The College of Science and Technology faculty and students enjoyed a busy summer of research and outreach activities.

In June, CSAT hosted Camp Invention for the second year. More than 60 students learned about physics, math, chemistry and engineering during this weeklong summer camp for rising first through rising sixth graders. For more information about the camp visit http://www.radford.edu/NewsPub/June10/0627invent.html.

Summer Bridge 2010 highlighted the month of July with more than 40 high school girls learning about forensic science, biotechnology, maps and GPS, river science, cybersecurity and cryptography from expert professors in CSAT. Faculty include Prem Uppuluri, Georgia Hammond, Cliff and Donna Boyd, Patterson Rogers, Rick Roth and Elizabeth McClelland.

In August, the fourteenth straight year, faculty in the college hosted more than 70 Southwest Virginia Governors School students for a two-day program that included outdoor research activities and team building. Faculty involved were John Kell, Greg Zagursky, Cindy Burkhardt and students from RU ABLE.

The college also hosted a science day for close to 40 campers from the Science Museum of Western Virginia “Top Chef to Mad Scientist” camp. Their visit to campus included a planetarium show provided by Rhett Herman, a tour of the Museum of the Earth Sciences by Steve Lenhart and a chemistry magic show and fun chemical experiments lead by Libby Watts.

“IT makes the first day not so hard because you already know people going into school,” says Megan Robinson, a rising junior at Marion Senior High School. “I’m going to do my science fair project on something relating to water. I just decided that after going canoeing yesterday,” says Robinson.

The program included a water chemical analysis lab, tree identification activities, creek biology lab and team building activities.

“It makes the first day not so hard because you already know people going into school,” says Megan Robinson, a rising junior at Marion Senior High School. “I’m going to do my science fair project on something relating to water. I just decided that after going canoeing yesterday,” says Robinson.

“The program included a water chemical analysis lab, tree identification activities, creek biology lab and team building activities.

Upcoming Events:
- CSAT picnic, Bissett Park, Sept. 9, 4-7 p.m.
- Planetarium shows beginning Sept. 7 every Tuesday and Thursday at 7:30 p.m. and children’s shows Saturdays at 10:30 a.m.
- Chalk Talks are last Thursday of the month
IT Student and Faculty Mentor Make Business Better for National Company

Information technology professor Dan Spillman and his student Jeremy Hodges, who recently graduated in May, developed an online inventory repair system for a national electronics distributor’s local store.

The system helps the store staff prioritize repair work on customers’ personal computers in order to meet company repair goals, provide greater profitability and be able to respond more effectively and efficiently to customer demands.

“We have developed a prototype and are in the process of testing it this summer,” says Spillman. The duo has also developed a paper describing the project that will be submitted to the annual meeting of the Southeast Decision Sciences Institute, scheduled for February.

Every year, Spillman’s students are charged with creating online applications to solve problems for large and small businesses and non-profit organizations.

“This gives my students hands-on experience in creating products that will benefit a business’ productivity, customer satisfaction or other similar issues involved in doing business in a fast-paced global economy,” adds Spillman. “I am always amazed, impressed and proud of what my students accomplish and the experience that they take with them into the workforce,” he says.

Websites Sport New Look

Thanks to the diligent efforts of IT students Cole David and Pierce Meikle, IT faculty member Jack Davis and department and faculty representatives, new departmental, school and program websites are complete.

Websites for chemistry, physics, anthropological sciences and the School of Environmental and Physical Science are now online.

Websites for mathematics and statistics, geology and The Forensic Science Institute are in the works.

“The college, department, program and school websites are an important way for prospective students and their parents, and others interested in our college’s disciplines, to learn more about us,” says CSAT Dean J. Orion Rogers. “These websites help paint a picture of who we are and what we do as educators, researchers and mentors,” adds Rogers.

CSAT Faculty Active in Presentations and Publications

Chemistry professor Christine Hermann was recently published in the Journal of Polymer Science:


She also participated in the symposium “Engaging Students in Organic Chemistry” at the Biennial Conference of Chemical Education at the University of North Texas in Denton, Texas on August 1 - 5, 2010. The topic of her presentation was “Doing Organic Laboratory Experiments Cheaply.”

Due to budget constrictions, Hermann developed unique low-cost laboratory experiments. She explained her experiments to other educators during the symposium. During the same conference, she participated in the symposium “Center for Workshops in the Chemical Sciences (CWCS)” and discussed “Using the FT-NMR in Organic Chemistry.”
Yoder Researches Medieval Danes’ Diet

Anthropological Sciences faculty member Cassady Yoder’s research into the diet of people in medieval Denmark will be published in the September 2010 edition of the Journal of Archaeological Science. Yoder looked at the diet of peasants at three sites in Denmark including the largest city in medieval Denmark called Ribe, a mid-sized city called Viborg and then the population buried at a rural Cistercian monastery.

She took 154 human bone samples for stable isotope analysis, which is often used in paleodietary reconstruction. Yoder found significant regional variation among the different sites. She says the city dwellers in Ribe and Viborg ate more protein rich foods such as meat from cows, pigs and fish. The rural population from the monastery hate more plant foods such as cereal grains and less meat. She reports that the rural population had a larger variety of foods to choose from than the urban peasants.

“I have always been interested in the medieval period,” she adds. “Denmark has excellent collections because the country can’t build anything without finding something ancient due to the country’s size. The medieval period hasn’t been as intensively studied there as it has elsewhere. That means that there are lots of unanswered and very interesting questions,” says Yoder.

Student’s Internship Was “For the Birds”

One could say that biology major Amanda Sorenson's summer has literally “gone to the birds.”

As an intern for the National Aviary in Pittsburgh, Pa., she has been learning about the husbandry, physiology, natural history and handling of a variety of birds, from parrots to birds-of-prey.

She’s been active in education as well, working with the birds during the zoo’s free-flight bird shows, where the birds demonstrate behaviors that enable them to be successful in the wild.

The National Aviary is a private non-profit organization and the largest aviary in the United States, with a focus on conservation, education, and research.

Students interested in enrolling in “Biology of the Galapagos Islands” should contact Hagen at jhagen@radford.edu.
CSAT STEM Club News

CSAT STEM Club will be beginning its second year this fall and I am honored to be the president. The first year was successful due to dedicated members and participation in numerous on-campus events. For this year, the club will continue with inviting guest speakers, be involved in community service activities, have picnics, and go on trips to museums or other places that pertain to the club’s interest.

I hope to kick off the year with encouraging new membership and promoting the club. It would be very helpful if professors within the college would mention the club during the first week of classes and ask students to come see our table at the club fair for more information. The officers will meet during the first week of school to determine the meeting times and beginning of the year activities.

Arielle Reynolds
President of CSAT STEM Club

Chalk Talks are Back!

The CSAT Chalk Talks is entering its third year. Biology faculty member Gary Cote is continuing the tradition this academic year. So far, 12 students from four disciplines have presented their research.

The presentations are a chance for the students to discuss their research in an informal and supportive environment. These talks give students valuable experience presenting their research and receiving feedback from fellow students and faculty.

“Any faculty member whose students conduct research should encourage their students to present,” adds Cote. “Remember that a Chalk Talk is a great experience for students, whether in the middle of their research program, starting their research, or finishing it up,” he says.

Tentatively the talks are planned for the last Thursday of the month, at 5 pm, starting in September. Interested students or faculty should contact Cote at gcote@radford.edu for more information or to sign up.

Who wants to be a member of the CSAT STEM Club?