

# Geol 210 – Historical Geology

## Exam One Study Guide

The first exam will be composed of 20 multiple choice questions (each worth 1 point), 5 short answer questions (each worth 2 points) and one essay question (worth 15 points). The multiple choice questions will be drawn from the multiple choice questions in the “Review Questions” at the end of the chapters we have covered to date (chapters 1, 2, and 3).

The short answer questions will require <10 word answers to questions about the material we have covered up to the first exam. Please see the “Sample Exam Questions” on the course website for examples of short answer questions that have appeared on previous exams in Geol 210.

The 15-point essay will require you to examine data that have been cited as supporting the theory of plate tectonics. For ***each*** kind of data, you must:

1. Describe the data (what was observed).
2. Explain why the observed data was an anomaly in the old geology paradigm in which the Earth’s continents never moved.
3. Explain how the observed data supports the theory of plate tectonics.

For your essay, you will be asked to analyze 3 kinds of data as they apply to the Theory of Plate Tectonics from the following list (I will choose which 3 will appear on the exam):

- Paleobiogeography
- Regional geology
- Paleoclimatology
- Distribution of earthquakes and volcanoes
- Apparent polar wandering
- Pattern of alternating stripes of magnetic polarity of oceanic basalts
- Mid-ocean ridges

The essay must be an essay, not a list of sentences. Assume that you are writing for someone who knows nothing about plate tectonics. Your essay will be graded based on content, syntax, grammar and spelling. You will lose points if I cannot understand what you have written.