

FROM THE DEAN'S DESK – OCTOBER 9th, 2019

THE RADFORD UNIVERSITY ARTIS COLLEGE OF SCIENCE AND TECHNOLOGY NEWSLETTER



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RADFORD UNIVERSITY MATHEMATICS AND STATISTICS PROFESSOR ELECTED TO SCIENCE EDUCATION ORGANIZATION LEADERSHIP POSITION



Dr. Agida Manizade

On September 20, Dr. Agida Manizade was elected to the role of Vice President for Research and Best Practices in STEM at The Virginia Math & Science Coalition. The Coalition is a private, nonprofit 501(c) (3) organization that supports efforts by school systems, teachers, parents, students, the Commonwealth of Virginia and other interested parties to achieve and sustain excellence in mathematics, science, engineering and technology (STEM) education for Virginia's K-12 and higher education students.

The Coalition has a board of 30 members representing corporate, educational (including but not limited to representatives from all public Universities in Virginia), governmental, non-profit and scientific institutions. A support staff provides additional expertise and increases geographical and educational diversity. Collaboration with other organizations provides strong links for addressing ongoing mathematics and science educational concerns.



Dr. Sharon Emerson-Stonnell from Longwood University is serving as President of the organization for the coming year.

VIRGINIA NINTH DISTRICT SENATOR SPEAKS WITH INFORMATION TECHNOLOGY STUDENTS ABOUT DATA CHALLENGES AND STATE GOVERNMENT

On September 19th during a visit to the Radford University Campus, Virginia Ninth District State Senator Jennifer McClellan met with Dr. Caleb Bradberry's ITEC 369 Systems Analysis Class. Senator McClellan discussed some of her work both inside State Government and in the private sector regarding the challenges of data gathering and utilization.

Several questions about the safety of data and information manipulation with regard to elections were asked by students and the Senator shared what she was aware that the Commonwealth was doing to help address these concerns.



Senator Jennifer McClellan meeting with Radford University ITEC students.

THE SILK ROAD REINCARNATED UTILIZING THE RESEARCH OF GEOSPATIAL SCIENCES FACULTY

In early September, Dr. Grigory Ioffe visited Beijing, China by invitation of associates of the Chinese Academy of Sciences to participate in a workshop on international trade. The workshop was titled “Strategic Coupling of the Belt and Road Initiative (BRI) and the Eurasian Economic Union.” BRI is China’s mega-project of developing a land route to deliver their merchandise to Europe, a reincarnation of the ancient Silk Road. Currently, most goods are transported by sea through the Indian Ocean, the Red Sea, and the Suez Canal. This route takes approximately 30 days, whereas the land route 15 days.

Dr. Ioffe’s expertise with the nation of Belarus through his research was a valuable addition to the program as one of the major land corridors for Chinese goods passes through that country.



Dr. Grigory Ioffe speaking at the BRI workshop in Beijing

“My paper presented at the workshop was devoted to the Geopolitical significance of the Chinese-Belarusian Industrial Park and of the BRI in general” stated Dr. Ioffe.

While in Beijing, Dr. Ioffe was encouraged to further his research activity in this area and explored a number of new outlets and partnerships to help further this pursuit.

NATIONALLY NOTED NATURALIST TO CONDUCT CLIMATE CONVERSATION AT RADFORD UNIVERSITY

Paul Rosolie, a naturalist, author, and award-winning wildlife filmmaker who has specialized in the western Amazon for nearly a decade; will present a program highlighting the importance of conservation on Monday, October 14th in the Center for the Sciences room M73.

The event is sponsored by the Radford Amazonian Research Expedition (RARE) and addresses some of the challenges that the rainforest is facing from logging, farming, and livestock grazing along with a changing climate and other environmental issues.

Mr. Rosolie also runs a conservation project called Tamandua Expeditions that uses tourism to support rainforest conservation. This organization has facilitated Radford University faculty and student activity in Peru as a part of RARE.

As an author Mr. Rosolie's mission is to blend adventure and conservation with the aim of reaching a broader audience, and including more people in an ecological call to arms.

The event is free and all are encouraged to participate.

To learn more about RARE, please visit www.radford.edu/rainforest



OCEANOGRAPHER AND EDUCATOR TO VISIT CENTER FOR THE SCIENCES



Dr. Sophie Clayton

Dr. Sophie Clayton, Assistant Professor of Ocean, Earth & Atmospheric Sciences at Old Dominion University will be on campus for a visit with Radford University STEM students on Friday, October 18th. Dr. Clayton will conduct a presentation in the Radford University Planetarium at 4pm but will be meeting with students and faculty throughout the course of the day.

Dr. Clayton uses a combination of modeling approaches, field observations and large-scale data analysis techniques to understand how the oceanic environment shapes patterns in phytoplankton ecology.

Her field covers biology, chemistry, physics, and geoscience.

CHEMISTRY CLUB ACCEPTS BAG TO BENCHES CHALLENGE

The Radford University Chemistry Club is helping lead an effort to recycle single use plastic bags into benches through the help of the RU Student Government Association and a recycling program offered by the TREX Corporation.

The “bags to benches” program is offered as a way to take unwanted plastic materials and have them transformed into products with long lifespans and many uses. The Radford University effort began as an initiative of the Student Government Association Secretary of Sustainability and has already collected more than 40,000 bags qualifying for a bench from TREX. Leslie Molina, a Senior majoring in Chemistry with a minor in Forensic Studies, is serving as President of the Chemistry Club and supported the SGA effort in the last year, but also is leading her organization in their own collection drive to bring a bench to the Center for the Sciences.

The group is placing collection bins throughout the building with the hopes of surpassing their goal. To date, they have collected more than 30,000 bags so they only need about 25% more of the total to qualify for a bench. Leslie has stated that she would like to collect enough bags to have benches on both the CS side of the complex but also in front of Reed Hall when that building returns from renovation in early 2020.

The club is asking for the support of all Artis College students, faculty and staff in their mission and collection bins are available in multiple locations inside the Center for the Sciences. To learn more about this program, please visit:

<https://www.trex.com/recycling>

They have a list of the many types of single use plastics that can be collected.

TREX states that they consider this program to be a “win-win” as it provides new products for organizations while helping address a challenge to the environment through the utilization of single use plastics.



Chemistry Club President Leslie Molina with one of the “bags to benches” collection boxes that can be found in the Center for the Sciences.

RUSECURE LAUNCHES 2019 COMPETITION WITH RECORD PARTICIPATION IN SIGHT

On September 30 at noon, the 2019-2020 RUSecure CTF Contest launched to the world. Over 165 teams have already joined the competition this year and more than 150 are on the scoreboard with the current top team receiving more than 63,000 points in the first week. Dr. Joe Chase, co-director of the competition said “We started with approximately 650 students but we know from experience that the contest will continue to grow over the next few weeks. Our goal is to hit 3000 students!”



The annual contest is divided into three components: A preliminary round, a qualifying round, and the finals which will be held on the Radford University campus in April. The preliminary round is scheduled to last until noon on December 6, 2019.

The RUSecure CTF preliminary round is purely educational – the points do not matter, except for bragging rights within a school. Dr. Chase added “The preliminary round is truly that – PRELIMINARY – as in preliminary to the qualifying round this coming spring.”

For the preliminary round, each category of challenges, ranging from Linux to Windows to Cryptography to Hashing to Recon to Networking, is supported by educational materials and meant to support students preparation for the RUSecure qualifying round and further study in Cybersecurity.

In addition to the current set of roughly 85 challenges across 6 categories, we will be adding additional challenges and learning materials throughout the duration of the preliminary round including a planned new category in Cyber Defense.

All students interested in participating in this program are welcome. The more participants that take part in the preliminary round the better, as there is a great need for more high school and college age students to become engaged with cyber security. Currently in the Commonwealth of Virginia there are tens of thousands of crucial cyber security related positions that are unfilled due to the lack of qualified applicants.

To participate in the contest, teams need to visit <https://rusecurectf.radford.edu> and register. “Once they register, we will get in touch with them very quickly with additional information about the contest and the contest environment” added Dr. Chase.

WILDLIFE SOCIETY FACILITATES HUNTER EDUCATION COURSE AT SELU CONSERVANCY



Wildlife Society Members learning about hunter safety.

The Artis College of Science and Technology at Radford University helped underwrite this event so that it could be held at the scenic Selu Conservancy.



Story by Karen Powers

Students from the Radford University student chapter of The Wildlife Society participated in a full-day hunter education course, learning about hunter safety, ethics, and conservation.

Even for those who never intend to hunt, this was a chance to understand an integral part of wildlife management from instructors who emphasized respect for the hunt.

Instructors from the Virginia Department of Game and Inland Fisheries (VDGIF) were top-notch and provided a great experience for all. They brought non-functional weapons for students to practice safe handling, loading, and more. Students are sincerely grateful to VDGIF for this learning opportunity.



The barn at Selu Conservancy made for an excellent classroom for the educational event.

ARTIS COLLEGE CALENDAR

OCTOBER

- 11 - Fall Break
- 12 - Radford Highlanders Festival
- Sponsored by Radford University and the City of Radford University
- 8a-6p – Moffett Lawn, RU Campus
- 14 - Paul Rosalie Conservation Presentation
- Sponsored by RARE
-4p – CS M73
- 18 - Dr. Sophie Clayton, Oceanographer
- Sponsored by the Physics Department
- 4p – Planetarium
- 18 - Dr. Sharon Jones
- DEI Workshop
- 12:30P-2:30P – Heth Hall 16
- ACSAT Faculty and Staff invited to attend
- 25 - Artis College Advisory Council Meeting
- Sponsored by the Office of the Dean
-2:30p – Location TBD
- 25 - Artis College Alumni Panel
- Sponsored by the Artis College Advisory Council
- 4pm – CS Main Street Level

NOVEMBER

- 1 - Fun time with the Faculty on First Fridays at Four o'clock
- Sponsored by the Chemistry Department
- 4p – 5:30p – CS Main Street Level
- 23 - Thanksgiving Break

DECEMBER

- 2 - Classes resume following Thanksgiving
- 5 - Artis College Student Showcase
- 3p-6p
- Center for the Sciences
- 14 - Winter Commencement