NAVAL SCIENCE AND TECHNOLOGY

ENGR 3109: Navy STEM Professional Development Seminar

Wednesday, December 4, 2019 5:00 pm to 6:00 pm Live Streaming from URI

"A RECENT GRADUATE'S PERSPECTIVE ON NAVY-RELATED R&D CAREERS"

DESCRIPTION: This presentation aims to cover some of the opportunities for research and development careers in the Naval sector from a recent engineering graduate's perspective. Lauren will discuss her most recent work in finite element analysis, including a broad overview of numerical methods and common challenges for computational engineers. She will also discuss the experimental interdisciplinary research she is involved in that investigates the effects of underwater explosions on the marine mammal melon, an echo-location organ in the head of some marine mammals. She will dive into soft tissue testing, the experimental challenges of working with hyperelastic materials, and how experimental data will be used to validate a finite element model of the melon during underwater blast scenarios. She will cover how her classes and experiences in her undergraduate and graduate studies have prepared her for a research-related career, and how current students can build their research and engineering skills. The talk will close with a discussion about graduate school for engineering, the research process, and opportunities to pursue a research-related career path in the Navy.

LAUREN MARSHALL, MECHANICAL ENGINEERING ANALYST

NAVAL UNDERSEA WARFARE CENTER DIVISION NEWPORT, NEWPORT, RI

Lauren Marshall is an engineering analyst in the Hull Arrays and Distributed Sensors department at the Naval Undersea Warfare Center Division Newport in Newport, RI. She graduated from the University of Connecticut with a B.S.E. and M.S. in mechanical engineering in 2018 and 2019, respectively. In 2017, she received the Science, Mathematics, and Research for Transformation (SMART) Scholarship and chose NUWC Newport as her sponsoring facility. During her time at UConn, she was active in Engineering Ambassadors and the Navy STEM Crew, and continues to pursue STEM outreach opportunities. Currently, she is pursuing a Ph.D. part-time at UConn with the support of NUWC Newport. Her research interests involve finite element methods, fitting constitutive models, and characterization of nonlinear materials, specifically biological soft tissues.





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