



FALL SEMESTER EDITION

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Welcome back, everyone! For all of you who are new, the Graduate School welcomes you into this next transformative phase within your life. We hope that your summer was extra productive and restful. Within this issue, you'll find several student interviews from Graduate Summer Award Winners, and notices for upcoming events and opportunities. Enjoy it, and let us know your thoughts!

-Xavier-Lewis Palmer

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MEET YOUR GRADUATE SUMMER AWARD PROGRAM WINNERS!

OVER THE SUMMER, A SELECT GROUP OF GRADUATE STUDENTS WERE AWARDED FUNDS TO PURSUE RESEARCH. IN THIS ISSUE, SOME OF THEM SHARE THEIR RESEARCH, MOTIVATIONS, HOPES, AND MORE. TO START, WE BRING YOU ERIK JOHNSON, A PH.D. CANDIDATE IN PHYSICS.



What encouraged you to pursue a graduate education?

I had a fantastic research experience during the last year of my undergraduate studies here at Old Dominion. It started with the capstone project for my bachelor's degree in physics, which was in fact the earliest prototype of the computational model I developed during the tenure of my funding from the Graduate Summer Award Program. Dr. Terzić and Dr. Krafft started working with me during the summer of 2015, and I presented this research as my undergraduate thesis in November of that year. My thesis was the highlight of my academic career up to that point—I was so proud of that work! I found physics research to be incredibly rewarding, and fortunately for me, my advisors continued to work with me beyond that capstone project. Later that spring, I received funding for this ongoing research, and ultimately, this work contributed to a peer reviewed publication for which I received a coauthor credit. During this time, Dr. Terzić and Dr. Krafft encouraged me to continue with my physics education, and I was more than happy to strive for an opportunity to continue with this research.

What encouraged you to choose your current field?

Before starting my physics studies, I served in the Virginia Air National Guard. We deployed often, so it took me about twelve years to complete my general education requirements. During that time, my intention was to eventually pursue a career in medicine, but in the fall of 2010 before my last deployment to Afghanistan, I took a humanities course called "The History of Modern Science" with Dr. Isenhour. The course was fantastic, and everyday after class I would come home to my then girlfriend (now wife) and go on and on about all the fascinating physics principles that we had discussed in class. One such evening, we were walking down by the Lafayette River, and I was in the middle of a particularly enthusiastic rant about special relativity. She stopped me—mid rant—to point out that I get really excited about physics, but I only ever complain about anatomy and physiology. Her insight inspired me to check out career opportunities in physics. After that last deployment, I switched majors. It was one of the best decisions of my life.

What do you like most about ODU?

The faculty and staff of the physics department are superb: they facilitate an incredibly supportive, nurturing workplace. The administrators are genuinely invested in the success of the students, and in my experience, they have always gone the distance to meet our needs. The faculty is made up of world-class physicists—most of whom have working relationships with Jefferson Lab. These professors provide high-quality, rewarding research opportunities. Without a doubt, studying physics at a graduate level has been the most challenging endeavor of my life; my education has been built upon the efforts and grace of my professors.

ERIK JOHNSON (PH.D. PHYSICS) - CONTINUED

What do you like most about your research or feel will be its largest implication(s).

High-quality, laser-like X-rays are necessary for many fields of research, such as medical imaging. The best sources of these X-rays are synchrotrons, but synchrotrons require massive, very expensive accelerator infrastructures: it takes a nation with a robust economy to maintain a synchrotron. My research in Compton scattering is driven by the goal of producing synchrotron-like radiation with much smaller and more affordable devices. Imagine a world in which CT scans can be administered with little-to-no risk to the patient's health and every clinic can afford the scanner; imagine a world where every shipping port can affordably and accurately scan every single shipping container for weapons of mass destruction. My research strives to make this a reality.

How do you give back to the community?

I have volunteered at the Pretlow Planetarium for the past three years: I set up telescopes for public viewings, and I occasionally give public planetarium shows. I enjoy performing physics demonstrations. Most recently I conducted a demonstration during Old Dominion's celebration of the 50th anniversary of the Apollo moon landing, but I have also given demonstrations at local public schools. I regularly volunteer for the Physics Department's outreach events, like the Children's Festival and the Physics Open House. For the past four summers, I have been an assistant instructor for ODU BLAST, a week-long workshop for high school students hosted by the Virginia Space Grant Consortium. I love the enthusiasm and sense of awe that the public brings to the events. It's always a pleasure to share the physics I love with an appreciative audience.

THIRD ANNUAL ODU CYBEROPS CHALLENGE



Get your team together for the 3rd Annual ODU CyberOPS CTF! on campus at Old Dominion University!

Teams of 4 • No registration fee

Network with industry professionals • Breakfast, lunch and snacks!

Cool prizes • Free parking!

Capture the Flag (CTF) challenges are a great way to learn hacking techniques, strengthen your problem-solving skills, and gain critical hands-on practice. ODU's CyberOPS CTF competition deals just the right level of pressure to keep things interesting, while helping you to sharpen your skills.

If you don't have a team, no problem! We will match participants into teams at the competition.

Sponsorships and speaking opportunities are available for business and industry partners!

Get your brand in front of 100 tech-saavy, problem-solving students from area universities and high schools!

Please share with your students and colleagues, and respond to Elizabeth Smith (exsmith@odu.edu) if you need more information and would like to discuss sponsorship opportunities.

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APRIL CARRILLO, M.S. (PH.D. CRIMINOLOGY AND CRIMINAL JUSTICE)

What encouraged you to pursue a graduate education?

I did not want to grow up. Just kidding. I wanted to pursue graduate school because I fell in love with being an educator at my previous institution, as well as the ability to actively pursue my goals of serving the community through social justice. My research on LGBTQ+ people and the criminal justice system is a direct reflection of the community work that I am committed to alongside my scholarship.

What made Old Dominion University stand out?

My department is Sociology and Criminal Justice and from the very beginning has been warm, welcoming, and helped aid in my goals of attaining my Ph.D. This department provides many opportunities for their graduate students, and I have found more compassion here than I ever imagined.

What encouraged you to choose your current field?

I study the LGBTQ+ experience in the criminal justice system, specifically the trans experience and those who fall under the trans umbrella (transgender, non-binary, genderqueer, etc). I am overall more interested in what happens to people when they interact with the system and/or when they enter it, than what brought them there. Discovering the inequities that trans people face in my first semester informed me of where I should spend my time, as I had already been vying to dedicate my career on a social justice issue.

Describe your awards and research.

I was granted the 2019 Graduate Summer Award Program for my current research on the lived experiences of trans people that interact with the criminal justice system for my dissertation research. This work centers around the trans experience with police, courts, and corrections and seeks to fill in the gaps left behind by traditional academia. This research is important because community voices such as Cece McDonald and Miss Major, who have been speaking out about injustices in accordance to trans populations and the criminal justice system for years, have been ignored, which leaves deeply personal (and accurate accounts) without institutional legitimacy. Over the course of the summer, I was able to more than double my participants with the help from the award. I started with 17 interviews and now have 36.

I expect to submit four papers to academic journals from the research conducted during the six-week period of the grant. The first three will examine and discuss the range of experiences of the participants with police, courts, and corrections separately, while the fourth article will center around policy recommendations stemming from the participants. Ultimately, the end goal for this data is to write a book about the spectrum of experiences with the justice system faced by my participants. It is my firm belief that this work is important and thus, the book will be written in a way to appeal to a larger audience beyond scholars and academic insiders.



ODU PRESENTS : DR. ARIANA SUTTON-GRIER - WETLANDS AND CLIMATE CHANGE

ODU PRESENTS

Featuring multidisciplinary speakers that support the colleges' research initiatives and community outreach efforts. All events in this lecture series are free and open to the public.

Seating is limited.
Guests are encouraged to RSVP to
(757) 683-3116 or at
odu.lmodules.com/ASL19



**The Paul W. Kirk Jr. Memorial Lecture
for Wetlands Ecology
Dr. Ariana Sutton-Grier**
Ecosystem Ecologist and Visiting Associate
Research Professor at the University of
Maryland, College Park

Wetlands and Climate Change

Ariana Sutton-Grier is a visiting associate research professor at the University of Maryland, College Park. Sutton-Grier is an ecosystem ecologist with expertise in wetland ecology and restoration, biodiversity, biogeochemistry, climate change and ecosystem services. She holds honors bachelor's degrees in environmental science and international studies from Oregon State University and a doctoral degree in ecology from Duke University.

Her research interests include the relationships between nature/biodiversity and human health, coastal blue carbon, and natural and nature-based coastal resilience strategies. She has been published in more than 40 environmental and policy journals, and one of her papers won the Ecological Society of America 2016 "Innovations in Sustainability Science" award. This year, she was selected as Sigma Xi Scientific Honors Society's Young Investigator.

She is particularly focused on seeking innovative opportunities to combine science and policy to solve environmental problems and promote ecosystem conservation.

September 24, 2019

7:00 p.m. Lecture
University Theatre

odu.edu/graduateschool

COLLIN BOWERSOCK (PH.D. KINESIOLOGY AND REHABILITATION)



Describe your awards and research.

The goal of my research is to investigate if the manner or technique individuals use to walk is useful when a task requires a gait adaptation. As we age, our walking pattern tends to look more rigid, each step looks similar to the last. Younger adults walk with a more variable gait pattern. Also, older adults have an increased risk of falling and use different coping techniques when knocked of balance. This then lends the question, does the variability observed in younger

adults allow them to make quick gait adaptations when an unpredictable event occurs while walking, such as stepping off a curb or stepping onto a slippery surface. The purpose of my current study is to identify if individual walking characteristics are predictive of gait adaptability performance.

What recommendations do you have for people seeking a mentor?

Find a mentor that you find approachable. It is important to have a scientific connection with a mentor, but also a personal connection. You need a mentor that has similar research interest and skillsets, sure, but you need to be able to converse about something other than research together. Often times it's the gatherings over coffee or beer when the great research questions are organically devised. Then you need each other's skills and academic background to devise a way to answer such a question. Without the ability to casually chat and discuss, you may miss out on the creativity and excitement that comes when both parties are truly invested in a project.

What do you like most about your research or feel will be its largest implication?

I enjoy that our research is applicable, interesting, and understandable to people who are outside the field and outside of research. Almost everyone has an interest in the human body on a large scale: how we move, how injuries work and what we can do to recover from them or prevent injuries. Bringing up theoretical physics at a wedding party will most likely result in the fade away shuffle, but everyone is down to talk about the implications of that concussion they suffered in college or that their darn chronic ankle instability is what is really keeping them off the dance floor.

What are the most important rewards you expect in your career?

I think most researchers want to have their work respected and useful to others. I hope to have a body of work that answers questions others have had and works that can be built upon by others.

What motivates you to put forth your greatest effort?

I am the only one who knows exactly how the research was conducted. If an error during collection or data processing is made, most likely no one will know except me or my research team. Therefore, I must check, recheck, and check my work again to be sure I am putting out the most accurate work I can. Small mistakes can greatly influence a research project, which can then have ripple effects. This is what motivates me to put forth my greatest effort.

Science PUBS

LEADERS FOR A SUSTAINABLE FUTURE

Engaging Students in Tackling
Wicked Real-World Problems

SEPTEMBER 18, 2019

ELATION BREWING

5104 Colley Avenue - Norfolk, VA

FEATURED RESEARCHERS:

HANS-PETER PLAG

Professor, Ocean, Earth & Atmospheric Sciences

EDDIE HILL

Associate Professor, Human Movement Sciences

TATYANA LOBOVA

Master Lecturer, Biological Sciences

Join us for a conversation about ODU's collaboration with the U.S. Fish & Wildlife Service which has resulted in an undergraduate and graduate program in "Conservation Leadership." Most sustainability and conservation-related issues present wicked problems to society, with each problem being unique, involving many stakeholders with different perceptions of the problem, and with no set of solutions. Often time is running out, those who want to solve the problem are part of it, and the future is discounted.

The Conservation Leadership program, a transdisciplinary approach to case studies of wicked real-world problems, provides a "learning by experience" for the students with major impacts on their world views and life plans. We will consider example case studies of ecosystems under climate change and human pressure in Florida and Puerto Rico.

Networking Begins at 6:30 p.m. - Program Begins at 7:00 p.m.

Please RSVP by September 16th at <http://bit.ly/SciPubsODU>

Science Pubs ODU is an opportunity for the community to engage with ODU researchers in an informal setting. Join us for a lively and engaging discussion; a curious mind is all that's needed!

The first 20 guests to arrive will receive a beverage ticket.


OLD DOMINION
UNIVERSITY


ELATION
BREWING

odu.edu/graduateschool

HOMA JALAEIAN TAGHADOMI (PH.D. ENGINEERING)

What encouraged you to choose your current field?

In general, I am interested in studying environmental phenomena, especially climate change. I want to understand how human activities affect climate change and how changing ecological aspects affect each other. I ended up studying water resource management in eastern coastal Virginia, which is crucial for people living in that region. This area has been affected crucially by storms and hurricanes, which indicates how critical it is to assess the association between precipitation, runoff, and flooding on the east coast.

What major problem have you encountered, and how did you deal with it?

One issue in environmental studies is accessing the reliable dataset, estimating missing data, and then finding an adequate model for interpreting and forecasting runoff-rainfall association. GIS and Arcswat are two dominant software in water resource modeling that I am using so far. There have been many other obstacles in my research; however, I was lucky to have my supervisor, Dr. Xixi Wang, and my co-supervisor, Dr. Mojde Unal, helping and guiding me to find proper solutions. In my personal life, I have a 20-month sweet baby girl. I can tell you that being a mom and doing a Ph.D. has been a big challenge for me.



What do you like most about your research or feel will be its largest implication(s).

The fact that many researchers in this field and also local authorities can use the results of my research makes me feel happy and proud at the same time. The east coast has been suffering from flooding over time and flooding is becoming a global issue, which needs both local and international attention. I hope my research can be of a little help!

What is your philosophy of teaching and learning?

I believe that learning is a life-long process, and teaching is one part of this process. A teacher not only teaches new materials to students, but also should evaluate its teaching methods to understand whether it meets the learning needs. By assessing the learning outcome, both learners and teachers can indicate the opportunities for improvement. Also, I believe that self-learning is a culture that should be promoted in both industry and academia sectors.

How do you plan to achieve your career goals?

I want to work in academia as a faculty member or researcher. I believe there are still more opportunities for women in STEM fields. Working as a female teacher or researcher can emphasize the role of women in STEM. Moreover, studying and assessing environmental science is my dream job.

What have you gained so far in your work? What have you learned about yourself professionally/academically?

Over the past four years, I have been a teaching assistant, a research assistant, and working on my research as well. The multi-task academic-life helped me to improve my skills in managing time and doing research efficiently. Alongside with taking care of my baby, I had to expand my capabilities and be active. It proved to me that I could set a goal, plan it, pursue, and achieve it. It makes me ready for the next step. Whatever it is, I am so ready for it.

My summer research topic is about “partitioning precipitation of a coastal watershed in east Virginia.”

We investigated the association between climate change and flooding using the relationship between rainfall and runoff in eastern coastal Virginia hydraulically connected with the mid-Atlantic Ocean. The analysis was based on the amount of precipitation and runoff with the simulation of the relationships between rainfall and runoff. Such an analysis is very important for conventional water resource management and dealing with hydrologic extremes, such as floods. On the other hand, we assessed the contributions of baseflow and direct runoff to streamflow. Moreover, our results revealed that the contribution of groundwater storage, wetlands, and ponds have a vital effect on discharging streamflow. Furthermore, it showed that climate change has a crucial impact on groundwater by changing the rates of precipitation and recharging runoff. The project will provide localities with solutions to mitigating climate change impacts and flooding as well as meet their sustainability needs ... [as they relate to] human activities.

PRESIDENT'S LECTURE SERIES: TAYARI JONES

PRESIDENT'S LECTURE SERIES

FALL 2019

YOU'RE INVITED

Please join us for the award-winning President's Lecture Series at Old Dominion University. The lecture series features renowned speakers who share their knowledge, experiences, opinions and accomplishments. Past speakers have included scientists, writers, educators, historians, business innovators, Pulitzer Prize winners and other prominent figures.

For more information, please visit odu.edu/univevents



42nd Annual Literary Festival Speaker

Tayari Jones
New York Times Best-selling
Author and Novelist

October 10, 2019

Chartway Arena at the Ted Constant Convocation Center | 7:00 p.m.

Tayari Jones is the author of four novels, most recently "An American Marriage." Published in 2018, "An American Marriage" is an Oprah's Book Club Selection and also appeared on former President Barack Obama's summer reading list as well as his end-of-the-year roundup. The novel won the Women's Prize for Fiction (formerly known as the Orange Prize), Aspen Words Prize and an NAACP Image Award. With over 500,000 copies in print domestically, it also has been published in 15 countries.

Jones has also been a recipient of the Hurston/Wright Legacy Award, United States Artist Fellowship, NEA Fellowship and Radcliffe Institute Bunting Fellowship. Her third novel, "Silver Sparrow," was added to the NEA Big Read Library of classics in 2016.

She is a creative writing professor at Emory University.

All lectures are free and open to the public. Seating is limited, guests are encouraged to RSVP at odu.imodules.com/TJL19.

FLU SHOTS VIA THE SCHOOL OF NURSING AND RITE AID



The School of Nursing has partnered up with Rite Aid Pharmacy to support YOUR Wellness Flu Shots!!

Students, Faculty and Staff

When : Monday, September 23, 2019

Time: 10:00 am- 3:00 pm

Where: Virginia Beach Higher Ed Center
School of Nursing Room 223

IMPORTANT NOTE: The deadline for flu immunization for Nursing Students is Oct. 1!

WHAT TO BRING AND COMPLETE:

- Current ODU ID card
- Current Insurance Card
- You will need to complete the Screening questionnaire & consent form on site

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OLD DOMINION UNIVERSITY | *College of Sciences*

Biomedical Research Seminar Series



Dr. Richard H. Scheuermann

J. Craig Venter Institute

“Single cell genomics and machine learning to understand the cellular complexity of human brain”

Dr. Scheuermann is the Director of the La Jolla campus of the J. Craig Venter Institute. JCVI leads the world in genomics research with new programs to improve understanding in the areas of genomic medicine, infectious disease, plant, microbial and environmental genomics, synthetic biology and biological energy, and bioinformatics. He received a BS in Life Sciences from the Massachusetts Institute of Technology and a Ph.D. in Molecular Biology from the University of California, Berkeley. Dr. Scheuermann spent 20 years as a faculty member at UT Southwestern Medical Center Department of Pathology where he rose in the ranks to a Full Professor with tenure. Since 2001, he has applied his deep knowledge of molecular immunology, signal transduction and infectious disease toward the development of novel computational data mining methods and knowledge representation approaches, including the development of biomedical ontologies and their use in data mining, novel methods for the analysis of gene expression, protein network and flow cytometry data, and novel comparative genomics methods. His research priorities include informatics database resources and knowledge representation standards, flow cytometry and systems biology analysis methods and transcriptomics and single cell genomics.



OCTOBER 4, 2019
FRIDAY
4:00 pm



NEW EDUCATION BLDG.
Multipurpose Room 1106
Reception to follow



COLLEGE OF
SCIENCES

143 Oceanography & Physical Sciences Building
Norfolk, VA 23529
Phone: 757-683-3274
Email: science@odu.edu
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STUDY ABROAD

Fair

\$5000
in
Scholarships!



Tuesday, October 1
10:30 til 1:30
North Mall Webb Center

Office of Study Abroad | 2006 Dragas Hall | 683-5378 | odu.edu/studyabroad



OLD DOMINION
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Department of Communication and Theatre Arts

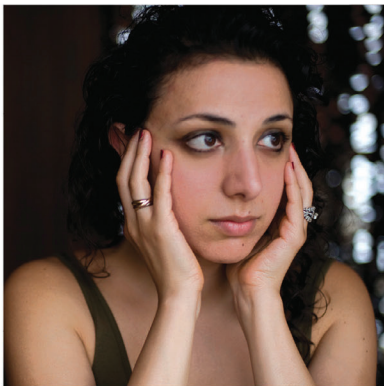


Arab American Representations

in contemporary US media

Friday, September 27

BAL 9024 from 2-4 PM



Susan Youssef is the writer/director of two dramatic features, a documentary, and seven shorts that have been official selections of film festivals such as Venice, Toronto International, and Sundance, as well as have been programmed in museums including Tate Modern, New Museum, and Museum of Modern Art – New York. She is a Fulbright Fellow, Princess Grace Award Winner, and 21st Century Fox Director Fellow. Youssef has been a Guest Speaker at Yale, Harvard, Princeton, the State Department, and many other institutions around the world. Prior to filmmaking, she was a schoolteacher and journalist in Beirut.



Dr. Kristian Petersen is Assistant Professor in the Department of Philosophy & Religious Studies at Old Dominion University. His intellectual interests include Theory and Method in the Study of Religion, Islamic Studies, Chinese Religions, and Media Studies. He is host of the "New Books in Religion and New Books in Islamic Studies" podcasts. He is the author of *Interpreting Islam in China: Pilgrimage, Scripture, and Language in the Han Kitab* (Oxford University Press, 2017). He is currently writing a monograph entitled *The Cinematic Lives of Muslims* and working as part of the team developing De Gruyter's new series, *Introductions to Digital Humanities: Religion*.



Shadi Bayadisy is a Lecturer of World Languages and Cultures at Old Dominion University. Mr. Bayadisy graduated from the University of Texas, Austin with a master's degree in Second Language Acquisition. Later, he completed his Ph.D. classes at Indiana University, Bloomington with a focus on the Middle East and the study of women's non-governmental organizations in Israel. His research explores the status of Palestinian women in Israel and their struggle against the patriarchal society and the state. The organizations researched, range from women's, feminist and LGBT. These organizations receive their funding from international donors, which often times is faced with criticism and rejection from the local community. Another area of interest is socio-linguistics, in which the Palestinian dialect is analyzed within the Israeli context; interaction among Palestinians in Israel with speakers of Hebrew and its effects on their Arabic. Finally, Middle Eastern society, with its rich area of cultures and languages always adds to the depth and interest in continuing research of its varieties and contradictions.

FREE NASA WEBINAR SERIES FOR BOTH STUDENTS AND FACULTY

Free Webinar Series for University Students and Faculty this Fall!

NASA AERONAUTICS: AVIATION AT THE LEADING EDGE

SPACE GRANT UNIVERSITY STUDENTS AND FACULTY:

Get to know the people, the ideas and the technology that are driving the revolutionary work done by the first "A" in NASA – NASA Aeronautics.

NASA has made decades of contributions to aviation. Every U.S. commercial aircraft and control tower have NASA-developed technology on board.

The next great aviation transformations are being designed and engineered right now, from the return of supersonic flight to the emergence of flying cars and electrified aircraft.

WHERE ARE YOU IN THIS FUTURE?

Each one-hour webinar will feature conversations with NASA Aeronautics researchers who will talk about the technology and also about their educational and career paths. Students can submit questions for the presenters.

REGISTRATION REQUIRED

Learn more and register at:
vsqc.odu.edu/aerowebinars

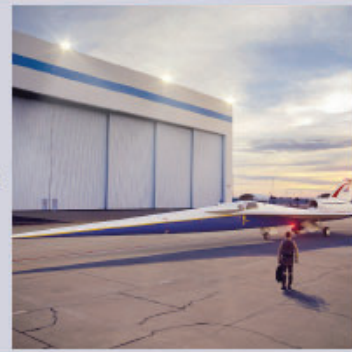
ABOUT

This series is offered as a partnership between NASA's Aeronautics Research Mission Directorate and the National Space Grant Program and is produced by Old Dominion University.



Quiet Supersonic Flight Over Land - Lowering the Boom

**Wednesday,
October 2, 2019
7:30 p.m. EDT**



Safe Flight for Drones - Designing a System for Urban Air Mobility

**Thursday,
October 24, 2019
7:30 p.m. EDT**



Electrified Aircraft - Tackling the Challenges of Alternative Propulsion

**Wednesday,
November 6, 2019
7:30 p.m. EST**



ABOUT

Find Graduate School News Online at: www.odu.edu/graduateschool,
as well as updates on our Facebook, LinkedIn, and Twitter pages.

ODU doctoral student, Xavier-Lewis Palmer, compiled and edited this newsletter with help from Dr. Robert Wojtowicz, Dr. Bryan Porter, Missy Barber, Genenieve Conwell, and Courtney Nishnick in the Graduate School.

If you have an idea, event, news, or anything otherwise notable that you would like to share,
contact Xavier-Lewis at xpalmer@odu.edu.



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