Covering more than 70% of the planet, oceans are critical to every aspect of life on Earth. Oceanography is a broad, multidisciplinary science that attempts to unlock their mysteries. Students in the oceanography program study and apply biology, chemistry, geology, meteorology, physics and math toward a better understanding of marine ecosystem dynamics, geophysical fluid dynamics, sea floor geology and more.

Why Oceanography at Florida Tech?
Few other universities that offer oceanography can compare to Florida Tech when it comes to access to natural resources. Bodies of water such as the Indian River Lagoon (and its many tributaries) and the Atlantic Ocean serve as living laboratories for many field-oriented oceanography classes. Florida Tech is also one of very few (if not the only) university that has an oceanography program integrated with ocean engineering, meteorology and environmental science programs. Working with faculty from a variety of interrelated disciplines often leads students to innovate and specialize early in their studies.

Your First-Year Experience
A unique and memorable component of each student’s first-year experience in the oceanography program at Florida Tech is the “Whole Earth Course.” This class, which integrates biology, chemistry, physics, geology and mathematics leads students to experience and understand our planet as a system of interacting processes. Six full-time faculty lead the course collaboratively, showing students how scientists from different disciplines treat the same subjects with a different approach. Oceanography students also participate in a variety of marine-oriented field trips—many on boats both large and small—during their first-year oceanography courses.
Oceanography

Oceanography is dedicated to the comprehensive scientific study of the sea and its role in environmental, meteorological, governmental, coastal and economic spheres.

What to Expect

Oceanography students may expect small classes and the opportunity to work with faculty addressing a variety of environmental challenges (such as beach erosion, seagrass restoration and the preservation of endangered species). The program’s reputation and proximity to a variety of scientific agencies and marine ecosystems mean you can also expect to build valuable field experience off campus.

Specialized Labs

High-tech marine and environmental systems laboratories provide facilities and instrumentation that can be used for core boring and sediment analysis, beach surveying, the measurement and analysis of water waves, the processes of fouling by marine organisms and saltwater corrosion, and more. The Florida Tech small boat research fleet is comprised of 11 boats from 11 feet to 24 feet.

Faculty Research Areas

The department of marine and environmental systems is an integrated group of environmental scientists, oceanographers, ocean engineers and meteorologists who share a keen interest in preserving, protecting and enhancing natural resources. Their research interests are broad and often interrelated. Current research areas include offshore oil spills and Arctic oil drilling, water and air quality, sea-level rise, managing natural resources, estuarine diversity, seagrass restoration, plankton ecology and conservation ecology.

Careers

Graduates of the oceanography program traditionally get their first jobs at agencies such as:

- National Oceanic and Atmospheric Administration (NOAA)
- Dauphin Island Marine Laboratory
- National Marine Fisheries Service
- U.S. Fish and Wildlife Service
- Scripps Institution of Oceanography
- Mote Marine Laboratory
- Woods Hole Oceanographic Institution

Graduate Study

Oceanography program graduates are prepared to pursue advanced degrees in oceanography and related fields and have gone on to study at graduate schools such as:

- Scripps Institution of Oceanography
- University of Rhode Island
- University of Maryland
- Georgetown University
- University of Hawaii
- University of Miami
- Oregon State University
- University of Washington

Summer Field Projects

In the summer between their junior and senior years, students carry out capstone research projects on a wide variety of topics including algae blooms, beach erosion, water quality and loss of seagrass beds.

Early Experience

Many freshmen build experience by volunteering in faculty research labs, conducting experiments, field sample studies and computer simulations with faculty guidance.

Research Connections

We maintain close working relationships with organizations like Harbor Branch Oceanographic Institute, the Hubbs Sea World Research Institute, the Caribbean Marine Research Center and more.

Exciting Futures

With a degree in oceanography, your future may include work on fisheries, habitat restoration, ocean mining, etc.