

Biological Oceanography of Puget Sound
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Program Description

Estuaries contain diverse habitats and are among the most productive ecosystems worldwide. Puget Sound is the second largest estuary in the US and supports major fin- and shell-fisheries. This upper-division science program will explore the biological oceanography of Puget Sound. Topics in biological oceanography will include the importance of prokaryotes in food webs, phytoplankton dynamics, secondary production of zooplankton, population biology of pelagic organisms, and marine fisheries. In addition, we will study how the physical and chemical estuarine environment influence the adaptations, distribution, and productivity of organisms. The effects of human activities including climate change on Puget Sound will also be studied. Students will learn standard lab and field skills for carrying out investigations in biological oceanography. Learning will take place through readings, lectures, seminars, fieldwork and in the lab. We will seminar on research papers published in the primary scientific literature. Students will be evaluated based on their completion of assignments, participation in seminar, exam scores, and lab notebooks.

Credit (* denotes upper division) is expected to be awarded in the following:

- 5* Biological Oceanography
- 4* Puget Sound Environmental Science
- 5* Oceanography Lab
- 2* Biological Oceanography Seminar

Schedule

Tue	10 - noon	Lecture-A
Tue	1 - 3 PM	Seminar
Wed	11 AM -1 PM	Lecture-B
Thu	9 AM- 4 PM	Lab or Field
Fri	9-noon	Workshop or Computer Lab

Texts and readings (These are tentative texts, final selection will be made in summer) :

Day et al. eds. (2013) Estuarine Ecology. 2nd Edition. Wiley-Blackwell (maybe available free as .pdf). Otherwise, Estuarine Ecology 3rd Edition (2021)

Strickland, R.M. (1983). The Fertile Fjord. University of Washington Press.145 p (free pdf at <https://repository.library.noaa.gov/view/noaa/43642>)

In addition, we will read peer-reviewed scientific articles on estuarine research