# ERTH 2403 - WINTER 2019 INTRODUCTION TO OCEANOGRAPHY PROFESSOR: Dr. Hafida El Bilali

### **OBJECTIVES**:

Over 70% of our planet is covered by oceans and an understanding of the interactions of its various systems is crucial to that of the global environment.

This course consists of an environmental approach to understanding the oceans; introducing the physical and biological aspects of oceanography, marine resources and marine pollution. Underlying this general knowledge will be thoughts and discussions through relevant case studies and legislations on the looming impacts of marine pollution and climate change on marine ecosystems, marine habitats, marine communities and public health.

### ERTH 2403:

ERTH2403 is a Science credit for B.Sc, B.A, B.Eng. and other students and a required credit for some. Prerequisites: none, may be taken by first year students. As the course is a second year science credit without laboratories, an understanding of **significant amounts of information is required**.

Mondays 2:35 pm-5:25 pm - Steacie Building 103.

Loeb D299 for viewing past lectures (available to all students registered in the course).

### **TEXTBOOK:**

Garrison Tom: **Oceanography**, an Invitation to Marine Science.  $9^{\text{th}}$  ed. ( $8^{\text{TH}}$ .ed. is acceptable). New and used copies are available at the Carleton Bookstore as well as at Haven Books.

### **COMMUNICATION:**

Email: hafida.elbilali@carleton.ca

**Office Hours:** Please email the professor to set am appointment. **Mail:** H. El Bilali, Earth Sciences Dept., Herzberg Laboratories, 1125 Colonel By Dr., Ottawa, K1S 5B6.

### **EVALUATION:**

*1. Exams*: Examinations (100%), Online Quizzes 4% Bonus)All on-campus exam locations will be posted on CULEARN as soon as they become available.

Examination #1 (32%): From 10:00 am to 12:00 pm on Saturday, February 9th, 2019. Examination #2 (32%): From 10:00am to 12:00 pm on Saturday, March 9th, 2019. Examination #3 (36%): Scheduled in April, 2018.

### *Missed Examinations*: There are no make-up exams for exam #1 and #2.

If you miss **one exam (#1 or #2)** due to any valid reason (religious, health, personal difficulties), you may write a special, **combined April exam for 67%** of the course.

You must contact the professor **in writing** and be able to provide documentation as soon as possible before or after the exam.

If you miss the April exam, you may apply for a deferred final at the registrar's office (documentation is needed). In all cases, please contact the professor first by email.

2. *Quizzes*: (4% bonus marks) Quizzes are posted on the course website. You have 30 minutes to complete 10-15 multiple choice-true/false questions. Your score and correct answers are available after the closing date of the quiz. Please make sure you **press submit** when you have finished each quiz.

Quiz#	Lectures covered	Opens. 9:00 pm. Tuesday Closes 12:00 pm. Friday	
1	Syllabus, Jan.7-Jan. 21 incl.	January 22, 2019	January 24, 2019
2	Syllabus, Jan.28-Feb.4 incl.	February 5, 2019	February 8, 2019
3	Syllabus, Feb.11	February 12, 2019	February 15, 2019
4	Syllabus, Feb.25-Mar.4 incl.	March 5, 2019	March 8, 2019
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5	Syllabus, Mar.11- Mar18 incl	March 19, 2019	March 22, 2019
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6	Syllabus, Mar.25- Apr.01 incl	April 2, 2019	April 05, 2019

### **CULEARN**

You can log into CULearn at https://www.carleton.ca/culearn/ to:

- Download the course syllabus and lecture notes.
- Check the announcements and your email regularly.
- Track your grades.

Please download and read the syllabus before asking questions.

Marks are posted after each quiz closes and within two weeks after exam #1 and #2.

Final exam grades are **not** posted.

# ERTH2403 COURSE OUTLINE WINTER 2019 (Subject to change)

**Note**\*\* You are responsible for **all** lectures material, some of which may not be covered in the textbook. You are <u>not responsible for the entire textbook</u>, only for sections related to lecture topics. Exam questions are based on lectures and related text material.

Week	Garrison 8 <sup>th</sup> & 9 <sup>th</sup> editions.	Lecture Topic		Quizzes			
Jan. 7, 2019	Ch.1	Introduction	Origin				
Jan.14,2019	Ch. 2,3	History of Marine Sciences	Plate Tectonics				
Jan.21,2019	Ch. 3,4	Plate Tectonics	Ocean Basins	Quiz #1 Tuesday Jan.22			
Jan.28,2019	Ch. 5,6	Ocean Sediments	Water and Ocean Structure				
Feb. 4, 2019	Ch. 6,7	Water and Ocean Structure	Ocean Chemistry	Quiz #2 Tuesday Feb.05			
<b>EXAMINATION #1 (32%)</b> Saturday, February 9, 2019 from 10:00 am to 12:00 pm Covers lectures from the beginning of the term to the end of the lecture on February 4, 2019							
Feb.11,2019	Ch.8,9	Atmospheric Circulation	Ocean Circulation	Quiz #3 Tuesday Feb.12			
Feb. 18-22 Winter break							
Feb.25,2019	Ch. 10, 11	Waves	Tides				
Mar.4, 2019	Ch. 12, 13	Coasts	Ocean Life	Quiz #4 Tuesday Mar.05			
EXAMINATION #2 (32%) Saturday, March 9, 2019, from 10:00 am to 12:00 pm Covers lectures from February 11 to the end of the lecture on March 4, 2019							
Mar.11,2019	Ch. 14, 15	Primary Producers	Marine Animals				
Mar.18,2019	Ch. 15, 16	Marine Animals	Marine Communities	Quiz #5 Tuesday Mar.19			
Mar.25,2019	Ch. 17	Marine Resources					
April 1, 2019	Ch. 18	Marine Pollution		Quiz #6 Tuesday Apr.2			
April 8, 2019	Ch 18	Environmental Concerns					
<b>EXAMINATION #3: (36%) - Scheduled during April, 20 19 exam period (2 hours)</b> Covers lectures from March 11, 2019 to end of term							

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## ACADEMIC INTEGRITY

# It is your responsibility to review Carleton's policy on Academic Integrity - Section 14 of the Calendar.

http://calendar.carleton.ca/undergrad/regulations/academicregulationsoftheuniversity/acadregsuniv14/

### Plagiarism

The instructor is required to report all incidents (or suspected incidents) of plagiarism to the Dean. All work handed in must be your own. Plagiarism and cheating are viewed as being particularly serious and the sanctions imposed are accordingly severe. Students are expected to familiarize themselves with and follow the Carleton University Student Academic Integrity Policy. The Policy is strictly enforced and is binding on all students. Plagiarism and cheating – presenting another's ideas, arguments, words or images as your own, using unauthorized material, misrepresentation, fabricating or misrepresenting research data, unauthorized co-operation or collaboration or completing work for another student – weaken the quality of the graduate degree. Academic dishonesty in any form will not be tolerated. Students who infringe the Policy may be subject to one of several penalties including: expulsion; suspension from all studies at Carleton; suspension from full-time studies; a refusal of permission to continue or to register in a specific degree program; academic probation; or a grade of Failure in the course.

### **REQUESTS FOR ACADEMIC ACCOMMODATION**

You may need special arrangements to meet your academic obligations during the term. For an accommodation request, the processes are as follows:

### **Pregnancy** obligation

Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit the Equity Services website: carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Acad

### **Religious obligation**

Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit the Equity Services website: carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Academic-Acad

#### Academic Accommodations for Students with Disabilities

If you have a documented disability requiring academic accommodations in this course, please contact the Paul Menton Centre for Students with Disabilities (PMC) at 613-520-6608 or pmc@carleton.ca for a formal evaluation or contact your PMC coordinator to send your instructor your Letter of Accommodation at the beginning of the term. You must also contact the PMC no later than two weeks before the first inclass scheduled test or exam requiring accommodation (if applicable). After requesting accommodation from PMC, meet with your instructor as soon as possible to ensure accommodation arrangements are made. carleton.ca/pmc

### **Survivors of Sexual Violence**

As a community, Carleton University is committed to maintaining a positive learning, working and living environment where sexual violence will not be tolerated, and is survivors are supported through academic accommodations as per Carleton's Sexual Violence Policy. For more information about the services available at the university and to obtain information about sexual violence and/or support, visit: carleton.ca/sexual-violence-support

### **Accommodation for Student Activities**

Carleton University recognizes the substantial benefits, both to the individual student and for the university, that result from a student participating in activities beyond the classroom experience. Reasonable accommodation must be provided to students who compete or perform at the national or international level. Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. https://carleton.ca/senate/wp-content/uploads/Accommodation-for-Student-Activities-1.pdf

For more information on academic accommodation, please contact the departmental administrator or visit: **students.carleton.ca/course-outline** 

# Information in this syllabus and the course outline is subject to change, watch postings on CULEARN.