

UC 11504 IIF

CBM003 ADD/CHANGE FORM

APPROVED DEC 7 2011

Undergraduate Council *Core Code*
 New Course Course Change *30*
 Core Category: Nat Sci Effective Fall 2012

Graduate/Professional Studies Council
 New Course Course Change
 Effective Fall 2011

1. Department: EAS College: NSM
 2. Faculty Contact Person: Julia Wellner Telephone: 713 893 1273 Email: jwellner@uh.edu

3. Course Information on New/Revised course:
 • Instructional Area / Course Number / Long Course Title:
GEOL / 1360 / Introduction to Oceanography
 • Instructional Area / Course Number / Short Course Title (30 characters max.)
GEOL / 1360 / OCEANOGRAPHY
 • SCH: 3.00 Level: FR CIP Code: 40.0607 Lect Hrs: 3 Lab Hrs: 0

RECEIVED NOV 11 2011

4. Justification for adding/changing course: To provide for important discipline area
 5. Was the proposed/revised course previously offered as a special topics course? Yes No

If Yes, please complete:

• Instructional Area / Course Number / Long Course Title:
 _____ / _____ / _____
 • Course ID: _____ Effective Date (currently active row): _____

6. Authorized Degree Program(s): GEOL
 • Does this course affect major/minor requirements in the College/Department? Yes No
 • Does this course affect major/minor requirements in other Colleges/Departments? Yes No
 • Can the course be repeated for credit? Yes No (if yes, include in course description)

7. Grade Option: Letter (A, B, C ...) Instruction Type: lecture ONLY (Note: Lect/Lab info. must match item 3, above.)

8. If this form involves a change to an existing course, please obtain the following information from the course inventory: Instructional Area / Course Number / Long Course Title
 _____ / _____ / _____
 • Course ID: _____ Effective Date (currently active row): _____

9. Proposed Catalog Description: (If there are no prerequisites, type in "none".)

Cr: 3. (3-0). Prerequisites: ~~Math 1310~~ or ~~Math 1311~~. Description (30 words max.):

Survey of the marine environment: oceanic physical phenomena, chemistry of water, geological history, ocean biota, climate records contained in oceanic sediments, and human utilization of marine resources.

10. Dean's Signature: _____

Date: 7 Nov '11

Print/Type Name: IAN EVANS

U N I V E R S I T Y *of* H O U S T O N
CORE CURRICULUM REQUEST FOR COURSES NEW TO THE CORE

Originating Department/College: Earth and Atmospheric Sciences/ NSM

Person making request: Julia Wellner Telephone: 713 893 1273

E-mail: jwellner@uh.edu

Dean's signature: _____ Date: _____

I. General Information:

Course number and title: GEOL 1360; Introduction to Oceanography

Catalog description must be included on completed CBM 003 form and attached to this document.

Category of Core for which course is being proposed (mark only one):

- _____ Communication
- _____ Mathematics
- _____ Mathematics/Reasoning (IDO)
- _____ American History
- _____ Government
- _____ Humanities
- _____ Visual/Performing Arts Critical
- _____ Visual/Performing Arts Experiential
- Natural Sciences
- _____ Social/Behavioral Sciences
- _____ Writing in the Disciplines (IDO)

II. Objectives and Evaluation (respond on one or more separate sheets):

Call ext. 3-0919 for a copy of "Guidelines for Requesting and Evaluating Core Courses" or visit the website at www.uh.edu/academics/corecurriculum

- A. How does the proposed course meet the appropriate Exemplary Educational Objectives (see **Guidelines**). Attach a syllabus and supporting materials for the objectives the syllabus does not make clear.
- B. Specify the processes and procedures for evaluating course effectiveness in regard to its goals.
- C. Delineate how these evaluation results will be used to improve the course.

SVP. Effective 8/23/10. Replaces all previous forms, which may no longer be used.

Introduction to Oceanography

Fall 2012

GEOLOGY 1360, Section, Day, Time, Place

Course Description: Survey of the marine environment: oceanic physical phenomena, chemistry of water, geological history, ocean biota, climate records contained in oceanic sediments, and human utilization of marine resources.

Instructor: Julia Wellner: Room 330-S&R 1; jwellner@uh.edu; Tel: 713-893-1273; office hours are drop by anytime or by appointment—email is the best way to contact me and I usually answer very quickly.

TAs:

Also, please see below regarding the Geoscience Learning Center. It means you have ~25 TAs!

Textbook: Exploring the World Ocean, by W. S. Chamberlin and T. D. Dickey, McGraw Hill. Available in bookstore, on reserve at GLC, and at Amazon (\$116 and less).

Approximate Schedule

Week	Topic	Reading/Chapter
<u>Theme 1: Geology and Origin of the Oceans</u>		
WEEK 1	Introducing the World Ocean	1
WEEK 2	Ocean Origins	2
WEEK 3	Plate Tectonics and Scientific Method	3
WEEK 4	The Sea Floor	4
WEEK 5	Ocean Sediments	5
WEEK 6	Exam 1	1-5
<u>Theme 2: Physical and Chemical Oceanography</u>		
WEEK 6 (cont.)	Ocean Chemistry	6
WEEK 7	Ocean Physics	7
WEEK 8	Ocean and Atmosphere	8
WEEK 9	Ocean Circulation	9
WEEK 10	Ocean Waves	10
WEEK 11	Tides and Sea Level, Sea-Level Rise	11
WEEK 11 (cont.)	Exam 2	6-11
<u>Theme 3: Ocean Biology and Oceans in a Changing Climate</u>		
WEEK 12	Ocean Life and Evolution	12
WEEK 13	Ocean Productivity and Fisheries	13 and 14
WEEK 14	Humans and the Coastal Ocean	15
	<i>Thanksgiving Break</i>	
WEEK 15	Texas Shorelines and Future Exploration	15-16

Final Examination: at the scheduled exam time for this class. The final is cumulative but emphasizing chapters 12-16.

Grading

The first two exams will be worth 25% of your grade each. The final will be worth 35% of your grade.

Homework, online exercises, and in-class exercises will be worth 15% of your grade. Most of this will be online through WebCT (<http://www.uh.edu/webct/>). Online assignments for each chapter will be due prior to the test covering those chapters. These exercises will be designed to be quick ways to get you focused on the important parts of the chapter. Check the website frequently for news stories and other updates, including extra credit opportunities. Written, in-class, and group work will also be assigned occasionally. Come to class—there are no make-ups if you miss these!

Final letter grades will be assigned based on a standard method of 94-100 = A, 90-93 = A-, 87-89 = B+, etc.

If you miss an exam with a valid excuse, a make up exam will be offered to you during the final period along with your final. Both exams will be designed to take much, much less than the three hours allotted, so both can be completed during the final without hardship. However, it is obviously better for you to take the exam when it is first given. There will be no "dropped" exams in this course! **Lateness:** No students arriving to take an exam may take the test if any student has left the room.

Other

Core Course: This course has been approved to satisfy the Natural Science component of the level 2 (knowledge base) of the University Core Curriculum.

Academic Honesty: All students are expected to uphold the standards of academic honesty as described in the Student Handbook.

Drop Policy: It is your responsibility to initiate a drop with the university if you choose to do so. I will not drop you from the class even if you are not attending.

Geoscience Learning Center: Graduate student TAs staff a learning center dedicated to helping students in physical geology. It is open Monday through Thursday from 8:30 am until 7:30 pm, and Friday until 2:30 pm. It is located in the basement of Old Science. See <http://www.geosc.uh.edu/undergraduate/learning-center/index.php> for more information. My lectures will be available for viewing there. The TAs will all be ready to help you prepare for exams. I encourage you to try the center and take advantage of this free tutoring program!

Basic Goals of Class

Students will be expected to leave this class with a broad understanding of three basic themes: 1) plate tectonics and origin and distribution of ocean basins, 2) how the ocean behaves and why, and 3) what lives in or by the ocean, and how does this affect the

oceans. In developing an understanding of these three themes, I expect students to practice four basic skills: a) the scientific method and understanding real data, b) the ability to work with numbers without panic, 3) clear and concise writing in a scientific style, and 4) knowledge of world geography. In general, the class should be relatively interesting and help you learn to look at the world around you.

Core Curriculum and Exemplary Educational Objectives

Students will be expected to leave this class with a broad understanding of three basic themes related to modern science. 1) The course will start with plate tectonics and the origin and distribution of ocean basins. This portion of the class will include developing an understanding of scientific method. 2) How the ocean behaves and the physical processes that control the oceans will make up the middle of the semester. This theme will include building an understanding of changing sea levels in the world ocean. And 3) we will study the evolution of ocean life, fisheries and other ocean resources, and the interaction between humans and the ocean. The last portion of the class will emphasize the technology and methods that are used to study the ocean today and into the future. There will be an emphasis on the Gulf Coast and the short-term (decadal) predictions for the future of this area of the coast that students are most likely to know or see.

In developing an understanding of these three themes, students will practice four basic skills: a) the scientific method and understanding real data, b) the ability to work with numbers and create simple algebraic equations, 3) clear and concise writing in a scientific style, and 4) knowledge of world geography.

Evaluations

Course evaluations will be done each semester and the student responses used to improve the class.

Additional assessments will be made daily in the first semester the course is taught by asking students to answer a single question at the end of each lecture period. Depending on the size of the class, this will be done either with clickers or with index cards and written answers. This will serve both as an attendance check and as a measure of progress of student understanding each day.

Regular contact will be maintained with students through weekly homework and through online chats in Blackboard.

Effectiveness of the course will also be assessed based on student demand for the class and on how many return to the department for other courses.