OCEAN EXPLORATION COOPERATIVE INSTITUTE | EXPLORING THE NATION'S BLUE FRONTIER

OCEAN EXPLORATION TRUST | UNIVERSITY OF NEW HAMPSHIRE | UNIVERSITY OF RHODE ISLAND UNIVERSITY OF SOUTHERN MISSISSIPPI | WOODS HOLE OCEANOGRAPHIC INSTITUTION



Dive into the **Bridge to Ocean Exploration (B2OE) Program** with the Ocean Exploration Cooperative Institute (OECI) at the **University of Rhode Island's (URI) Graduate School of Oceanography (GSO)!** Dip your toes into the multidisciplinary world that is ocean science with opportunities in video/data engineering, media asset management, technology asset management, applied coral science, and multimedia production.







The OECI (https://web.uri.edu/oeci/) is a unique consortium of top oceanographic institutions: URI, Woods Hole Oceanographic Institution (WHOI), University of New Hampshire (UNH), the University of Southern Mississippi, and the non-profit, Ocean Exploration Trust. They work together to push the boundaries of ocean exploration with research and innovation in remotely-operated and autonomous vehicle operations, virtual engineering connectivity, and ocean science communication and engagement.

A core mission of the OECI is to inspire future generations of ocean scientists and engineers, and support the Blue Economy. The B2OE Program, based out of URI/GSO's Ocean Science Exploration Center, is an experiential program key to advancing this mission. Currently, the OECI is recruiting up to eight students to participate in this PAID, part-time, experiential learning program within these potential, project pathways:

Computer science and machine learning
Ocean exploration data science
Systems development, ocean technology management
Tropical and temperate coral research
Media asset management
Multimedia production, storytelling, and/or video editing

Project Pathway Breakdown- Ocean Exploration Data Science:

- Ocean exploration data includes large volume data sets produced that are used to map the seafloor, identify ocean organisms, understand the distribution of biology in the water column, and find locations of seafloor fluid flow. Possible tasks include development/implementation of an online data tracking system, development of pre-cruise data management plans, and creation of metadata requirements, all of which will help ensure that OECI data is accessible to the science community and public.
- One aspect of ocean exploration is to identify and characterize the natural resources on the seafloor. Critical minerals are a key element of this as they contain rare metals that are needed for a future green energy and technologically advanced economy. Critical minerals are mostly understood through the collection of physical samples from the seafloor. Another data science project could focus on examining these geological samples in the laboratory in order to develop baseline measurements and to help researchers find and utilize the broadscale geological catalog that OECI is developing.
- Useful coursework/experience requested for this project pathway:
 - Seeking students who have completed at least 1 year at CCRI
 - Suggested courses:
 - Computer literacy, including familiarity with programming languages (e.g. Python), markup languages (HTML, XML), operating systems (e.g. Linux) and data structures/algorithms
 - Introduction to Software Engineering, Programming Concepts, Database Design & Management, Technical Math
 - Science coursework

Benefits to BOE Program participation:

- PAID, part-time opportunity; up to \$17/hour salary (paid via stipend)
- Potential for onsite and/or tele-work
- Exposure to cutting-edge ocean science, engineering, and media production technologies and best practices.
- Collaboration with OECI personnel; field trips to OECI affiliated institutions and/or industry sites.
- Opportunity to remotely participate in expeditions aboard NOAA Okeanos and (EV) Nautilus.
- Peer-to-peer interaction with other ocean science and exploration interns.
- Networking opportunities with industry professionals and other students during a (virtual) "Blue Economy Career Awareness Fair"

In addition to the above mentioned part-time experience, additional program requirements and expectations include:

- Time commitment of up to 10h/week (November 2023- May 2024)
- Weekly tag-ups with mentors to gauge project progress and answer questions (mentors are also available via email for questions, etc. at any time)
- Bi-weekly tag-ups with B2OE program coordinator to gauge project progress and address any questions/issues
- Participation in OECI student events, including the Blue Economy Career Awareness Fair
- Final project summary report and presentation
- Participation in pre- and post-experience evaluation

Eligibility:

- U.S. Citizenship (or F-1, J-1 visa status if applicable)
- Currently enrolled CCRI students (undergraduate/associate's degree, and/or workforce certificate candidates)
- Degree, major, or intent to major in a field relevant to the OECI's mission; these can include, but are not limited to: STEM (science, technology, engineering and math), computer science, media production and graphic design, communications, education, and/or business operations/administration.
 - Preferred (but not required) for this pathway: Computer Studies Students (all concentrations)

Application Requirements:

- Interested students must complete the <u>OECI BOE online application</u> on or before 11:59 pmET, October 9, 2023.
- In addition to this application, interested individuals will also be required to submit their current resume or CV with 3 professional references listed (who can speak to the applicant's character and professional and/or academic background- this can be a professor, advisor, teacher, community member, work supervisor, mentor, etc.).



Applications will be reviewed and analyzed based on merit and relevant experience. Potential participants will be notified by October 16, 2023, for an in-person or virtual interview. Final selections will be made on or before October 30, 2023, and candidates will be notified of their program status. The anticipated program start date, with an on-site orientation at URI's Graduate School of Oceanography campus in Narragansett, RI, will be November 9, 2023.

Questions? Please contact Holly Morin (holly morin@uri.edu).