# COLLEGE OF ARTS AND SCIENCES THE OHIO STATE UNIVERSITY

## TYPE 1B & 3A MARINE SCIENCE CERTIFICATE (MARINE-CT)

The 12-13.5 credit hour Marine Science Certificate will provide students with a competitive advantage in pursuing careers in marine science in the private and public sectors or pursuing entrance into a graduate degree program in marine science. The certificate is designed to enhance both critical thinking and the technical skills in marine science.

## Required core course (3 credits):

• EARTHSC 5206: Advanced Oceanography (3)

## Elective courses (9 credits):

In addition, students will select from the courses listed below.

- EARTHSC 4450: Water, Ice and Energy in the Earth System (3)
- EARTHSC 5622: Stable Isotope Biogeochemistry (3)
- EARTHSC 5602.02: Carbonate Depositional Systems (3)
- EARTHSC 5780: Reflection Seismology (4)
- GEOG 5900: Climatology (3)
- **EEOB 5410**: Ocean Ecology (1.5)
- **EEOB 5430**: Fish Ecology (3)
- EEOB 4230: Focused study on ecology and evolution of invertebrates (2)
- ENR 5614: Marine and aquatic education ()
   Of these electives, no more than one of:
- **GEOG 5210:** Fundamentals of Geographic Information Systems (3)
- **EARTHSC 5310:** Remote Sensing in the Earth Sciences (3)
- **CIVILEN 5001:** Introduction to Geographic Information Systems (4)

## Marine Geology Certificate program quidelines

Credit hours required: 12-13.5 credit hours.

### Overlap with courses in a degree

- The certificate must be in a different subject than the major.
- Max 50% overlap with degree program (i.e. major, minor, other certificate, GE, or graduate program)

X193 credits: Not permitted.

<u>Certificate Completion</u>: If the certificate is not complete on the DAR, the student must consult with the Coordinating Advisor.

## Consult with Coordinating Advisor

- For filing deadlines.
- For changes or exceptions to a certificate plan.

#### Undergraduate certificate program:

Coordinating Advisor: Professor Ashley Griffith, 381 Mendenhall Labs, Columbus, OH 43210; griffith.233@osu.edu

- Minimum C- for a course to be listed on the certificate.
- Minimum 2.00 cumulative point-hour ratio required for the certificate.

#### Graduate certificate program:

<u>Coordinating Advisor</u>: Professor Steve Lower, 084 Orton Hall, lower.9@osu.edu; 614-292-1571

- Course selections must be numbered 4000+ outside the student's home unit and 5000+ within the home unit.
- Minimum 3.00 cumulative point-hour ratio required for the certificate
- Minimum C- for a course to be listed on the certificate.

College of Arts and Sciences Curriculum and Assessment Services 154 Denney Hall,164 Annie & John Glenn Ave. http://artsandsciences.osu.edu CAA approved 6-1-2020