Numbers and Facts

Start: summer semester  
Duration: 3 semesters  
Degree: Master of Science

Application and Enrolment

Entry requirements
Generally, applicants may be admitted to a Master Study Course if they hold a Bachelor degree or equivalent qualification in the same or related subject and if they demonstrate their professional and personal competence (e.g. by writing a Letter of Motivation).

Please refer to admission regulations for further details about admission requirements and application procedures.

Application
Applicants with a German university entrance qualification: Please apply online at University Oldenburg.

EU or International applicants: Please apply via uni-assist e.V.

For more detailed information and deadlines, refer to:
www.uni-oldenburg.de/en/students/application-and-enrolment

Further Information

Homepage Marine Sensors
www.icbm.de/en/study-and-teaching/courses-of-study/marine-sensors-msc

Range of study courses
www.uni-oldenburg.de/en/students/degree-programmes

Funding
www.uni-oldenburg.de/studium/finanzierung

Contacts

For questions regarding your course of study
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Imprint
Editor: Zentrale Studien- und Karriereberatung, Status: 12/2014
Oceans and coastal waters are highly complex systems, widely used by humans. To achieve a better understanding of these eco-systems, to record natural and anthropogenic changes and to specify the future development regarding climate change, ocean level, tidal influences, frequency of storms and biological and chemical parameters, data with different spatial and temporal resolution is needed. This requires innovative measuring tools which are implemented on different platforms such as research vessels, stationary measurement piles, moorings or autonomous and remote-operated underwater vehicles. In this context, sensors and sensor systems are key interdisciplinary technologies for aquatic science and offshore industries.

The Master Study Course Marine Sensors enables students to reach a research-oriented qualification in development, optimization and analyzing of sensors and measuring tools in marine environments. Students will learn how to conduct independent scientific work and present the results of their own research. This study course is unique and does not overlap with other master programs.

▶ Structure and contents

The study course consists of five modules, covering two semesters. A third semester is dedicated for the master thesis.

• Marine Sensors I (Summer Semester, 12 credit points): Basics of metrology and physical principles of basic sensors: from data acquisition towards processing and evaluation.

• Marine System Technology (Summer Semester, 12 credit points): Impart skills necessary for designing complex data acquisition systems, sensor platforms, protocols encodings, signal characteristics/guidance and characteristics of pressure-resistant housings and plugs.

• Scientific Practice (Summer Semester, 6 credit points): Covering the creative process from data acquisition to scientific presentation, basics of project management, acquisition of funding, and scientific reportings including publishing.

• Marine Sensors II (Winter Semester, 12 credit points): Setting individual priorities. students attend four elective subjects to personalize their studies. Lectures and exams are held in English.

• Research Project (Winter Semester, 18 credit points): Working on latest R&D issues in the students’ elected fields. Additional lectures are held on context related data analysis.

▶ Careers and Areas of Employment

The Master course enables graduates to deal independently with marine sensor issues. In the early course of studies, the students will be involved in projects with renown scientists. Graduates cover important demands for interface competence between science and technology. Among others, this includes implementation and management of R&D activities in research institutes, implementation of monitoring systems, adaptation of measuring procedures, scientific management and consulting for users and customers. After completion potential employment opportunities may be found in research institutions, at public authorities, in sensor and system engineering companies, consulting and sales companies as well as companies dealing with raw materials production and power generation.

If qualified, students can also move on to doctoral studies.