

**Earth & Env. Sciences 1110****Physical Geology****Spring, 2012**

Dr. Stephen A. Nelson

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and by appointment.

**Course Goals and Objectives:**

The goals of this course are to enable the student to understand the Earth and Earth processes so that the student will be able to:

1. Read the landscape for the story of its evolution, development, hazards, potential and likely future given common Earth surface processes.
2. Interpret hazards and resource opportunities posed by geologic environments created through plate tectonic and Earth surface processes such as earthquakes, volcanoes, river valley evolution, coastal processes, and climatic change.
3. Describe the interaction and interdependence of the geologic environment and human activity at the societal level.
4. Participate meaningfully in public discussion of geoscience issues correctly using the methods and data of science.

**Textbook:** *Earth, Portrait of a Planet 4<sup>th</sup> Edition* by Stephen Marshak

Also available in digital editions from CourseSmart -

<http://www.coursesmart.com/IR/2339929/9780393935189/i>

**Course Grading:** Your grade in the course will be based on the following distribution of work:

Lecture Exam 1	25%
Lecture Exam 2	25%
Quizzes	15%
Final Exam	35%

The dates of the exams are given in the schedule below. These dates are fixed. Quizzes will occur randomly throughout the course. These will consist of short questions on material recently covered in lectures. Two quiz grades will be dropped before determining your final quiz grade.

**NOTE: There will be NO Make-up Exams. All exams and quizzes are cumulative, that is they could involve any material covered up to the point of the exam or quiz.**

Lecture notes and new announcements that might take place during the course can be found on the EENS 1110 homepage at: <http://www.tulane.edu/~sanelson/eens1110/> Note that this web site is accessible from any internet connection and does not require you to connect through Blackboard. Check back with this page often, as material on the web page is updated on a regular basis.

PDF versions of all Lecture PowerPoints will be posted on Blackboard, but not until after the lectures are given. These will be found in the Course Documents section on Blackboard.

**Tentative Schedule of Lectures and Reading Assignments**  
(All readings from Marshak)

Date	Topic	Reading
Jan 17	Planet Earth	Chapters 1 & 2
Jan 19	Plate Tectonics	Chapters 3 & 4
Jan 24	Plate Tectonics	Chapter 4
Jan 26	Minerals	Chapter 5
Jan 31	Magma & Igneous Rocks	Chapter 6
Feb 2	Volcanic Eruptions	Chapter 9
Feb 7	Sediments, Soils and Sedimentary Rocks	Chapter 7
Feb 9	Sedimentary Rocks	Chapter 7
Feb 14	Metamorphism and Metamorphic Rocks	Chapter 8
Feb 16	<b>FIRST MIDTERM EXAM</b>	Chapters 1 - 9
Feb 21	<b>MARDI GRAS BREAK</b>	
Feb 23	Earthquakes and the Earth's Interior	Chapter 10
Feb 28	Earthquakes and the Earth's Interior	Chapter 10
Mar 1	Deformation of Rocks	Chapter 11
Mar 6	Deformation of Rocks	Chapter 11
Mar 8	Fossils, Evolution and Geologic Time	Chapter 12
Mar 13 & 15	<b>SPRING BREAK</b>	
Mar 20	Geologic Time	Chapter 12
Mar 22	Energy Resources	Chapter 14
Mar 27	Mineral Resources	Chapter 15
Mar 29	<b>SECOND MIDTERM EXAM</b>	Chapters 1- 15
Apr 3	Mass Movements	Chapter 16
Apr 5	Streams	Chapter 17
Apr 10	Streams, Oceans and Coasts	Chapter 17 & 18
Apr 12	Oceans and Coasts	Chapter 18
Apr 17	Groundwater, Earth's Atmosphere	Chapter 19
Apr 19	Deserts	Chapter 21
Apr 24	Glaciers	Chapter 22
Apr 26	Glaciers	Chapter 22

May 1	Global Change	Chapter 23
May 10	<b>FINAL EXAMINATION 1:00 PM</b>	Chapters 1 - 23

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