# OCEAN MAPPING (GRADUATE CERTIFICATE)

https://ceps.unh.edu/ocean-engineering/program/graduate-certificate/ ocean-mapping

#### Description

The program goal is to provide advanced graduate training to working professionals in the area of ocean mapping. These professionals will come from a variety of backgrounds ranging from earth science, geology, and biology to engineering. The graduate certificate in ocean mapping is awarded for completion of the core courses and associated practicum. The graduate certificate program fulfills the Category A International Federation of Surveyors/International Hydrographic Organization/ International Cartographic Association (FIG/IHO/ICA) Standards of Competence for Hydrographic Surveyors.

For more information, please visit the <u>ocean mapping website</u> or contact the Center for Coastal and Ocean Mapping/Joint Hydrographic Center at <u>info@ccom.unh.edu</u>.

# Applying

Please visit the <u>Graduate School website</u> for instructions about applying to the certificate program.

## Requirements

# **Certificate Requirements**

| Code             | Title  | Credits |
|------------------|--|---------|
| Required Courses |  |         |
| ESCI 870         | Geodesy for Ocean Mapping  | 3       |
| ESCI/OE 871      | Positioning for Ocean Mapping                                    | 4       |
| ESCI 872         | Applied Tools for Ocean Mapping                                  | 2       |
| ESCI/OE 874      | Integrated Seabed Mapping Systems                                | 4       |
| ESCI/OE 875      | Advanced Topics in Ocean Mapping                                 | 4       |
| ESCI 896         | Topics (for the optional Remote Sensing specialty)               | 3       |
| ESCI 972         | Hydrographic Field Course  | 4       |
| OE 677           | Seamanship and Marine Weather for Ocean Engineers and Scientists |         |
| Total Credits    |  | 24      |

### **Student Learning Outcomes**

#### Program Learning Outcomes Students graduating with a graduate certificate in Ocean Mapping should be able to:

- Use their ocean mapping graduate education for success in technical careers in industry, academia, government, or for advanced ocean-related research in engineering and the physical sciences.
- Rigorously apply fundamentals of science and engineering to professional practice that enhances our understanding of and/or contributes to the sustainable development of the oceans.

• Contribute their ocean mapping problem solving skills to society through participation and leadership in groups dedicated to serving both professional associations and the public interest.