The College of Science and Technology’s information technology department served as a regional site for the 33rd annual Association for Computing Machinery International Collegiate Programming Contest on Saturday, Oct. 25 in Davis Hall. RU was also the regional headquarters for the competition lead by information technology professor Maung Htay.

Close to 150 teams competed in the region at sites including Duke University, Christopher Newport University, Johns Hopkins University, Marymount University, Shippensburg University, Washington College, Wilkes University and RU.

“Only one to three teams from this region will qualify for the world finals,” Htay told participants that Saturday. “We are looking for champions of the region and we will take you to the world finals! Don’t worry, the problems will be tough and challenging for you,” he said.

Only the top 100 three-person teams in the world will be invited to the world finals scheduled for April 22, 2009 hosted by KTH-Royal Institute of Technology in Stockholm, Sweden. Regional bouts kicked off on Sept. 13 in the South Pacific Region and run through January.

This competition has grown to be the largest and most prestigious computer competition of its kind. It includes tens of thousands of students from universities in 83 countries on six contents.

Four teams from RU were among the participants in the competition. Sophomore computer science and software engineering major Phil Gilbert was experiencing his first competition. “I’m a little nervous,” he said.

IT student Eric Knecht assured him that “it’s going to be a very long day. Your brain will be completely fried.”

CSAT Dean Orion Rogers welcomed the 55 students and their faculty coaches to campus. “We’re honored to make our network facilities, hardware and human resources available to you for this prestigious competition,” said Rogers.

The competitors were granted a practice session in the morning and the competition ran from noon to 5 p.m. Teams were challenged to solve as many programming problems as possible in allotted time.

“The ACM International Programming Contest is the driving force in university life that develops the zeal to solve problems and innovate on a global stage,” said Bill Poucher, contest executive director and Baylor University professor. “With the support of IBM, ACM and the UPE Honor Society, we’re challenging students to deliver the transforming technologies of the future.”

IT faculty and site director Bob Phillips and Regional Systems Team Leader Kathy Anderson made sure the technology was running smoothly during the competition. “If the halls are quiet in Davis, then the competition is going well,” said Phillips.
Second CSAT “Chalk Talks” a Success

Organized by biology associate professor Gary Cote, the CSAT “Chalk Talks” on Oct. 30 gave information technology student Eric Ballance “real world” experience of bouncing research ideas and projects off of colleagues—their professors and fellow students.

Faculty and students attended to support Balance and give him valuable feedback. Scheduled the last Thursday of each month, the next “Chalk Talks” will be on Thursday, Nov. 27 from 5—6 p.m. If you know of a student interested in participating by talking about their research, contact Cote at gcote@radford.edu.

CSAT Participates in Admissions Open House

Prospective students and their families were invited to campus to take a tour and explore educational opportunities available to them at RU.

Assistant advising coordinator Abby Bullinger described the many educational and career options available to students in CSAT.

CSAT dean Orion Rogers and biology faculty Mark Cline were also on hand to help the students learn more about the college and its programs.
Webster Wows Youngsters with Chemistry

Over the course of two days, more than 1,400 participants gathered in Kingsport, Tenn., to witness chemistry professor Francis Webster and six of his students present “Magic of Chemistry,” a dynamic and colorful show demonstrating all things chemical. Helping the group was their faithful assistant sporting a shock of purple hair: their puppet, Kay. The audience: fourth graders from 25 regional schools in Tennessee and Southwest Virginia.

The show was considered the highlight of the Northeast Tennessee Section of the American Chemical Society’s (NETS-ACS) 18th annual “Celebration of Chemistry for 4th Graders,” an award-winning outreach project held as part of National Chemistry Week.

Webster, Libby Watts from the Department of Chemistry and Physics, and students Chris Estes, Chris Shelton, Johnny Angle, Erin Waddell, Shane Coleman and Brittany Christian led an hour-long show that provided students the opportunity to gain a better appreciation of science. According to NETS-ACS, “students unanimously and emphatically agreed that ‘Chemistry is not boring’” after watching Webster’s presentation.

Faculty Focus: Neil Sigmon

Math associate professor Neil Sigmon loves to solve puzzles and so do his students. Sigmon is known for his love of history and mathematics. In Sigmon’s cryptography classes, his students receive a dose of both.

Cryptography is transforming comprehensible messages into gibberish and back again. Originally, this was used to create messages that cannot be read by anyone other than those that held the key to translate the message. In recent decades, the field has expanded beyond confidentiality concerns to include techniques for message integrity checking, electronic signatures and sender or receiver security.

“I like cryptography because of its history and that it’s a real-life application of mathematics. It’s a good topic for students because you can teach it from the introductory level to the advanced honors level,” says Sigmon.

This was the first semester that two sections were open for students, and they filled quickly. In the spring, Sigmon will also be teaching cryptography at the Governors School.

Senior math and information technology double major Jonathan Dixon has been working with Sigmon for three years. “In his class, it was easier to learn because he gives a lot of examples that are easy to understand and apply to real situations,” says Dixon. “If you don’t understand math, he would be one of the best to help you understand it.”

Dixon met with Sigmon to talk about his capstone project for the Honors Academy. “He suggested that I do it on the Navajo Code and it seemed interesting to me,” says Dixon.

The Marine Navajo Code Talkers played a vital role in providing secret communications for the United States in the Pacific theater in World War II. This code baffled the Japanese and played a pivotal role in the American victory.

Later, Dixon presented his project at the National Collegiate Honors Council Conference in San Antonio, Texas. Dixon said that presenting his work “was very exciting and something I could be proud of.” He also presented his work during family weekend.

“Students like Jonathan keep me going,” says Sigmon. “My goal is for my students to come away from my class with a better appreciation of mathematics and its uses. I want to show them that the discipline is more approachable, it’s important, and why it’s important,” says Sigmon.

“I hope my students know that I give them my best effort and I will do my best to help them,” he says.
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, Geology, Chemistry and Physics, and Biology.

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.