

**INTRODUCTION TO OCEANOGRAPHY - GEOL 18000**  
**TUESDAY/FRIDAY, 14:10-15:25**  
**HUNTER NORTH 1036**

**CONTACT INFORMATION**

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**Office Hours:** Tuesday-Friday 1:00 – 2:00 pm, *and by appointment*.

**\*Note:** The best way to contact me is through your **Hunter College @myhunter** email – (1) You must include **GEOL 18000** in your subject line, (2) sign your full name as it appears in CUNYfirst, and (3) send all email from your @myhunter email address. I do not respond to personal email addresses. I try to answer all emails within 24 hours during the week and 48 hours on the weekend.

**COURSE DESCRIPTION**

This course will offer an introduction to the subject of oceanography. We will discuss the physical, chemical, biological, and geological aspects of the oceans; learn about the structure and motion of the atmosphere and how they influence ocean circulation; and we will learn about waves, tides and tsunamis. The ocean, comprising 71% of the Earth's surface, is a crucial component of the Earth's climate system and its dynamics determine the cycling of carbon and the production of oxygen throughout the planet. The oceans' extreme environments host unusual forms of life, which are sensitive to anthropogenic influences. It is an important source of energy and economically valuable materials. Accordingly, the ocean has a profound influence on humans and civilization. In addition to providing a good introduction to aspects of the scientific world, it is a foundational course for Environmental Studies, Geography and BA/MA Earth Science Education majors.

**EXAM GUIDELINES AND POLICIES**

Exams will be based on assigned textbook readings, journal articles, materials covered in class, and case studies. Dates are **CLEARLY** posted on the Course Calendar and Content.

Examinations are 1 hour and 15 minutes for the mid-term and 2 hours for the final exam. No electronic devices or reference materials will be permitted on the desk during exams unless specified. Make-up exams are **ONLY** available in extreme cases, and with medical (or other) forms that confirm the absence.

Exams are designed to evaluate a student's ability to master content, integrate themes and concepts between sub-disciplines in oceanography, understand the usefulness and limitations of oceanographic data for studying processes, and apply logical arguments to support perspectives.

## COURSE CALENDAR AND CONTENT

**\*\*\* SCHEDULE AS OF 3/26 - AN UPDATE ON AN UPDATE! \*\*\***

Class No & Date	Topic: Chapter Title, Assignments	Readings
<b>Unit 1: Marine Geology</b>		
1. Tue – 1/28	<b>Introductory Lecture</b> Planet “Earth”, a ‘fluid’ planet!	Chapter 1
2. Fri – 1/31	<b>Introductory Lecture</b> Fluid Earth	Chapter 1
3. Tue – 2/4	Plate tectonics and ocean floor	Chapter 2
4. Fri – 2/7	Plate tectonics and ocean floor <i>Assign Case Study 1 (Unit 1 &amp; 4) – Discuss</i>	Chapter 2
5. Tue – 2/11	Plate tectonics and ocean floor	Chapter 2
6. Fri – 2/14	Marine Provinces	Chapter 3
7. Tue – 2/18	Marine Provinces	Chapter 3
8. Fri – 2/21	Marine Provinces. Marine Sediments	Chapters 3, 4
9. Tue - 2/25	Marine sediments <b>Case Study 1: Paper Due Today</b>	Chapter 4
<b>10. Fri – 2/28</b>	<b>Midterm I: Chapters 1 – part of 4</b>	
11. Tue – 3/3	Marine sediments <i>Assign Case Study 2 (Unit 4) – Discuss</i>	Chapter 4
12. Fri – 3/6	Marine sediments	Chapter 4
<b>Unit 2: Water Chemistry</b>		
13. Tue – 3/10	Water and seawater	Chapter 5
<b>14. Fri – 3/13</b>	<b>Water and seawater CLASS CANCELLED</b>	<b>Chapter 5</b>
<b>15. Tue – 3/17</b>	<b>Air Sea Interactions CLASS CANCELLED</b> <b>Case Study 2: Paper Due Today</b>	
16. Fri – 3/20	<b>CLASS RESUMES ONLINE</b> Water and seawater	Chapter 5
<b>Unit 3: Ocean Dynamics</b>		
17. Tue – 3/24	Atmosphere’s general circulation	Chapter 6
<b>18. Fri – 3/27</b>	<b>Atmosphere’s general circulation</b> <b>NO CLASS - CUNY ‘PAUSE’</b>	<b>Chapter 6</b>
<b>19. Tue – 3/31</b>	<b>Atmosphere, ocean &amp; climate</b> <i>Assign Case Study 3 (Unit 4) – Discuss</i> <b>NO CLASS - CUNY ‘PAUSE’</b>	<b>Chapter 6</b>
20. Fri – 4/3	Atmosphere’s general circulation <i>Assign Case Study 3 (Unit 4) – Discuss</i>	Chapter 6
<b>Tuesday – 4/7</b>	<b>No Class – Classes Follow Wednesday Sch.</b>	<b>No class</b>
<b>Fri – 4/10: **NEW**Spring Recess – No Classes Scheduled</b>		
<b>21. Tue – 4/14</b>	<b>Midterm II: Chapters 5, 6, parts of 6</b>	

22. Fri – 4/17	Atmosphere, ocean & climate	Chapter 6
23. Tue – 4/21	Ocean Circulation	Chapter 7
24. Fri – 4/24	Ocean Circulation	Chapter 7
25. Tue – 4/28	Ocean Circulation <b>Case Study 3: Paper Due Today</b>	Chapter 7
26. Fri– 5/1	Ocean Waves <i>Assign Case Study 4 (Unit 3) – Discuss</i>	Chapter 8
27. Tue – 5/5	Ocean Waves	Chapter 8
28. Fri – 5/8	Ocean Waves	Chapter 8
29. Tue – 5/12	Ocean Waves <b>Case Study 4: Paper Due NO LATER than 5/12</b>	Chapter 8
<b>Unit 4: The Ocean Environment: Coasts</b>		
<b>Note: due to all interruptions this semester, the Ocean Environment was implicit in many discussions, in the Friday short stories presented in class before the transition to online instruction and included in Case Studies topics but there was no time for formal instruction for this Unit.</b>		
<b>Friday 5/15 – Reading Day</b>		
<b>FINAL EXAM: week 5/16 – 5/22</b>		
<b>EXACT DATE TBD</b>		
<b>NOTE: focus of final exam is material discussed since Midterm Exam II</b>		