



Shoreline erosion from major storms, increasing sea level rise, pollution of estuaries, and the high cost of constructing and maintaining navigable channels and harbors all contribute to a rising demand for expertise in the construction, protection and maintenance of coastal communities and harbors, the development of offshore resources, and the preservation of estuarine and coastal areas.

Students in our coastal and ocean engineering program participate in research, course work, and professional development opportunities to advance technical knowledge in these critical areas of societal impact. Our graduates are recruited by top international, national, regional, and local consulting firms, government agencies, and academia.



EXCEPTIONAL LEARNING OPPORTUNITIES

Pursue your interests. With extensive course offerings in a variety of areas, such as coastal processes, sediment transport, linear and non-linear waves, coastal structures, hydrodynamics and mixing, and computational methods, among others, you can choose courses that fit your interests and career objectives.

Direct your focus. Work with expert faculty in the Center for Applied Coastal Research, to conduct research in areas of societal impact related to short- and long-term coastal processes affecting shorelines, waterways, and infrastructure.

Gain hands-on experience. Leverage our world-class numerical modeling expertise and state-of-the-art field equipment to analyze real-world problems. Enhance your learning with practical experiences to implement transformative research used to advance society.

Build your network. Take advantage of opportunities to connect with our renowned faculty, industry and government partners, and funding agencies - interactions that often lead to job opportunities after graduation.

Learn more at ce.udel.edu

RESEARCH AREAS

Our research is supported by the National Science Foundation, Office of Naval Research, U.S. Army Corps of Engineers, Strategic Environmental Research and Development Program, Delaware Sea Grant and other federal and state entities. Our faculty and students focus on:

COASTAL HYDRODYNAMICS

Hydrodynamics are the driving force for sediment transport and impact on infrastructure. Research areas include: numerical simulation of interaction of waves, tidal currents and riverine outflow, wave-ice flow dynamics, river plume frontal dynamics, turbulence, ship-wake generation and swash zone processes.

SEDIMENT TRANSPORT

Shorelines are ever-evolving due to sediment mobility. Our research includes: numerical simulation of turbulence-sediment interactions, beach and dune erosion, extreme events processes and tidal wetland evolution.

COASTAL STRUCTURES

Our research includes: Risk-based design of coastal structures, stability and design of breakwaters, risk analysis of coastal infrastructure, and bridge pier scour.

SENSOR DEVELOPMENT AND REMOTE SENSING

Our field-based research often involves designing unique sensors and/or means of data collection. Approaches include: use of drones, visible band and thermal imagery, laser technology, developing rapid-deployable, low-cost sensing packages and developing sediment transport and bed level identification sensors.

DEGREE OPTIONS

- Coastal Engineering Concentration: Master of Applied Sciences (MAS)-Civil Engineering, Master of Civil Engineering (MCE), PhD-Civil Engineering (A non-thesis MCE option in Coastal Engineering is also available)
- Ocean Engineering: Master of Science, PhD

TO APPLY

For information about graduate admission and to apply online, visit the Office of Graduate and Professional Education at www.udel.edu/gradoffice.

FUNDING

Funding packages may be awarded to Master's and Ph.D. students who participate in research. Packages include full tuition waiver and a competitive stipend. Contact the faculty member in your area of interest to discuss potential research opportunities.

ADMISSION DEADLINES

- February 1:** Deadline for Fall admission and consideration for graduate assistantship/fellowship
- July 1:** Final Deadline for Fall admission
- October 1:** Deadline for Spring admission only

CONTACT

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Learn more at www.ce.udel.edu

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