From the Dean’s Desk

CSAT Fall College Meeting Set for August 27

The College of Science and Technology will host a fall start-up meeting on August 27, 2009 at 9 a.m. in McGuffey Hall, room 206. All faculty are encouraged to attend.

The meeting’s agenda includes

- Presentation of college goals
- Introduction of the college leadership team
- College committee nominations and elections
- Introduction of new faculty and other updates

CSAT Enjoys Busy Summer of Recruitment and Outreach

The College of Science and Technology Dean’s Office hosted summer camps for elementary and high school students interested in science, technology, and math. From June 22—26, close to 50 rising first through sixth graders explored the sciences during Camp Invention in Reed and Curie Halls. The junior scientists learned about Newton’s Laws of Motion during Imagination Point: Ride Physics, propulsion during Crash Landing on Planet Zak, and the inventing process during I Can Invent in addition to cleaning up the polluted Sludge City.

The CSAT plans to continue this outreach initiative by hosting Camp Invention June 21—26, 2010. From July 12-17, the CSAT welcomed 43 high school girls from across Virginia to its Summer Bridge 2009 program. All participants expressed extreme interest in attending college and majoring in science, technology or math. To be accepted into the summer program, the students were required to write an essay about how Summer Bridge would enhance or help solidify their future educational or professional goals.

The students learned from expert RU CSAT faculty including Hui Wang, Georgia Hammond, Donna Boyd, Cliff Boyd and Patterson Rogers. In addition, Darrell White, Rhett Herman, Stephen Lenhart and Jack Brockway offered evening enrichment opportunities during the week. The Summer Bridge Program 2009 was supported by corporate donations from Dominion Resources, Polymer Solutions and Novozymes Biologicals. Project Discovery also supported the program.

The college plans to continue this recruitment initiative next summer pending corporate support. Already, Project Discovery has pledged funds to support tuition, room and board for 10 students in 2010.
ChemEd 2009 Outstanding Success

CSAT's chemistry program hosted ChemEd 2009 August 2 - 6 on RU's campus. More than 500 chemistry high school teachers from across the nation and world attended.

The conference started with welcome remarks by CSAT Dean Orion Rogers, Provost Wil Stanton and President Penelope Kyle as well as the “Magic of Chemistry” show by Francis Webster and his staff of volunteers. Conference workshop topics included Misconceptions in Chemistry: Diagnosis and Cure, Teaching Combustion in the High School Classroom, Making Super Science Connections, Learning Chemistry with Software for Molecular-Level Visualization, Teaching Chemistry with Pyrotechnic Flair, Chemistry Myth Busters: An Inquiry Project Idea, and Inquiry Problem Based Laboratory Experiments.


Biology Faculty and Students Published in Professional Journals

- Cline, M.A., J.E. Layne, W.A. Calchary, R.R. Sheehy, Tetsuya Tachibana; Mitsuhiro Furuse. LPLRFamide causes anorexigenic effects in broiler chicks and bobwhite quail. General and Comparative Endocrinology. in press.
- Marissa L Smith; Nicole A Kohart; Brandon A Newmyer; Mark A Cline. Gamma (2)-melanocyte stimulating hormone decreases food intake in chicks. Neuroscience Letters. In press.
- Gary Cote's article published in the American Journal of Botany is featured on several science news websites:
  - Science Codex: http://www.sciencecodex.com/tiny_crystals_may_protect_plants_from_animal_threats

Faculty are invited to send notice of recent publications and professional accomplishments to Ann Brown (abrown238@radford.edu) in the Dean’s Office to be included in future From the Dean's Desk newsletters and the CSAT website.
IT Student Project To Be Presented at Professional Conference

Information technology students Brandon Shaver and Jason Welch created a project for Pulaski Hospital nurses to help them provide the correct dosage of medication for patients.

With their faculty mentor Dan Spillman’s guidance, their project paper “Development and Implementation of a Decision Support Tool to Assist Pharmacists to Determine Precise Dosing and Intervals of an Aminoglycoside (Antibiotic)” was selected for presentation and publication in the Proceedings of the 45th Annual Conference of the Southeastern Chapter of the Institute for Operations Research and the Management Sciences Oct. 1—2 in Myrtle Beach, SC.

The project was created for Spillman’s ITEC 485 class. It is a decision support application in conjunction with hospital pharmacists to create an Aminoglycoside dosing program that pharmacists and nurses can use in administering medications to treat aerobic bacterial infections.

“I think they have a rather unique project that is community outreach. I like to have students be creative and discover ways that they can give back,” says Spillman. “The pharmacists wanted an application that was small, lightweight, portable, uncluttered and dead simple to use. We think we’ve done it,” said Shaver and Welch.

Shaver and Welch graduated in May 2009.

Summer Outreach (continued from page 1)

Rising first through sixth graders learned science and math concepts during Camp Invention, hosted by the CSAT June 22-26 in Reed and Curie Halls. Photos courtesy of University Relations.
Advising Corner: Fall Updates—Susan Underwood

This fall, all the new students are under the new Core Curriculum. For a while, we will be advising students under both programs. Continuing students have the option of switching to the new catalog.

The heart of the Core Curriculum is the 4 course sequence that is designed to be completed by the end of the sophomore year. For more details visit http://core.asp.radford.edu/. There are also progress sheets for each major under the advising tab.

During fall registration, students will be registering using the new Banner system. The registrar’s office has been working on manually recoding the audits to reflect the new core curriculum. There are yet a lot of problems to be corrected, so please be alert when looking at the audits for the new students. You may encounter problems such as missing requirements or incorrect requirements.

Web registration for continuing students will begin August 29 and continue through midnight Sept. 6. New students must go to the Advising Center for their major before 5 p.m. on Friday to make any schedule adjustments.

Masters in Math Ed Program Welcomes First Students

After months of recruitment efforts, the Master of Science in Education with a concentration in mathematics education program is welcoming its first cohort of students. At this time, 13 students have been accepted into the program. They hail from areas across Southwestern Virginia including Henry, Russell, Grayson and Wise Counties in addition to Roanoke and Radford Cities.

“This program is designed to enhance secondary mathematics teachers’ knowledge for teaching while providing the mathematical content preparation required for teaching at a two- or four-year college,” says mathematics education coordinator Laura Spielman.

The first class will be taught using distance education technology with students located on RU’s main campus, Southwest Virginia Higher Education Center, New College Institute and Roanoke Higher Education Center.

Interested students can apply for the program until the first day of classes on Aug. 31, 2009. For more information visit www.radford.edu/gradcollege/.

Geology Professor Creates Virtual Field Trips

Geology professor Parv Sethi worked together with the U.S. National Parks and Brooks/Cole publishers to create a series of virtual field trips to the national parks that incorporates learning objectives and self tests.

Sethi combines still photographs, hi-definition video and 360 degree wrap-around panoramic photographs in a storyboard with text and geology content for the parks. The virtual tour can be taken online or in a CD-ROM and DVD-ROM format.

Grand Canyon, Arches, and Hawaii Volcanoes National Parks are included, as well as many others. Designed to be used as homework assignments or lab work, the modules use a rich array of multimedia to demonstrate concepts. High definition videos, images, animations, quizzes, and Google Earth activities work together in Virtual Field Trips to bring the concepts to life.

This fall, programs about Geologic Time, Sedimentary Rocks: Formation and Correlation, Desert Environment, Running Water, and Groundwater are available for geosciences teachers to use in their classrooms.

For a demonstration, visit http://cengagesites.com/academic/assets/eMarketing/VFTfinal/index.html.
Museum of the Earth Sciences Receives Donation of Counter

The Museum of the Earth Sciences recently installed its newest donation of an attendants counter at the entrance of the museum. The custom-made oak counter, valued at $1,200, was donated by Ms. Christine Grimsley and family. The counter is topped by custom-cut granite, valued at $425, and donated by The Cabinet Company, Inc. in Radford and Johnson Granite Inc. in Mount Airy, NC. This beautiful piece of craftsmanship will assist museum volunteers in welcoming thousands of visitors to the facility in the upcoming school year.

Since opening two and half years ago, the museum has welcomed more than 6,700 visitors, mainly regional K-12 students. New displays opening in the fall include the Corning Glass Earth Under a Microscope interactive exhibit and the Earth’s Treasures Room with gemstones and fluorescent minerals under ultraviolet light.

RU Greenhouse Gets a Facelift

The RU Greenhouse will soon reopen with new “smart” technology and updated materials.

The facility was build in 1979 and 1980, and much of the equipment has not been replaced since its installation. Beginning in September, visitors to the Greenhouse will see a seemingly brand new facility with new glass, new benches, new doors, quieter fans, and shade cloth to protect sensitive plants.

Fully automated controllers will operate heaters, coolers, the amount of sunlight in the greenhouse, and air circulation. All of these variables will be controlled by Greenhouse manager Darrell White and his computer. He will be able to monitor all areas of the greenhouse 24 hours a day. An automatic alarm is installed that will call White, at any time, if the greenhouse settings exceed the parameters he sets.

“In the past, we have lost thousands of dollars worth of plants because heaters or coolers have failed in the middle of the night,” says White.

The RU Greenhouse meets educational and research needs of the RU biology program in addition to offering educational programming and tours for thousands of regional K-12 students.

RU Planetarium and Observatory Offer Fall Programming

Beginning the first week of September, the RU Planetarium located in Curie Hall will be offering sky tour shows, “Fall Skies.” Visitors will learn about the stars that are visible during this time of year, including constellations, the most prominent stars and where to look for Jupiter and other planets during the next several months.

Planetarium shows are scheduled for every Tuesday and Thursday at 7:30 p.m. and Saturday at 10:30 a.m. The RU Observatory at Selu offers the general public a chance to see the stars first-hand through its state-of–the-art telescope. The observatory makes the planets, stars, comets, and other celestial bodies immediately accessible to view. It allows researchers to investigate the dynamics of the universe, and it allows interested amateurs to see first hand the intriguing objects in space that affect tides, weather, seasons, and other aspects of our lives. School children can gain exposure to technology that will help them develop an interest in science.

The observatory and planetarium are outreach facilities of the CSAT physics program. For more information about the planetarium or observatory, visit www.planetarium.radford.edu and www.radford.edu/observatory/.
The College of Science and Technology inspires students to look beyond their world and into the global arena of ingenuity, invention and research.

College faculty dedicate themselves to their students' success. They are mentors who guide inquiring minds through the process of discovery in the classroom and in real-world research.

The College of Science and Technology houses the Departments of Mathematics and Statistics, Information Technology, Biology and Chemistry, and the School of Environmental and Physical Science which includes the disciplines of anthropology, geology, geography and physics.

College faculty and students collaborate across disciplines in research and real-world problem solving. This synergy inspires many opportunities for faculty and student innovation to take root and grow to meet the ever changing needs of the global community.

Thank you for being a part of our CSAT faculty. You inspire excellence within our students and your colleagues.