

## **Physical Dimensions of Marine Energy Internship**

The Coastal Studies Institute (CSI) in the College of Integrated Coastal Programs at East Carolina University is seeking a high-school physics-oriented intern for the Summer of 2024. The intern will work in CSI's Oceanography & Marine Hydrokinetic Energy Lab under the supervision of Mike Muglia and his research team. The selected candidate will also participate in numerous ongoing studies, including;

- Understanding high-frequency variability in the cyclonic shear zone of the Gulf Stream with HF radars
- Quantifying the variability in the available hydrokinetic energy resource from the Gulf Stream for the state of NC
- Gulf Stream, Mid Atlantic Bight, South Atlantic Bight, Chesapeake Bay Outflow, and Slope Sea water mass dynamics off of NC
- Measuring ocean waves to understand the evolution of deep-water waves as they propagate onshore and apply what we learn to wave energy development
- Preparing observing and wave energy equipment for deployment, or cleaning that equipment upon recovery

The student intern will be expected to work approximately 20 hours per week for 4-5 weeks, from early to mid-July through early to mid-August; tasks include fieldwork, the desire to learn programming, data analysis, maintaining equipment, assisting in the day-to-day operation of the lab, and other duties as assigned. The position requires outdoor work in varying weather conditions, with potentially high summer temperatures. The ideal candidate will have taken pre-calculus.