

## Lecture Introduction to Oceanic Sciences

**"It is a preliminary version that is subject to change"**

**Course:** [ATOC 182](#)

**Section:** [1](#)

**Term:** [Fall](#)

**Year:** [2020](#)

**Course schedule :** [Monday and Wednesday, 13:05-14:25 \(Montreal time\)](#)

**Credits:** [3](#)

**Instructor name:** [Dr. Nathalie Toque](#)

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**Virtual office hours:** [Appointment by email](#)

**Communication plan:** [Email or Zoom](#)

**Teaching assistants:** [To be announced](#)

### Learning Outcomes

This course is a general introduction of the different components which make up the ocean sciences and their interlacement. It will provide a basic knowledge and understanding of the various processes involved in the oceans, physical, chemical, geological and biological, and it will demonstrate the interdisciplinary nature of the ocean sciences. It will make you to realise at which point the oceans are crucial to Humanity and its survival. One important goal is to give you the tools to make your own opinion in the raging climate change debate. Another one is to inspire new callings by showing that ocean sciences extend far beyond than hard sciences and venture in the areas of social, economic and political sciences.

### Course materials

"Essential of Oceanography" by Tom Garrison or Alan P.Trujillo & Harold V.Thurman. They can be afforded on Amazon. The purchase of a textbook is not mandatory. The material uploaded on Mycourses is very sufficient. No additional material is required.

### Instructional method

- For each chapter, a detailed power point presentation will summarize its content. The lectures will focus on the salient points of the chapter.
- The lectures will be held on zoom. During the lectures, students will be invited to participate by polling and answering questions.
- Slides of the lectures and additional material will be made available on myCourses prior to the class.

## Course content

Legend: Given/Due

Week 1	2020-09-02	1. Introduction	Assignment1
Week 2	2020-09-07 2020-09-09		
Week 3	<b>2020-09-14</b> <a href="#">2020-09-16</a>	2. Studying the Oceans	<b>Assignment1</b> <a href="#">Quiz1</a>
Week 4	2020-09-21 2020-09-23	3. Evolution of the Ocean Floor	Assignment2
Week 5	2020-09-28 <b>2020-09-30</b>	4. Water and Seawater	<b>Assignment2</b>
Week 6	2020-10-05 <a href="#">2020-10-07</a>		<a href="#">Quiz2</a>
Week 7	2020-10-12 2020-10-14	5. Ocean-Atmosphere Interactions	Assignment3
Week 8	2020-10-19 <b>2020-10-21</b>	6. Ocean circulation	<b>Assignment3</b>
Week 9	2020-10-26 <a href="#">2020-10-28</a>	7. Waves	<a href="#">Quiz3</a>
Week 10	2020-11-02 2020-11-04		Assignment4
Week 11	<b>2020-11-09</b> <a href="#">2020-11-11</a>	8. Tides	<b>Assignment4</b> <a href="#">Quiz4</a>
Week 12	2020-11-16 2020-11-18	9. Coastal Oceans and Estuaries	Assignment5
Week 13	<b>2020-11-23</b> <a href="#">2020-11-25</a>	10. Foundations of Life in the Oceans	<b>Assignment5</b> <a href="#">Quiz5</a>
Week 14	2020-11-30	11. Impacts of Human on the Oceans	
Final exam		To be announced	

## Evaluation: Continuous assessment

### 5 Assignments

- 5% per assignment for a total of 25%.
- Homework.
- [Critical thinking questions.](#)

### **5 Quizzes**

- 5% per quiz for a total of 25%.
- Timed exam, 1 attempt, duration(TBA), opened 24 hours.
- **Explanation or definition of keywords, study questions on previous lectures.**

### **Mid-term exam (To be announced)**

- 20%.
- Timed exam, 1 attempt, 1.5 hours, opened 24 hours.
- **On previous material.**

### **Final exam (To be announced)**

- 30%.
- Timed exam, 1 attempt, 3 hours, opened 72 hours.
- **On all material.**

### **Homework and exam policy**

- Students are strongly encouraged to communicate between them on the Mycourses discussion forum. Assignments can be done individually or in group and must be turned in the date they are due. No grace time will be allowed.

- Closed quizzes cannot be re-opened.

- If the mid-term exam is announced, it is mandatory. Do not take the exam will require extraordinary circumstances and proofs. If approved, the weight of the final exam will increase up to 50%.

### **McGill Policy Statements**

The remote learning context presents new challenges. The instructor will do his best to provide a supportive learning environment. There will be links posted in myCourses to **Student-specific Guidelines for Remote Teaching and Learning and Remote Learning Resources to support the student's learning.**

### **Language of Submission**

(English) "In accord with McGill University's Charter of Students' Rights, students in this course have the right to submit in English or in French any written work that is to be graded. This does not apply to courses in which acquiring proficiency in a language is one of the objectives."

(Français) « Conformément à la Charte des droits de l'étudiant de l'Université McGill, chaque étudiant a le droit de soumettre en français ou en anglais tout travail écrit devant être noté (sauf dans le cas des cours dont l'un des objets est la maîtrise d'une langue). »

### **Academic Integrity**

(English) "McGill University values academic integrity. Therefore, all students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the Code of

Student Conduct and Disciplinary Procedures” (see [www.mcgill.ca/students/srr/honest/](http://www.mcgill.ca/students/srr/honest/) for more information).

(Français) « L'université McGill attache une haute importance à l'honnêteté académique. Il incombe par conséquent à tous les étudiants de comprendre ce que l'on entend par tricherie, plagiat et autres infractions académiques, ainsi que les conséquences que peuvent avoir de telles actions, selon le Code de conduite de l'étudiant et des procédures disciplinaires (pour de plus amples renseignements, veuillez consulter le site [www.mcgill.ca/students/srr/honest/](http://www.mcgill.ca/students/srr/honest/)).»

### **Additional Statements**

- “The University Student Assessment Policy exists to ensure fair and equitable academic assessment for all students and to protect students from excessive workloads. All students and instructors are encouraged to review this Policy, which addresses multiple aspects and methods of student assessment, e.g. the timing of evaluation due dates and weighting of final examinations.”

-“© Instructor-generated course materials (e.g., handouts, notes, summaries, exam questions, etc.) are protected by law and may not be copied or distributed in any form or in any medium without explicit permission of the instructor. Note that infringements of copyright can be subject to follow up by the University under the Code of Student Conduct and Disciplinary Procedures.”

-“End-of-course evaluations are one of the ways that McGill works towards maintaining and improving the quality of courses and the student’s learning experience. You will be notified by email when the evaluations are available. Please note that a minimum number of responses must be received for results to be available to students.”

- "In the event of extraordinary circumstances beyond the University’s control, the evaluation scheme in a Course is subject to change, provided that there be timely communications to the students regarding the change."