



## JMU Research, Scholarship & Creative Endeavors

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Greetings!

This past weekend the campus community celebrated the academic achievements of more than 930 students during the 2018 December Commencement. Dr. Ken Rutherford, director of the Center for International Stabilization & Recovery, served as the graduate commencement speaker; while Dr. Brad Roof, professor of accounting and Hart School of Hospitality, Sport and Recreation Management, delivered the undergraduate commencement address. All the best to our graduates!

Congratulations to Linette Watkins, academic unit head of the Department of Chemistry and Biochemistry, who was [elected a 2018 Fellow in Science Education](#) by the American Association for the Advancement of Science (AAAS). Dr. Watkins will be honored for this achievement during a February 2019 AAAS Fellows Forum in Washington, DC. Well done!

Fall has been a busy season for the [Shenandoah Valley Angel Investors](#) (SVAI), a network of private investors that helps fund entrepreneurial ventures in the region. Founded in 2015 as a collaborative effort with the [Office of Technology Innovation & Economic Development](#), SVAI recently invested in their 4th JMU alumni founded company. In three years, the 28-member network has injected \$5.5 million into the region, leading to the founding of 17 companies. A recent [story in the Roanoke Times](#) details how the efforts of the SVAI could be a game changer for catalyzing entrepreneurship in the Shenandoah Valley.

We would also like to express our appreciation to all those who participated in Research & Scholarship's 2018 Fall Food Drive. Supporting the Blue Ridge Area Food Bank, the campus-wide effort collected more than 1,700 lbs. of food and \$850 in donations. Over 11 years, the donation totals exceed an equivalent of 26,900 meals, which could feed six families of four for an entire year! Additionally, our congratulations to the College of Business, who also [hosted a drive](#) and collected more than 6,500 food items in support of the Salvation Army.

Best wishes for a safe, happy, and restful holiday season.

Office of Research & Scholarship  
James Madison University

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Nick Swayne (JMU X-Labs), Kelsey Tate (JMU X-Labs), and Samy El-Tawab (integrated science & technology) received a Governor's Technology Award during the 2018 Commonwealth of Virginia Innovative Technology Symposium. The JMU X-Labs [Autonomous Vehicles class](#) won for its "Innovative Use of Technology in Education".

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## Faculty Grant Awards

For a monthly listing of recent faculty grant awards, please visit the [Madison Scholar website](#). Here are some notable awards from September and October 2018:

Robin Anderson (graduate psychology) and Jacquelyn Nagel (engineering) received \$13,230 from Wake Forest University to develop and assess a sustainable design framework for instruction in upper-level design courses that develops students' cognitive flexibility or ability to apply complex knowledge across different problem contexts.

Timothy Bloss (biology), Joseph Harsh (biology), and Patrice Ludwig (biology) received \$1,000,000 from the Howard Hughes Medical Institute to provide an inclusive environment for the 1,000+ undergraduate STEM majors whose academic home is the Biology Department, giving special attention to the challenges faced by first-generation and transfer students.

Jennifer Coffman (Center for Global Engagement) received \$409,064 from the Institute of International Education, Inc. to build on the strong foundation of the East Africa Field School and also include academic year curricular elements to promote Swahili language skills and cultural capabilities for Project GO Scholars at beginner, intermediate, and advanced levels.

Kimberlee Hartzler-Weakley (Institute for Innovation in Health & Human Services) received \$565,674 from the Administration on Children, Youth, and Families to provide a comprehensive, broad-based and collaborative effort that emphasizes both abstinence and contraception, and addresses the adulthood preparation subjects of healthy relationships, parent-child communication, educational and career success, healthy life skills, and adolescent development.

Roderick MacDonald (integrated science & technology) received 57,000 from the U.S. Army Corps of Engineers to identify and explain the benefits of system level performance metrics with applications for budgeting in functional areas such as planning, construction, operations and management.

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**Visual and Performing Arts Students Bring Tony Award-winning Musical to Forbes Center**



JMU students from the School of Theatre and Dance and the School of Music teamed up to produce and perform the Tony Award-winning musical *Into the Woods*. The musical tells the story of a baker and his wife who set out on a quest and confront challenges alongside recognizable characters from a number of fairy tales and folk stories. School of Theatre and Dance faculty member, Kate Arcchi, observed that the production roles allowed for increased real-time collaboration, as senior musical theatre major Cody Edwards took on multiple roles – Rapunzel’s Prince, a wolf, scenic designer, and properties master. Arcchi commented that, "The spontaneity inspired the ensemble as a whole to contribute to the creative process, which has resulted in collective ideas and imaginative storytelling."

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## Local Innovation Leaders Host Valley TechCon.18



Renee Teate, Data Scientist with HelioCampus and JMU alumna, presents her talk “What You Should Already Know About Data Science – Becoming a Data Scientist.” *Photo courtesy of Peirce Macgill*

The local economic development, technology, and higher education communities organized the inaugural Valley TechCon.18 to inspire new ideas and expand networking opportunities focused on technology and innovation. Hosted by the City of Harrisonburg,

172 technology enthusiasts, business leaders, researchers, policy makers, and educators convened at the Hotel Madison & Shenandoah Valley Conference Center to hear from thought leaders and subject matter experts on a broad spectrum of topics, including: autonomous vehicles, cyber security, artificial intelligence and machine learning, blockchain, and Internet of Things (IoT) to name a few. Several students from area universities were in attendance, and plans are already underway for a second Valley TechCon in 2019.

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## JMU Hosts Industrial Hemp Field Day



(Foreground) Engineering associate professor Sam Morton discusses the JMU Industrial Hemp Research Program. (Background) Shelly Thomas, Industrial Hemp Project Manager, speaks with engineering faculty member Rob Prins.



Industrial hemp seeds harvested by Riverhill Farms at the JMU Industrial Hemp Field Day.

The JMU Industrial Hemp Research Program hosted its third Industrial Hemp Field Day at Riverhill Farms in Port Republic, VA. Over 75 attendees gathered for a briefing on industrial hemp field projects, an update from the Virginia Department of Agriculture and Consumer Services (VDACS) on state regulations impacting industrial hemp, a tour of hemp fields and a harvest demonstration. The participants represented a diverse array of stakeholders, including the staff of state and federal policymakers and agencies, university faculty and students, and members of the agricultural and business communities. During the 2018 growing season, JMU partnered with eight growing operations across the Commonwealth, with approximately 45 acres of industrial hemp cultivars planted and 17 students engaged in industrial hemp activities. [Video coverage courtesy of WVPT](#)

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## School of Communication Studies Lecturer Presents at Annual Convention

Cate Bruns, lecturer in the School of Communication Studies, traveled to the National Communication Association (NCA) Annual Convention in Salt Lake City, Utah to present her research paper – “Boom Before Bust: Communication of Rhetorical Metaphors of Economic Risk Prior to the 2008 Financial Crisis” – to the brand new Economics, Communication, and Society Division of the NCA. The essay analyzes pre-crisis shareholder letters and identifies rhetorical metaphors used by investment banks to frame economic risk as a negligible aspect of financial dealings and diminish the possibility of financial crises. This research was conducted while Ms. Bruns was completing her graduate degree in JMU’s Communication and Advocacy Master’s Program, and is currently under review for publication in the *Journal of International Communication*.



## Young Children's Program Receives Funding to Address Childcare Access



The JMU Young Children's Program, housed within the College of Education, was recently awarded \$320,000 in funding from the Virginia Department of Social Services to examine and address the lack of accessible childcare throughout the Commonwealth. The effort will seek to expand the availability of quality care for infants, toddlers, children with special needs, and children needing care during non-traditional hours, through a shared services network providing support to family day home providers. The project is a natural fit for the Young Children's Program, which utilizes professional standards and evidence-based research pertaining to the learning and development of young children to inform their curriculum, environment, and organization. [Visit the Young Children's Program's website](#)

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## Strategic Leadership Faculty Presents Research Publications at Higher Ed Conference

Ben Selznick, assistant professor of strategic leadership, attended the 43rd Annual Association for the Study of Higher Education (ASHE) conference. Held in Tampa Bay, Florida in November, Dr. Selznick presented two co-authored, peer-reviewed research papers. Written in collaboration with colleagues from University of Iowa and SUNY Albany, *Teaching, learning, and assessing critical being* explores the influence of undergraduate students' curricular experiences on an emerging collegiate outcome – critical being – that incorporates critical thinking while also including aspects related to engaged, creative social action as suggested by contemporary theories. The second piece, *Innovation is for everyone: A curricular approach to building innovation capacities*, explores the influence of a curricular intervention designed to spur students' development of innovation capacities – skills and abilities needed to generate and execute contextually beneficial new ideas. Results gathered while working alongside co-authors at The Ohio State University suggest the intervention was effective after introducing relevant controls, providing further evidence that innovation capacities can be taught during college.



Dr. Ben Selznick in Tampa Bay.

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## Research & Scholarship Celebrates Faculty Achievements

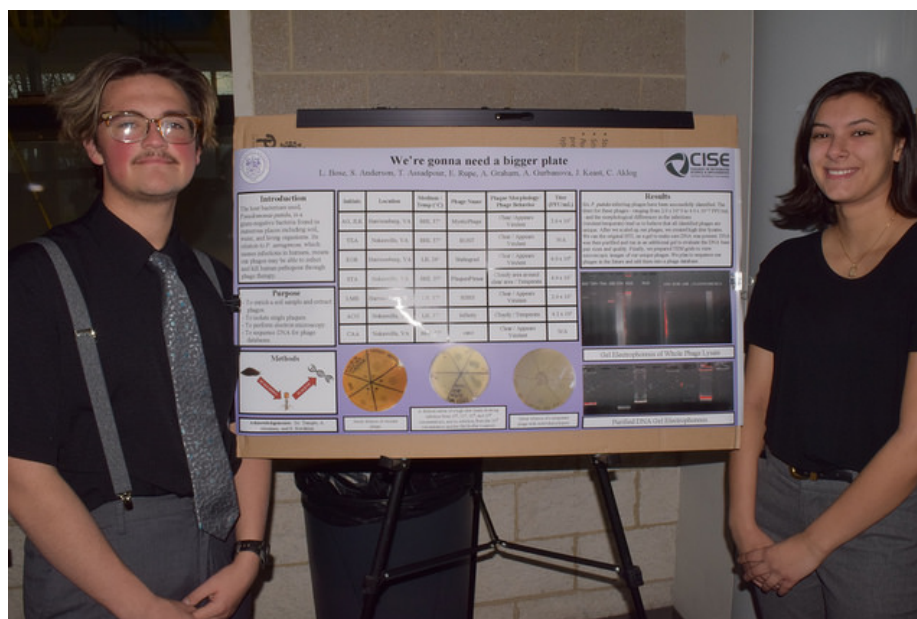


The 2018 Research and Scholarship Outstanding Faculty Awards recipients – (left to right) Laura Trull (social work), Morgan Steffen (biology), Barbara Reisner (chemistry & biochemistry), M. Rockwell Parker (biology), Brooks Hefner\* (english), Ashleigh Baber (chemistry & biochemistry).

JMU Research & Scholarship hosted the 8th Noftsinger Celebration of Madison Scholarship and 3rd Faculty Recognition Reception at the Festival Conference and Student Center. Held on October 8th, the 2018 event merged the Noftsinger Celebration -- an annual program highlighting the scholarly achievements and expertise of the JMU faculty, with the Office of Sponsored Programs' Recognition Reception -- an annual ceremony honoring faculty for their efforts in pursuit of external funding. Approximately 140 attendees were treated to a catered reception, remarks by President Alger and Provost Coltman, a keynote address by biology professor Chris Lantz, a Research and Scholarship Outstanding Faculty Awards presentation by interim director of Sponsored Programs Pre-Award Tamara Hatch, and performances by School of Music students and faculty member Casey Cangelosi.

\*Award accepted by Dabney Bankert, english academic unit head

## SEA-PHAGES Research Symposium Attracts 120 Students



JMU's College of Science & Mathematics and the College of Integrated Science & Engineering hosted a regional SEA-PHAGES\* Education Symposium on November 30th. More than 120 students from George Mason University, Hampden-Sydney College, James Madison University, Mary Washington University, Virginia Commonwealth

University, Virginia State University, and Virginia Western Community College gathered on campus to display posters, deliver oral presentations, and network with each other and faculty. SEA-PHAGES is an undergraduate course that teaches students how to discover and investigate phages (viruses that infect bacteria) through wet lab research and bioinformatics analyses. Steve Cresawn, associate professor of biology, and Louise Temple, professor of integrated science & technology, lead the two-semester course sequence at JMU. [View the photo gallery](#)

\*Science Education Alliance-Phage Hunters Advancing Genomics and Evolutionary Science

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## Healthcare Professionals and Faculty Attend Collaboration Event

The JMU-Sentara RMH Collaborative hosted medical professionals from Sentara RMH Medical Center and faculty from JMU for a “Collaboration After Hours” networking event. The program organizers showcased current partnering efforts between JMU and Sentara RMH, before transitioning to a brainstorming session focused on a number of topics of regional and national importance, including: substance abuse, behavioral health, chronic disease prevention and management, strong start for children, needs of the aging, and access to services. Project ideas originating during small group discussions were recorded for potential implementation in 2019. Founded in 2007, the JMU-Sentara RMH Collaborative was established to facilitate mutually beneficial partnerships between Sentara RMH Medical Center and James Madison University faculty and students.

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## Archaeology Field Research in Shenandoah National Park



Carole Nash, professor of integrated science & technology, [leads a team of JMU archaeology students](#) in performing an excavation in the Shenandoah National Park.

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