

## Fall 2006 – Geology 001 Lab Syllabus

### Week 1 – Weighing the Earth and Density Measurements

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### Weeks 2, 3, and 4 - Minerals

- 2 – Physical Properties and Begin Mineral Identification
  - 3 – Complete Mineral Identification of Metallic and Non-Metallic Minerals
  - 4 – *Mineral Practicum (P1)* and Introduction to Rocks
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### Weeks 5, 6, and 7 – Rocks

- 5 – Physical Properties of Rocks and Begin Rock Identification
  - 6 – Complete Identification of Igneous, Sedimentary, and Metamorphic Rocks
  - 7 – *Rock Practicum (P2)*
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### Weeks 8, 9, and 10 – Maps and Map Reading

- 8 – Position, Direction, and Distance (Freeport Quadrangle)
  - 9 – Height, Slope, and Profiles
  - 10 – *Map Practicum (P3)*
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### Weeks 11, 12, and 13 – Student PowerPoint Presentations (Mandatory Attendance)

Each student will research a geological topic of their choosing and present a five to ten minute PowerPoint presentation to the class. Possible topics include a famous volcano or volcanic eruption, hurricane, earthquake, or other natural disaster, famous geologic site such as the Grand Canyon, or the geology of a particular place or country of interest to the student. See our webpage for suggested topics and for instructions on the PowerPoint and an allied five-page research paper. All topics must be approved by the instructor in advance. Grading for the PowerPoint component is 50% from instructor evaluation, 30% for attendance, and 20% from peer evaluations. Also due at the last meeting of lab is a five page report (12 pt font, double spaced, one-inch margins, not including figures) summarizing the information discussed in the PowerPoint presentation. The paper may include figures but must include library references.

**Laboratory Grade:** The lab grade is the average of five assignments, each worth 20%: mineral practicum, rock practicum, map practicum, research presentation, and research report. The final lab grade composes 50% of the total course grade.

**Optional: Extra Credit Field Trip:** The Geology 001 field trip is scheduled for **Saturday, 14 October 2006**, from 8 AM to 4 PM. This trip provides a tour of several geologic highlights of the NY metro region, including the igneous and metamorphic bedrock at Orchard Beach in the Bronx and the sedimentary red beds and lava flows near the Great Falls of Paterson, NJ. Students who participate in the trip may complete a photo essay assignment. The grade on this assignment may be used to replace the lowest of the three earned test scores in lab. Detailed information about the trip and an opportunity to register for it will be provided in lab.

**Lab Manual:** Physical Geology Lab Manual by Merguerian and Bennington (2006), 163 p.