From the Dean’s Desk       April 1, 2010

CSAT Hosts Science Exploration Day  -Ross Gillett

On March 27, about 120 boy and girl scouts lined up in front of McGuffey 203 to register for the Radford University Science Exploration Day, hosted by the CSAT STEM Club. After the necessary forms were completed, the students gathered in McGuffey 203 for the opening ceremony.

A group of eight students had the opportunity to learn from math faculty member John McGee about space exploration. McGee led his students through a brief history of space exploration, and then the kids had the opportunity to build and launch their own model rocket in the rugby fields across from the Dedmon Center.

Scouts in RU math faculty member Laura Spielman’s class Math, Maps, and More created a budget for trip. They also drew to scale a map that showed major features of interest experienced during their trip. Math, Maps, and More wrapped up by discussing mathematics related college and career opportunities, and the importance of math in everyday life.

RU Emergency Preparedness executive director Dennie Templeton took students through individual, family, community, and national emergency preparedness procedures as a part of his emergency preparedness course. They also learned about state and federal emergency management preparedness and response principles based on the National Incident Management System.

The computer class, led by IT faculty member Joe Chase, let students explore online safety, the impact of computers on society, the impact of computers on the family, the parts of a computer, file types and uses, the interrelationship between hardware and software, and a programming language.

Scouts in the chemistry class learned from Francis Webster, Christine Hermann, Libby Watts, Tim Fuhrur, Cindy Burkhardt and Kim Lane about chemistry through fun activities including making ice cream using liquid nitrogen. Other classes’ scouts were able to choose from included Meteorology with Rhett Herman, Personal Management with Virginia Cooperative Extension Agents Melissa Chase, Dawn Barnes and Celia Hayhoe, and Astronomy with Jack Brockway.

At 3 p.m. scouts met outside Reed Hall for the closing remarks. Dean Rogers thanked the scouts and their parents for participating in RU’s Science Exploration Day, and encouraged students to take a guided tour of the planetarium, the greenhouse, the Museum of the Earth Sciences, the campus, or watch a presentation on video game programming.

Many CSAT faculty, and volunteers from the APO student club and CSAT STEM club contributed to the outstanding success of the day. Parents picked up their children at Reed Hall at 4 p.m. RU hopes to hold another Science and Exploration Day in the fall semester if 2010.

(top right) CSAT STEM Club and APO members helped scouts register at 7:30 a.m.

(middle right) Libby Watts teaches scouts about chemistry

(bottom right) Joe Chase teaches scouts about computers

(left) Chemistry club members served as teaching assistants during the chemistry class.
RU CSAT Hosts SuperMACC Tournament

The College of Science and Technology hosted the semi-final and final rounds of the Super MACC high school academic tournament in partnership with Radford City High School on March 22 at 5 p.m. in McGuffey 203 and Bondurant Auditorium. The RU Office of Admissions offered tours and information for visiting students throughout the evening and hosted the judges lounge for the competition.

Close to 100 academically gifted students from Eastern Montgomery, Radford, Blacksburg, Christiansburg, Pulaski, Galax, Carroll and George Wythe high schools competed in subjects such as all around, English, math, science and social studies. RU faculty members Steve Fawthrop, Joel Hagen, Kathy Kelly, Don Cunningham, Agida Manizade, Karen Frani and Richard Straw in addition to education major Regina Marlow volunteered as judges for the event. CSAT STEM Club members and Dean’s Student Advisory Council members Erin Fowler, Lisa CotSimopoulos, Katherine Shockley, Tyler Bristow, Brittany Christian, Brittany Little, Gabby Ness and Arielle Reynolds volunteered as time-keepers and score-keepers.

At the end of the evening, the all around team from Eastern Montgomery, the English team from Radford, the math team from Blacksburg, the science team from Christiansburg, and the social studies team from Blacksburg were named champions of the tournament.

RU Biology Student Publishes Ground-Breaking Research

Brandon Newmeyer, a sophomore biology student from Richmond, was recently published as first author in the Journal of Neuroendocrinology. Teamming up with RU faculty mentor Mark Cline and Paul Siegel at Virginia Tech, Newmeyer was the first to demonstrate the appetite associated effect of neuropeptide AF and designed a study to test neuropeptide AF in anorexic and obese models of chicks. This research may lead to a solution to the problem of obesity in humans.

In his study, he shows the anorexic model had increased sensitivity over the obese model for reduction of food intake, and that these effects on appetite are most likely due to the neurotransmitter itself, not some other response that secondarily masks hunger. Newmeyer demonstrated that obese individuals have reduced sensitivity to neuropeptide AF, and this may be associated with their increased body weight and increased appetite. This research could be the first step to formulate a new anti-eating strategy for obese people.

According to Cline, this research is exciting because it is rare to find a new neurotransmitter that effects appetite, more rare to find one that acts differently in anorexic versus obese individuals, and an RU student who is only in his second year of college has designed, conducted, and published these studies.

Newmeyer says that Radford University gives students unique opportunities to get hands-on experience to design and conduct original research with published scientists such as Cline.

Ultimately, Newmeyer hopes to obtain his Ph.D. in neuroscience and establish his own research laboratory at a university.
RU Sophomore Founds Computer Repair Business

Brian Putt, a sophomore information technology student, has successfully started a computer repair business that can offer computer repair assistance virtually or in person. Putt started Geeks On Campus when he had a computer issue of his own.

Putt has always enjoyed “toying around with computers,” and at first, started a “on the side” to help his family, friends and neighbors with their computers issues. This led him to the idea of starting Geeks On Campus. “I have a passion for fixing computers, and I believe it is this passion that will make me successful,” Putt says.

Putt grew up in Williamsburg, Va. and chose to come to Radford because he heard it was a great university. Spending most of his time on the computer, he enjoys building websites, playing games, programming, and surfing the web. A member of the Collegiate Entrepreneurs on RU’s campus, Putt plans to graduate in May 2012. He will be releasing Geeks On Campus to Virginia Tech in the fall, and would like to release it to every college in Virginia within the next few years. He hopes that one day Geeks On Campus will grow across the nation. As for his future, Putt plans to dedicate most of his time towards his newly founded business, and hopes to eventually get it to a point where someone else can manage it, while he continues to expand it.

Summer Bridge Serves as Springboard for Future CSAT Students

The College of Science and Technology will host its annual Summer Bridge program July 11-16. This year, rising sophomore, junior and senior high school women interested in mathematics, information technology, or science will learn about breaking codes and its use in cybersecurity; the use of biotechnology, anthropology and archaeology in investigating crimes; and the use of geological and geography principles in environmental science and preserving our rivers.

The Summer Bridge program was designed to encourage female high school students to explore the fields of mathematics, information technology and science in their future educational and professional lives.

Freshman biology and chemistry major Jasmine Jackson attended the Summer Bridge program as a rising senior in high school in 2008. She says it was the deciding factor in her choice to attend RU. She says that the Summer Bridge biotechnology class with Georgia Hammond left the biggest impression on her. Some of the concepts that they learned in Summer Bridge she saw again during RU biology professor Fred Singer’s class this year.

“I really enjoyed the Summer Bridge Program, because it helped me get a feel for how it is to live on campus … I enjoyed all of the activities, such as going to Selu, as well as the biotechnology class, where we were able to make slides of E. coli with one of Radford’s professors, Dr. Hammond.” Summer Bridge Program 2010 is made possible through funds from The Dominion Foundation, Novozymes Biologicals, Inc. and Project Discovery of Virginia.
Stephanie Roane, a 2006 biology graduate and marathon runner, plans to attend Eastern Tennessee State University’s Doctoral program for Physical Therapy. Before committing to graduate school, Stephanie was employed with Eastman Chemical Company as a Chemical Technician to “discard any doubt” about her desire to work in physical therapy, she says. It wasn’t until she returned to school in 2009 to further her chemistry expertise through Eastern Tennessee State University’s (ETSU) graduate program in chemistry that her interest of physical therapy was rekindled. ETSU also offers a doctoral program in physical therapy. “It appears that now more than ever, the opportunity to go back to school full-time to pursue physical therapy has really presented itself,” says Roane.

Aside from pursuing excellence in education, Stephanie also pushes herself in physical pursuits. After three half marathons, she’s ready for her first marathon this May in Green Bay, WI. When asked about her upcoming race, she said, “I think John Bingham says it best; ‘The miracle isn’t that I finished, the miracle is that I had the courage to start.’ Although, I really hope I finish!”

NSF Awards RU $36,350 in Project Funding

The National Science Foundation Division of Undergraduate Education awarded the College of Science and Technology $36,350 to fund a CCLI – Type 1 project. The project entitled “NSF Symposium: Innovations in the Undergraduate Curriculum Fostered by the CCLI Program” will be directed by Dr. Robert Bogess, Professor Emeritus of Chemistry, and Dr. Cindy Burkhardt, Professor of Chemistry. Symposia will be organized and convened at both national and regional meetings of the American Chemical Society. Recipients of recent Course, Curriculum, and Laboratory Improvement – Type 1 awards will discuss innovations and improvements that have been implemented into undergraduate science, technology, engineering, and mathematics (STEM) curricula at their institutions. These symposia will provide a means of dissemination for innovative projects that have been pivotal in curricular reforms at institutions of all types across the United States.
The CSAT STEM Club recently took a trip to Washington D.C. Members visited various museums including the National Air and Space Museum, Natural History Museum and the Natural Museum of the American Indian.

The CSAT STEM Club was honored to sponsor the RU Science Exploration Day event this past Saturday. Many of the club members volunteered as teaching assistants.

The CSAT STEM Club will be nominating and electing officers in the next couple weeks. CSAT STEM Club is continuing with the colloquium series. Students are encouraged to come and listen to Radford professors discuss their research and ideas. On Thursday, April 1 at 5 p.m. in Young 406, Dr. Premchand Uppuluri will give a talk on Host Based Computer Security: Current Research and Trends.

On Thursday, April 8 at 5 p.m. in Cook 129, Dr. Gary Coté will talk about his trip to the Arctic. He will discuss the rocks, ice, plants, wildlife, and people he came across on his trip. On Thursday, April 15 at 5 p.m. in Walker 225, Dr. Skip Thompson will present Pretty Pragmatic Ploys for Playing with Parametric Problems.

Scenes from RU Science Exploration Day Hosted by CSAT STEM Club