

FROM THE DEAN'S DESK – November 16, 2015

THE RADFORD UNIVERSITY COLLEGE OF SCIENCE AND TECHNOLOGY NEWSLETTER



Students from Radford University SPS and the RU Planetarium facilitating Astronomy Night on campus

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RADFORD UNIVERSITY PLANETARIUM WELCOMES 40,000th VISITOR DURING ASTRONOMY NIGHT

On Monday, October 19, from 6-10pm, The Radford University campus served as a field site for the White House Astronomy Night: A Celebration of Science, Technology, and Space. During that event, the RU Planetarium celebrated a major milestone: Elija Galimore was the 40,000th visitor. The program was "Journey to the Stars" and four year old Elija said "it was a great show" and "his favorite part was seeing Saturn" on the planetarium dome. Elija was joined by his older sister Jordan, younger brother Malachi, and his parents Shelina and Cecil. This was the family's first visit to the planetarium, but they said it wouldn't be their last.

The planetarium shows were only a part of the evening's festivities. Students were able to view a number of celestial bodies on campus including detailed images of the moon using the Radford University collection of telescopes.



Elija Galimore, the 40,000th visitor to the RU Planetarium, and his family joined by program hosts Jordan Eagle and Jessi Basham.



The moon as photographed through a telescope on the RU Campus.

The White House issued a press release announcing the event that stated: "Astronomy has long been one of the most accessible sciences for children and adults alike – around the world people gaze at the moon and stars with wonder and curiosity, inspired to ask questions about the universe and the world in which we live."

This spirit of curiosity was certainly evident during the RU event, as dozens of students, faculty, staff and guests lined up to learn more about our celestial neighbors. Sequoia Morris, a junior majoring in Psychology said "This is awesome! A great experience right here on the Radford campus." Her friend Aija Hector, a junior majoring in Sociology agreed stating that "This is mind blowing!" She

added "It is amazing that we can do this!" Jasmine Wallace, a junior majoring in Finance, was in awe of her view of one of the most charismatic planets in our solar system. "I don't get a chance to see Saturn everyday" she said. "This has been an outstanding opportunity."

The RU Society of Physics Students and Sigma Pi Sigma (the Physics Honor Society) helped facilitate the evening with the telescopes and members seemed pleased to share their passion for Astronomy with their fellow students.



Students waited in line for their chance to look out beyond our planet.



Sequoia Morris, Aija Hector, and Jasmine Wallace were excited to have their first opportunity to use a telescope and see the wonders of the solar system.

Planetarium shows continue this semester in Curie Hall 043 every Tuesday and Thursday at 7:30pm and Saturday Morning at 10:30am. The new RU Planetarium will be opening during the spring 2016 semester in the Center for the Sciences and will have more seating as well as new, state of the art projection capability.

Through Nov. 19, the RU Planetarium will feature "Amazing Astronomers of Antiquity" on Tuesdays and Thursdays at 7:30 p.m. and "We Choose Space!" will be featured on Saturdays. The popular "Tis the Season" show will be featured following Thanksgiving break.

THE TREE-RINGIST: DR. STOCKTON MAXWELL FEATURED ON “WITH GOOD REASON” RADIO SHOW

Dr. Stockton Maxwell, Assistant Professor of Geospatial Sciences, was recently interviewed as a part of the show "With Good Reason" airing on NPR stations. His segment is called "The Tree-ringist" and he discussed his research, the value of studying climate through tree rings, and what we can learn from the current drought in the Western US. “We have some pretty charismatic trees” said Dr. Maxwell.

“Beautiful beasts of trees growing on the landscape: species like the giant Sequoia, the giant redwoods but now might be a time where it’s historically dry over the past several hundred years and they might not be able to survive that were currently seeing.”



The study is called dendrochronology and is the scientific method of dating based on the analysis of patterns of tree rings, also known as growth rings. Dendrochronology can date the time at which tree rings were formed, in many types of wood, to the exact calendar year. Dr. Maxwell prefers the term “tree-ring scientist.”

As a tree-ring scientist, Dr. Maxwell is able to take a core sample of a tree without hurting the trunk and can then unlock the many years of information held within. This was not the case several decades ago when an ambitious student convinced the forest service to let him cut down one of the oldest trees in the world. Prometheus was a bristle cone pine dated at almost 5000 years old, but the scientists had no idea of that age when they took it down. “It was a revelation that there were trees out on the landscape that long recording information” said Dr. Maxwell.

This information can help us learn more about where our climate has been historically and where it might be going in the future. You can listen to the entire interview at <http://withgoodreasonradio.org/companionfeature/the-tree-ringist/> .



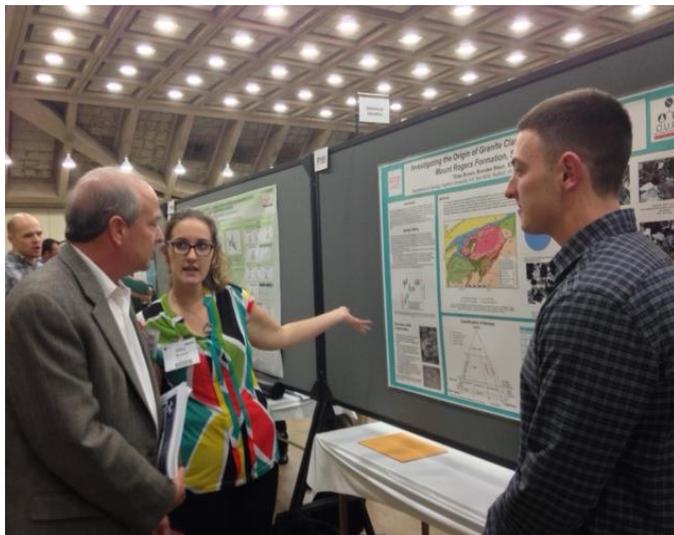
Dr. Stockton Maxwell

You can learn more about Dr. Maxwell’s work at his website:

<https://sites.google.com/site/thetreeringist/home>

RADFORD UNIVERSITY STUDENTS AND FACULTY PARTICIPATE IN GEOLOGICAL SOCIETY OF AMERICA CONFERENCE

Members of the Radford University community recently attended the Geological Society of America's Annual Meeting & Exposition, November 1st through the 4th at the Convention Center in Baltimore, Maryland, USA. Geoscientists from around the world, representing 37 disciplines, presented new findings that enlarge the body of geoscience knowledge and define directions for future study.



Elise Brown and Branden Risso.

Radford University Geology Majors Elise Brown and Branden Risso presented a poster during the program and were pleased with the outcome. Dr. Elizabeth McClellan, Assistant Professor of Geology at RU, stated that "It's been a fantastic GSA meeting. Our students had a constant stream of folks coming by, with lots of lively discussion."

Some of the meeting highlights included special presentations highlighting the bicentennial anniversary of the William Smith Map, which BBC science correspondent Jonathan Amos termed "one of the most significant maps in the history of science."

Other highlights included a panel featuring James Balog, Richard Alley, and Lonnie Thompson examining the retreat of Earth's glaciers; an interdisciplinary assemblage of scientists showcasing high-impact research on the rise of animals across the Precambrian–Cambrian transition; geologists and policy makers from several states offering insights into how similar information about hydraulic fracturing is yielding differing approaches to policy; and geomorphic processes viewed through the lens of the Appalachian landscape.

There were more than 219 topical sessions submitted, as well as a Special Session on the recent Nepal earthquakes, making this an outstanding opportunity for Radford faculty and students to explore more about the world of Geology, so close to home. "It has been nearly 100 years since GSA has been in Baltimore for an Annual Meeting," said Meeting General Chair David Vanko, of Towson University.

GEOGRAPHY AWARENESS WEEK TO BE HELD NOVEMBER 16th – 19th

Members of the RU community will have the opportunity to learn more about the world around them during Geography Awareness Week through the viewing of several documentaries, an alumni forum, and the interactive GIS Day featuring a scavenger hunt.

On Monday, November 16th, the documentary “Earth from Space” will be screened in the Bonnie Auditorium at 6pm. Earth from Space takes you on an epic quest to discover the invisible forces and processes that sustain life on our planet and, for the first time, see them in action in their natural environment in vivid detail. These truly unique images will explore the deepest mysteries of its existence, raising profound questions and challenging the old assumptions of how Earth's system works.

Tuesday features the documentary “Lethal Seas” to be held in Young Hall 402. From the description for the film: “A deadly recipe is brewing that threatens the survival of countless creatures throughout Earth’s oceans. For years, we’ve known that the oceans absorb about a quarter of the carbon dioxide in our atmosphere. But with high carbon emissions worldwide, this silent killer is entering our seas at a staggering rate, raising the ocean’s acidity. It’s eating away at the skeletons and shells of marine creatures that are the foundation of the web of life. NOVA follows the scientists making breakthrough discoveries and seeking solutions. Visit a unique coral garden in Papua New Guinea that offers a glimpse of what the seas could be like a half-century from now. Can our experts crack the code of a rapidly changing ocean before it’s too late?”

On Wednesday, the signature event of the week takes place as participants can use their cell phones to help map the RU campus as well as participate in a scavenger hunt. The program begins at 11am in the Bonnie Plaza.

Finally on Thursday, Geospatial Alumni will return to campus to talk about their careers and experiences in a forum to be held in Heth Hall 019 from 6-8pm.

These events are free and open to all interested participants. Geology Awareness Week is sponsored by the Department of Geospatial Sciences and The Geology Club.

GEOGRAPHY AWARENESS WEEK

WHEN
November 16th – 19th



**Sponsored by the Department of Geospatial Science
and the Geography Club**

**Feel free to contact the Geography Club with any
questions at rugeographyclub@gmail.com**

ON CAMPUS EVENTS

MONDAY

**Earth From Space
Documentary**

Bonnie Auditorium

6-8pm

TUESDAY

**Lethal Seas
Documentary**

Young Hall 402

8-10pm

WEDNESDAY

**GIS Day
GPS Scavenger Hunt**

Bonnie Plaza

11am-2pm

Thursday

**RU Geospatial
Alumni Talk/Forum**

**Located:
Heth 119 6-8pm**

DR. JASON DAVIS NAMED ASSOCIATE DIRECTOR OF THE RADFORD HONORS ACADEMY

Associate Professor of Biology Jason Davis has been named associate director of Radford University's Honors Academy.

Dr. Davis will join Director Niels Christenson to lead the high impact program that includes more than 250 students representing all six of RU's colleges and all academic classes.

"Jason is a most creative young faculty member who is willing to take risks in his teaching and programming," said Dr. Christensen, who took the Honors Academy helm in August. "Everything he does is geared toward developing an amazing educational experience for our undergraduate students."



Dr. Jason Davis

As associate director, Dr. Davis will assist with advising, program development and outreach to faculty on behalf of the academy and its students.

"Honors academy students are not just 4.0 students," Dr. Christensen said. "They are thinking big about their education and looking to make an impact on their communities. They are taking risks by studying abroad, making professional presentations on their own research or leading in some way."

To graduate from the Honors Academy as a Highlander Scholar, students must have a minimum 3.5 cumulative grade point average and complete at least 27 hours of honors work and an honors capstone project. They also must fulfill other obligations by engaging in honors contracts, independent study, study abroad or upper-level honors seminars.

"I'm extremely enthusiastic about this opportunity to work more closely with the students and faculty of the Honors Academy," Dr. Davis said. "In many ways the Honors Academy is emblematic of all the best things we do here – community, scholarship, service and being excited by discovery."

Davis and Assistant Professor of Biology Joy Caughron recently led 13 undergraduate student researchers from the University on the Radford Amazon Research Expedition (RARE), an intensive three-week Maymester academic adventure. Davis has also been instrumental in development of the Scholarly Outreach and Research Engagement (S.C.O.R.E.) program that assists undergraduate students from all academic disciplines in developing and producing multimedia products that showcase their original scholarship and research.

"Dr. Davis is an accomplished teacher-scholar who brings a depth of experience in honors education to this position," said Assistant Provost of Academic Programs Jeanne Mekolichick. "His innovative and interdisciplinary approach to both teaching and research will serve as a valuable model for our honors students and enrich our honors program."

RU DEPARTMENT OF INFORMATION TECHNOLOGY HOSTS HALLOWEEN EDITION OF “GIRLS DAY OF CODE”

Radford University served as host for another “100 Girls of Code” program as a part of a massive campaign to get young women to participate in computer programming via “Girls Day of Code” on October 31, 2015. The RU Department of Information Technology has partnered with the 100 Girls of Code organization to host coding-focused events for young women led by female programmers who are not only experts in their fields and academically-trained, but most importantly, they are “girls of code” themselves.

"The Radford University Department of Information Technology is dedicated to increasing the participation of women in computer science and the 100 Girls of Code events are a wonderful opportunity for young women to experience the joy of coding and the thrill of solving fun, challenging problems" stated Dr. Jeff Pittges, Chair of the Department.

This is the second event held at RU this fall. The first, held on September 19, was a major success with women from across the NRV participating. Radford University Information Technology alumna Heather Price Norvell and her colleague Renee Alarid brought the idea to RU and are serving as coordinators for the event. The group took advantage of the Halloween opportunity to encourage participants to wear costumes and share in the fun.



Proud participants in the Girls Day of Code display their t-shirts for the event featuring the generous sponsors who helped make the program possible.



Girls day of code event at Radford University. The participants had a chance to learn html, scratch, and Java in a supportive environment encouraging girls to code.

The mission of 100 Girls of Code is to achieve gender parity in STEM fields by introducing more young women to coding education and computer engineering at a young age. The organization seeks to inspire more female participation in STEM by providing young women an opportunity to create and gain confidence in what they create.

100 Girls of Code is an initiative of the Tennessee Code Academy that began in 2014 to spark interest in computer programming among young women ages 10 to 18. The initiative has grown into a nationwide program, with 20 chapters across the United States. Self-guided activities and webcasts are also available for individuals interested in participating but who are unable to make the event.



In recognition of the event being held on Halloween, the girls were encouraged to wear costumes and participate in a contest.



Three of the costume contest winners.

In addition to the event at Radford University, events are being organized in several locations throughout the U.S., with events also planned in Costa Rica and Ireland. The program has already enlisted hundreds of young women from all over the world who have committed to participate in self-guided activities at home or in small groups. Groups or individuals interested in participating are encouraged to go to:

<http://www.100girlsofcode.com/new-river-valley-va.html>

CSAT STUDENTS PARTICIPATE IN SKILLS DEVELOPMENT SERIES WITH LARC



Tutors from the LARC helped students create useful study strategies during the development program.

On October 21st and 22nd from 5:00 to 6:00 p.m., the College of Science & Technology (CSAT) and the Learning Assistance & Resource Center (LARC) hosted sessions with LARC tutors where students had the opportunity to brush up on study, note-taking, and time management skills relevant to their majors.

“As someone who frequently teaches the Biology Introductory Seminar course and advises freshman that having seminars such as this are critical to student success” stated Dr. Tara Phelps-Durr. “Freshmen in particular are trying to adjust to college and are often discovering that they will need to utilize the various support services on campus if they are to be successful.”

During the seminar, students gained insight into good study tips including a message from Dr. Sara O’Brien regarding study emphasis. “If I spend a good portion of a class on a topic, there is a great chance that it will appear on a test” she said. “Your study time would be well-spent

prioritizing topics with that in mind.”

Since these students are new to campus and often overwhelmed with coursework they often do not take the time to explore the support services that Radford offers. The LARC seminar gave many students the opportunity to learn about the services provided at the LARC and to make an initial contact with the LARC.

This first program had 100% attendance from the students who expressed an interest and signed up to be at the event. “The students found the advice from the LARC tutors very helpful, and putting a name to a face--in regards to meeting the LARC tutors--was one of the greatest benefits of the event” said Candace Saunders-Grewe - Tutor Coordinator for the LARC. “We will probably do something similar in the future, but we may hold it directly in the science classes, instead of having an outside event. “

The next program is scheduled for December 3rd in Young Hall and is co-sponsored by the Center for Development and Inclusion (CDI) at RU.

CHEMISTRY CLUB SPONSORS ALUMNI SPEAKERS

Richard Dill an RU alumni of the chemistry program returned to campus to speak on Thursday, October 29 at 5 pm in Reed 201. He currently travels the world for Eastman Chemical Company with his work on polymer film technologies. He talked with students about his work, how he ended up in this line of work and offered advice for those starting out in the business sector.

Chemistry Seminar



Richard Dill (RU '96)

Technical Service Manager
Americas/EACIS
Advanced Materials – Performance
Films
Eastman Chemical Company

Advanced Film Technical Services, an Accidental Career

Richard will return to RU to discuss advanced polymer film technologies, his current work with Eastman Chemical Company that takes him around the world, and possible career paths for students interested in technical service fields.

October 29 5:00 pm Reed 201

Do You LOVE CRAFT BEER?



What a silly question right!

NOW is your chance to learn a little more about craft beer, entrepreneurship, and what do to with that college degree after graduation from Alumni Adam Woodson, Owner of The Damascus Brewery. In his talk you will learn about his journey from a Radford University student's passionate hobby for homebrewing to opening up a full scale micro brewery and all the interesting things that have happened on the way.

This talk will take place
on **Wednesday NOVEMBER 4th at 6 pm**
in **McGuffey 203**

On November 4th, RU alumnus Adam Woodson talked about his passion for craft beer that led him to open the Damascus Brewery.

RU ANTHROPOLOGY CLUB HELPS TO EXPLORE AND DEBUNK THE LORE OF LOST CITIES



Dr. David Anderson sharing some of his findings.

On Tuesday, November 5th, Dr. David Anderson took participants on a journey to lost cities throughout the Americas. Along the way, he helped explain how most, if not all of these stories were typically better left to fiction instead of science. “Many times natives of the area were having such a bad experience with explorers ransacking their communities, they would simply tell stories of cities of gold and treasure that were somewhere else to entice the visitors to seek new prospects and to leave them alone” stated Dr. Anderson. Other times, the stories were the inventions of individuals who wanted

to carve out a legend for themselves and to make great claims about their prowess.

Pseudo-archeology can often be embraced by individuals who feel that academia is not being honest with the public about findings. It can also be quite fanciful in its tales of “monkey gods” “Cities of Gold” and “Fountains of Youth.” The reality is that these incredible stories are often just that – not credible. “Usually when archeologists find something, it actually pretty well fits with what we know” stated Dr. Anderson.

The importance of debunking these tales is still relevant as current news organizations continue to get caught up in the hoopla surrounding the claims of explorers. “We have a responsibility to help people find the truth” stated Dr. Anderson.

The Anthropology Club presents:

“The Lore of Lost Cities: From El Dorado to The Lost City of the Monkey God”



A public lecture by Dr. David Anderson
Thursday, November 5th at 5 pm
Russell 113