PHYS 120 Introduction to Geology
The College of New Jersey
Spring 2009

Instructor: Dr. Nathan Magee
Phone: x2556
Email: magee@tcnj.edu
Office hours: Mon. 2-4 pm; Wed. 3-4 pm
Required Text: *Physical Geology: Exploring the Earth* by Monroe, Wicander, and Hazlett, 6th ed.
Meeting Time/Space: MR 8:30 – 9:50 SC P117; lab MR 10:00-11:50 SC P122

Course Structure
Chapter 1. Introduction
Chapter 2. Plate Tectonics
Chapter 3. Minerals
Chapter 4. Igneous Rocks and Intrusive Igneous Activity
Chapter 5. Volcanoes and Volcanism
Test #1

Chapter 6. Weathering and Soil
Chapter 7. Sediment and Sedimentary Rocks
Chapter 8. Metamorphism and Metamorphic Rocks
Chapter 9. Geologic Time
Chapter 10. Earthquakes
Test #2

Chapter 11. Earth's Interior
Chapter 12. The Sea Floor
Chapter 13. Deformation, Mountain Building and the Evolution of the Continents
Chapter 14. Mass Wasting
Chapter 15. Running Water
Test #3

Chapter 16. Groundwater
Chapter 17. Glaciers and Glaciation
Chapter 18. The Work of Wind and Deserts
Chapter 19. The Shoreline
Chapter 20. Geology and Humanity
The Geology and Tectonic History of New Jersey
Final Exam

The bulk of the lecture notes for this class will be in the form of powerpoint slides. I will post the slides a day or two before each lecture on SOCS so that you can print the notes out and bring them to class. Additional course information including schedule, homework assignments, web links, and exam dates can be found at www.tcnj.edu/~magee

Assignments: Homework Questions
Homework questions will be assigned for each chapter and will consist of questions and problems drawn from the text as well as other sources. Homework will generally be grouped into sets covering 3 chapters, covering about 2 weeks of course material. The homework is essential to your learning and should be done carefully. Late submissions will not be accepted. Please make sure your homework is typed or clearly hand written.

Labs:
A tentative calendar for our course will be available on the course web site. **You will be required to download and print out the labs and bring them to class, so be sure to check the lab schedule and be prepared.** These labs

will require teamwork, hands-on problem solving, and writing, and will be an important part of your course grade. The more you interact with your lab group, the more you will learn.

Classroom lectures and discussions:
The classroom time will be devoted to lectures and discussions that will follow text material. The textbook is very readable and keeping up with reading will greatly increase the depth of your knowledge. Please do not hesitate to ask questions during class. Your active participation in the classroom is important for developing a positive learning experience for all students in the course.

Attendance:
Course attendance will be monitored closely and contribute to your participation grade.

Issue Analysis Projects:
During the semester, you will be assigned 2 small projects to be completed individually outside of class. These projects are meant for you to think about what you are learning about in class and how it relates to the world around you. You can choose from the following options for these projects:

A. Read a scientific article from a high quality publication about a subject that interests you relating to something that we covered in class. For example, you could read an article relating to diamond formation in the Earth – this would relate to the chapter covering igneous rocks. Acceptable publications include: Science, Nature, Scientific American, Earth and Planetary Science Letters, National Geographic, any American Geophysical Union journal, etc. Make sure the article is at least 4 pages long. If you are unsure if your source is acceptable, ask me ahead of time. You will then write a short paper (roughly 500 words) that includes:

1. a brief summary of your article
2. a description of what you learned from the article and how it relates to something we talked about in class
3. a discussion of your opinion of the article - what you found to be interesting, confusing, fascinating, controversial, etc.

Be sure to hand in a copy of the article with your paper

B. Your own geologic 'discovery'. Look around you and find something that relates to our discussions in class. Believe it or not, New Jersey has a fascinating geologic history and has many interesting things for you to consider. For example, take pictures of a rock outcrop or an interesting feature along the Jersey shore or find some fossils or rocks that are interesting. You will then write a short paper (roughly 500 words) about your subject matter. In your paper, include:

1. a description of your subject matter (What is it? Where is it from?)
2. a discussion of how it relates to what we learned about in class
3. a discussion of why you chose your subject matter and what is interesting about it

You will be graded on your effort, insight, and thoughtfulness.

Weighting:
30% tests
25% final exam
20% laboratory grade
10% homework
10% issue analysis projects
5% classroom participation

Exam policy:
Unless you contact me ahead of time, failure to show up to a test or exam will result in a zero.

Now that all the official stuff is out of the way… I want you to have fun in this class while learning a lot. I want you to take a look at your world in a new way.