Monarch Science OBSERVER

Spring 2020 Volume 4



Salute May Graduates

MAY COMMENCEMENT WAS VIRTUAL THIS YEAR CONGRATULATIONS TO THE CLASS OF 2020

OUTSTANDING SCHOLAR MAKES WAVES M-MARC GRADUATES FINISH STRONG FEATURED GRADUATES

Message from Dean Dodge

Our spring semester came to a successful close earlier this month. With a phenomenal effort by faculty and staff, we were able to move all courses online in response to the COVID-19 pandemic. Everyone pitched in to make it possible. I am proud to report that more than 10,000 students took

at least one course in our college this spring and 452 students graduated (383 with a B.S. degree, 55 with a M.S. degree, and 14 with a Ph.D.) from our college. For all of us faculty and staff it is about the students. We are here to educate students, in and out of the classroom. It has been especially painful that laboratory research and field work had to be suspended, and with it a special component of what we offer our students.

Many of our students are graduating to go on to jobs or additional schooling. Many others will be with us again in the year to come, some facing additional hurdles to complete their education.



In this newsletter we are highlighting extraordinary graduates from the College of Sciences, who all happen to be women. Each of the seven department chairs nominated these exceptional students. In a time when there is a need for more women in STEM, these recent graduates showcase all that ODU is doing to help produce scientists from underrepresented communities. You will meet students from each of the seven departments who have excelled academically, some traditionally and others as distance learners. Also, you will get a glimpse into their undergraduate research and which faculty members influenced them the most during their time at ODU. I hope you will enjoy reading about these students and how ODU has effected them and their future plans.

Please consider supporting new student opportunities by donating to the College of Sciences. In addition, the Rise to the Challenge Fund has been established to support students with financial difficulties related to the pandemic.

I hope you and your family are staying safe and coping with the new stresses everyone is facing.

Go Monarchs!

Gail Dodge

Outstanding Scholar Makes Waves



Rachael Crews, COS Dean's Outstanding Scholar

Rachael Crews graduated this May at the top of her class with a Bachelor of Science in Biology. She had the highest GPA, and she was awarded Outstanding Scholar by the College of Sciences Dean's Office and was set to be the banner carrier for the College of Sciences. However, due to COVID-19 graduation was postponed until December. All ODU students had to adjust to online learning this spring. "Finishing up online and still being able to graduate was very relieving," said Crews. She credits Dr. Ian Bartol, a Professor in the Department of Biological Sciences and advisor for her independent research project, as the faculty member that left the largest impression. "I learned a lot about the research process from him," said Crews. Her research focused on "how killifish schooling would change depending on how fast they needed to swim," said Crews. Dr. Bartol said, "as a member of my research team, Rachael pursued an ambitious project on the schooling behavior of fish, where she mastered technologically complex equipment, navigated a multitude of experimental roadblocks, and performed advanced kinematic analyses." Dr. Bartol also encouraged and assisted Crews with her graduate school application.

Crews will pursue a Master of Science in cell and molecular biology at Florida Tech in the fall. Her advice to future Monarchs is this, "study hard and apply yourself, but also take the time to enjoy your collegiate years." Crews said, "if you are considering a major in Biology, the curriculum is very diverse and it includes almost any biological subject you would be interested in learning along with amazing professors."

Applied Mathematics Graduate Peaks Curiosity

McKayla Hagerty graduated this May with a Bachelor of Science in Applied Mathematics and will move right into pursing a Master of Science because she is in the department's linked graduate program. McKayla started her journey at ODU as a Biology major, but she decided to take Calculus 1 as a personal challenge and completed the class. "As I conquered the challenge, I also fell for the curiosity mathematics awakened in me," said Hagerty. She became more involved with the Mathematics department by becoming a teaching assistant. Her research focuses on the pythagorean theorem as it applies to three dimensional shapes. "McKayla understands and appreciates the intrinsic value of education, and pursues everything with a singular goal of excellence," said Bob Strozak, Master Lecturer and Chief Departmental Advisor. She created a research project that was going to be presented at an education math conference during spring break, which was canceled by COVID-19.

"One day we were casually discussing the virus and the next day everything changed," said Hagerty. As a teaching assistant, she saw how COVID-19 quickly shifted the math department's methods of instruction, testing, and grading. "Of course my last semester at ODU did not go exactly



McKayla Hagerty, Applied Mathematics Graduate

as I had planned, but challenging times create great stories with opportunities to find the heroes," said Hagerty. Some of Hagerty's heroes have been fellow Monarchs and faculty. "When you fully embrace a journey, you tend to cross paths with the people you need to find most without even trying," said Hagerty.

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First Graduates of M-MARC Program

Monarchs Maximizing Access to Research Careers (M-MARC) Undergraduate Student Training for Academic Research (U*STAR) supports students' academic and research activities while they train to enter Ph.D. programs. This program is supported by a prestigious grant from the National Institutes of Health and is led by Dr. Alvin Holder as Principal Investigator and the Director of the MARC program. Below is a list of the first graduates from this unique program.



Name: Jasmine Clark

Major: Chemistry/Biochemistry

Plans after graduation: After graduation I would like to pursue a Ph.D. in either biochemistry or some type of bioengineering. I'll take a break this summer from academics and begin applying to graduate schools in the fall.



Plans after graduation: I have an internship lined up with Brookhaven National Laboratory. Afterward, I will partake in a master's program to enforce my experience and qualifications for a Ph.D. program.





Name: Kenacia Goings Major: Psychology

Plans after graduation: In the upcoming fall, I will be joining John Jay College of Criminal Justice M.A. forensic psychology program located in New York. I am interested in providing forensic and risk assessments on psychopathic traits and sexual violence among adult criminal offenders as well as providing counseling service to victims of sexual abuse.

Name: Zuri Jules-Culver Major: Biological Sciences

Plans after graduation: After graduation I plan on spending a year gathering more research experience either through a post-baccalaureate program, internship, or volunteering. From there I plan on continuing my education by going to graduate school and entering a Ph.D. program.

Chemistry & Biochemistry Graduate



Mary Olson will graduate from ODU having fulfilled her college bucket list - zero dollars in student debt and training to be an avid researcher. Olson is a first-generation student with a double major in Chemistry and Biochemistry. She has been heavily involved in research, presented at national conferences and was even a teaching assistant as an undergraduate.

Olson chose chemistry and biochemistry because she loves challenges and "the STEM field would be a wonderful career choice." Olson received the Clark Undergraduate Scholarship in Chemistry, Academic Honors Scholarship and Landmark Opportunities Scholarship. Olson was a commuter student at ODU, making the daily 45-minute drive from Suffolk to Norfolk. "I had many 15-hour days," Olson said. "I would leave home before sunrise and get home after dark more often than not." Nonetheless, she will graduate with a 3.9 GPA. "Mary has been a truly exceptional undergraduate researcher in my lab for the past two years," said Guijun Wang, Professor in Chemistry and Biochemistry and

research advisor. "She has made important contributions to research projects and will be a co-author on at least two peer-reviewed publications, besides presenting at national ACS (American Chemical Society) conferences."

Olson's research involved designing new carbohydrate-based low molecular weight gelators that can potentially be used as novel drug delivery systems. Research and working in the lab were must-haves to Olson. "I was also going to present again at the national American Chemical meeting this spring on my other project, titled 'Design, Synthesis, and Characterization of pH Sensitive Hydrogelators," Olson said. "However, the conference was postponed due to COVID."

COVID-19 also disrupted Olson's final semester and labs. "It had the largest impact on my research, as I could no longer work in the Wang lab and complete my projects," she said. Chemistry and Biochemistry professors adapted to online learning and set up virtual group meetings. The most difficult part about graduating during the pandemic? "Not being able to say goodbye to my chemistry comrades," she said. "I would give anything to hug them one more time before we scatter off across the country." The next chapter of Olson's life involves heading off to graduate school to pursue a Ph.D. in Organic Chemistry at Virginia Tech and focus on methodology and medicinal chemistry.

@ODUSCI on YouTube

Congratulations May 2020 Graduates



Click here to watch
"May 2020 Congrats"
video on YouTube

Congrats M-MARC May 2020 Graduates



Click here to watch
"Congrats M-MARC May 2020"
video on YouTube

Computer Science Graduate Tech Savvy



April Williams, Computer Science Graduate

April Williams is a non-traditional student, with two small children, and a distance learner. She graduated with a Bachelor of Science in Computer Science while she was active duty in the Navy. Williams said, "I was stationed in Virginia with the Navy and ODU seemed really accepting to transfer students." Williams is a first generation college student. Williams said, "ODU is great and although I was fully online, I never felt like I was missing out."

"April earned Dean's List honors every term, and was very close to being the top performing student, with a 3.91 GPA," said Janet Brunelle, Assistant Chair and Chief Departmental Advisor in the Department of Computer Science. Williams credits the faculty and courses taken at ODU, in acquiring full-time employment. "I am a software engineer for Pack Health in Birmingham, Alabama thanks to my Bachelor of Science in Computer Science," said Williams.

Psychology Graduate Finishes What She Starts

Erica Friedel's journey to earning a Bachelor of Science in Psychology degree took nearly a decade, but "I made a promise to myself that if I decided to go back, I wouldn't stop until I had my bachelors degree," said Friedel. After she got married, she became a mom to three children. "I could only take two classes at a time," said Friedel. She chose to take the on-line bachelor's program in psychology. Friedel said "throughout the program, I maintained my 4.0 GPA which I take so much pride in."

Throughout her journey, Friedel ended up being published in a textbook and had the opportunity to be a supplemental instructor for anatomy. "Almost every professor I had was fantastic and honestly I am grateful for each one of them," said Friedel. With ODU's online program, she said, "persistence and motivation, time management skills, and self discipline, anyone can be successful." Friedel was "looking forward to walking across the stage for commencement and having my children there cheering me on." Now that Friedel has her degree she will either seek a managerial position in the healthcare industry or pursue a Master of Science degree.



Erica Friedel, Psychology Graduate

OEAS Graduate Grateful For Faculty

Rhianne Cofer received a Bachelor of Science degree in Ocean and Earth Sciences on the Biological Oceanography track. "It feels kind of surreal to graduate during a pandemic because I had to finish all of my coursework online," said Cofer. Even though Cofer has completed her undergraduate degree she will be staying at ODU to pursue her Ph.D. in Oceanography.

"I am very excited to be joining Dr. Richard Zimmerman's lab this fall as a graduate student," said Cofer. Dr. Zimmerman helped to develop Cofer's reach interests. "Her undergraduate research helped with the development of a new optical instrument for remotely quantifying ocean color that we are now seeking to commercialize," said Dr. Zimmerman. As an undergraduate, Cofer participated in research in the Bahamas last year to study seagrasses.

"I also had research plans for this summer that have been derailed because of COVID-19, which was a huge disappointment," said Cofer. Even though Cofer's summer plans have had to change she is thankful she and her family are safe. "I feel lucky now to have found a tight support network within the sciences," said Cofer.



Rhianne Cofer, Oceanography Graduate

Physics Graduate Launches into Armed Forces



Peyton Fancher, Physics Graduate

Peyton Fancher received her Bachelor of Science in Physics after five years of college. Fancher was a transfer student who commuted daily, and she was a part of ODU's Army ROTC program. "We had mandatory PT on Monday, Wednesday, and Friday from 0550-0700," said Fancher. Her days used to start before dawn and last until 6:00pm, especially if she had evening courses. "I worked on the Drift-Gas Monitoring System with Nate Dzbenski, a graduate assistant in physics and Stephen Bueltmann, Associate Professor in the Department of Physics. "She was very hard working, organized and dedicated," said Bueltmann. The drift gas monitoring system was designed and built to measure electron drift velocities in a gas sample. This project was important for a nuclear physics experiment at Jefferson Lab. "Unfortunately, the experiment had to be cut short in March 2020," said Bueltmann. Fancher also used the data from the detector system for her senior thesis.

Peyton's physics degree and her ROTC training will be used as she will become a commissioned officer in August. Fancher said, "I'll be a Second Lieutenant and the army will decide what my job will be because they want to line up my interest with my job."

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