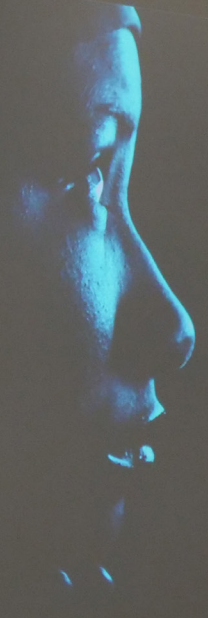


Monarch Science OBSERVER

Spring 2020 Volume 3

The Human Microbiome in Health and Disease



ODU

College of Sciences

Sonenshine Lecture

DR. KAREN NELSON, PRESIDENT OF THE J. CRAIG VENTER INSTITUTE, GIVES
AN ACADEMIC LECTURE TO ODU STUDENTS AND FACULTY

**VIRTUAL
LEARNING**

**ALUMNUS
HELPING TO
FIGHT COVID-19**

**ODU SCIENCE
EXPERTS
IN THE NEWS**

Message from Dean Dodge

I am writing to bring you news from the College of Sciences (COS) and to bring you up to date on how we are adapting to the COVID-19 challenges we are all facing. Our highest priority has been the health and safety of our students, staff, and faculty.

When ODU announced that all classes would move online, our faculty moved quickly to find the best way to proceed with each course. For some faculty and for some courses this change was relatively straight forward. But for other classes, such as labs in Chemistry, Biology, Physics, and Oceanography, more ingenuity was required. The graduate student teaching assistants were phenomenal, doing the labs and putting them on video so that students can watch the labs and then use the data to write their lab reports. Many of our faculty stepped up to help their colleagues adjust.



Our courses are proceeding well and we will make additional improvements for the summer session, which will be all on-line as well.

Our goal is to enable each student to be successful despite all of the disruptions. We have been particularly mindful of the needs of seniors who don't have the necessary computer equipment to take an online class. Amazingly, ODU was able to provide loaner laptops to seniors who needed them. The COS Math Science Resource Center converted to full on-line tutoring and supplemental instruction, which is key to keeping resources available and accessible to students. If you would like to make a contribution to support our students, please consider donating to ODU [Rise to the Challenge Fund](#).

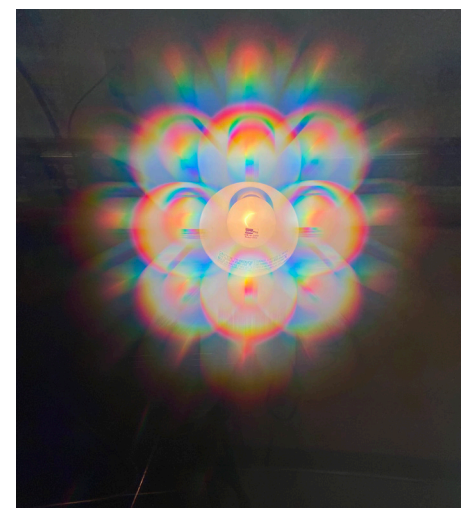
Our staff quickly learned to be productive working from home. All of our critical administrative functions are working smoothly. I am proud of the ODU faculty, staff, and students for adjusting so well to the needs of the moment.

I hope you and your family are well and staying safe. Best of luck as we ride out the next few weeks.

Go Monarchs!

Virtual Learning Labs

Physics On-line Labs



Viewing an incandescent lightbulb through a pair of rainbow glasses

Over the course of the extended spring break labs in physics were moved to virtual learning. Justin Mason, Physics Academic Support Coordinator/Planetarium Director and Victoria Tabibi, a senior physics major and student worker was able to alter five astronomy labs to allow them to be completely virtual, set up the other 15 experiments, perform each one while taking photos and videos throughout, record all data, and make everything available to the students through a massively shared Google Drive. "We systematically went from table-to-table performing each experiment over the course of three days," said Mason.

They ensured everything was recorded before classes began again on March 23. "Without Victoria, there's no way we could have gotten this finished as quickly as we did," said Mason.

With limited time and resources, "our quick work allowed nearly 900 students to finish out their physics courses this semester," said Mason.

Steering Oceanography Labs Virtually

Shannon Wells, Ph.D., Senior Lecturer for OEAS put a plan into action within 4-5 days from the announcement that ODU was going online. Wells said, "to carry out the plan has been a week-to-week effort as we got through each week's lab exercise." OEAS 106 labs are very hands-on which posed a challenge to getting them converted to an online format. "We had four labs left in the semester, and this list of activities was required for each one," said Wells. Each OEAS 106 teaching assistant signed up for various tasks each week. There are eight teaching assistants, 23 labs, and 500 students.



Maddie Hummel
OEAS Teaching Assistant

In one day, there were four teaching assistants who did all of the experimental pictures and videos Shannon Cofield, Maddie Hummel, Greg Joern, and Mauricio Gonzalez-Diaz. "From there we spread out the workload and did all of the video editing, voice overs, assignment editing, etc. on a week-to-week basis while the teaching assistants also balanced their own course work going online," said Wells.

ODU Science Experts in the News



Various coronaviruses have circulated in the population for years, but the virus that causes COVID-19, known as SARS-CoV-2, is “one of the most contagious outbreaks,” says Emilia Oleszak, virologist and associate professor in the Department of Biological Sciences at ODU. Read the full article [here](#):

Photo: (L) Emilia Oleszak, Associate Professor in the Department of Biological Sciences

Psychology professor, Matt Judah, answers questions about social distancing and how to cope. First, understand what anxiety is. Anxiety is normal and, believe it or not, it is there to help you. Read more [here](#).



Photo: (R) Matt Judah, Assistant Professor in the Department of Psychology



Infectious diseases have captured the attention of the world, especially with the outbreak of the novel pandemic coronavirus, or COVID-19. One of the nation’s prolific researchers, Karen Nelson, president of the J. Craig Venter Institute and an elected member of the National Academy of Sciences, recently spoke to ODU students in the College of Sciences about infectious diseases. To read the full story click [here](#).

Photo: (L-R) Dan Sonenshine (Professor Emeritus) & Karen Nelson, President of J. Craig Venter Institute and Guest Speaker

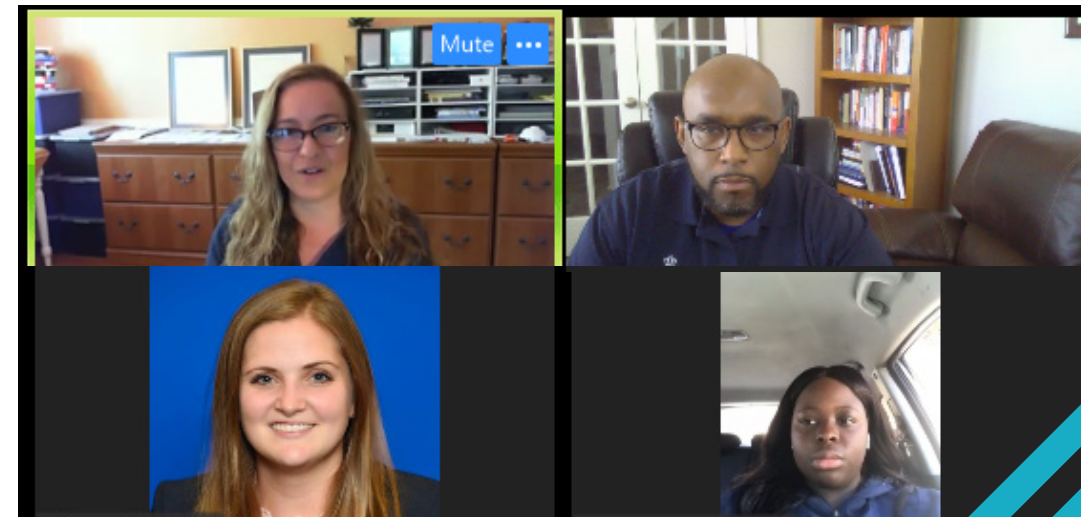
Help Monarchs in Need

You can help a fellow Monarch in need. The Office of Development has started an emergency fund called “Rise to the Challenge” to help students, faculty and staff with financial resources that were significantly impacted from COVID-19. If you are interested in supporting the fund click [here](#).



Virtually Connecting to Future Monarchs

The College of Sciences Advising and ODU’s Admissions Office teamed up to connect with high school seniors who have been admitted to ODU. Through Zoom, ODU faculty, staff, and student ambassadors met weekly with admitted students to answer questions and give them insight about becoming a Monarch in the College of Sciences. Students here in Hampton Roads and from all across the country are joining the virtual admissions sessions via Zoom.



Top L-R Jennifer Younkin, Psychology Master Lecturer & Reneldo Randall, College of Sciences Director of Advising

Bottom L-R Kerri Musick, College of Sciences Academic Advisor & Jaylynn Frazier, Psychology student

OEAS Faculty Donate Supplies

Ocean, Earth, Atmospheric Science faculty contributed medical supplies to Sentara's Norfolk General Hospital on March 31, 2020. OEAS faculty (Drs. Richard Zimmerman, Shannon Wells, Margie Mulholland, Fred Dobbs, and Sophie Clayton) pulled more than 40 boxes of gloves and face masks from their laboratories for delivery to Norfolk General Hospital and possibly other health-care providers and institutions in our area. Hospitals around the nation are asking for donated supplies as healthcare providers test for COVID-19 and care for those afflicted. Many thanks to Dr. Trish Strauss for coordinating!



@ODUSCI on YouTube

[ODU Julia Robinson Math Festival](#)

[Discover Monarch Science](#)



[Click here to watch "ODU Math Festival" on YouTube](#)



[Click here to watch "Discover Monarch Science" on YouTube](#)

Alumnus Fighting COVID-19 on the Front Lines

Working on the front lines of infectious diseases is something Gene Olinger, an alumnus of ODU, has done for years. He worked on the Ebola outbreak in 2015, and now he's repositioned at the forefront of the COVID-19 pandemic. Olinger is a science advisor for MRIGlobal, a non-profit based in Kansas City, Missouri and his focus is on Global Health and One Health programs in infectious diseases. "I have been on the front lines before, testing samples in remote parts of the world in make-shift laboratories," said Olinger. In his role, he has seen the virus up close and personal. "Yes, in the laboratory we are working with the virus, but under very redundant, low risk and safe conditions," said Olinger.

Olinger graduated from ODU in 1993 with a major in Environmental Health Science and a minor in Biology. "My minor in Biology and specifically the early encouragement and training from Drs. Robert Ratzlaff (my first experience with antibodies) and Lloyd Wolfenbarger (ODU Biology) were the foundation for moving toward a Ph.D. in Microbiology and Immunology." Olinger said, "lessons learned from them about moving from theoretical to practical applications have been a key to any success I have had in science."

"Nearly every day since I have left ODU, I have called upon my education, both formal and informal," said Olinger. He credits ODU with his success, "simply put, I was lucky to find the University, faculty and staff that could help me discover my inner passion and talents beyond taking classes and earning a degree."



50th Anniversary of Earth Day 4-22-20

ODU Ocean, Earth and Atmospheric Sciences Professor Rodger Harvey was interviewed by NewsChannel3 about the 50th Anniversary of Earth Day during the COVID-19 pandemic. "If there is a silver lining from this crisis we are in, it's the fact that we are all still connected. It also reminds us that the small things we do have an impact on Earth, and vice versa," said Harvey. Watch the full video below.

www.wtkr.com/news/as-people-stay-home-earth-turns-wilder-and-cleaner



Monarch Science Observer

ODU College of Sciences Newsletter

Contact Us

Dean Gail Dodge

757-683-3724

gdodge@odu.edu

Tiffany Whitfield

757-683-5826

Strategic Communications and Marketing Coordinator

tlwhitfi@odu.edu

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