Today, the College of Science and Technology launched its new website. Since September, the CSAT Dean's Office, information technology faculty member Jack Davis and his students Ben Frank and Mike Snider have been revamping the website to include dynamic visuals and engaging stories about faculty and student collaboration, college events and student and faculty achievement.

To begin the process, the group researched current trends in university websites. They realized that large photos, bold colors and stories about people are at the forefront of all award-winning college websites. In collaboration with graphic designer Larry Boyd, the students were able to implement a new banner with an audience specific navigation bar. The students, under the leadership of Davis, created each page within the website and incorporated existing and new information about the college and its programs.

Frank and Snider utilized their web programming skills to create an easy-to-use content management system to enable the Dean's Office to regularly update photos, feature stories, news and events.

"Creating a system that can be used by nontechnical personnel was the most challenging part of the project," said Frank. Snider said that he enjoyed the challenge of working within a team. "There were many challenging things about the project that I had never been a part of, such as working with a client and working with Ben, Ann, and Mr. Davis," said Snider. But I think the most challenging part was the size of the project. It was, by far, the largest project I've ever undertaken. I don't think I could have done it without Ben."

Both students plan to include the project in their professional portfolio. "I'm planning on including this experience and the final deliverable in my resume. Since I'm graduating soon, I'll be using it immediately to attempt to find a good full-time job. I think a lot of the experience I earned here will help me in team environments when developing software," adds Snider.

The Dean's Office is interested in photos depicting student and faculty collaboration, hands-on learning and academic achievement for inclusion on the website. Please feel free to send photos and information to Assistant to the Dean Ann Brown at abrown238@radford.edu.

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**MES Receives $5,000 Grant from Corning Glass**

The Museum of the Earth Sciences recently received a $5,000 grant from Corning to fund the new exhibit *The Earth Under a Microscope*. In this exhibit, microscopic samples of minerals, fossils and sand grains will be viewable with a digital microscope projecting the magnified image onto a computer screen for group viewing.

The grant will purchase the microscope, camera and large display screen for the exhibit. "The Corning Glass—Cave Bear Exhibit in the museum funded by previous Corning Glass grants is one of the most popular exhibits in the museum."
College of Science and Technology faculty members donated their time to judge the Southwest Virginia Governor’s School Science Consortium on Thursday, Jan. 29 and Friday Jan. 30.

Mary Roberts, Greg Zagursky, Mark Cline, Judy Guinan, Cindy Burkhardt, Joe Wirgau, Rhett Herman, Brett Taylor and Joe Chase offered encouragement and expertise to the budding scientists during the science fair.

“It is important for our faculty to participate in these events to help foster a better understanding of and a passion for science and technology among high school students,” says IT professor Joe Chase.

“And because it is fun and exciting, some might even say renewing, to see the great ideas that many of these students are pursuing and to experience the passion with which they pursue these ideas,”

Since September, Governor’s School students from across southwestern Virginia worked on independent research projects to be presented and judged during the fair. During the fall, one hour during the school week was dedicated to science fair class in which students learned about topics such as experimental design and ethics in research.

“I really like seeing them come to grips with the idea that research is challenging and that the concepts they learn in science class is the result of a lot of work, effort and research,” says Governor’s School director Rebecca Phillips.

Phillips says this is an introduction to the research process for many of these students, and others use this experience to earn scholarships and recognition.

“The students really feel honored that someone is taking time out of their evening to talk with them about their projects and give them feedback on their research,” adds Phillips.

Summer Bridge Program alumni won awards for their research projects during the fair.

Giles County High School student Dawn Mercer won first place in the animal sciences category and the grand award in biological sciences. Pulaski County student Paige Waddell won first place in consumer sciences. And Giles County student Amelia Tyler won first place in psychology social interactions category.

“...the students really feel honored that someone is taking time out of their evening to talk with them about their projects and give them feedback on their research.”

- Rebecca Phillips, Director of Southwest Virginia Governor’s School

Giles County student and Summer Bridge alumna Dawn Mercer with her award-winning research project at the Governor's School science fair.
Faculty Focus: Jason Davis

Ecophysiologist Jason Davis is fascinated by the effects of environmental stressors on the internal function of birds. Recently, the South Carolina native spent 10 months on China’s Tibetan Plateau studying tree sparrows and snow finches.

“I wanted to find out how these birds evolved to cope with harsh conditions found there,” says Davis. He’s particularly interested in stress and its effect on reproduction. “Normally, stress shuts down reproduction,” adds Davis, but these birds are still reproducing in this unforgiving environment. I want to know how these birds don’t shut down.”

In the future, Davis will be taking RU students to China as a part of the Kirk Scholars program. After just a month at Radford, Davis has already made plans to conduct collaborative research with his RU colleagues. He is planning a research project with Karen Francl and Georgia Hammond to investigate the effects of arsenic on the salamander population living near an arsenic mine. He will also collaborate with Judy Guinan to compare the reproduction cycles and immune function in rural and urban bluebird populations.

“Faculty at Radford University are passionate about teaching and passionate about research. There are many opportunities to bring together faculty with different specialties, such as a geneticist and a molecular biologist, to create a solid research team,” says Davis.

Davis and Selu Conservancy Director Jeff Armistead are exploring the opportunity to build an aviary behind the Barn at Selu. Davis has drawn up blueprints for an aviary that can be adjusted to fit specific research needs. For example, the facility could be sectioned into smaller compartments to separate birds or expanded to offer a larger space for species interaction. “Students will be able to design research projects that can look at how environmental changes affect a bird’s hormones or immunity,” says Davis.

Once the aviary construction project is approved, Davis, Armistead and student volunteers will build the facility from the ground up based on Davis’ blueprints. “We have an ideal location for the aviary. Many large research institutions do not have the opportunity our students could with this type of research facility. We are uniquely positioned because we have the Selu site available for this project,” adds Davis. As part of his research, he will use grant money to purchase a passive Integrated Transponder System to track birds’ movement electronically. He will place a transponder chip in the birds. A computerized reader will keep track of the birds’ movements without a scientist physically being in the location to observe them. “This will let us do in the field what we could only do in the lab before,” says Davis.

Davis’ fascination with nature was fostered by his father John Davis, whom for 22 years served as the editor of South Carolina Wildlife Magazine. Davis’ brother John Parke also followed in his father’s footsteps and became a lawyer with an environmental interest. “While growing up, I spent most of my time rambling in the woods and hunting, fishing, kayaking and hiking. That’s where I found my love of nature,” adds Davis.
Information systems senior Brad McDarmont put his web programming and development skills to work to help low-income elderly in Danville calculate their eligibility for assisted living.

McDarmont’s mother is the office manager for the nonprofit Heritage Towers Apartments in Danville. The facility’s mission is to provide housing for elderly people who are at least 62 years old, disabled or handicapped and with incomes that meet the federal income limits of extremely low or very low income.

Several years ago, McDarmont created a website for the facility but always meant to revisit the site once he learned more about web programming and development. During Dan Spillman’s ITEC 485 Decision Support Systems (DSS) class, students were asked to create a project using DSS. McDarmont took the opportunity to revisit the website and create a DSS eligibility calculator based on medical expenses and monthly income.

McDarmont worked with classmate John Barber on the project. “The facility loved the website. This calculator helps the prospective residents, their families and the facility’s staff see if someone meets the criteria to live at Heritage Towers Apartments,” says McDarmont. McDarmont will include this project in his portfolio.

Recently, the City of Danville contracted McDarmont to create several tourist event sites. He has a busy spring ahead with graduation in May and upcoming nuptials in June. He’s looking forward to seeing what the future holds for him.

Science Museum of Western Virginia director Nancy McCrickard will visit CSAT on Feb. 20 from 2—4 p.m. to meet with faculty and explore partnerships between the college and the museum. She will make a presentation in Reed Hall, room 206 about the museum and then lead a discussion about how the museum and college might partner in the future.

Northrop Grumman representative Shauna Holcomb will be visiting campus on Monday, Feb. 23 from 4:30—5:30 p.m. in Davis Hall, room 151. She will speak for the first 30 minutes and then open the floor to questions from students.

Holcomb will give an overview of the company and the career opportunities available for students. The company is located in all 50 states and in more than 25 countries.