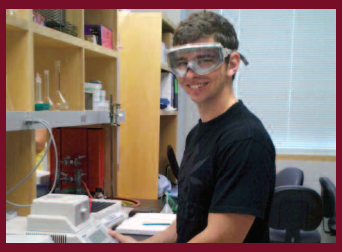


A Model Teacher & Mentor

Dr. Don Spickler, Mathematics and Computer Science Department, was honored for his work in the classroom and beyond. The Maryland/Virginia/District of Columbia section of the Mathematical Association of America named Spickler one of the region's best, honoring him with its prestigious 2010 John Smith Teaching Award. In addition, Spickler is SU's Outstanding Research Mentor for 2011. Announced at the 10th SU Student Research Conference (SUSRC), the honor celebrates faculty who are excellent supervisors of student research and scholarly work. Since 2003, with Spickler's guidance, some 21 students working on 15 different research projects have presented at the SUSRC. Some of his students have presented at the National Conference on Undergraduate Research and at discipline-specific meetings across the state and region. Spickler also has delivered some 30 talks in 10 years at SU. In addition to the sheer number of projects, colleagues also have noted the breadth of problem-types and fields of inquiry Spickler's students have explored.

Student Researchers

Thanks to travel awards from the American Society for Biochemistry and Molecular Biology (ASBMB), three SU students attended its Experimental Biology 2011 meeting and participated in the 15th annual student research poster competition. SU is the only Maryland institution to have students selected by ASBMB for the $400 awards. Biology major Allison Ose (bottom) works with Dr. Chasta Parker (chemistry) on using a cloning technique to study the protein hormone adiponectin, which may ultimately lead to new drugs to treat obesity-related diseases.



Chemistry major Matthew Copeland (above) explores the biochemical process of obesity-related cancers and how adiponectin works as a possible treatment. Biology major Sabrina Kunciw (top) has been working for two years with Dr. Eugene Williams (biological sciences) to explore how fish alter the composition of their cell membranes in order to survive changes in water temperature.