

# SEAMAP: A COLLABORATIVE, UNDERGRADUATE-FOCUSED SEAFLOOR MAPPING PROGRAM

The Seafloor Mapping Program (SeaMap) is a collaborative partnership among the College of Charleston, University of Washington, NOAA and CARIS, Inc. SeaMap offers undergraduate students multibeam sonar bathymetric survey training, shipboard experience, and research and internship opportunities. Students learn the CARIS HIPS multibeam processing software, gain at-sea experience, conduct projects, and present research. Projects use both SeaMap cruise sonar data and data provided by government and academic colleagues. Begun in 2007 at CoC and expanded to UW in 2011, 62 students have participated in one of six SeaMap Programs. More than 77% of the 'Beam Team' participants from years 2007-2011 have continued to use their skills with private industry, government programs, or graduate schools in sea survey-related fields.

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SeaMap is a partnership among the College of Charleston, University of Washington, CARIS, NOAA, and Private Industry

## SEAMAP VISION

Develop a strong and qualified workforce of ocean surveyors in support of the academic, research and operational maritime communities.

## MISSION

Establish the Seafloor Mapping Program (SeaMap) as a recognized academic program that offers practical experience, field training, and innovation in ocean surveying complemented by classroom education in marine geospatial sciences.

## Coursework

Through its Academic Partnership Program, CARIS is developing online video tutorials that aid students in learning critical ocean survey and database software.



CARIS HPS training workshop



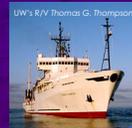
Each of the four requirement areas are described briefly below And serve to develop foundation competencies in ocean surveying.

- **Coursework:** A core of required and elective courses will be developed for academic credit to teach students a comprehensive suite of critical software and other tools for use in ocean surveys. Courses will be taught in classroom settings and, in time will be made available online to students anywhere.
- **Research:** Students are encouraged to conduct research, applying their skills to geological and biological studies. Partners from NOAA, USGS and others provide numerous datasets for student research.
- **Field Experience:** SeaMap will require critical practical experience both at-sea (seafloor and water-column surveys) and in the field, during which students will work on data-rich training and research projects, gaining direct experience with technology innovation and research.
- **Internships:** Through partnership development, SeaMap will have numerous internship opportunities available to students. These internships will range in duration, scope and pay.

## Field Experience



CoC and UW students aboard the R/V Thompson



UW's R/V Thomas G. Thompson

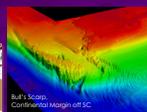
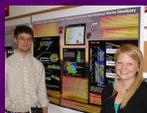


NOAA Ship Nancy Foster

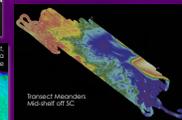
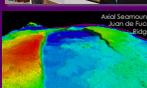


Students learn multibeam sonar acquisition and processing software during student-dedicated cruises aboard the UW's research vessel, the R/V Thompson and aboard the NOAA Ship Nancy Foster.

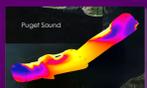
## Research



Bull's Scarp Ecotone/Margin off SC



Transect Meanders Mid-shelf off SC



In addition to presenting at their home institution, more than half of the SeaMap students have presented their work at a National or Regional meeting.

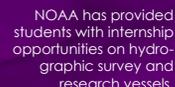
## Internships



NOAA Ship Rainier



Summer internships with private industry have also been provided



NOAA has provided students with internship opportunities on hydrographic survey and research vessels.



NOAA Ship Okeanos Explorer



RPM's R/V Hercules

## Where Do They Go???



NOAA and NOAA Corps



Graduate Programs



Industry



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