# COLLEGE OF ARTS AND SCIENCES THE OHIO STATE UNIVERSITY

# Type 1B & 3 Marine Science Certificate (Marine-CT)

Coordinating Advisor: Professor Matthew Saltzman, saltzman.11@osu.edu

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)

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

Filing the certificate program form: The certificate program form must be filed at least by the time the graduation application is submitted to a college/school counselor.

Changing the certificate: Once the certificate program is filed in the college office, any changes must be approved by the College of Arts and Sciences Coordinating Advisor.

School of Earth Sciences undergraduate advisor:

Dr. Karen Royce, royce.6@osu.edu

School of Earth Sciences graduate advisor:
Professor Michael Durand, durand.8@osu.edu

#### Marine Geology Certificate program guidelines

The following guidelines govern the Marine Geology Certificate. Required for certificate:

Credit hours required: 12-13.5 credit hours.

#### Overlap with a major

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

## Grades required

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

X193 credits: Not permitted.