**Administrative Unit:** Science Department  
**Course Prefix and Number:** GEOL 110  
**Course Title:** Introduction to Physical Geology  
**Number of Credit Hours:** 3  
**Lecture Hours:** 3  
**Laboratory Hours:** 0  
**Catalog Description:** An introduction to earth materials, geophysical processes acting on them and the resulting landforms and landscapes. **G.E.**  
**Prerequisite(s)/Corequisite(s):** None.  
**Text(s):** Textbooks listed are not necessarily the textbooks used in the course.  

**Course Objectives:**  
- To evaluate the types, formation and changes of major terrestrial surface materials (minerals, rocks, soils).  
- To provide an overview of Earth's major surface features and how they change.  
- To relate landforms and landscapes to geologic processes.  

**Measurable Learning Outcomes:**  
- Explain the scientific method and discuss its application in the geologic sciences.  
- Describe the origin of the solar system, its planets and other features.  
- Explain the molecular basis of minerals, the classification of minerals and their properties.  
- Explain the formation of different rock types and their place in the rock cycle.  
- Evaluate Plate Tectonics Theory, the evidence supporting it and the resulting surface features and geologic structures.  
- Relate the causes and locations of volcanoes and earthquakes to tectonic processes.  
- Describe the major processes of denudation and relate them to tectonics and the rock cycle.  
- Discuss the major erosional/depositional agents and the landforms they generate.  
- Review the major geologic regions of the United
States and North America.

Topical Outline (major areas of coverage):

- Planet Earth
- Minerals
- Rocks and the Rock Cycle
- Geologic Resources and Soils
- Continental Drift and Plate Tectonics
- Deformation and Geologic Structures
- Earthquakes and Volcanoes
- Weathering and Denudation
- Erosional/Depositional Processes and Landforms

Recommended maximum class size for this course: 30

Library Resources: Online databases are available at http://www.ccis.edu/offices/library/resources.asp. You may access them from off-campus using your eServices login and password when prompted.

Prepared by: Julie Estabrooks
Name: ____________________________
Signature: _________________________

Date: February 18, 2005

NOTE: The intention of the master syllabus is to provide an outline of the contents of this course, as specified by the faculty of Columbia College, regardless of who teaches the course, when it is taught or where it is taught. Faculty members teaching this course for Columbia College are expected to facilitate learning pursuant to the course objectives and cover the subjects listed in the topical outline. However, instructors are also encouraged to cover additional topics of interest so long as those topics are relevant to the course's subject. The master syllabus is, therefore, prescriptive in nature but also allows for a diversity of individual approaches to course material.

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