

Course Description and Syllabus
Oceanography Section 2 (GEOL 21080)
Kent State University
Fall 2010

<http://www.personal.kent.edu/~jortiz/ocean/>

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Lecture: T, R: 12:30-1:45 pm, McGilvrey 302

Office Hours: T: 10:30-11:30 am, W: 2:15-3:45 pm; R 10:30-11:30 am, or by appointment.
(Note: You do not need an appoint to attend the regularly schedule office hours.)

Course Catalog Number: 21080, Section 2

Registrar's Call Number: 13708

Course Rationale and Objectives: The ocean comprises about 70% of the Earth's surface area and plays a critical role in the cycling of energy and matter between the Earth's various physical, chemical and biological systems. Despite this, many people are unaware of how this vast body of water impacts the world around them.

This course will emphasize the interdisciplinary nature of oceanography by exposing the student to the basic principals of geological, chemical, physical and biological oceanography. Relationships among these systems and interrelationships between oceans and human populations will be emphasized. Students should come away from the course with a greater understanding of how the sea "works" as a system and a more scientific view of the world around them.

Oceanography is a Kent Core Science Class: This course satisfies part of the Kent Core Science requirements. The Kent Core as a whole is intended to broaden intellectual perspectives, foster ethical and humanitarian values, and prepare students for responsible citizenship and productive careers. (Note: Students operating under prior course catalogs receive LER Science credit for Oceanography).

Text: *Oceanography: An Invitation to Marine Science*, 6th Edition by Tom Garrison (6th edition available at the campus bookstore or DuBois Bookstore). A number of copies of older copies of earlier editions of the textbook are also available on 2-hr/overnight and 3-day reserve from the University Library.

Course web site: <http://www.personal.kent.edu/~jortiz/ocean/>

Many helpful resources are available on the course web site. Students are advised to familiarize themselves with the web site early in the semester and then to make use of these resources throughout the semester. Please see the instructor if you need help accessing the web site. This web site lets you check your grades online and contains information about:

Class Schedule, Reading Assignments, Online Notes
Grading Policy
Academic Calendar
Accommodation for Students with Special Needs
FAQs About This Course

How to Succeed in this Course (Study Tips)
What do I need to know? (Study Questions)
Careers in Oceanography
Careers in Geology
Just for Fun: Nonfiction, Literature, Art
and Music Inspired by the Sea

Note that as with all internet resources, access to or availability of the website cannot be guaranteed. Exams will not be rescheduled. Please use the resources available on the web site in advance of exams. To check your grades, using your

university email name and password, login to flashline (<http://flashline.kent.edu>) and go to “My Courses” and click on the link for Vista.

Office Hours and Consultation with the Instructor: I want you to do well in this course! I welcome questions from all students either in person, by email, or by phone. Whether you are doing well in the course, find it challenging, or are on academic probation, attending office hours can help make the course a more enriching experience. University policy requires that your university email account must be used for all email correspondence. To ensure your privacy when you send electronic messages, please use your university email account. Include your first and last name on any electronic correspondence along with your banner id. Please do not use your social security number on any correspondence. Please cc a copy of any important messages that you send to the instructor back to yourself so that you have a record.

University Policies: The following University policies apply to anyone enrolled in this course:

1. **Enrollment Status:** The official registration deadline for this course is 9/12/2010. Courses can have different scheduling deadlines depending on their mode of instruction. University policy requires all students to be officially registered in each class they are attending. Students who are not officially registered for a course by the published deadline should not be attending class and will not receive credit or a grade for that course. Each student must confirm enrollment by checking his/her class schedule (using Student Tools in FlashFast) prior to the deadline indicated. Registration errors must be corrected prior to the deadline. You can look up your course using the Kent State University Self Service Scheduling tool. Enter the information needed to find the course for which you are searching. The add/drop/withdrawal dates can be found from the link in the final column
2. **Academic Honor Code:** All students in the course are expected to abide by the academic honor code, as specified in the University's Policy Register. The use of other's intellectual property without giving them appropriate credit is a serious academic offense. This includes copying answers, misrepresenting the source, nature or other conditions of your academic work to get undeserved credit. At a minimum, students caught cheating during exams will receive a midterm grade of zero which will count for 50% of their overall average midterm score, and the incident will be reported to the university. It is the University's policy that cheating or plagiarism can result in receiving a failing grade for the course or other more serious disciplinary action depending on the nature of the offense. Repeat offenses can result in dismissal from the University. For complete information see Chapter 3-01.8 of the University Policy Register.
3. **Drop and Withdrawal:** The last date to drop this class is 9/12/2010. The last day to withdraw from this class is 11/07/2010. No approval is required to drop or withdraw from a course prior to the drop/withdrawal deadlines. Students should be aware that dropping or withdrawing from a class may affect their financial aid status or academic eligibility for athletics. If a student is unable to complete a class or the semester because of extreme circumstances, which first occur after the deadline, he or she should consult their college or campus dean's office. Any course withdrawal processed after the withdrawal date will appear on the students' academic record with a grade of "W". Courses can have different scheduling deadlines depending on their mode of instruction. For information on add/drop/withdrawal dates, you can look up your course using the Kent State University Self Service Scheduling tool. Enter the info needed to find the course for which you are searching. The add/drop/withdrawal dates can be found from the link in the final column. For more info see: <http://www.registrars.kent.edu/home/FALL/withdrawal.htm>.
4. **Students with Documented Accommodation needs:** In accordance with University policy, if you have a documented disability and require accommodations to obtain equal access to this course, please contact the instructor at the beginning of the semester or when given an assignment for which an accommodation is required. Students with disabilities must verify their eligibility through the Office of Student Accessibility Services (SAS) on the Ground Floor of the DeWeese Center (330-672-3391). If you have any questions regarding a potential accommodation need, please contact the instructor as soon as possible.
5. **Final Exam Dates:** The Final exam for this class will take place on 12/16/2010 from 12:45-3:00 pm in McGilvrey Hall, Room 302. Please check the final exam schedule for all the classes in which you are enrolled. This can be found on the web at: <http://www.registrars.kent.edu/home/FALL/exams.htm>. In the event that you have a conflict with another scheduled exam, the instructor will make suitable arrangements. Students who have conflicts or more than three examinations on the same day should consult with the Dean of his or her college at the earliest possible time for assistance in making alternative arrangements. For more information see: <http://www.registrars.kent.edu/home/FALL/exams.htm>

Grading Policy: Students are expected to attend class, do the reading, consult the online resources provided by the instructor, take all exams, and turn in assignments. Grades are based on:

Midterms (20% for each test)	60%
Cumulative Final Exam	28%
In-class activities	15%
Total (including extra credit)	103%

Checking Your Grades: Grade points for each exam and assignment are posted to Vista (which can be viewed from the “My courses” tab on flashline). Posted grade points include the effect of a curve (if any) and are the values used in the “course grade points” formula to compute your semester grade.

Assignments: Material discussed during lecture will be reinforced with a variety of assignments. Some of these will involve working in small groups during class. Others will involve assignments that are due at the class period after which they are assigned. No make-ups are permitted for assignments. Students are expected to complete at least 80% of all assignments. Points from the remaining 20% of assignments will count as extra credit. No other form of extra credit will be provided. In exceptional circumstances (e.g., a student missing multiple weeks of class due to a documented chronic illness or military service), the instructor may make an alternative arrangement. In these cases, students should contact the instructor as soon as possible. If you do well on the activities they will help to boost your overall grade in the class by adding to your class score and improving your comprehension and retention of the material.

Midterm Exams: Exams will be in multiple choice format and may involve the use of maps, diagrams or graphs. Midterms are non-cumulative. The final exam is cumulative, with about 60% covering material that was not covered on the midterms and about 40% emphasizing major concepts from earlier parts of the course. Midterms are passed back and discussed in class to help students prepare for the final. Students who miss a midterm due to an excused absence will be given a makeup exam in essay/short-answer format. Students are expected to arrange any personal travel during or at the end of the term so that they will be available to take the exams as scheduled.

Make-up Exams: Students who miss a midterm for reasons other than official University travel, active military service or documented illness will not be eligible for a makeup exam. Students who miss a midterm due to official University travel, active military service or illness must provide official documentation in order to receive a make-up test. Note that all make-up tests are in short-answer format, and are graded to the same standard of comprehension as the exam given during class. If you are involved in the military or official athletic activities, please consult with the instructor prior to the examination date if you have a conflict.

Electronic Devices: Laptops may be used during class lectures. However, the use of electronic devices during exams is strictly prohibited (including, but not limited to, pagers, cell phones, laptops, iPods, MP3 players and PDAs). Any student found using an electronic device during an exam will receive a failing grade for the course and will be reported to the University Administration.

How Grades are Calculated: Point scores for each graded item are converted to a Grade Point (GP) scale, and to an equivalent letter grade to facilitate assignment of overall course grades. Exam scores may be curved, at the discretion of the instructor. The scale for the in-class activity grade points and exam grade points are listed below.

An assignment score of:	4	3	2	1	0
Is worth a GP of:	4	3	2	1	0

A letter grade of:	A+	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
Corresponds to a GP of:	4.30 to 4.50	3.70 to 4.29	3.50 to 3.69	3.30 to 3.49	2.70 to 3.29	2.50 to 2.69	2.30 to 2.49	1.70 to 2.29	1.50 to 1.69	1.30 to 1.49	0.70 to 1.29	0.50 to 0.69	0.00

Your overall grade for the course is calculated based on a weighted average of your midterm grade points, your final exam grade points, and the grade points from your assignments, as follows,

$$\text{Course grade points} = 0.6 * \text{Average}(\text{MT1GP}, \text{MT2GP}, \text{MT3GP}) + 0.28 * (\text{Final Exam GPs}) + 0.15 * (\text{Average of all assignment GPs})$$

At the end of the semester, your “course grade points” are converted to a letter grade and reported on the official University grading scale, which includes plus and minus categories. Students who never attend or who stop attending will receive grades of NF or SF in accordance with University policy. Students who have participated in at least 80% of the in-class activities will have their scores on any additional in class activities count for extra credit worth up to an additional 3% of their grade. No other forms of extra credit will be provided.

Summary of Important Exam Policies

(see above for details)

1. Makeup exams are available only in cases of official University travel, military service or documented illness. Appropriate documentation is required to obtain a makeup exam. A copy must be left with the instructor. Students are expected to arrange any personal travel so that they will be available to take the exams as scheduled.
2. The final exam is required and will be held on Monday, 12/16/2010 from 12:45-3:00 pm in McGilvrey Hall, Room 302. Students are expected to arrange any end-of-semester travel after the final exam date so that they will be available to take the final exam as scheduled.
3. It is each student's responsibility to check their finals schedule early in the term and notify the instructor in the event of a conflict with another scheduled exam.
4. All makeup exams will be in short-answer/essay form.

Summary of Important Dates (Mark Your Calendar!)

In-Class Review Sessions	September 21 October 14 November 16 December 9
Midterm Exams	September 23 October 19 November 18
Final Exam	Thursday, December 16 from 12:45- 3:00 pm in McGilvrey Hall Room 302

Class Schedule - Oceanography Fall 2010 (Section 2: T,R 12:30-1:45 pm)

Theme 1: Building Ocean Basins on a Geologically Active Planet (Aug 31- Sep 23)

Week	Date	Lecture Topic	Reading*
1	Aug 31	Introduction to Oceanography	Ch 1
	Sep 2	Earthquakes and the Structure of the Earth	Ch 3

2	Sep 7	Seafloor Magnetism, Seafloor Spreading: Developing the Theory of Plate Tectonics	Ch 3, 4
	Sep 9	Plate Tectonics and the Dynamic Earth	Ch 3

3	Sep 14	Hotspots	Ch 3
	Sep 16	Plate Tectonics and Ancient Oceans	Ch 3, Ch 4

4	Sep 21 Sep 23	Review for Midterm 1 Midterm 1	

Theme 2: Oceans and Climate (Sep 28 – Oct 19)

5	Sep 28	Seawater and the Salt in the Sea	Ch 6, Ch 7, Ch 13
	Sep 30	Sea, Sky and Land: The Ocean's Influence on Climate	Ch 6, Ch 8, Ch 9

6	Oct 5	Sailing the Seas: Wind-Driven Ocean Circulation	Ch 9
	Oct 7	Sea Ice and Density-Driven Ocean Circulation	Ch 9, Ch 6

7	Oct 12	Ocean Circulation, Food Webs and Climate	Ch 9
	Oct 14	Climate Change and Life in the Greenhouse/ Review for Mid Term 2	Ch 18

8	Oct 19	Midterm 2	

Theme 3: Marine Resources and Management (Oct 21 – Nov 18)

8	Oct 21	Oceans: Powering Hurricanes	Ch 8

9	Oct 26	Real Estates: Waves, Currents, Beaches	Ch 10, Ch 12
	Oct 28	Mechanical Energy from the Ocean	Ch 17/online resources

10	Nov 2	Energy from the Ocean's Biological Resources	Ch 17/online resources
	Nov 4	Sustainable Seas: Marine Fisheries	Ch 17, Ch 14, Ch 9

11	Nov 9	Marine Pollution - Oil, Nutrients, Chemicals, Plastics, Exotic Species	Ch 10, 18
	Nov 11	Veterans Day (No class)	

12	Nov 16	Tsunami/ Review for Midterm 3	Ch 10
	Nov 18	Midterm 3	

Theme 4: Oceans and Biodiversity (Nov 23 – Dec 9)

13	Nov 23	Challenges of the Marine Environment	Ch 6, Ch 13, Ch 15
	Nov 25	Thanksgiving Break (No class)	

14	Nov 30	Life in the Ocean: Marine Plants and Animals	Ch 14, Ch 15
	Dec 2	Ecological Interactions in Open and Coastal Marine Communities	Ch 15, Ch 16, Ch 9

15	Dec 7	Coral Reefs , Hot Vent, Cold Seeps: Life in Extreme Environments	Ch 4, 12, 13, 15, 16, 17
	Dec 9	Charismatic Megafauna (Marine Mammals)/Review for Final	Ch 6, Ch 15, Ch 17

16	Thu Dec 16	Cumulative Final Exam, Thursday, December 16 from 12:45- 3:00 pm in McGilvrey Hall Room 302	

*Readings will usually not include the entire chapter. Specific section numbers will be posted on the class web site, <http://www.personal.kent.edu/~jortiz/ocean/> and announced during lecture.

Geology and Earth Science Programs at Kent State University

While most students take this class as a Kent Science Core class for another major, oceanography provides undergraduates who have not committed to a major with an excellent introduction to Geology and Earth Science, and serves as an entry point to majors offered by the Department of Geology.

Departmental Degree Programs - Departmental offerings include four-year programs leading to the Bachelor of Science and Bachelor of Arts degrees in Geology as well as the Bachelor of Arts degree in Earth Science. The atmosphere within the department is personalized and informal with major emphasis placed on teaching as well as on research. Most undergraduate major classes are small (10-30 students). Close faculty-student relationships are established by participation in various field trips and several annual student-faculty social events, including the fall picnic and the spring banquet. The Department maintains a number of scholarships that are awarded annually to undergraduates at various levels within the program. Student Organizations, such as the Kent State Geological Society, are an important aspect of the culture of the Department and provide students with opportunities for developing leadership skills and for participating in extracurricular activities.

Geology Minor Program – This streamlined program provides motivated students with the opportunity to customize their course work to meet their particular intellectual interests.

Career Outlook and Job Placement - The Department of Geology plays an active role in placing its graduates by helping them with preparation of resumes, providing material on job interview techniques, securing job leads, and facilitating contacts between graduates and prospective employers. Program graduates have entered all major employment areas for geologists and the placement picture has been extremely good, with virtually 100% of recent graduates finding professional employment or entering nationally recognized graduate programs shortly after earning their Bachelors degree. Departmental graduates are employed in a wide variety of settings, including environmental consulting companies, engineering testing firms, geochemical laboratories, groundwater consulting firms, and governmental and academic organizations.

If you are interested in finding out more majoring or minoring in Geology, please contact the instructor or see the Department of Geology's website: <http://dept.kent.edu/geology/>