Geology 123 – World Oceans Laboratory
Syllabus – Spring 2012

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COURSE INFORMATION:
Location: LO 1205 Class Day/Time: Monday 2:00 – 4:45pm Class No. 15343

There is no required lab manual; however, you will be responsible for printing your own labs from Moodle prior to class.

COURSE OBJECTIVE:
During the course of this laboratory we are going to observe different oceanographic principles...hopefully with some integration with the lecture material being presented in Dr. Sloan's lecture course (Geol 122) in which most of you are enrolled.

A. After the first introductory week the first third of this laboratory course is dominated by two topics; **plate tectonics and sedimentation**. We will take each week to examine one aspect of these topics as follows:
   - Week 1: Ocean geography; Metric conversions; Reading and interpreting oceanographic charts
   - Week 2: Magnetic anomalies, spreading rates, and other phenomenon predicted by the idea of plate tectonics.
   - Week 3: Using hot spots to determine plate motions
   - Week 4: Using DSDP/ODP reports to study sediment age, thickness, and types
   - Week 5: Learn to identify a few microscopic fossils and use them for paleoceanography

B. During the middle third of the class the **physical properties and circulation of oceanic waters** are examined:
   - Week 6: Investigate how water temperature and salinity affect its density
   - Week 7: Use the technique of dynamic heights to determine oceanic currents
   - Week 8: Tides, tidal patterns and amphidromic points
   - Week 9: Predict paleoceanographic current patterns and tides from paleogeographic maps
   - Week 10: Midterm exam

C. The last third of the class is devoted to the **organisms which live in the ocean and how humans are polluting the oceans**:
   - Week 11: Learn to identify some of the common intertidal organisms found in southern California and intertidal zonation
   - Week 12: Plankton and marine food chains
   - Week 13: Review the history of marine life
   - Week 14: Combine the circulation patterns of the oceans to predict worldwide productivity patterns today and at some time in the past
   - Week 15: Final Exam

FIELD TRIPS:
During the semester we will have two extra credit field trips. Field trips will count as 10 extra credit points. I will let you know as the semester progresses what the dates will be.

GRADING:
Grade distribution: Labs: 20 points each → 240 points total; Midterm: 120 points; Final: 120 points
Most of the above labs will require material to be turned in and graded. Attendance is mandatory, there will be absolutely no make-ups on lab assignments; however, I will drop one lab at the end of the semester.

A (>92%)	B+ (88-89.9%)	C+ (78-79.9%)	D+ (68-69.9%)	F (<59%)
A- (90-91.9%)	B (82-87.9%)	C (72-77.9%)	D (62-67.9%)	
	B- (80-81.9%)	C- (70-71.9%)	D- (60-61.9%)	

A grade of Incomplete (I) is not given in this class.

DROPS:
Unless you are withdrawing from all your classes and the University, no student will be allowed to withdraw from this class after the third week. This is University policy. February 17, 2012 is the last day you can drop a class.

WARNINGS:
Make every attempt to get to class on time. Unforeseen problems do come up. If you arrive late for class please be considerate and enter and take a seat with as little disruption as possible.

ELECTRONIC TOYS:
No toys are to be turned on in class: No phones, no IPods, no Texting, no Twittering, Etc. during class time.

ACADEMIC DISHONESTY:
Cheating will not be tolerated. This includes, but is not limited to cheating, fabrication, facilitating academic dishonesty, plagiarism, and altering your answers after I have graded your work (Please refer to Appendix E of the University Catalog). **If I find any evidence of academic dishonesty, it will result in a failing grade for the class and notification to the Dean of Students, which may result in disciplinary action.**

It is the responsibility of each student to know and follow all the written guidance given by the instructor in this syllabus.

This syllabus is subject to change.