

RADFORD UNIVERSITY COLLEGE OF SCIENCE AND TECHNOLOGY

From the Dean's Desk – August 29, 2013



Welcome back! As we begin the 2013 -2014 academic year here at RU, there are many wonderful things to celebrate and anticipate. We will use this issue to highlight stories from the past few months that you may have missed and to introduce some new members of the College of Science and Technology. I hope that you will find this update to be both informative and inspiring as you learn of the many wonderful people doing amazing things for

our college and for Radford University.

Thank you for all you have done in the past to bring us to this point and thank you in advance for your dedication to the success of the College of Science and Technology.

Orion

UNDERGRAD RESEARCHERS WIN PRESTIGIOUS EPA AWARD

In June, we were happy to report the success of our undergraduate research team spearheaded by CSAT faculty members Francis Webster and Cindy Burkhardt.

The team of eight Radford University undergraduate students received a coveted national award for its innovative approach to water purification.

The People, Prosperity and the Planet (P3) competition by the U.S. Environmental Protection Agency (EPA) was held in April at the 9th Annual National Sustainable Design Expo in Washington, D.C. Based on their project proposals and presentations, RU and six other teams will receive Phase II grants of up to \$90,000 each to develop their designs and bring them to the marketplace.



The interdisciplinary RU team members—Elizabeth Crook, Madelein Ford, James Freeman, Dennis Godward, Jacob Shelton, Craig Slate, Matt Sublett and Rebekah Webster—were selected from more than 45 collegiate teams that won Phase I grants of \$15,000 for this year's national program.

"This project is an example of interdisciplinary research with real-world applications," said chemistry Professor Francis Webster, the project investigator along with chemistry Professor Cindy Burkhardt. "The team worked days, nights and weekends for the past year and is competing successfully with graduate and undergraduate researchers from top research institutions across the nation."

The RU team includes chemistry and geology students. The objective was to design and develop a sustainable technology to protect people's health and the environment while promoting economic development. The RU team developed a synthetic humic acid material as an inexpensive adsorbent that can remove water pollutants, including arsenic, heavy metals and organic contaminants, while improving existing sand filtration technology.

Additional information is available at:

<http://www.radford.edu/content/radfordcore/home/news/releases/2013/june/undergrad-researchers-win-prestigious-epa-award-.html>

RU IT PROFESSOR NAMED IBM FACULTY AWARD WINNER

On August 14, we learned that Jeff Pittges, associate professor of information technology, had been named one of 14 international winners of IBM's 2013 Big Data and Analytics Faculty Awards.

Big data – or the 2.5 quintillion bytes of information generated daily from sensors, RFID networks, mobile devices and social media – could be a vast treasure trove yielding insights and creating jobs.



Radford University's Jeff Pittges, associate professor of information technology, has been named one of 14 international winners of IBM's 2013 Big Data and Analytics Faculty Awards. He will develop curricula and research mixing business and technical skills to help unlock the massive resource of information that comes with daily digital usage and prepare professionals to do it with the \$10,000 award, his second in two years.

The IBM Faculty Awards support basic research, curriculum innovation and educational assistance in focus areas that are

fundamental to innovation in the 21st Century. The award's areas of particular focus include a smarter planet and cities; healthcare and personalized education; mobile first and social technologies; big data and business analytics; cyber security and cloud computing.

He is joined as an IBM Faculty Award winner by colleagues from Notre Dame, Syracuse, Universiteit Leiden in the Netherlands, the Instituto Tecnológico Autónomo de México; Moscow's Higher School of Economics, Prague's Czech Technical University and Oxford University's Saïd Business School.

Additional information is available at:

<http://www.radford.edu/content/radfordcore/home/news/releases/2013/august/IT-professor-named-IBM-faculty-award-winner.html>

INVENTORS' SHOWCASE CELEBRATES CHILDHOOD CREATIVITY AND CURIOSITY

From June 23-28, The RU College of Science and Technology was host for Camp Invention for the fifth successful year. Camp participants and budding inventors were featured on the Radford University homepage with the following story.

Under the shade of the maple tree in front of Reed-Curie Hall, Camp Inventors' Showcase ceremony celebrated a week of thinking, problem-solving, fun and discovery.

More than 80 aspiring inventors and scientists with a sprinkling of future soldiers, teachers, or undecideds joined their families Friday to marvel at the results of a week devoted to science, engineering and mathematics. The Inventors' Showcase opened with a camp song and ended with parents, grandparents and siblings trailing excited children from room to room to inspect and collect the projects constructed during the camp.



The elementary-school age children built catapults, created volcanoes and sailed rock boats in a quest for Quack coins and medals. They also virtually explored the world, worked out solutions to problems as teammates and stretched themselves.

"I learned that anything is possible with a little work," said Joshua Parsons, second-grader from Radford who wants to be an engineer, or maybe a baseball player.

His sister Ashley, a fourth-grader, exuberantly demonstrated the catapult, or Duck Chucker, that heaved a plastic duck into a kiddie pool. Her team cannibalized parts for their Duck Chucker from discarded items brought from home on the camp's opening day. "I couldn't wait to get here in the morning to see what we would do next," she said.

Her Camp Inventors' teammate and fellow fourth-grader, teammate Karen Nicholson, added: "I wish school every day was like this."

Additional details about this outstanding CSAT outreach program can be found at:

<http://www.radford.edu/content/radfordcore/home/news/releases/2013/july/camp-invention-showcase-celebrates-creativity-curiosity.html>

SUMMER BRIDGE INSPIRES STEM EDUCATION FOR HIGH SCHOOL GIRLS

Our annual summer bridge program was another successful outreach program for the College in July. We would like to extend a special thank you to our faculty participants Donna and Cliff Boyd, Georgia Hammond, Rhett Herman, Brenda Hastings, Kimberly Lane, Hwajung Lee, George Stephenson and Viktoras Liogys. We would also like to extend a special thank you to Radford University President Penelope Kyle for her support and for serving as our keynote speaker at the Summer Bridge dinner. We have included University Relations coverage of the event below.



Kelsey McGee, left, and Diana Mendoza with President Kyle after the Summer Bridge dinner at the Radford Norwood Room.

High school girls participating in Radford University's Summer Bridge 2013 program celebrated with a banquet Thursday night in downtown Radford. They were concluding a week in RU's classrooms and laboratories learning the skills necessary to build a Mars rover and gaining knowledge into skillfully combating hackers and analyzing crime scenes.

Summer Bridge, hosted annually by Radford University's College of Science and Technology, is a week-long residential experience for rising sophomore, junior and senior high school girls interested in science, technology and mathematics (STEM). This year's program began Sunday, July 7 and concluded Friday, July 12. Radford University President Penelope W. Kyle delivered the keynote address at the banquet.

Additional information is available at:

<http://www.radford.edu/content/radfordcore/home/news/releases/2013/july/summer-bridge-2013.html>



We've created a short infographic to illustrate just a few of the many benefits of the RU CSAT Summer Bridge program.



Summer Bridge Program 2013. . .

Radford University's College of Science and Technology invites rising sophomore, junior and senior high school females interested in mathematics, information technology and science to participate in a week long residential learning experience each summer on the RU Campus.

73 STUDENTS
FROM ACROSS
VIRGINIA &
BEYOND

7 OUT OF 10 STUDENTS
STATED THAT RU
SUMMER BRIDGE PROGRAM
EXCEEDED THEIR EXPECTATIONS

26% MORE STUDENTS
HOPED TO ATTEND RU
FOLLOWING THE PROGRAM

STUDENTS SHARED A
POSITIVE EXPERIENCE
WITH RU FACULTY & STAFF

FIELD TRIPS DEMONSTRATING
SCIENCE IN ACTION



VISIT TO
**AREVA NUCLEAR
POWER**
LYNCHBURG VA

VISIT TO
NOVOZYMES
SALEM, VA



ANTHROPOLOGICAL
EXPLORATION
**SELU NATURE
CONSERVANCY**
MONTGOMERY COUNTY, VA

GEOLOGICAL EXPLORATION
**MOUNTAIN LAKE
CONSERVANCY**
GILES COUNTY, VA



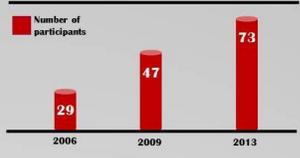
QUOTES FROM STUDENTS

I had an amazing time and had no trouble connecting with students and teachers. I loved the vibe I got from the professors of how much they loved to research and teach and talk about what I was interested in with me. I also loved the hands on experience I received.

Coming in, I only expected to learn more about science. But I have made some amazing friends here, and have had the experience of being under some really extraordinary teachers.

I expected something far more boring, but it wasn't and I learned a lot more than expected. While meeting people from all over the state of Virginia and other states, even other countries.

GROWTH OF THE PROGRAM



A UNIQUE RESIDENTIAL LIFE PROGRAM

STUDENTS WERE TREATED TO A COLLEGE LEVEL RESIDENCE EXPERIENCE BY TRAINED STAFF FEATURING SPEAKERS TOUCHING ON SUBJECTS SUCH AS FINANCIAL PLANNING FOR COLLEGE AND ADMISSIONS TIPS FOR FUTURE STUDENTS.



\$0.00

**NO COST TO THE PARTICIPANTS
THANKS TO THE SUPPORT OF OUR
GENEROUS SPONSORS**

AREVA, ATK, MS. DALE LEE, DOMINION FOUNDATION, LYNCHBURG COMMUNITY TRUST, MARTINSVILLE UPWARD BOUND, NOVOZYMES, PENTAIR FOUNDATION – ASPEN MOTION TECHNOLOGIES, PROJECT DISCOVERY OF VIRGINIA, RADFORD UNIVERSITY, WELLS FARGO



VIDEOS SHOWCASE UNDERGRADUATE RESEARCH

Several RU College of Science and Technology students and faculty are featured in videos highlighting the undergraduate research taking place within CSAT as a part of the “Science in Action” web series.

RU senior biology major Daniel Metz is featured in the latest video and junior geology and physics major Melissa “Luna” Brett and senior geology major Raymundo Balderas are featured alongside Associate Professor of Geology Elizabeth McClellan in another.

These outstanding pieces emphasize the opportunities students have within our college and have been collected on a new media page on our website.

<http://www.radford.edu/content/csat/home/about/media.html>



SCIENCE IN ACTION: UNDERGRADUATE RESEARCH IN GEOLOGY



WELCOME NEW FACULTY AND STAFF

The College of Science and Technology is pleased to welcome the following new faculty.

Biology:

Tiffany Carpenetti – Full-time temporary instructor

Joy Caughron – Assistant Professor

Matthew Close – Assistant Professor

Anthony Curtis – Full-time temporary instructor

Laura Gruss – Assistant Professor

Eric Weigel – Full-time temporary instructor

Chemistry:

Christopher Bibeau – Instructor

Lissa Huston – Full-time temporary instructor

Math:

Carrie Case – Full-time temporary instructor

Eric Choate – Assistant Professor

Andrea Kirtner – Full-time temporary instructor

Amy Pennington – Administrative Assistant

Physics:

Shawn Huston – Assistant Professor

Dean's Office:

David Horton – Assistant to the Dean

We are pleased to have these colleagues join us and will be featuring more about them in the coming weeks.

WELCOME NEW STUDENTS

Each fall, the College of Science and Technology is pleased to add dozens of new students to our ranks. In this issue of the Dean's Desk Newsletter, we would like to highlight three new additions to our college who were in attendance at the Inaugural Legacy Picnic sponsored by alumni relations during the welcome weekend festivities.



Katharyn Seay is a biology major from Bassett Virginia. Katharyn is planning to pursue a career in dentistry or another health care related field. Her mother, Lisa, received her MS in education in 1993 from RU.

Katharyn, in blue, is pictured with her mother Lisa, sister Sam, and father Derek.

Brandon Phillips is a new Information Technology major. His mother, Stephanie Phillips is a 1993 nursing graduate and works with the Carillion Clinic system in Roanoke, VA. Pictured with Brandon are his mother Stephanie, his father Mike and his brother Cole.



Daniel Mendis is a new student majoring in Chemistry who is most recently from Mount Vernon High School in Alexandria, Virginia.

Originally from Kumasi, Ghana, Daniel is the recipient of a Martin Luther King Jr. Cultural Foundation Scholarship

<http://mlkculturalfoundation.org/scholarship-info/> and is being mentored by Mary Ann Jennings Hovis '65, also a former Rector of the Radford University Board of Visitors.

Daniel plans to pursue a career in medicine, a dream that grew out of a challenging childhood experience. He states: "I thought of working in the medical field after being hospitalized for some weeks as a child. I was pursued by canines and badly injured in Ghana. When I awoke from my unconscious state, I saw people in long white coats gathering around me. After seeing how well they took care of the other patients and me, I wanted to be like them. I wanted to be someone who helps to mend those that are injured and ill. I wanted to be a doctor in the medical field."

Pictured with Daniel are Mary Ann Jennings Hovis '65 and Bonnie Hurlburt '58, former Associate Vice President for Student Affairs and Dean of Students at RU.

Welcome to Katharyn, Brandon and Daniel and to all of our 1200 students in the College of Science and Technology.

RACKSPACE TO VISIT RU

Rackspace, which was recently ranked number 34 on Fortune Magazine's "100 Best Companies to Work For", will be visiting the RU Campus next Wednesday, September 4, 2013. There will be an information session at 11am in Davis Hall 151 and a tech talk at noon in Heth Hall 022. This is a great opportunity to interact with one of the nation's fastest growing companies.



Interested?

Info Session: Sept. 4th 11-11:50 @ Davis 151

Tech Talk: "Software Development with Kanban" Same day 12-1 @ Heth 022

-Hiring Software Developers and Interns-

-Resumes accepted-

-Pizza will be served-



COLLEGE OF SCIENCE AND TECHNOLOGY STUDENT ORGANIZATIONS

The College of Science and Technology will be well represented at the annual Radford University Club Fair on Friday, August 30th on Heth Lawn. Please encourage students to visit the different organizations' tables during this event and to consider getting involved in one of the many CSAT sponsored clubs.

Fall 2013
Club
Fair

Friday, August 30th
3:30pm-5:30pm
on Heth Lawn
FREE FOOD!

For more info, stop by SOAR (Bonnie 235)
or email jeleonar@radford.edu

Club Fair is sponsored by the Office of Student Organization Assistance & Resources (SOAR) and the Department of Student Activities at Radford University



Be sure to get the latest news by bookmarking our webpage: www.radford.edu/csat and by liking our Facebook page: www.facebook.com/RadfordUniversityCSAT.