

The following approximate schedule of lecture topics is presented as an aid to your study outline:

Week of Jan. 1	Introduction & Course Outline. Planet Earth: Geologic concepts, our solar system, Earth's outer layer, Earth's interior, Features of the ocean basin. Minerals (Ch. 1)
Week of Jan. 8	Geologic Systems: Hydrologic system, Oceans, Rivers, Glaciers; Tectonic system: Divergent, Convergent and Transform plate boundaries. Gravity and Isostasy. Minerals: Atomic structure and physical properties of minerals. Rock- forming minerals. (Ch. 2, 3)
Week of Jan. 15	Classification of rocks and rock cycles. Igneous rocks, origin and classification of rocks. Intrusive rock bodies, Origin and type of magmas. Sedimentary rocks and their classification, Sedimentary structures, Clastic versus chemical, Stratigraphic sequences. (Ch.4 & 5)
Week of Jan. 22	Metamorphic rocks; classification, metamorphic facies, relation to plate tectonics, mineral and energy resources. Structure of rock bodies: Dip, Strike, Joints, Faults. (Ch. 6 & 7)
Week of Jan. 29	Geologic Time: Relative age, Absolute age, Unconformities. Radioactivity and radiometric dating. Other methods to measure time. Our atmosphere; composition and energy, air circulation. Oceans and water circulation. (Ch. 8 & 9)
Week of Feb. 5	Climate zones and climate changes. Weathering; physical and chemical. Products of weathering; soil, land forms. (Ch.10)
Week of Feb. 12	(Mid Terms Exams this week) Slope systems; mass movement and its types. Slope processes and landforms. River Systems; collecting, transporting and dispersing. Dynamics of stream flow. Development of channels, bars, flood plains, landform and sediments. Deltas. (Ch. 11 & 12)
Week of Feb. 19	NO CLASSES. READING WEEK
Week of Feb. 26	Groundwater Systems. Water tables and aquifers. Natural and artificial discharge. Erosion and deposition by groundwater. Groundwater resources. Subsidence. Glacier Systems. Continental ice sheets and alpine glaciers; Pleistocene glaciation, Other glaciations. Landforms and sediments. (Ch. 13 & 14)

Week of Mar. 5	Shoreline Systems. Waves, longshore drift,. Wave erosion and deposition. Evolution of shoreline. Reefs. Tides and tsunamis.(Ch. 15)
Week of Mar. 12	Eolian Systems. Wind erosion , transportation and deposition. Dunes and their types. Loess. (Ch. 16)
Week of Mar. 19	Plate Tectonics; Continental drift, plate boundaries, plate motion and driving force. Seismicity and Earth's Interior, Earthquakes and plate tectonics, hazards and preventions, convection inside earth.(Ch. 17 & 18)
Week of Mar. 26	Divergent Plate Boundaries, Origin and evolution of oceanic crust. Transform plate boundaries, (Ch. 19 & 20)
Week of Apr. 2	Convergent plate boundaries, hot spots and mantle plumes(Ch. 21 & 22)
Week of Apr. 9	Review

Last day of classes – April 13, 2006

ASSIGNMENTS

You will be given weekly assignments consisting of multiple choice, true/false or fill in the blanks type questions. These assignments are open book and are available on Black Board. You will be given two choices and marks will be recorded out of the best. The test will be available for two weeks before the due date. If you do not complete your test within given time, a **20% deduction per day** will be applied to your score.

Minitest

Every second week, you may be given a mini-test at the start of class which will be approximately 25 minutes long. Labs will also have quizzes.

MARKS DISTRIBUTION

Mini tests	5%
Assignments	15%
Lab quiz	10%
Weekly labs	10%
Midterm exam	15%
Lab final	15% (Two finals 7.5% each)
Final exam	<u>30%</u>
	100%

Assignment Due Dates

Ass#	Chapters	Due date	Special Info
1.	1, 2, 3	Jan. 18	
2.	4, 5	Jan. 25	mini-test Jan. 30
3.	6, 7	Feb. 1	
4.	8, 9	Feb. 8	mini-test Feb. 13
5.	10	Feb. 15	
Mid-Term Exam		Mar. 1 – Thursday	
6.	11, 12	Mar. 8	
7.	13, 14	Mar. 15	mini-test Mar. 20
8.	15, 16	Mar. 22	
9.	17, 18, 19	Mar. 29	
10.	20, 21, 22	Apr. 6	mini-test Apr. 10
11.	Fill in the blanks	Apr. 13	

LAB SCHEDULE

Week of:

January 8	Lab 1a.	Mineral identification
January 15	Lab 1b.	Mineral identification
January 22	Lab 2.	Igneous rocks
January 29	Lab 3.	Sedimentary rocks
February 5	Lab 4.	Metamorphic rocks
February 13	Review Lab - Minerals and rocks	
February 27	FINAL LAB EXAM (PART 1) - open book	
March 5	Lab 5.	Topographic Maps
March 12	Lab 6.	Cross Sections and Rivers
March 19	Lab 7.	Geologic Maps and Structure Sections
March 26	Lab 8.	Glaciation and Review Lab
April 3	FINAL LAB EXAM (PART 2) - closed book	

Note - All books and materials are available at the College Bookstore

- labs could be used for studying rocks, minerals or maps other than scheduled lab hours by pre-arranging with Medha Karnik, our lab technologist.