

TEXAS A&M UNIVERSITY – CORPUS CHRISTI
COLLEGE OF SCIENCE AND TECHNOLOGY

GEOLOGY 1403 – PHYSICAL GEOLOGY
SUMMER II 2007

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Text: Earth: *Portrait of a Planet, 2nd ed.*, Stephen Marshak; W.W. Norton & Company
Class Meetings: Mon through Thu, 10:00 to 11:55 a.m., ST 108
Office Hours: by appointment

Course Description

This is a course in college-level Physical Geology primarily for students majoring in Geology or Environmental Science. The class is open to all who have the necessary interest in the study of the internal and surface processes that modify Earth and other planets. The course will cover the origin, classification, and composition of Earth materials, as well as laboratory studies of minerals, rocks, and physiographic and geologic maps.

Student Learning Outcomes

Upon successful completion of this course you should be familiar with:

- 🌐 the composition and structure of the solid Earth,
- 🌐 the theory of Plate Tectonics,
- 🌐 the various rock types that make up the Earth's crust,
- 🌐 the internal and external processes that shape our planet,
- 🌐 and the interaction between some of the main components of the Earth System

Evaluation and Grade Assignment

Your final grade will be based on a % curve from the following point distribution:

A) Exams (3@100 points each)	300 points
B) Chapter Quizzes	50 points
C) Labs: 300 points total:	<u>300 points</u>
Total:	650 points

A perfect score in this course would be to earn all 650 points available. At the end of the semester, I will take the highest grade percentage in the class and will use that high score to calculate the percentage bonus required to bring this individual's total points up to 100%. That percentage bonus is then applied to everyone's individual total point percentage.

Final grading will be as follows:

A = 100-90%; B = 89-80%; C = 79-70%; D = 69-60%;
F <60%

Exams

Exams can only be taken during the scheduled time, except in cases of emergencies. Documented proof is required of such emergencies. **There will be NO make up exams or quizzes for unscheduled and unexcused absences!** If you know you are going to miss a class or an exam and have a valid excuse, let me know BEFORE the fact, NOT after (by that time I already know...)! **Make-up exams cannot be taken after the graded test has been given back to the class.** There will be no exceptions!

Class and Lab Policies

While attendance of the lectures will not be recorded by the instructor on a regular basis, regular attendance is essential to the successful completion of this course. **Regular attendance of the lab sessions is required** and there will be no make-up labs. The only way you can recover your lab, if you know you are going to miss your section during one particular day, is to arrange to attend the other available section. You need to make these arrangements with the lab instructor of the section you would like to attend.

Treat your co-students (and instructor) with respect. The college catalog contains the university statement on academic integrity. Cheating will not be tolerated and will result in a failing grade in the course and possible further disciplinary action by the university. **The use of laptops, cell phones, pagers, CD players, headphones and similar electronic devices is not allowed in class. If your cell phone/pager rings during lecture, you will be asked to leave the classroom!**

Special Needs

The Geology Program complies with the Americans with Disabilities Act in making reasonable accommodations for qualified students with disabilities. If you need disability accommodations in this class, please see me as soon as possible. Please have your accommodation letter from TAMU-CC Services for Students with Disabilities Office with you when you come see me. If you suspect that you may have a disability (physical impairment, learning disability, psychiatric disability, etc.), please contact the Services for Students with Disabilities Office (located in Driftwood 101) at 825-5816. It is important that you contact them in a timely fashion as it may take several days to review requests and prepare accommodations

Reading Assignments

All reading assignments are to be read prior to the class in which the material will be discussed. Your textbook is accompanied by an online study guide that is available at the following URL: <http://www.wwnorton.com/college/geo/earth2/home.asp>, which can assist you in understanding the content of the textbook. It also provides valuable guidelines regarding general study skills, note taking, and test preparation.

The following lecture schedule will be followed as closely as possible although some revisions may become necessary during the semester.

Tutoring

The Tutoring and Learning Center offers tutoring sessions for Physical Geology.

Important Dates

July 02	Classes begin	August 02	Last day of classes
July 12	Exam I	August 03	Final exam
July 25	Exam II		

Lecture Schedule

Week 1 – July 2-5

- Mon Introduction/And Just What is Geology?/The Birth of Earth; Prelude, Chapt.1.
Tue Journey to the Center of the Earth/Drifting Continents and Spreading Seas; Chapters 2 and 3.
Thu Plate Tectonics; Chapter 4.

Week 2 – July 9-12

- Mon Patterns in Nature: Minerals; Chapter 5.
Tue Up from the Inferno: Magma and Igneous Rocks, Interlude A and Chapter 6.
Wed Sediments, Soils and Sedimentary Rocks; Interlude B and Ch. 7, 165-190.
Thu EXAM I

Week 3 – July 16-19

- Mon A Surface Veneer: Sediments, Soils and Sedimentary Rocks; Ch. 7, 190-206.
Tue Metamorphism: A Process of Change; Chapter 8.
Wed The Wrath of Vulcan: Volcanic Eruptions; Chapter 9.
Thu A Violent Pulse: Earthquakes; Interlude C and Chapter 10.

Week 4 – July 23-26

- Mon Crustal Deformation and Mountain Building; Chapter 11.
Tue Deep Time: How Old is Old? Interlude D and Chapter 12
Wed EXAM II
Thu Restless Realm: Oceans and Coasts; Chapter 18.

Week 5 – July 30-August 2

- Mon A Hidden Reserve: Groundwater; Chapter 19.
Tue Squeezing Power from a Stone: Energy Resources; Chapter 14.
Wed Global Change in the Earth System; Chapter 23.
Thu TBA

Fri 08/03 Final exam

Drafting Supplies

The lab exercises (and in part the lectures) will require the use of some basic drafting supplies. The following is a list of what's needed. Please bring these items with you to each session.

Mechanical pencil, lead size of 0.5 mm or finer	Eraser
Colored pencils (at least six colors)	12" ruler with mm markings
Protractor	Scientific calculator