

Geology 155 - Oceanography

Winter Quarter 2012 (13352, SEC 03)

Hours: TTh 11:40 – 12:55 am

Room: SH C260

Webpage: www.geophile.net/College

Instructor: Sonjia Leyva

Office: Bios 125, 323-343-2149

Office Hours: TTh 9:00 – 9:30 am

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Course Description:

Geology 155 is an introductory oceanography course designed to provide students with the knowledge of some of the basic fundamentals and concepts of oceanography, familiarize you with scientific methods and terminology, and provide a basic understanding of how the earth works. Whatever profession or vocation you choose, as a citizen and a voter you will have to make decisions concerning problems either directly or indirectly related to the earth sciences, and the oceans in particular. Some of the subjects covered in this course include evolution of the ocean basins, properties of ocean waters, ocean circulation, and the origin and types of waves. PowerPoint lectures were created to help illustrate the subjects covered in each chapter.

This lecture class is the first portion of the Geology 155 Oceanography class. Students MUST enroll in the laboratory portion of this class. YOUR LAB GRADE IS WORTH ONE QUARTER (25%) AND YOUR LECTURE GRADE IS WORTH THREE QUARTERS (75%) OF YOUR OVERALL GENERAL GEOLOGY GRADE.

Lecture 3 hours, Laboratory 3 Hours. Fulfills 4 units in the B2 Block of the GE Requirements

Course Objectives:

Upon successful completion of this course, the student will be able to:

- Explain the fundamental differences between continents and ocean basins, and explain how ocean basins originate, develop and are destroyed on the basis of plate tectonic models.
- Know the physiographic subdivisions of the ocean basins and how the characteristics of each are related to plate tectonic, depositional and erosive processes.
- Be able to explain how the seas originated during the early geologic history of the earth.
- Know the chemical composition and range of physical properties of seawater and those processes that regulate it.
- Explain how horizontal oceanic circulation affects vertical circulation.
- Understand the coupling between atmospheric and oceanic circulation with respect to wind-driven and geostrophic currents.
- Explain how waves originate, propagate, and refract and reflect on coastlines to produce longshore currents, littoral drift and depositional-erosion features.
- Explain how man's engineering structures can impact natural balanced coastal processes.
- Explain how tides develop and how they are classified.
- Explain how marine sediments are classified and which chemical and physical principles determine their distribution.

Text & Materials:

- Essentials Of Oceanography, 10/e by Trujillo & Thurman (ISBN: 9780321668127)
- Textbook's website: http://wps.prenhall.com/esm_thurman_essofocean_8/
- Enrollment in GEOL155 - Oceanography - GEOL155_sl_SEC01_WI12_CNSS (Log into the course here: <https://webct6.calstatela.edu/webct/logon/9705218049001>)
- Class Website: <http://www.geophile.net/College/webpages/Oceanography.htm>
- Handouts, activities, videos, etc.

Schedule

Week	Chapter	Topic	On-Line Quiz	Dates Available
1	1	1/10: Introduction, Origins 1/12: History of Oceanography	#1	01/10 – 01/20
2	2	1/17: History of Oceanography 1/19: Plate Tectonics	#2	01/14 – 01/20
3	2	1/24: Plate Tectonics 1/26: Video: Volcanoes of the Deep Sea	#3	01/21 – 01/27
4	3 & 4	1/31: Marine Provinces 2/02: Marine Sediments	#4	01/28 – 02/03
5	9	2/07: MIDTERM EXAM 2/09: Tides , Video: Waves, Beaches and Coasts	#5	02/04 – 02/10
6	5	2/14: Seawater 2/16: Seawater	#6	02/11 – 02/17
7	6	2/21: Atmospheric Circulation 2/23: Atmospheric Circulation (Last day to turn in extra credit EQ kits)	#7	02/18 – 02/24
8	7	2/28: Oceanic Circulation 3/01: Oceanic Circulation	#8	02/25 – 03/02
9	8	3/06: Waves 3/08: Waves	#9	03/03 – 03/09
10	10	3/13: Coastal Processes 3/15: Coastal Processes (Last day to turn in extra credit)	#10	03/10 – 03/16
11		3/20: FINAL EXAM - 10:45 a.m. - 1:15 p.m.		

METHODS OF EVALUATION

Total possible class points will come from the following assignments:

	Points possible	Total Points	% of grade
Exams	2 exams at 100 points	200	50.0%
Quizzes	10 @ 10 points each	100	25.0%
Lab Grade	100 points total	100	25.0%
	Total	400	100%

Your grade in this class is based upon the points YOU earn through completing assignments, quizzes, assignments, and exams. Nothing in this class is curved. Your grade is based upon your performance. Your final grade in this class is based on your percentage score out of 400 points. See the table to the right.

A =	> 90%	> 360.0 points
B =	80 - 89%	320.0 - 359.9 points
C =	70 - 79%	280.0 - 319.9 points
D =	60 - 69%	240.0 - 279.9 points
F =	< 60%	< 300.0 points

You may do up to 20 points of extra credit work to raise your total points earned. **All extra credit is due the last day of class – not the day of the final.** By doing extra credit you agree that you will NOT ask to have your grade “bumped up” at the end of the quarter.

REQUIREMENTS

Exams - There will be two exams - one midterm and one final. Make-up exams will be given only to those who can verify a valid excuse for missing an exam. The make-up will be given at a time that is mutually agreeable to both the student and myself, but must be arranged prior to the initial exam.

Failure to take the make-up exam within two weeks of the original exam date will result in the missed exam counting in as a zero. In addition, the exam question sheet must be returned to me after the exam and after the exam review. Failure to do so will result in a ten (10) -point reduction in the student's grade for that exam.

Quizzes – Students are required to log onto Blackboard and take a weekly quiz. Each quiz will be worth 10 points and will cover what we have learned (or will learn) in class that week. Students may access the quiz anytime from 8 am Saturday through midnight Friday. Students may take the quiz only once. **Students who do not take the quiz during the allowed time will not be allowed to make up the quiz unless they have an excused absence. No exceptions!**

Internet Access - Internet access is required for this class because all of the course content will be posted on the class website or on Blackboard. To use Blackboard you must first enroll in the course by selecting Course List → College of Natural & Social Sciences → GEOL155 - Oceanography - GEOL155_sl_SEC03_WI12_CNSS (Students can log into the course here: <https://webct6.calstatela.edu/webct/logon/9705218049001>). Once there you will be able to access quizzes and other course content. Access at home or work is fine as long as you can view the web pages regularly and have a reasonably fast connection.

Attendance - Students are expected to attend each class session and to arrive on time. It will be difficult to make up missed class sessions. However, if you miss a class session of valid reasons (illness), it will up to you to make arrangements to complete the activity. **Students who miss a class due to an unexcused absence will NOT be allowed to make up the work.** Make-up assignments will be given only to those who can verify a valid excuse for missing the assignment. The make-up assignment will be given at a time that is mutually agreeable to both the student and me. **Failure to take the make-up assignment within one week of the original assignment date OR before the last week of class will result in the missed exam//assignment counting in as a zero. All proof of excused absences MUST be shown PRIOR to the student making up the assignment/exam, and MUST be BEFORE the last day of class.** Students may be dismissed for 10 hours of absence. If you drop the class you must do so officially or you may receive an “F”.

Want to get a good grade? Here's how:

1. Attend every class.
2. Take notes and review them after class and before exams.
3. Read your textbook / do the assignments
4. Turn in all work on time
5. Ask questions.
6. **You are responsible for studying.**

IMPORTANT POLICIES (a.k.a. the “fine print”)

- **Statement of Reasonable Accommodation:**
 - The Department of Geological Sciences faculty members fully support the Americans with Disabilities Act (ADA). The members of the faculty will provide reasonable accommodation to any student with a disability who is registered with the Office of Students with Disabilities (OSD) who needs and requests accommodation. The faculty may wish to contact the OSD to verify the presence of a disability and confirm that accommodation is necessary. The OSD will arrange and provide for the accommodation.
 - Reasonable accommodation may involve allowing a student to use an interpreter, note taker, or reader; accommodation may be needed during class sessions and for administration of examinations. The intent of the ADA in requiring consideration of reasonable accommodation is not to give a particular student an unfair advantage over other students, but simply to allow a student with disability to have an equal opportunity to be successful.
- **Student Conduct:**
 - Student conduct is viewed as a serious matter by the faculty members of the Department of Geological Sciences. The Department faculty members assume that all students will conduct themselves as mature citizens of the campus community and will conduct themselves in a manner congruent with university policies and regulations. Inappropriate conduct is subject to discipline as provided for in Title 5, California Code of Regulations (see student conduct: rights and responsibilities, and student discipline, CSULA General Catalog). Academic honesty is expected of all students in the Department, in accordance with University policy. There are established university reporting procedures if a student is suspected of committing an academically dishonest act.
 - The University has a clearly defined policy on Academic Honesty. This policy will be enforced in this class. **Cheating and plagiarizing will not be tolerated.** Students caught plagiarizing and/or cheating will be subject to the consequences and set forth in the University Catalog, Appendix D - Academic Honesty. You can access it online at: <http://catalog.calstatela.edu>
- **Make-up exams:** Make-up exams will be given only to those who can verify a valid excuse for missing a quiz. The make-up will be given at a time that is mutually agreeable to both the student and me. **Failure to take the make-up exam within two weeks of the original exam date will result in the missed exam counting in as a zero.**
- **Grading:**
 - University policy allows grades of incomplete to be given only to those who have been sick, injured, or have a similar valid excuse. A grade of “incomplete” will not be given after poor performance in the course.
 - If you are repeating any Cal State L.A. course in order to remove a D or an F from your transcript, you must file an **academic renewal petition** in Administration 101 no later than the last day to add a class. Instructions for doing this may be found under "**Academic Renewal**" in your Schedule of Classes.
 - University policy requires that all students shall be graded in *exactly* the same fashion. What does this mean? You may not ask for extra assignments or to repeat an exam to improve your grade, or additional assignments after the course is completed.
 - **Your final grade is based upon the points you EARN in the class. Thus, you do not “deserve” a certain grade – you earn it.**
- **Avoid the hassles.** Take the Writing Proficiency Examination (WPE) after you have completed your English Composition and prior to the completion of 135 units in order to avoid a registration hold. The dates for the WPE are published in the Schedule of Classes. Enroll by registering in UNIV 400 and paying the \$15 exam fee. Do it now!!!

Winter
2012

Prof. Leyva's Oceanography Lecture

Sec 01: TTh 9:50 – 11:05 am

Sec 03: TTh 11:40 - 12:55

January	Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6	7
	8	9	10 Origins Quiz 1	11	12 Origins, Explorers	13	14 Quiz 2
	15	16	17 Expl., Plate Tectonics	18	19 Plate Tectonics	20 Quiz 1 end Quiz 2 end	21 Quiz 3
	22	23	24 Plate Tectonics	25	26 Volcanoes of the Deep Sea	27 Quiz 3 ends	28 Quiz 4
	29	30	31 Marine Provinces				

February	Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2 Marine Sediments	3 Quiz 4 ends	4 Quiz 5
	5	6	7 MIDTERM EXAM!	8	9 Tides , Video	10 Quiz 5 ends	11 Quiz 6
	12	13	14 Seawater	15	16 Seawater	17 Quiz 6 ends	18 Quiz 7
	19	20	21 Atmospheric Circulation	22	23 Atmospheric Circulation (EC EQ Kits due)	24 Quiz 7 ends	25 Quiz 8
	26	27	28 Oceanic Circulation	29			

March	Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1 Oceanic Circulation	2 Quiz 8 ends	3 Quiz 9
	4	5	6 Waves	7	8 Waves	9 Quiz 9 ends	10 Quiz 10
	11	12	13 Coastal Processes	14	15 Coastal Processes (EC Due!)	16 Quiz 10 ends	17
	18	19	20 11:40-12:55 Class FINAL EXAM	21	22 8:50-11:05 Class FINAL EXAM	23	24
25	26	27	28	29	30		