Oceanography and the Environment
ENVST.UA 300 Spring 2021
M&W 11:00 AM – 12:15 PM
New York University

Professor: Andrea Gomez
Email: ag8072@nyu.edu
Office Hours: Wednesday 1 – 2 PM

Zoom link for office hours:
https://nyu.zoom.us/j/3085659853

Zoom link for class:
https://nyu.zoom.us/j/96594970663

Course Overview
This course aims to provide an overview of the geological, chemical, physical, and biological aspects of the ocean, as well as the oceans past environmental history, it’s current state, and projected future conditions. It will also focus on satellite remote sensing, and how it can be used to monitor the ocean environment.

Course Objectives
After talking this course, students will have a good understanding of topics including the origin and structure of Earth, plate tectonics, chemical, physical, and biological oceanography, marine life in near shore communities, climate change, and how scientists can utilize remote sensing to monitor the ocean. Students will also learn how to prepare and present scientific presentations, as well as discuss and comprehend scientific literature on various oceanography topics.

Course Textbook
Introduction to Oceanography, Paul Webb
Online only (free): https://rwu.pressbooks.pub/webboceanography/

- Weekly readings will be posted on NYU Classes.

Grading
Exams (midterm/final) 40%
Presentation 45%
Homework 10%
Attendance 5%

Etiquette: expectations for basic etiquette with respect to student engagement in the class in this year’s online format. Specifically,

- Silence your ring tones, alarms, and push notifications sounds on all of your
devices: phones, computers, and tablets.

- Stay with your computer for the entire lecture. Cameras are not required to be on, but occasional questions and online polls will be posed to the class. These will not be graded for correctness, but timely participation is part of your participation grade.
- Students should not log in casually late to lecture.

Exams

**Format of Exams:** Multiple choice, short fill-ins, and short written answers. Material for the exams is drawn from the book, from lectures, and from homework.

**Policy on missed tests:** Tests will be excused only for medical or family emergencies. I need to be notified before the exam time. An unexcused absence from an exam will be calculated as 0% for that particular test! If you miss an exam and present a legitimate excuse, a make-up test will be made available to you. There will be only one opportunity for such an exam. This situation will be dealt with partly on an individual basis.

Presentations

Students will work in groups or individually to present on a topic in oceanography of their choice. Presentations will be ~12 min, with 3 min for questions. A one-page report (double spaced) will also be required to be submitted by each student.

Homework (~5 reading assignments)

Assigned scientific journal articles will be posted on NYU classes to be read and discussed the following week. A half page summary (double spaced, 12pt font) for the article will also be due.

Attendance

I will take attendance each class. Please try to be on time for lecture.

NYU Classes: I will use NYU Classes site for the course to post this syllabus and any updates, the homework, supplementary articles, Zoom lecture times and links, and other information as necessary about the course during the semester.

Disability Disclosure Statement: Academic accommodations are available to any student with achronic, psychological, visual, mobility, learning disability, or who is deaf or hard of hearing. Students should please register with the Moses Center for Students with Disabilities at 212-998-4980.
Course Calendar
***Please note this schedule is tentative and may change!

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<tr>
<th>Week</th>
<th>Monday</th>
<th>Wednesday</th>
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<tbody>
<tr>
<td>1: Feb 1, 3</td>
<td>Introduction to Oceanography – Chapter 1</td>
<td>How do we observe the ocean? Bears and Remote Sensing– Chapter 2</td>
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<td>2: Feb 8, 10</td>
<td>Guest Lecture: John Zayac (Plate Tectonics/Structure of Earth – Chapters 3 &amp; 4)</td>
<td>Origin of Earth and the Oceans– Chapter 3</td>
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<td>3: Feb 15, 17</td>
<td>President’s Day No Class</td>
<td>Guest Lecture: Dr. Karsten Shein (Atmos-Ocean Interaction)</td>
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<td>4: Feb 22, 24</td>
<td>Finish up Early Oceans/Intro to Physical Oceanography – Chapter 6</td>
<td>Remote Sensing and Sea Surface Temperature– Chapter 9</td>
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<td>5: Mar 1, 3</td>
<td>Waves/Tides – Chapters 10 &amp; 11</td>
<td>Beaches and Shoreline Processes – Chapter 13</td>
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<td>6: Mar 8, 10</td>
<td>Guest Lecture: Dr. Ross Cunning (Coral Reefs)</td>
<td>Marine Ecology, Habitats, and Organisms</td>
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<td>7: Mar 15, 17</td>
<td>Review</td>
<td>Midterm</td>
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<td>8: Mar 22, 24</td>
<td>Intro to Chemical Oceanography – Chapter 5</td>
<td>Ocean Carbon Cycle/Ocean Acidification</td>
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<td>9: Mar 29, 31</td>
<td>The Benthos</td>
<td>Guest Lecture: Dr. Bradley Moore (Marine Biotechnology)</td>
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<td>10: Apr 5, 7</td>
<td>Guest Lecture: Dr. Roxanne Beltran (Behavioral Ecology)</td>
<td>Marine Food Web and Nitrogen Cycle</td>
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<td>11: Apr 12, 14</td>
<td>Intro to Biological Oceanography Chapter 7</td>
<td>Guest Lecture: Dr. Maria Tzortziou (HABs/Remote sensing)</td>
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<td>12: Apr 19, 21</td>
<td>Spring Break No Class</td>
<td>Guest Lecture: Kayla Besong (Climate Change)</td>
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<td>13: Apr 26, 28</td>
<td>Ice and Climate Change – Chapter 8 &amp; 14</td>
<td>Future Climate Projections</td>
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<td>14: May 3, 5</td>
<td>Student Presentations</td>
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<tr>
<td>15: May 10, 13</td>
<td>Review</td>
<td>Final</td>
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Academic Integrity

As you begin your College career—attending classes, participating in extracurricular activities, performing community service, and thinking about where your academic and career interests lie—it is important to reflect on your role and responsibilities within an academic community.

I. A COMMUNITY OF THE MIND
The College is a "community of the mind." Its students, faculty, and staff all share the goal of pursuing truth through free and open inquiry, and we support one another's endeavors in this regard. As in any community, membership comes with certain rights and responsibilities. Foremost among these is academic integrity. Cheating on an exam, falsifying data, or having someone else write a paper undermines others who are "doing it on their own"; it makes it difficult or impossible to assess fairly a student's interest, aptitude, and achievement; and it diminishes the cheater, depriving him/her of an education. Most importantly, academic dishonesty is a violation of the very principles upon which the academy is founded. Thus, when students enter the College, one of the first things that they are asked to do is to sign a community compact, recognizing these principles of academic integrity. For this reason also, violations of these principles are treated with the utmost seriousness.

II. SOME GUIDELINES
Academic honesty means that the work you submit - in whatever form - is original. Students are expected - often required - to build their work on that of other people, just as professional researchers and writers do. Giving credit to someone whose work has helped you is expected; in fact, not to give such credit is a crime. Plagiarism is the severest form of academic fraud. Plagiarism is theft. Obviously, bringing answers into an examination or copying all or part of a paper straight from a book, the Internet, or a fellow student is a violation of this principle. But there are other forms of cheating or plagiarizing which are just as serious, for example:

- presenting an oral report drawn without attribution from other sources (oral or written);
- writing a paragraph which, despite being in different words, expresses someone else's idea without a reference to the source of the idea;
- submitting essentially the same paper in two different courses (unless both instructors have given their permission in advance);
- giving or receiving help on a take-home examination or quiz unless expressly permitted by the instructor (as in collaborative projects);
- presenting as your own a phrase, sentence, or passage from another writer's work without using quotation marks;
- presenting as your own facts, ideas, or written text gathered or downloaded from the Internet;
- submitting another student's work with your name on it;
- purchasing a paper or "research" from a term paper mill;
- "collaborating" between two or more students who then submit the
same paper under their individual names. Term paper mills (web sites and businesses set up to sell papers to students) often claim they are merely offering "information" or "research" to students and that this service is acceptable and allowed throughout the university. THIS IS ABSOLUTELY UNTRUE. If you buy and submit "research," drafts, summaries, abstracts, or final versions of a paper, you are committing plagiarism and are subject to stringent disciplinary action. Since plagiarism is a matter of fact and not intention, it is crucial that you acknowledge every source accurately and completely. If you quote anything from a source, use quotation marks and take down the page number of the quotation to use in your footnote.

When in doubt about whether your acknowledgment is proper and adequate, consult your instructor. Show the instructor your sources and a draft of the paper in which you are using them. The obligation to demonstrate that work is your own rests with you, the student. You are responsible for providing sources, copies of your work, or verification of the date work was completed. While all this looks like a lot to remember, all you need to do is to give credit where it is due, take credit only for your original ideas, and ask your instructor or adviser when in doubt.

III. PROCEDURES AND SANCTIONS
The penalty for academic dishonesty is severe. The following are the procedures as approved by the Faculty of Arts and Science. See also the College Bulletin.
1. If a student cheats on an examination or in laboratory work or engages in plagiarism, appropriate disciplinary action should be taken. The Department can take the following actions:

The faculty member, with the approval of the Director of Undergraduate Studies (Director), may reduce the student's grade or give the student an F in the course.
   a. If after lowering the grade or assigning an F the department believes a more severe penalty (i.e., probation, suspension, expulsion) is warranted, it can refer the case to the Dean or his/her representative (Associate Dean for Students) for further action.
2. In all cases of either (a) or (b), the Director shall inform the Department Chair of any action in writing and send copies of this letter to the Dean and to the student. The letter shall include the nature of the offense, the penalty, and the right of the student to appeal such penalty. A copy of the letter shall be kept in a confidential chairman's file and not in the student's departmental file. The Dean's office copy shall also be kept in a confidential file. (The Professor and/or the Director is encouraged to meet with the student and discuss the nature of the offense and the action taken.)
3. For cases involving a first offense at New York University, the Dean shall send the student by registered mail a notice that a second offense will result in a one-semester suspension, or a more severe penalty. (The student is also called in to discuss the offense, and review the consequences of the disciplinary action.)
4. For cases involving a second offense, the Dean shall proceed as follows:
   a. Upon receiving a second Director's letter concerning a given student, the Dean shall convene a three member ad hoc committee, with no member being from the department involved, to examine the evidence. This ad hoc committee shall consider if there are reasonable grounds to believe that cheating/plagiarism has occurred and if so, shall affirm the suspension penalty. It shall report its conclusion to the Dean within three business days.
   b. If the committee affirms the suspension, the Dean shall send the student by registered mail the suspension letter within two business days of receiving the report. The letter shall advise the student of his or her right to appeal. The student shall have two business days from the letter's delivery to request an appeal of the suspension as provided in Section 5 (below). The suspension shall ordinarily be stayed during the pendency of appeal.
   c. If the committee does not affirm the suspension, the report shall be kept on file for a one-year period.
5. The student in all cases has the right to appeal to the Dean. In the event of an appeal, the Dean shall elicit a written complaint from the faculty member and proceed as described above.