Interdisciplinary Engineering Major Now Offered at CGA



U.S. Coast Guard Academy (USCGA) cadets observe Boston Dynamic's robot, Spot, controlled by a Massachusetts Institute of Technology (MIT) Lincoln Laboratory researcher (left) at USCGA, New London, Connecticut, Nov. 27, 2023. (Photo by U.S. Coast Guard Petty Officer Third Class Matthew Thieme.)
From the U.S. Coast Guard Academy, May 5, 2025

NEW LONDON, Conn. – The **U.S. Coast Guard Academy** has launched a new academic major. **Interdisciplinary Engineering** (IDE) prepares future officers for careers across a wide spectrum of Coast Guard missions. IDE is open to cadets beginning with the Class of 2028.

The new academic major advances an interdisciplinary approach to prepare cadets to serve in a wide variety of Coast Guard careers. Interdisciplinary Engineering students will be able to customize their plan of study to suit their interests and

be well prepared to pursue a Professional Engineer license and graduate school in engineering or other disciplines.

In addition to the core curriculum for all cadets, IDE students will complete required engineering, math, and science courses to meet accreditation criteria in ABET's Engineering Accreditation Commission. The IDE curriculum also leaves room for a series of engineering and free electives, making it much more flexible compared with CGA's other engineering programs. This flexibility allows students to take courses in areas of interest related to **Coast Guard missions** and sub-disciplines. Potential areas of focus include (but are not limited to): Aviation/Aerospace Engineering, Environmental Engineering, Marine Safety Engineering, Cybersecurity, Engineering Management, Industrial Engineering, Ocean Engineering, Power Systems & Control Engineering, and Systems Engineering.

"The Interdisciplinary Engineering major equips cadets with the ability to tackle complex, real-world challenges that don't fit neatly into a single discipline. By blending foundational engineering principles with systems thinking and innovation, our graduates will be uniquely prepared to support the Coast Guard's evolving missions and lead in dynamic, mission-critical environments."

Housed in the School of Engineering and Cyber Systems, the IDE program will give cadets a hands-on educational experience. IDE students will have access to the Academy's power lab, circulating water channel, wind tunnel, towing tank, 3-D printers, and other engineering lab facilities.

The announcement of the new major comes after recent recognition from the Carnegie Foundation on the **Academy's second Carnegie Classification** for continued leadership in providing high-impact, STEM-focused academic programs to prepare cadets for future service.