

Physical Science 212
INTRODUCTION TO GEOLOGY
 Syllabus - Fall, 2005

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Textbook: *Earth: Portrait of a Planet, 2nd edition*, by Stephen Marshak

<u>Date</u>		<u>Lecture Topic</u>	<u>Chapter</u>
Aug 30		Structure and Evolution of the Earth	1, 2
Sept 1		Continental Drift and Seafloor Spreading	3
Sept 6		Plate Tectonics: Plate Boundaries	4
Sept 8	Quiz 1	Plate Tectonics: The Dynamics and Velocity of Plate Motions	4
Sept 13		Chemical Elements & Their Properties	5
Sept 15		Properties of Minerals	5
Sept 20		Common Minerals & Their Uses	5, 15
Sept 22		First Hour Exam	
Sept 27		Igneous Rocks: Compositions and Textures	6
Sept 29		The Nature and Origin of Magma	6
Oct 4		Quiescent & Explosive Volcanic Activity	9
Oct 6	Quiz 2	Monitoring Volcanic Activity	9
Oct 11		Weathering, Erosion, & Soil Formation	7
Oct 13		Sediments & Sedimentary Rocks	7
Oct 18		Sedimentary Structures & Sedimentary Environments	7
Oct 20	Quiz 3	Metamorphism	8
Oct 25		Metamorphic Rocks	8
Oct 27		Second Hour Exam	
Nov 1		Hydrologic Cycle	Interlude E
Nov 3		Rivers, Streams, & Floods	17
Nov 8		No Class: Friday Classes Meet Today	
Nov 10	Quiz 4	Groundwater	19
Nov 15		Earthquakes: Magnitude & Intensity	10
Nov 17		Earthquakes: Location & Hazards	10
Nov 22		Folds, Faults, and other Records of Rock Deformation	11
Nov 24		No Class: Thanksgiving Day	

Nov	29		Determining the Age of Geological Materials & Events	12
Dec	1	Quiz 5	The Rock Record and the Geologic Time Scale	13
Dec	6		Evolution & Extinction	Interlude D
Dec	8		Third Hour Exam	

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Laboratory Schedule

<u>Date</u>		<u>Laboratory Topic</u>
Aug	31	Earth Materials & Earth Structure
Sept	7	Plate Tectonics
Sept	14	Mineral Identification
Sept	21	Review for Exam I
Sept	28	Textures & Classification of Igneous Rocks
Oct	5	Volcanology
Oct	12	Weathering & Sediments
Oct	19	Sedimentary Rocks
Oct	26	Metamorphic Rocks
Nov	2	Topographic Maps
Nov	9	Rivers & Streams
Nov	16	Locating Earthquake Epicenters
Nov	23	No Lab: Thanksgiving Break
Nov	30	Dating of Geologic Materials and Events
Dec	7	Review for Exam III

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General Information

Grade Determination

Lab Average	20 %
Quiz Average (best 4 out of 5)	20 %
First Hour Exam	20 %
Second Hour Exam	20 %
<u>Third Hour Exam</u>	<u>20 %</u>
Total	100 %

Textbook: The textbook, *Earth: Portrait of a Planet, 2nd edition*, by Stephen Marshak, is required. Chapters to be covered are indicated in the topical outline on the first page of the syllabus.

In-Class Participation: Attendance at all classes is required and mental engagement is expected. I will take attendance occasionally and will record absences when students are not present for lab exercises and in-class activities.

Laboratory Exercises: Experiments and problem sets will reinforce concepts introduced in lecture. There is no formal lab manual for this class. Background information and instructions will be handed out during or just prior to each lab session. Lab reports must be written up individually, although data may be collected as a group. No credit will be given for lab reports that appear to have been copied. Reports handed in late will receive only partial credit and those handed in more than a week late will receive no credit. Lab reports will be due on Tuesdays following the lab. Students will be responsible for material covered in laboratory on quizzes and exams.

Quizzes and Exams: Quizzes will consist of short answer questions and problems. Exams will consist mostly of multiple choice questions, but may also include short essays. Please bring a #2 pencil to the exams to fill in the bubble sheets for multiple choice questions. As a rule, I do not give makeup exams or quizzes. If you have a legitimate reason for missing an exam or quiz, let me know beforehand (leave me a message via telephone or email). If classes are cancelled on the day of a quiz or exam, the quiz or exam will be postponed to the next scheduled lecture period.