

OCSC 7100 - *Biological Oceanography* (Winter 2020)

Faculty contact:

Name	Office	Phone	E-mail address
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Course format: One session per week: OSC Challenger Room, Wednesday, 9:00-11:40 a.m.

Course description:

OCSC 7100 - *Biological Oceanography* is a core course in the Graduate Program in Marine Biology offered by the Department of Ocean Sciences. Students in other programs and departments are welcome to take it. The aim of this course is to provide students with a general understanding of the biological processes that occur in oceanic and coastal environments. The course will progressively build on the theme that the geological, chemical, and physical environments play a key role within and among biological communities. The course will begin by providing a general theoretical background and framework for subsequent invited seminars by local biological oceanographers. Most of the material used in this course will be derived from the current scientific literature. The course will also foster critical appraisal of this literature, as well as communication skills applicable to oceanographic research.

Course evaluation:

Examination (Feb. 12)	20%
Weekly critiques of articles (7 x 5% each)	35%
Oral presentation and discussion (last two weeks)	30%
Class participation	15%

Examination:

Each student will write an examination to measure learning of theoretical content presented in the first three weeks of the course. Examination details will be communicated in the classroom.

Weekly critiques of articles:

Electronic links to a maximum of two articles per week will be posted on the D2L course shell the week prior to a seminar presentation. A printed copy of critiques is to be provided by each student **at the beginning of each class** in which there is a seminar presentation. Critiques should discuss positive and negative aspects of articles. It is appropriate to start with a few lines very briefly describing the subject matter. Use single-spaced type and **one page only per article**. Guidance on how to review a paper will be provided in the classroom.

Oral presentation and discussion:

Following on from the invited seminars, each student will give a **presentation in her/his thesis subject area**. Each presentation shall not exceed 15 minutes, with an additional 10 minutes to address questions and discuss the key paper (see below). The presentation visuals should be of professional conference quality. This will give students the experience of presenting and defending scientific ideas and protocols in front of a critical audience. Each student shall **provide one key paper the week before the presentation** and be prepared to **lead a discussion on its content**.

Course schedule

Lecture	Date	Topic	Presenter
1	Wed. Jan. 8	Course syllabus; History of oceanography + Ocean floor physiography; Introductory documentary + questionnaire	P. Gagnon
2	Wed. Jan. 15	Dynamics of ocean basins; Properties of seawater	P. Gagnon
3	Wed. Jan. 22	Ocean circulation; Waves and tides, The ocean ecosystem	P. Gagnon
4	Wed. Jan. 29	Trophic ecology: biomarkers and essential nutrients	C. Parrish
5	Wed. Feb. 5	Oil spill science	U. Passow
6	Wed. Feb. 12	Dispersal in chemosynthetic environments; Examination	S. Dufour
---	Wed. Feb. 19	No lecture (Winter semester break)	---
7	Wed. Feb. 26	Challenges and opportunities for sustainable seaweed culturing	A. Eaves
8	Wed. Mar. 4	Sustainable northern fisheries	J. Fisher
9	Wed. Mar. 11	Ocean variability and biodiversity change	A. Bates
10	Wed. Mar. 18	Bycatch in fisheries	B. Favaro
11	Wed. Mar. 25	Student presentations	Students
12	Wed. Apr. 1	Student presentations	Students

Plagiarism:

As outlined in Section 4.12.4 of MUN's Calendar, plagiarism (the act of presenting the ideas or works of another as one's own) is a form of academic offence. Plagiarism will not be tolerated in this course. Any student who plagiarizes another's work exposes himself/herself to the disciplinary measures outlined in section 4.12 of MUN's Calendar, which includes course expulsion. I will provide clear guidelines on how to avoid this problem.

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