FROM THE DEAN'S DESK - December 16, 2019

THE RADFORD UNIVERSITY ARTIS COLLEGE OF SCIENCE AND TECHNOLOGY NEWSLETTER



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RADFORD UNIVERSITY PROFESSOR JEREMY WOJDAK EARNS VIRGINIA'S TOP AWARD FOR TEACHING EXCELLENCE

Radford University Professor of Biology Jeremy Wojdak, Ph.D. is the recipient of a prestigious 2020 State Council of Higher Education for Virginia (SCHEV) Outstanding Faculty Awards.

Since 1987, these awards have recognized faculty at Virginia's institutions of higher learning who exemplify the highest standards of teaching, scholarship and service.

Nominees are selected by the institutions, reviewed by a panel of peers and chosen by a committee of leaders from the public and private sectors. In all, 85 nominations were submitted this year. This group was narrowed to a field of 27 finalists and then to the 12 recipients, each of whom will receive a \$7,500 gift from Dominion Energy at a special ceremony in Richmond to be held on March 9, 2020.

JEREMY WOJDAK, PH.D.

Radford University President Brian O. Hemphill, Ph.D. said of Dr. Wojdak's exemplary recognition: "Since joining the Radford family in 2004, Dr. Wojdak has exemplified the

University's mission of being dedicated to the creation and dissemination of knowledge that empowers students from diverse backgrounds and cultivates relationships between students and faculty, while embracing innovation and tradition. With an impressive record of scholarly work and external funding on the national level, Dr. Wojdak is a dedicated member of the Artis College of Science and Technology and the broader University community, including teaching a study abroad field course and serving as a leader in the maker movement through collaborative work to integrate more hands-on, digital and physical creative activities in the curriculum. These are just a few of Dr. Wojdak's many accomplishments to his students, the University and his discipline."

Dr. Wojdak is no stranger to the Commonwealth's highest honor awarded annually by SCHEV. He was a finalist for the award in 2017, 2018 and 2019. In addition, Dr. Wojdak was selected in 2018 as a Radford University Dalton Eminent Scholar, a University-level award for creative scholarship.

"Dr. Wojdak is an inspirational instructor and scholar, as well as an exemplary role model for his students and faculty peers," said Artis College of Science and Technology Dean J. Orion Rogers, Ph.D. "His contributions to Radford University range from developing a Tropical Field Biology course at St. John in the U.S. Virgin Islands, to earning membership in the Million Dollar Circle for external grant awards in 2017 and publishing more than 28 scientific articles in peer-reviewed journals. He has been a leader in roles to acquire external grants that include \$1 million from the Howard Hughes Medical Institute for the Inclusive Excellence Program, called REALISE, to reform student experiences in biology, chemistry and physics programs at Radford University and provide a catalyst toward institutional change to improve student success."

In his scientific disciplinary research, Dr. Wojdak studies the interactions among species in ponds, lakes, streams and rivers in the Virginia landscape and beyond. More specifically, he works to understand the impacts predators can have on their prey, and parasites can have on their hosts. He engages his students in his research projects, resulting not only in presenting at local and national conferences, but also co-authoring peer-reviewed publications.

Beyond the University, Dr. Wojdak has led numerous outreach events for school children, including several robotics competitions. He regularly serves as a panelist and proposal reviewer for the National Science Foundation, has reviewed dozens of manuscripts for international scientific journals and serves as an editor for the journal, "Letters in Biomathematics," and on graduate student committees.

"I am truly honored to be recognized by our state's leaders in higher education, and so very fortunate to have colleagues that would give their own time to submit a nomination or write a letter to help recognize others," Dr. Wojdak said. "As

faculty, so much of our work is in collaboration either with students or our peers. I am proud to represent the culture of excellence shared by the Department of Biology, Artis College of Science and Technology and Radford University."

Dr. Wojdak earned a Ph.D. in zoology, ecology, evolution and behavior from Michigan State University and a bachelor's degree in biology from Bowling Green State University.

Dr. Wojdak is the 12th Radford University faculty member to be a recipient of the SCHEV Outstanding Faculty Awards and the eighth from the Artis College.

Previous Radford University winners are:
Agida Manizade (Mathematics and Statistics), 2018; - ARTIS
Jennifer Jones Powell (Teacher Education), 2015;
Cliff Boyd (Anthropology), 2008; - ARTIS
Donna Boyd (Anthropology), 2006; - ARTIS
Mark Camphouse (Music), 2002;
Robert Whisonant (Geology), 2000; - ARTIS
Chester "Skip" Watts (Geology), 1998; - ARTIS
Franklin Jones (Physical Science), 1996; - ARTIS
Leonor Ulloa (Foreign Languages and Literatures), 1993;
Grace Toney Edwards (English), 1990
and Steven Pontius (Geography), 1990 - ARTIS

WILDLIFE SOCIETY STUDENTS SAVE NATIVE MUSSELS AT CLAYTOR LAKE STATE PARK

On Saturday, November 9th students from the RU chapter of The Wildlife Society (RUTWS) joined a group of over 130 volunteers to assist in saving native mussels at Claytor Lake State Park. Every two years, AEP lowers the lake level to allow residents to clean off their docks and piers on the lake and to make repairs.

This year and in 2017, the drawdown was about five feet below the normal lake level, significantly lower than it's been over the past decade which exoses many more of the mussels.

This vast number of native mussels help to filter organic material and sometimes pollutants from the water.

On this cold Saturday in November, students spent several hours collecting live, native mussels from the muddy banks and returning them to the lake. The team of Radford University Biology Students rescued nearly 400 native mussels, and more than 7,600 were rescued across all volunteer crews.



RU chapter of the Wildlife Society at Claytor Lake

This event is an excellent example of the many ways Artis College students help give back to the community through service and outreach. The day was an excellent collaborative effort with volunteers not only from Radford University but also several state agencies (VDGIF, State Parks) and volunteer organizations (Virginia Master Naturalists, Friends of Claytor Lake).

Karen Powers contributed to this story.

Story by Mary Hardbarger

ARTIS ADVISORY COUNCIL CONDUCTS CAREERS IN STEM PANEL AT HOMECOMING



Artis College Advisory members with students at the "Careers in STEM" Panel held during Homecoming 2019

Career preparation, life goals, and pathways to success were the topics of the day on Friday, October 25th when members of the Artis College of Science and Technology Advisory Council participated in an hour-long panel discussion with students in the Center for the Sciences. Participants had the opportunity to network with professionals from across the STEM spectrum and engage in meaningful dialog about the challenges and opportunities they face as pursue their degrees and plan for life after graduation.

Council member Maher "Max" Noureddine, a 1993 biology graduate, shared some of his thoughts with the group about what he wished he had done while a student. "I wish I had spoken to more established professionals in the same/similar career paths, listened and evaluated pros and cons, broken the mold earlier (easier said than done), and had more practical involvement and training." He added "Students should diversify educational and experience background as early as possible and request theory application and hands on experience from college faculty."

Fellow panelist Mike McCaughan, Class of 2007 in physics and applied mathematics, agreed adding "Looking back I wish I had engaged in more research and written papers with a better focus and preparation on graduate school to have given me more options." He went on to let students know that his path had many unexpected turns as he had initially been accepted as a student to the Massachusetts Institute of Technology, but his parents felt that the family would not be able to afford the tuition and simply discarded his letter. "I was a first generation college student and they didn't understand how financial aid worked. Disheartened and took a job for a bit – realized education was important and returned to community college where I made the Dean's list for a few semesters and completed my Associate of Science degree and transferred to Radford."

One of the major themes of the panel discussion was that there was no one path to success that would work for everyone. Nancy Artis, Class of 1973 and namesake benefactor for the college stated to the group "My original plan was to be a High School Math teacher but once I was in college, I switched majors to biology because it was more fun for me." She added "Following graduation my career path varied from jobs as a Pharmaceutical Plant technician to a biology teacher to Data systems support person and many other roles before my husband and I ended up owning and managing our own company." One piece of advice she gave the gathered group was to always be curious and never stop learning. "STEM changes quickly so prepare for life-long learning to stay relevant."

Seth Peery, a 2003 graduate with majors in political science and computer science also emphasized the importance of continued education and also flexibility mixed with awareness of the opportunities that are available to you. "My original plan was to use technology to promote economic development in Southwest Virginia" he stated. That plan was on track as he entered graduate school at nearby Virginia Tech in urban affairs and planning following the completion of his degree at Radford. "During that time I had an assistantship working for the Vice President for Information Technology, and was working on a project that required a geographic information system (GIS). Although I had a CS

degree, I had not previously worked with GIS software, so I taught myself GIS and it was additionally apparent that a large-scale infrastructure for distributed GIS mapping and analysis would be necessary for the project I was working on to succeed, but Virginia Tech had no such systems." Using surplus hardware he built Virginia Tech's first enterprise GIS which became popular and desired by other departments at the institution. With that, Seth saw an opportunity. "I went back to the VP for IT and told him that we needed an organizational support structure for this new technical function I'd created and he asked me to propose one." Seth concluded his remarks by stating "When the VP approved my organizational model for a new department in the division of IT called 'Enterprise GIS', I essentially created my own job, and I still work there today."

Daniel Hansen, a 2004 graduate with degrees in Physical Science with a Physics Concentration and Physical Science with an Earth and Space Studies Concentration followed up Seth's comments with some advice for the students in attendance, stating "Keep an open mind. You might have a plan, but be prepare for that to change."

Another alumnus on the panel who works in the field of GIS, David Bradshaw, class of 1990 in geography, shared his story that had similar twists and turns but starting from the geography side of the equation. "Geography in 1986 was not the computer technology field of study that it is today" he stated. "I liked computers and I saw the potential for what they could do when coupled with GIS. So I focused on understanding its application and capabilities with respect to mapping information."

David went on to talk about how fortunate he feels to be able to evolve while staying in his field of study. "I've made a career with my degree in Geography. Starting out as a County Cartography I helped move a county from pen and ink tax maps to computer cartography" he stated. He added that he later moved to the third largest coal company in the nation where he was a Senior Draftsman. "I helped move them from traditional coal seam mapping to an integrated mapping systems that tracked coal reserves, production, and mine forecasts." Following that job, a couple employment opportunities with engineering firms provided some much-needed consulting experience and then from there he launched his own business to provide GIS consulting services. "Since 2005, I've been doing this for businesses, cities, towns, and counties as well as for the military" he concluded.

After an hour of outstanding questions from students and thoughts from the alumni panelists, the group parted with a few final thoughts. Max Noureddine encouraged students to be bold and innovate as they study and grow. "Things have changed radically in STEM in the 21st century. Seek answers but to prepare yourself better, ask more questions." He added "Integrate innovation and entrepreneurship as early in your career as possible. Break the molds. Don't be afraid of, in fact seek, solutions and applications outside your comfort zone."

Mike McCaughan ended with a pep talk stating "You can do absolutely anything, but you have to be willing to work for it. There will always be someone in any field who is smarter or better at some aspect of it than you, but drive and determination to accomplish your goals will allow you to surpass a great many of your peers."

Following the formal program, students were encouraged to talk one on one with the panelists. Nancy Artis later stated that one young woman sought her out and they had an excellent conversation. "She told me that she was the only female surrounded by men and asked how she could stand out so we talked about strategies she could use to become successful in a male dominated group."

The panel discussion was the culmination of the Artis Advisory Council meeting held in conjunction with Homecoming. Council members explored the nearly completed renovations to Reed and Curie Halls and learned more about the innovative new collaborative teaching and learning spaces that have been developed within the buildings. Council members reminisced as they visited familiar places such as the former location of the Planetarium that have been transformed into much needed research and work space for physics and geology and marveled at the new multi-story communal spaces in the heart of the complex that will encourage students within the college to gather and engage with one another. "We didn't have anything close to this when I was a student" stated Daniel Hansen. "This is outstanding!"

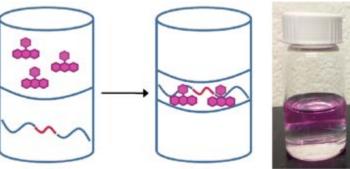
Following the tour, the Council gathered in the Forensic Science Institute conference room in the Center for the Sciences for a couple brief updates about the College and an overview of the fundraising initiatives both current and in the near future from Dean Orion Rogers and Vanessa Conner, Class of 2012, M.S. 2015, who is Assistant Director of Fundraising and University Advancement liaison to the Artis College.

CHEMISTRY FACULTY AND STUDENTS UNCOVER CLEANSING POLYMER

Members of the Radford University Chemistry Department have recently been published in a well-respected journal, BMC CHEMISTRY, detailing their research into polymers prepared from renewable resources that can remove pollutants from water. The pollutants targeted are polycyclic aromatic hydrocarbons (PAHs) which are organic compounds formed from the burning of fossil fuels, and several types of PAHs are carcinogens.

Dr. Amy Balija, Assistant Professor of Chemistry, led the effort and received support of a first-generation undergraduate freshman chemistry major, Haley Collins. Haley was part of the Accelerated Research Opportunities (ARO) living-learning community at Radford in 2018-2019 and is now a sophomore.

Other studies in the paper focused on how the polymers interact with the pollutants. Images of the polymers, changes in the properties of the



An illustration of the polymer in action from the article

polymer-pollutant complex, and theories of how the pollutants interact with the polymer are discussed.

"These polymers are prepared from biorenewable starting materials: L-lactide, a derivative of lactic acid, and ε -caprolactone" stated Dr. Balija. "Preparation of the polymers are environmentally friendly, making only water as a by-product. The polymers degrade into benign materials, resulting in no negative impact on the environment."

Dr. Balija decided to pursue this project because she has an interest in improving the environment while addressing issues created by daily human life. "I have been involved in several environmentally friendly projects since becoming an environmentalist activist in high school" stated Dr. Balija. "Other projects in my lab are focused on alternative ways to prepare organic compounds with little waste".

Clean water is a constant challenge in the 21st century and the pollutants that result from the burning fossil fuels in vehicles, heating, power, manufacturing, and even BBQ can add to the difficulty in maintaining a reliable, safe supply for drinking and cooking. This study could go a long way in helping address that challenge and improve the quality of life for millions of people.

The full story can be found at: https://bmcchem.biomedcentral.com/articles/10.1186/s13065-019-0638-z

RUSECURE CONTEST RACKS UP RECORD PARTICIPATION IN PRELIMINARY ROUND

Nearly 2000 participants on 486 teams from across the nation are digging into the world of cyber defense through the annual RUSECURE Capture the Flag competition sponsored by the Radford University Department of Information Technology. "This is, by far, the largest contest we have run to date" stated contest co-director Dr. Joe Chase, Professor of Information Technology. "We continue to be very excited with the level of participation, and that number has continued to grow each week" he added.



RUSecure Capture the Flag

The first round of the contest is a three-month, virtual activity with hints and educational materials available. The purpose of this contest is to educate, motivate and reward students interested in cybersecurity. This round ended on December 6th with more than 20 of the teams solving most all the challenges and scoring over 60,000 points each.

The qualifying round begins in the spring and will be a shorter, two-week virtual contest but without the hints of the preliminary round. The top-placing team from each of Virginia's eight VDOE regions plus the top seven open qualifying teams in this qualifying round will advance to the on-campus RUSecure CTF Final Round in April.

Organizers are pleased with the growth of this contest stating "The footprint for the contest literally spans the entire U.S., from Virginia to California and from the Michigan to Texas." Dr. Chase added "This year, we have had a new phenomenon that we will have to explore further as alumni of the contest have signed up to compete from the Universities they are currently attending."

Dr. Prem Uppuluri, Professor of Information Technology, Director of the Center for Information Safety and Security at Radford University and co-director of the contest, added "the increase in participation has motivated us to work on developing a real-world complex cyber defense scenario that the competitors will face in the qualifying round."

More growth is on the horizon as a new cyber-defense space comes on-line in Curie Hall after in January of 2020 with additional servers as well as new physical spaces for students to utilize in such challenges.

The rounds of the RUSECURE contest challenge students in a wide variety of topic areas including anatomy of an attack, an introduction to networking, cryptography, forensics, web security, and Windows/Linux security.

The preliminary round provides an opportunity for students to learn a great deal of material in a short period of time, motivated by challenges and supported by hints, videos, and other educational materials.

The qualifying round provides an opportunity for students to test their mettle against their peers and continue to hone their skills. Earning their way to the on-campus finals should provide an experience they will never forget as they compete against the best of their peers as well as test their expertise against professional penetration testers.

The RUSecure CTF contests are open to currently enrolled high school, home school, or community college students in the United States. Teams registering for this contest must include at least three team members including the captain and must include a faculty member as a coach. Teams are limited to five student members.

ARTIS COLLEGE FACULTY FACILITATE STEM OUTREACH IN ABINGDON

On Friday, November 22, faculty and students from the Artis College of Science and Technology joined with educators from around the region at the Southwest Virginia Higher Education Center in Abingdon, Virginia to encourage young women to participate in Science, Technology, Engineering and Mathematics through a day-long series of events. Nearly 900 6th grade girls from the City of Bristol and surrounding counties joined in the program featuring 50 volunteer presenters and assistants for the annual STEM workshops



Dr. Francis Webster highlighting "The magic of Chemistry" during a presentation using Nitrogen

Dr. Francis Webster, Professor of Chemistry at Radford University, helped headline the program with his "Magic of Chemistry" show held in the Executive Auditorium. This event, which features a lighthearted look at the chemistry in all kinds of products we encounter on a daily basis, has been popular with thousands of audience members in hundreds of shows over the past 16 years. From the chemistry that colors fireworks to rocket power from Ritz crackers to welding steel with peperoni sticks, the "Magic of Chemistry" has helped lift the veil of complexity of the makeup of things around us and helped audiences of all ages understand a little more of

the marvels of modern science.

Another highlight of the day centered on the work of Dr. Neil Sigmon, Chair and Professor of Mathematics at Radford University. Dr. Sigmon helped explain the art and science of cryptology in his presentation "Disguising Messages and Breaking Secret Codes" held in the Cisco Academy at the Center. Applying mathematics to language and creating both encryption and decryption for messages to be kept secret has long been a desired way for some people to communicate and is essential in the modern digital world as sensitive messages carrying personal data are transmitted millions of times per day. From simple substitution cyphers to symmetric encryption to complex systems such as the work of the Navajo "Code Talkers" during World War II, Dr. Sigmon has shared the beauty and intricacy of "Disguising Messages and Breaking Secret Codes" for many years to many enthusiastic participants. He has even utilized programs that allow attendees to create their own message and hear how it might have been translated into the Navajo code.

The mission of the Southwest Virginia Higher Education Center is to help bolster the economy of the region around it while providing the opportunity for residents of the area to pursue advanced education and degrees. There are five such centers across Virginia including this facility in Abingdon, as well as locations in Danville, Roanoke, South Boston, and Martinsville. Outreach to engage prospective students in a variety of topics is an avenue to help grow the population of those utilized the services of the center as well as to showcase the work of the institutions and their faculty that support the degree programs.

RADFORD UNIVERSITY FACULTY HELPS GEOPOLITICAL IDENTITY EXPLORATION DURING INTERNATIONAL CONFERENCE

On Thursday, November 21, Dr. Grigory Ioffe, Professor of Geospatial Science at Radford University, served as a panelist for the conference "The West and Belarus: A Mutual Rediscovery," a multi-panel discussion exploring the country's key geopolitical role in the heart of the European continent.

Dr. loffe has long been considered an expert in the affairs of this nation and shared his thoughts on the "politics of memory" that challenges the country. "There are two historical narratives of Belarus at war with each other" stated Dr. loffe. "One is the Russo-centric/Neo-Soviet narrative and the other is the Westernizing one (sometimes called national-democratic)." He went on to stress that "although the former still dominates the official politics pf memory, the latter has been making some headway following the 2014 annexation of Crimea by Russia and the ensuing misgivings that the same may befall Belarus."

For many in that country, there was little to no National identity prior to the Soviet years. According to Dr. loffe "by far the most important factor (in this dual narrative) is delayed ethnic self-awareness of Belarusians. One of the fateful implications of this delay is that Belarusians' formative experience as a community and even the self-name "Belarusians" were internalized during the Soviet period, prior to which they used to identify as just locals (Tuteishiya)." He went on to add "In a way, they were born as a community during the Soviet period and owing to it."

Dr. loffe's thoughts were part of an exploration designed to help much of the world have a greater understanding of this

region. After an extended period of tensions and estrangement, in recent years ties between Minsk and the West have gradually been on an upswing. At the same time, the Belarusian nation has continued to search for and crystallize its specific identity. The event was created to serve as an important discussion of these trends and what they mean for Europe's wider security and development.

The conference included experts from both sides of the Atlantic and will featured Deputy Assistant Secretary of State for European and Eurasian Affairs George Kent, former commander of U.S. Army Europe General Ben Hodges, as well as Belarusian Deputy Foreign Minister Oleg Kravchenko.





Dr. Ioffe at the Jamestown Foundation sponsored conference in November

The event was hosted by the Jamestown Foundation in Washington DC.

ARTIS COLLEGE STUDENTS AND FACULTY PRESENT WORK AT STATE NATURAL HISTORY CONFERENCE

In November, students and faculty in the Artis College of Science and Technology attended the annual meeting of the Virginia Natural History Society in Martinsville, VA. As a part of the mission of the organization, the meeting was designed to help "promote research on the natural history of Virginia, educate the citizens of the Commonwealth on natural history topics, and to encourage the conservation of natural resources." Over 40 natural historians attended, representing colleges, universities, museums, and conservation organizations, citizen science groups. Radford University biology students gave talks and presented posters. Listed are the presenters, coauthors, and their poster or presentation titles:

Lauren Burroughs and Karen Powers – "Continuing Studies of Bird-window Collisions at Radford University: Updates and Analyses"

Angie Leon, Karen Powers, Miranda Dimas, Logan Vanmeter – "Observed Predation of Allegheny Woodrat (Neotoma magister) by Barred Owl (Strix varia) in Virginia"

Logan Van Meter, Karen Powers, and Meg Short - "Summer Bat Acoustic Activity around VDOT Bat Box Installations"

Logan Platt, Miranda Dimas, Karen Powers, W. Mark Ford, Wil Orndorff, and Rick Reynolds – "A Decade of Little Brown Bat Maternity Colony Surveys in Virginia: Observations and Next Steps"

Adam Allen, Brian Ditch, Stephen Ruppert, Christine Small – "Impacts of the Invasive Emerald Ash Borer (EAB) on Ash Trees in Virginia Forests"

Angie Holmes, Kristina Stefaniak, and Jamie K. Lau – "Impacts of the Mountain Valley Pipeline: A Comparison of Baseline Total Suspended Solids in Control and Impact Sites"

Kioshi Lettsome, Karen Powers, and Len Diloia – "Effects of Autumn Olive (Elaeagnus umbellata) Removal Treatments on Bird Communities at the Radford Army Ammunition Plant"

Olivia Grubb, Tia Strickland, Kristina Wade, Sara O'Brien, and Matt Close – "Effects of Trembolone on Gonad Histology in Mosquitofish (Gambusia holbrooki)"

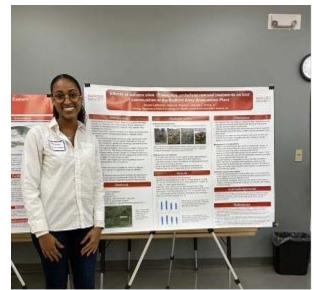
Tia Strickland, Olivia Grubb, Kristina Wade, Sara O'Brien, and Matt Close

– "Effects of Trembolone on Secondary Sex Characteristics in

Mosquitofish (Gambusia holbrooki)"

Karen Powers (faculty), Michael Mengak, Rick Reynolds, Bob Sheehy, W. Mark Ford – "Bot Fly Parasitism of Allegheny Woodrats (Neotoma magister) in Virginia"

The Virginia Natural History Society (VNHS) was formed in 1992 to bring together persons interested in the natural history of the Commonwealth of Virginia. The VNHS defines natural history in a broad sense, from the study of plants, animals, and other organisms to the geology and ecology



Kioshi Lettsome presenting her work researching an invasive plant at the Radford Army Ammunition Plant and how it may impact the natural ecosystem

of the state, to the natural history of the native people who inhabit it. This is the second time that the organization has conducted a State-wide meeting, following the inaugural event in 2018.

Karen Powers contributed to this story.

SUMMER BRIDGE: WOMEN IN STEM PROGRAM SEEKING APPLICATIONS

The annual Artis College outreach program, Summer Bridge: Women in STEM, has opened applications for the 2020 session. The event, a week-long residential program for rising 10th, 11th, and 12th grade girls, will take place July 12th through the 17th on the Radford University campus and features an exploration of many areas within STEM to encourage and support women pursuing programs for academic experience and potentially for a career. For more than a decade this signature event for the college has helped young women find a path to both advanced education, but also to vocations that they never imagined.



Summer Bridge: Women in STEM participants and Resident Counselors

Learn more at www.radford.edu/summerbridge

ARTIS COLLEGE TO SPONSOR SCIENCE AND TECHNOLOGY FESTIVAL ON MARCH 28TH



3-28-2020

The Artis College of Science and Technology is once again bringing a celebration of STEM to Radford with the Science and Technology Festival. 10am - 4pm on Saturday March 28, 2020. Please save the date and plan to join the fun for hands-on activities, demonstrations and shows, a showcase of the really amazing STEM programming at RU and in the Radford Community, plus much more.

This year the festival expands to include spaces in the newly renovated Reed and Curie Halls as well as in the Center for the Sciences. The new UAV Center, Cybersecurity Training and Education Lab (CTEL), Geospatial Science spaces, and more will join favorites like the Planetarium, Museum of the

Earth Sciences, the Radford Roach Roadshow, The Magic of Chemistry, and many additional elements. More will be announced soon, but for now, mark your calendar.

Anyone interested in participating in the event should contact David Horton at rhorton@radford.edu

ARTIS COLLEGE CALENDAR

DECEMBER

17 - Wintermester Begins

JANUARY

20 - MLK DAY OF SERVICE

21 - Spring Semester Classes Begin

MARCH

6 & 7 - Blue Ridge Highlands Regional Science Fair

7 - Spring Break begins

16 - Classes Resume

28 - Radford University Science and Technology Festival

MAY

2 - Artis College Student Awards Ceremony (Tentative)

9 - Spring Commencement

11-29 - Cyber Camp Day programs (Tentative)

JUNE

22-26 - Camp invention

JULY

12-17 - Summer Bridge: WOMEN IN STEM

19-25 - Summer Bridge: CYBER CAMP