

Oceanography and Marine Sciences – What is it?

Oceanography and Marine Science are the study of the earth's oceans, the plants and animals that live in the ocean and how they interact within their natural environment. Oceanography and Marine Science are interdisciplinary sciences integrating biology, chemistry, geology, physics mathematics, botany, zoology, meteorology and geography.

Areas of study in Oceanography and Marine Sciences: Plants and Animals in the Ocean, Ocean Substances, Nutrients and Gases in Seawater, Marine Sediments, Plate Tectonics, Sea Motion, Tides and currents.

Where does my path start?

You will complete an Associate of Science-Transfer (AS-T) Track 1 at Shoreline.

Use the AS-T Track 1 **Degree Planning Guide** to understand the requirements for graduation.

Once you complete your Shoreline degree, you can transfer to a four-year school to earn a Bachelor of Arts (B.A.) or Bachelor of Science (B.S.) in Oceanography and Marine Sciences.

Oceanography and Marine Sciences are excellent preparation for graduate studies in Geology, Environmental Science, Oceanography, Physics, Education and Law.

Where can I go for help?

Program Faculty Advisors

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General Academic Advising

FOSS (5000) Building, Rm. 5229
206-546-4559
advising@shoreline.edu
www.shoreline.edu/advising

For course information and entry codes, contact:

biologyadvising@shoreline.edu
chemistryadvising@shoreline.edu
mathadvising@shoreline.edu

International Student Academic Advising

9000 Building, Rm. 9302
206-546-4697
ieadvisors@shoreline.edu
www.shoreline.edu/international/advising/

Career Planning

www.shoreline.edu/job-career-services/

Where can I transfer?

The AS-T makes it possible for students to transfer to a number of public and private colleges and universities in the U.S. with junior standing. Washington state institutions are listed below with Biological Science major.

[Central Washington University](#)
[Eastern Washington University](#)
[Pacific Lutheran University](#)

[The Evergreen State College](#)
[University of Puget Sound](#)
[University of Washington, Seattle](#)

[Washington State University](#)
[Western Washington University](#)
[Whitman College](#)

What can I do with a Bachelor's Degree in Oceanography and Marine Sciences?

Oceanographers and Marine Scientists work at sea, on land, on ocean vessels and in research laboratories. Graduates develop strong critical thinking, problem solving, technical communication and scientific skills to work in careers that include environmental protection, environmental policy conservation, natural resources, consulting, research and development, education, and law.

Potential employers include: Research institutions, colleges and universities, engineering and consulting firms, federal, state and local government agencies, maritime museums, and environmental protection agencies. For more, please visit <http://www.shoreline.edu/counseling-services/career-counseling.aspx>.

What courses should I take?*

I. GENERAL EDUCATION REQUIREMENTS | 20 Credits

ENGL &101
 ENGL &102, &230, or CMST &101
 Multicultural Understanding
 Quantitative/Symbolic Reasoning (MATH &151)

III. PRE-MAJOR PROGRAM I 54 – 59 credits

Chemistry	19.5 Credits	QTR	GR	CR
CHEM 171/181	Fall, Win, Spr			6.5
CHEM 172/182	Win, Spr, Sum			6.5
CHEM 173/183	Spr, Sum, Fall			6.5

Mathematics	10 Credits	QTR	GR	CR
MATH &152				5
MATH &163 or 211				5

Physics or Biology (choose one sequence - Algebra- or Calculus-based)				
Physics	15-16.5 Credits	QTR	GR	CR
PHYS &221 OR PHYS &114	Fall, Win Fall			5.5 5
PHYS &223 OR PHYS &115	Fall, Win Win			5.5 5
PHYS &222 OR PHYS &116	Spr, Sum Spr			5.5 5
Biology	15 Credits	QTR	GR	CR
BIOL &211	Fall, Win, Spr, Sum			5
BIOL &212	Win, Spr			5
BIOL &213	Spr, Sum			5

II. DISTRIBUTION REQUIREMENTS | 15 Credits

One course in Humanities
 One course in Social Sciences
 A third course in either Humanities or Social Sciences

MAJOR SCIENCE SEQUENCE AND/OR SUPPORT COURSES – minimum 10 Credits for AS degree

Recommended Courses	Credits			
BIOL &211, &212, &213 or PHYS &114, &115, &116 or PHYS &221, &222, &223 or CHEM &241/271, &242/272, &243/273	5/5/5 5/5/5 5.5/5.5/5.5 7/7/7			
Sequence	15-21 Credits	QTR	GR	CR

Other recommended course options:	QTR	GR	CR
ENVS &201			
ENVS &202			
GEOG 203			
GEOG 204			
GEOL &101			
OCEA &101			
BIOL 144			

What does my chosen four-year school require?

Before choosing classes, become familiar with the four-year program where you want to apply: visit the website, email the department, and/or speak with a Shoreline advisor. Below are examples from Washington schools with different admissions and graduation requirements. Check with the school for world language requirements. (Non-native speakers of English are often exempt from this requirement.)

School	Degrees	Requirements
University of Washington – Seattle	B.A. and B.S. in Oceanography with specializations in Biological Oceanography, Chemical Oceanography, Marine Geology and Geophysics, and Physical Oceanography. (The B.A. and B.S. in Biology at the UW offers significant marine study courses with minors in Aquatic and Fishery and Marine Biology)	Highly recommended: BIOL &211 - &213; CHEM 171/181, 172/182, 173/183; MATH &151, &152, &163; PHYS &221 - &222; GEOL &101
Western Washington University	B.S. in Biology with Marine Emphasis	Highly recommended: MATH &151; BIOL &211 - &213; CHEM 171/181, 172/182, 173/183; 237, 238; PHYS &114-&116 or &221-&223; 25 credits of non-science gen ed coursework

**** This unofficial guide is intended to support you as you prepare for your major. Please consult with an advisor and your chosen four-year school(s), as program and admissions requirements vary and may change without notice.**