

September 23, 2010



CSAT Bi-weekly Newsletter

# From the Dean's Desk

## IT Programs Achieve Accreditation

RU Information Technology programs have received high praise and accreditation from The Accreditation Board for Engineering and Technology (ABET), the recognized accreditor for college and university programs in applied science, computing, engineering and technology.

Among the most respected accreditation organizations in the U.S., ABET has provided leadership and quality assurance in higher education for over 75 years.

"During this past cycle, our programs were accredited for six years—with no three year review, which is unusual," says IT department chair Art Carter.

The computer science concentration in the computer

science and technology (CS) program was reaccredited and concentrations in web development and information systems in the information science and systems (IS) program were accredited.

"This is not something every school accomplishes and is a validation that our programs are meeting the goals appropriate for such programs. This also helps students who seek to go to graduate school, because the graduate programs will know that the student completed a solid undergraduate program," says Carter.

All faculty within the department had a role in the accreditation process through interviews and committee memberships.

"Without a doubt, the bulk of the work fell on Ned Okie, director of the CS program, and Bob Phillips, director of the IS program. They spent most of the 2008-2009 academic year working on the self study reports and provided all the information the ABET visitation team would need when they came to campus last fall," says Carter.

Accreditation is a validation of the quality of RU's IT programs and faculty. "The programs in our department are academically solid and will be recognized as being such by other universities and employers. Also, our faculty are proactive in taking the necessary steps to keep the program up to date and assure that our academic objectives are being met," adds Carter.

## Students Discuss Research Sept. 30

Obesity and the brain and plants that kill are topics for Chalk Talks Thursday, Sept. 30 at 5 p.m. in Reed Hall, room 215 where biology students Brandon Newmyer, Collette Dougherty and Nicole Eastep will present their research.

All faculty and students are encouraged to attend to learn about undergraduate research in the college and support these future professionals in the sciences.

Brandon Newmyer will be presenting his project

"Neuropeptide AF differentially affects anorexia in lines of chickens selected for low or high body weight." His faculty mentor is Mark Cline.

Collette Dougherty will present her research "Gastrin-releasing peptide causes primary anorexigenic effect in chickens," and her faculty mentor is also Mark Cline.

Nicole Eastep will present her research "Plant compounds

that kill mosquitoes and mosquito-borne viruses." Her research is conducted with faculty mentor Justin Anderson.

For more information about Chalk Talks, contact Gary Cote at [gcote@radford.edu](mailto:gcote@radford.edu).



Nicole Eastep will be presenting during Chalk Talks

### Inside this issue:

Macho Sparrows May Attract More Mates	2
CSAT Enrollment Jumps	2
MES Lectures Scheduled for Fall	2
NSA Honors IT Program	3
CSAT Faculty in Million Dollar Circle	3
Native American Artifacts Uncovered	3
CSAT STEM Club News	4

### Upcoming Events:

- Chalk Talks, Sept. 30 at 5 p.m. in Reed Hall, room 215
- Museum of the Earth Sciences public lecture, Tuesday, Oct. 5 at 7 p.m. in Bonnie Auditorium
- Virtual Career Fair, Nov. 2

## Macho Sparrows May Be More Attractive to Their Lady Birds

Does machismo have anything to do with males being more attractive to the females?

"In some species, like house sparrows, males with more testosterone seem to be more attractive to females, but even in those species most males don't have super high testosterone. We want to know if there's a hidden cost to being so macho," says biology professor Jason Davis.

Biology assistant professor Jason Davis and Virginia Tech biology associate professor Ignacio Moore received a \$28,000 collaborative Research Opportunities Award (ROA) grant from the National Science Foundation to investigate the role of hormones in the lives of house sparrows.

The research team, including junior nutrition and dietetics major Renee Vega, will observe the effects of increased levels of testosterone on how birds act towards other

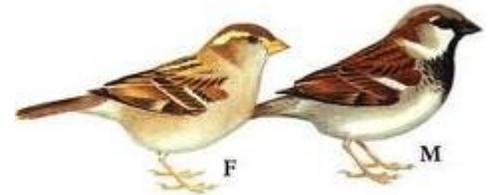
male and female birds, their health and their fertility.

For this project, Davis and his students will be working with the lab of Ignacio Moore, an associate professor in biology at Virginia Tech. Moore and Davis work in similar areas, and have a common background working as postdoctoral associates in the lab of John Wingfield at the University of Washington.

The sparrows will be housed in the new RU Aviary at the Selu Conservancy. The aviary will allow researchers to catch the birds and keep them for observation. "The facility is about 40x12 and we'll be using it to hold about 40 birds, but one good feature is that we can create sections in the space and have different areas in which to do different tests," Davis says.

The ROA gives smaller schools, like RU, the chance to join forces with larger schools, like Virginia Tech. "It's a great chance for our students to get exposure to working in a graduate research lab and in the end I think it really works out well for both of us!" says Davis.

-Cameron Elliott



House Sparrow

## CSAT Enrollment Jumps by 16 Percent

The College of Science and Technology welcomes 176 more majors than last year to its laboratories and classrooms. Total enrollment as of Thursday, Sept. 16 is 1,111 majors. This is up from 935 students in September 2009 and 925 in Fall of 2008. Every program in the college saw an increase from last year ranging from eight students to 58 students.

The following numbers reflect 2009 and

2010 enrollment numbers for CSAT programs:

	2010	2009
Anthropological Sci.	38	29
Biology:	382	324
Chemistry:	98	78
Computer Science:	268	229
Geography:	37	29
Geology:	54	45
Information Science	106	92

Math:	77	68
Physics:	51	41

"This is a testament to all of the work our faculty and the admissions officers have done to communicate the quality of our programs to prospective students, and the diligence of faculty to keep our majors engaged in their studies in science, technology and math," says CSAT Dean J. Orion Rogers.

## Museum of the Earth Sciences Fall Lectures Explore the Future of Nuclear Power, Bugs and Crimes, Landslides

The Museum of the Earth Sciences has scheduled its fall public lecture series for the first Tuesday of the month at 7 p.m. in the Hurburt Auditorium.

On October 5, Patrick Wales, 2003 geology graduate and project manager for Virginia Uranium, Inc., will present "From Rocks to Reactors: How Virginia's Coles Hill Uranium Deposit Can Fuel the 'Nuclear Renaissance.'"

November 2, Joe Keiper, Executive Director of the Virginia Museum of Natural History, will present "Forensic Flight: The Life of Entomological Crime Scene First Responders."

November 16, Bill Haneberg, 2010 National Jahns Distinguished Lecturer, will present "Landslide That Ate Laprak A Travelogue of Geologic Hazards in the Himalayan Mountains of Western Nepal."

For more information about the RU Museum

of the Earth Sciences, contact Steve Lenhart at slenhart@radford.edu.



# National Security Agency Honors RU Undergraduate Certificate in Information Security Program

The Undergraduate Certificate in Information Security, offered by the Department of Information Technology is now certified by the National Security Agency (NSA) as meeting two national training standards for Information Security (INFOSEC) Professionals and System Administrators.

The Committee on National Security Systems (CNSS) sets these national-level standards for information assurance. The certifications are part of NSA's Information Assurance Courseware Evaluation (IACE) program. The goal of the program, according to NSA, is "to expand the use of national standards for information education and training."

With these two certifications, Radford University joins a select group of Universities

throughout the U.S., that offer students cutting edge information security training.

"These certifications will allow employers to recognize the strong preparation of our students in the field of information security. Students are thus better represented on the national stage in this field," says information technology faculty member Prem Uppuluri, RU's point of contact with NSA during the certification process.



(left to right) John Matthews, Executive Secretary of the Committee on National Security, Roberta Stepfley, Director of Cyber Security at the Department of Homeland Security, The Honorable Howard A. Schmidt, Special Assistant to President Obama and the Cyber Security Coordinator, Prem Uppuluri, RU Assistant Professor of Information Technology, Debora Plunkett, Director of Information Assurance at the National Security Agency

Radford University received the official certificate on June 8 during a ceremony at National Electronics Museum in Linthicum, Md. For more information and the list of universities with certified courseware visit [http://www.nsa.gov/ia/academic\\_outreach/iace\\_program/index.shtml](http://www.nsa.gov/ia/academic_outreach/iace_program/index.shtml).

## CSAT Faculty Are Golden Links in Million Dollar Circle

The College of Science and Technology is home to four outstanding faculty members who are a part of the RU Million Dollar Circle.

The Million Dollar Circle was started in 1995 and Professor Emeritus of Physical Science Franklin Jones was its first member. In order to be in the Million Dollar Circle, a person has to have authored and been awarded at least one million dollars in competitive grants. There are three levels in the circle—one million, three million and 10 million.

Jones became a member of the three million dollar level in 2002 with \$3,113,176 in competitive grant funding, mostly from State Council of High Education for Virginia and National Science Foundation.

School of Environmental and Physical Science interim director and geography professor Bernd Kuennecke became a member of the one million dollar level in 2004 with \$1,306,860 in competitive grant funding, mostly from NASA, Virginia Department of Emergency Management, and Intergraph Mapping and Geospatial Solutions.

Mathematics assistant professor Laura Jacobsen became a member of the one million dollar level in 2010 with \$1,054,334 in competitive grants, mostly from Virginia Department of Education, National Science Foundation and the State Council for Higher Education for Virginia.

Information technology professor Joe Chase became a member of the million dollar level in 2008 with \$1,038,572 in competitive grants, mostly from the National Science Foundation and the Southwest Virginia Higher Education Center.

## Native American Artifacts Uncovered by Boyd and Students

This past May, anthropological sciences professor Cliff Boyd was approached by the Virginia Department of Game and Inland Fisheries (VDGIF) to complete an archaeological survey. The survey, required by the Virginia Department of Historic Resources of Lick Mountain, was to make sure the construction of a new road was not going to destroy any historical sites that might be on the mountain.

Boyd took on the job and with a grant of \$20,000 he was able to enlist the aid of four students, including fifth year anthropology major Joshua Skinner.

"It's always nice, as a student, to get out-of-class experience in archaeology, which is something Dr. Boyd tries to provide for his classes or interested students in the department," Skinner says.

The group spent two weeks in Wythe County performing a survey designed to ensure that no historical sites were going to be destroyed in the making of a new road. "We performed shovel tests. The students and I mapped out the area that needed to be surveyed, and then we dug holes along a linear area. We were screening the soil for any archaeological artifacts," Boyd said.

The whole idea behind an archaeological survey is to protect artifacts and that's exactly they did. While completing shovel tests, the team found one area on site that had stone chips which were the by-products of Native Americans making stone tools.

Boyd then wrote his findings and suggestions in a report and sent it to the Department of Historic Resources. "We've been in contact and they seem to agree with my suggestions about moving the construction to a different site," Boyd said.

- Cameron Elliott

## CSAT STEM Club News

The first meeting of the year on September 7 went very well, with lots of new members attending. The CSAT STEM Club picnic on September 9 also went well, both club members and faculty from in the college attended. Check out the photos below of the fun to be had at the picnic.

The first trip for the fall semester will be a hike at the Cascades on Sunday, September 19. The CSAT STEM Club will also be hosting guest speakers, and the colloquium talk series will be held on the first and third Thursdays of every month, starting October 7 with Dr. Jason Davis, who will talk about Science Without Borders.

The club is also holding a T-shirt designing contest, which will end on September 28. The person who designs the best T-shirt will win a \$25 gift card to Sharkey's and a free T-shirt. The club is also discussing a variety of service activities such as working with the Chemistry Club and Environmental Club, who are having a type of fundraiser and conducting tests to see if the food from the Gulf of Mexico is safe to eat. During the next meeting, we will decide on a place to go for our fall field trip and think of more service activities for the year.

*Jasmine Jackson*

Secretary of CSAT STEM Club

Below: Pictures from  
CSAT Fall Picnic  
sponsored by CSAT  
STEM Club

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