

GEOLOGY 101 -- INTRODUCTION TO THE EARTH SPRING 2011

INSTRUCTORS:

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Office Hours: T-Th 1:00-3:30 PM

LECTURES: Tuesday, Thursday 9:30 - 10:45 AM; PSC 210

TEXTBOOK: Essentials of Geology – Stephen Marshak
(electronic version available at
<http://www.nortonebooks.com/welcome.asp>) Price - \$30

LAB MANUAL: Lab Manual in Physical Geology, R. Busch (AGI/NAGT), 8th edition

LAB COORDINATOR: Obi Egbue: EWS 207A; 777-4607; oegbue@geol.sc.edu

FINAL EXAM: Monday, May 2, 9:00 AM

COURSE GUIDELINES:

1. The exams are based almost exclusively on the lecture material.
2. There are three hourly exams and a final that will account for 75% of the final grade. The lowest hourly exam score will be dropped. All students must take the final exam.
3. Exams are cumulative in that they will include material covered on previous exams.
4. The lab counts 25% toward the final grade. **ATTENDANCE IN LAB IS MANDATORY!**
5. Labs begin on Tuesday, January 18, 2011. All labs are in EWS 101.
6. In-class exam dates: Exam 1- Feb. 3, Exam 2 – March 3 , Exam 3 – TBD

GRADING SCALE:

- A – 90 to 100
- B – 80-89
- C – 70-79
- D – 60-69
- F - <60

LEARNING OUTCOMES:

1. In the laboratory, students will apply understanding of the scientific method using observation and experimentation to explain geologic phenomena
2. Students will demonstrate an understanding of basic geologic principles and concepts. For example, students should be able to identify the geologic features of the Earth's surface and relate the structures observed to the theories of their origin.
3. By applying critical thinking skills and an understanding of basic scientific principles, students will be able to address the pressing environmental challenges of modern society.

COURSE OUTLINE/LECTURE TOPICS:

1. Plate Tectonics – Thunell (Chapter 2)
2. Minerals – Thunell (Chapter 3)
3. Igneous Rocks – Thunell (Chapter 4)
4. Volcanism – Thunell (Chapter 7)
5. Weathering and Soils – Thunell (Chapter 5)

6. Sedimentary Rocks – Thunell (Chapter 5)
7. Metamorphic Rocks – Thunell (Chapter 6)
8. Earthquakes – Trenkamp (Chapter 8)
9. Geologic Time – Thunell (Chapter 10)
10. Hydrologic Cycle and Groundwater – Thunell (Chapter 16)
11. Glaciers and Climate Change – Thunell (Chapter 18)
12. Ocean Floor – Trenkamp (Chapter 15)
13. Interior of the Earth - Trenkamp (Chapter 14)
14. Mountain Building - Trenkamp (Chapter 9)
15. Evolution of the Continents - Trenkamp (Chapter 9)
16. Mass Wasting - Trenkamp (Chapter 13)
17. Deserts - Trenkamp (Chapter 17)
18. Shorelines - Trenkamp (Chapter 15)
19. Solar System - Trenkamp (Chapter 1)