

**Syllabus**  
**GLY 450/550**  
**Geological Oceanography and Marine Geology**  
**Spring 2007**

Instructors: Drs. W. Cleary, L. Abrams, and R. Laws  
Offices: WC – MG 1335; LA – MG 1328; RL – DL 102  
Office phone: WC – 962-2320; LA – 962-2350; RL – 962-4125  
E-mails: WC – [clearyw@uncw.edu](mailto:clearyw@uncw.edu); LA – [abramsl@uncw.edu](mailto:abramsl@uncw.edu); RL – [laws@uncw.edu](mailto:laws@uncw.edu)  
Office hours: TBA

Lecture: Tuesday-Thursday, 12:30-1:45, DL 101  
Lab: Monday 2:00-4:50, DL 120

Text: No up-to-date, in-print text book exists for this class, so each instructor will assign readings from appropriate books and primary sources for each topic. Copies of readings will be placed on reserve in the library, in a file in the G&G office, and/or as PDF files posted on instructors' web pages. Assigned readings on each topic should be completed prior to the class on that topic. Students are responsible for all materials in the assigned readings.

Attendance: Punctual attendance is required for all classes, labs, and field trips. If you must miss classes for a legitimate reason (serious illness, death in the immediate family, etc.), we will do what we can to help you make up what you missed, and any pertinent deadlines will be appropriately extended. Nevertheless, you are responsible for all readings and class notes that you may have missed.

Grading:	Lecture Exam I (WC)	25%
	Lecture Exam II (LA)	25%
	Lecture Exam III (RL)	25%
	Labs, field trips, pop quizzes, and other assignments	25%
	TOTAL	100%

Each instructor is responsible for 1/3 of the course and therefore 1/3 the final grade.

Honor Code: It is UNCW's stated policy that no form of dishonesty among faculty or students will be tolerated. Although all members of the university community are encouraged to report occurrences of dishonesty, honesty is principally the responsibility of the individual. Reporting and adjudication procedures have been developed to enforce the policy of academic integrity, to ensure justice, and to protect individual rights. The Student Handbook and Code of Student Life contains more details of the Honor Code.

## TENTATIVE SCHEDULE OF TOPICS

DATE	TOPIC	LABS
Jan. 11	Introduction and Scope (WC & RL)	
Jan. 15		None: MLK Day
Jan. 16	Coastal Classification, Tectonics (WC)	
Jan. 18	Classification, Sea Level (WC)	
Jan. 22		Shelf Sediments (WC)
Jan. 23	Sea Level, Beaches (WC)	
Jan. 25	Beaches and Barriers (WC)	
Jan. 29		Field Trip: Figure Eight Island (WC)
Jan. 30	Barrier Islands and Stratigraphy (WC)	
Feb. 1	Tidal Inlets (WC)	
Feb. 5		Shelf and shoreface sediments: Surface and cores
Feb. 6	Tidal Inlets and Shoreface Sand Resources (WC)	
Feb. 8	Beach Nourishment (WC)	
Feb. 12		Barrier and Inlet Aerial Photo exercise
<b>Feb. 13</b>	<b>Exam I (Cleary)</b>	
Feb. 15	Earth's Structure (LA)	
Feb. 19		Rocks and Minerals
Feb. 20	Ocean Basin Physiography (LA)	
Feb. 22	Continental Drift; Earth's Magnetic Field (LA)	
Feb. 26		Bathymetry and Magnetic Isochrons
Feb. 27	Plate Tectonics (LA)	
Mar. 1	Formation of Ocean Lithosphere (LA)	
<b>Mar. 6 &amp; 8</b>	<b>Spring Break</b>	
Mar. 12		TBA

Mar. 13	Structure of Mid Ocean Ridges (LA)	
Mar. 15	Thermal Evolution of Ocean Lithosphere (LA)	
Mar. 19		Petrology and Structure of Oceanic Crust
Mar. 20	Plate Driving Forces (LA)	
<b>Mar. 22</b>	<b>Exam 2 (LA)</b>	
Mar. 26		No Lab; See April 13
Mar. 27	Oceanic Sediments I: Intro and Terrigenous Pelagic Sediments (RL)	
Mar. 29	No Class; RAL am out of town; Library Assignment	
Apr. 2		Brief lab to review library assignment
Apr. 3	Oceanic Sediments II: Biogenic & Authigenic (RL)	
<b>Apr. 5</b>	<b>Easter</b>	
Apr. 9		Ocean Sediments I
Apr. 10	Hemipelagic Sediments and Effects of Bottom Currents on Oceanic Sediments (RL)	
Apr. 12	Oceanic Microfossils (RL)	
Apr. 13	Mandatory cruise on RV CAPE FEAR (LA, RL)	Side Scan Sonar, Sub-bottom profiler, box core, grab samplers
Apr. 16		Ocean Sediments II: Microfossils
Apr. 17	Marine Stratigraphy, Correlation and Chronology (RL)	
Apr. 19	Paleoceanography I; Concepts and Methods (RL)	
Apr. 23		Paleoceanography exercise
Apr. 24	Paleoceanography II: Regional Studies (RL)	
Apr. 26	Paleoceanography III: Global Events (RL)	
Apr. 30		Summary and Wrap up

**Final Exam (= Exam 3 not comprehensive, RL) is Thursday May 3, from 11:30-2:30 in DL 101**