

GEOL 18000-01
INTRODUCTION TO OCEANOGRAPHY
Tuesdays and Thursdays 9.30 am-12.38 pm
Hunter North, Room 1022
Summer 2019

Instructor: Dr. Shruti Philips
Office: Hunter North, Room 1032
Office Hours: *Tuesdays and Thursdays 9.15 to 9.45 am and 12.45 to 1pm or by appointment*
E-mail: sph0001@hunter.cuny.edu (communications to me must have GEOL-180 in the subject line and you must sign your full name as it appears in CUNYFirst.)
Department of Geography Office: Rm 1006 HN, Phone: 212-772-5265

COURSE DESCRIPTION

This course will offer an introduction to the subject of oceanography. We will discuss the physical, chemical, biological, geological and human aspects of the oceans; learn about the structure and motion of the atmosphere and how it influences ocean circulation; and we will learn about waves, tides and life in the ocean. We will examine critical issues such as coastal erosion, ocean acidification, variability of the meridional overturning circulation and sea level fluctuation in response to climate change.

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' diverse 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, GEOL-180 is a foundational course for Environmental Studies, Geography and BA/MA Earth Science Education majors.

This is a **3/hr, 3/credit**, science-based course, which meets the Scientific World requirement of the Hunter Common Core and the GER 2E General Education Requirement.

Specific Course Learning Outcomes:

At the end of the course the successful student is expected to be able to:

- identify features of the earth's ocean basins and clearly articulate the geologic processes that form them
- describe the origin, nature and distribution of marine sediments
- describe the unique physical and chemical characteristics of the seawater
- explain the processes driving tides, waves and coastal dynamics
- recognize the relationship between Earth's oceans and its climate
- discuss the environmental issues concerning marine resources

Recommended Textbook

Oceanography: An Invitation to Marine Science (9th Edition), Garrison T., 2016 ISBN-13, 978-1-30510516-4 (5th, 6th, 7th or 8th editions are acceptable and much cheaper to purchase). This book has been ordered at the Hunter College Bookstore, and can be obtained online.

<http://hunter.textbookx.com/institutional/index.php?action=browse#books/1986853/>

Assessment and Grading Policy: Exams and assignments will be based on the material covered in class and in the textbook. See the syllabus for exam dates and information about which chapters will be covered. Grades will be based on class participation, homework assignments, two mid-term exams and one final exam.

Midterm-1:	25%
Midterm-2:	25%
Final exam:	25%
Homework assignments:	20%
Class Participation:	5%

Your grades will be assigned based on the CUNY grading policy that can be found in the online undergraduate catalog that can be found at

<http://catalog.hunter.cuny.edu/content.php?catoid=15&navoid=1433>

- There will be **two midterm exams** given during the semester and a **final exam** at the end of the semester. If you are **absent** for the midterm exam, you must submit a medical note which documents the reason for the absence before a make-up exam is given. This make-up exam will include additional essay-type questions and will be considerably harder. All exams will be two hours long.
- There will be no make-ups for missed quizzes.
- If you **miss the final exam** a makeup will be given only if you inform me within 72 hours of the day/time of the final exam **and** present me with verifiable documentary evidence of the reason for your absence--a doctor's note, a bill from the hospital, a note from the funeral home, etc.
- For an **IN** to be awarded you must contact me about making up the exam and fill out the '*Contract to Resolve an Incomplete Grade*' form **within 72 hours** of the day/time of the final exam. An unresolved IN becomes an FIN at the end of the following semester.
- **CR-NCR** grades will be assigned based on the rules outlined on the CR/NCR form and must be submitted no later than 15 minutes **before** the beginning of the final exam.
- Pursuant to CUNY policy, an **Unofficial Withdraw (WU)** is assigned to students who **attended a minimum of one class**. It is important to understand the definition of a WU and the difference between this grade and an **F** grade. The conditions for assigning the WU grade include:
 1. A student's enrollment has been verified by the course instructor, and

2. The student has *severed all ties* with the course *at any time before the final exam week* and, consequently, has *failed to complete enough course work*, as specified in the course syllabus, to earn a letter grade, and
3. The student has *not officially withdrawn* from the course by completing the process for a W grade, or made arrangements to receive an INC.

Attendance: Attendance will be taken at all class meetings. Students are urged to attend ***all*** classes. ***There is a direct correlation between good grades and good attendance.*** All students are responsible for work covered in their absence and must be sure to obtain any hand-out material.

Classroom Policies:

All students are expected to abide by the following policies when in lecture in order to provide a more respectful and productive learning environment.

- All cell phones must be silenced.
- Laptops are not permitted.
- No electronic devices or reference materials will be permitted on the desk during exams.

Blackboard: Please note that course documents, hand-out sheets, and useful links will be posted on Blackboard. **Important:** Students should check their Hunter e-mail messages regularly for messages from the instructor!

Tips for getting good grades: ***In general, the more time you put in, the better your grade will be.*** Be sure to read the chapters BEFORE each lecture and read carefully. Note the things you do not understand and ask questions during the lecture. Review each chapter afterwards. Work through review questions. Be sure to work hard throughout the semester as there will be **no** extra credit assignments!

Academic Integrity: Hunter College regards acts of academic dishonesty (e.g., plagiarism, cheating on examinations, obtaining unfair advantage, and falsification of records and official documents) as serious offenses against the values of intellectual honesty. The college is committed to enforcing CUNY Policy on Academic Integrity and will pursue cases of academic dishonesty according to the Hunter College Academic Integrity Procedures. See the following report by the Hunter College Senate for more details:
<http://www.hunter.cuny.edu/senate/assets/Documents/Hunter%20College%20Policy%20on%20Academic%20Integrity.pdf>

ADA Policy: In compliance with the American Disability Act of 1990 (ADA) and with Section 504 of the Rehabilitation Act of 1973, Hunter College is committed to ensuring educational parity and accommodations for all students with documented disabilities and/or medical conditions. It is recommended that all students with documented disabilities (Emotional, Medical, Physical, and/or Learning) consult the Office of AccessABILITY, located in Room E1214B, to secure necessary academic accommodations. For further information and assistance, please call: (212)772-4857 or (212)650-3230.

Hunter College Policy on Sexual Misconduct: In compliance with the CUNY Policy on Sexual Misconduct, Hunter College affirms the prohibition of any sexual misconduct, which includes sexual violence, sexual harassment, and gender-based harassment retaliation against students, employees, or visitors, as well as certain intimate relationship. Students who have experienced any form of sexual violence on or off campus (including CUNY-sponsored trips and events) are entitled to the rights outlined in the Bill of Rights for Hunter College.

- a. Sexual Violence: Students are strongly encouraged to immediately report the incident by calling 911, contacting NYPD Special Victims Division Hotline (646-610-7272) or their local police precinct, on contacting the College’s Public Safety Office (212-772-4444)
- b. All Other Forms of Sexual Misconduct: Students are also encouraged to contact the College’s Title IX Campus Coordinator, Dean John Rose (jtrose@hunter.cuny.edu or 212-650-3262) or Colleen Barry (colleen.barry@hunter.cuny.edu or 212-772-4534) and seek complimentary services through the Counseling and Wellness Services Office, Hunter East 1123.

CUNY Policy on Sexual Misconduct Link:

<http://www.cuny.edu/about/administration/offices/la/Policy-on-Sexual-Misconduct-12-1-14-with-links.pdf>

Tentative Syllabus for Summer 2019

Dates	Lecture Topic	Chapter
Th 5/30	Introduction and overview: The Origin of the Ocean (HW-1)	1
T 6/4	Plate Tectonics	3
Th 6/6	Ocean Basins, Sediments	4,5
T 6/11	Midterm-1	1,3,4,5
Th 6/13	Ocean Structure and Chemistry	6, 7
T 6/18	Circulation of the Atmosphere and Ocean	8, 9
Th 6/20	Waves (HW-2)	10
T 6/25	Midterm-2	6,7,8,9,10
Th 6/27	Tides, Coasts, ‘Beaches are moving’ Film (HW-3)	11,12
T 7/2	Life in the Ocean, Primary Producers ‘A Sea Change’ Film (HW-4)	13, 14
T 7/9	Marine Resources, The Ocean and the Environment	17, 18
Th 7/11	FINAL EXAMINATION	11,12,13,14, 17,18