BIOLOGY 319 MARINE ECOLOGY Spring Term 2017

Instructors	**Room**	**Office Hours**
Dr. Rana El-Sabaawi	Cunningham 066	1 hour after class
Ms. Lia Chalifour		

Objectives:

1. To develop an understanding of the science of ecology as it applies to marine ecosystems.
2. To develop an understanding of community ecology in a diverse array of marine ecosystems ranging from the tropics to the poles.
3. To explore major patterns of biodiversity (causes and effects) in the ocean.
4. To develop applied skills for studying marine ecology (intertidal field sampling, image analysis of deep-sea ecosystems)

Text: ***There is no textbook for this class. Unlike previous years, there is also no lab manual. Lab outlines will be available on coursespaces a few days before the lab. It is your responsibility to download and read the lab outlines before your lab sessions.***

Prerequisites:	Biol 215, 321, 330 or equivalents.	
Course Grading:	Midterm	20%
	Final Exam	40%
	Laboratory	40%

All assignments must be completed to receive credit for this course.

Lectures: T, W, F at 12:30 PM in CUN146
Laboratories: Mondays and Tuesdays 2:30-5:30 in Petch 109. Attendance is required.
Midterm and Exam: The Midterm is scheduled for **Friday Feb 10th** (in class). Final exam date and time (TBA).

Academic regulation:
1. **VERY IMPORTANT**: UVic's policy on academic integrity (http://web.uvic.ca/calendar2017-01/undergrad/info/regulations/academic-integrity.html
2. Know your responsibilities as outlined in the calendar (http://web.uvic.ca/calendar2017-01/undergrad/info/registration/index.html)

Important information:
1. If you have any special needs please speak to me or contact staff at the Resource Center for students with a Disability (http://www.uvic.ca/services/rcsd/) so that appropriate accommodations can be made to ensure your success in the course.
2. If you miss the midterm due to a medical reason (with valid documentation) then your final exam grade will be used in place of your midterm mark in the final grade assignment.
3. The last day to withdrawal without a penality (an "F") is Tuesday 28 Feb 2017
4. Grades are assigned on a percentage scale in accordance with UVic policy as outlined on page 64 of the 2016-17 calendar (http://web.uvic.ca/calendar2016-09/pdfs/undergraduate-201609.pdf)
5. Read UVic's policty on copyright (https://www.uvic.ca/library/featured/copyright/)

Lecture outline:

Week	Topic	Notes
4-Jan	Introduction - Scientific method, intertidal	
9-Jan	Shore ecosystems: the rocky intertidal	
16-Jan	Shore ecosystems: the rocky intertidal	
23-Jan	Shore ecosystems: the sandy shores	
30-Jan	Coastal ecosystems: kelp ecosystems	
6-Feb	Coastal ecosystems: seagrass meadows	Midterm on 10th Feb
13-Feb	**READING BREAK (NO LECTURES)**	
20-Feb	Mangroves	
27-Feb	Coral reefs	
6-Mar	Deep sea ecosystems	
13-Mar	Hydrothermal vents and whale falls	
20-Mar	Polar ecosystems	
27-Mar	Marine biodiversity perspectives	
3-Apr	Final review	Last day of class is April 4

Lab schedule and mark breakdown:

Week	Topic	What is due
9-Jan	Statistical analysis and dealing with data	
16-Jan	The effect of trawling on marine ecosystems	Stats assignment 1 (1%, 1 per individual)
23-Jan	**Pat Bay trip on Jan 24th (bad weather alternate Jan 25)**	
30-Jan	Pat Bay sample analysis 1	Trawling report due (5%, 1 per group of 2)
6-Feb	Pat Bay sample analysis 2	Hypotheses Pat Bay (1%, 1 per individual)
13-Feb	Reading break	Reading break
20-Feb	Help lab 1	
27-Feb	Help lab 2	Data exploration Pat Bay (3%, 1 per individual)
6-Mar	Meiofauna Exploration1	Data analysis and figures Pat Bay (10%, 1 per individual)
13-Mar	Meiofauna Exploration 2	Final Pat Bay report (10%, 1 per individual)
20-Mar	Imaging of deep sea communities and using Ocean Network Canada (ONC) data	ONC assignment (2%, 1 per group 2-3)
27-Mar	The effect of hypoxia on marine communities	Hypoxia assignment (2% 1 per group 2-3), Final Meiofauna report (6%, 1 per group of2)

Schedule for field trips (Please refer to lab materials posted on coursespaces for more details about the field trip):

- Pat Bay Mudflats:
  - Tuesday Jan 24th meeting there at 8:30 PM
  - Bad weather alternate: Wed Jan 25th at 8:30 PM
  - Really bad weather alternate: 06th Feb at 7:00 PM

Important:

You are responsible for arranging for your own transport to the field site. If you are able to drive and have a car please consider car-pooling with students who do not have access to transport.

More information about the field trip will posted on coursespaces next week.