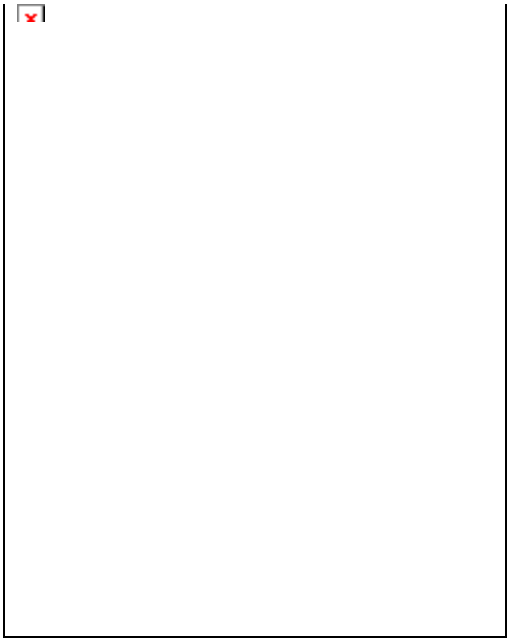

Slice of Jurassic-age ocean floor (pillow basalt above red ribbon chert) on the island of La Desirade, French West Indies

Earth Science Syllabus

Page last modified: 8/22/05

Dr. Homer Montgomery Office: FN 3.308A 972.883.2480	Office hours: Fall and Spring (T 8:30-9:30; W 8:30-11) Other times by appointment or just drop by my office. **If in doubt about anything, contact us.**

COURSE DESCRIPTION AND GOALS

Earth Science provides wide-ranging discussions of earth processes. This is a modified physical geology course. Focus will be maintained on content enrichment for science teachers. Appropriate TEKS will be addressed in this course through the broad range of subjects discussed, through guided activities, and in the required final projects of each class member. A field research component is included.

PREREQUISITES

None

Week of	Topic and Reading (complete BEFORE class)
Aug 24	Chapter 1: Introduction to Earth Science Chapter 2: Minerals: Building Blocks of Rocks Chapter 3: Rocks: Materials of the Solid Earth
Aug 31	Chapter 4: Weathering, Soil, and Mass Wasting
Sep 7	Chapter 5: Running Water and Groundwater
Sep 14	Chapter 6: Glaciers, Deserts, and Wind
Sep 21	Chapter 7: Earthquakes and Earth's Interior Chapter 8: Plate Tectonics: A Scientific Theory Unfolds
Sep 28	Chapter 8: Plate Tectonics: A Scientific Theory Unfolds
Oct 5	Chapter 9: Volcanoes and Other Igneous Activity Chapter 10: Mountain Building **Midterm Exam**
Oct 12	Chapter 11: Geologic Time Chapter 12: Earth's History: A Brief Summary

Oct 15-16	Optional Field trip to Galveston (this would be at your own expense as the trip is for another class)
Oct 19	Chapter 13: The Ocean Floor
Oct 26	Chapter 14: Ocean Water and Ocean Life Chapter 15: The Dynamic Ocean
Nov 2	Chapter 16: The Atmosphere: Composition, Structure, and Temperature Chapter 17: Moisture, Clouds, and Precipitation
Nov 9	Chapter 18: Air Pressure and Wind Chapter 19: Weather Patterns and Severe Storms Chapter 20: Climate
Nov 16	Chapter 21: Origin of Modern Astronomy Chapter 22: Touring Our Solar System Chapter 23: Light, Astronomical Observations, and the Sun Chapter 24: Beyond Our Solar System **Final Exam**
Nov 23	**Presentation of Activities. Everything is due by midnight**

BOOKS (required)
See WebCT

MIDTERM and FINAL EXAMS
Yes, indeed, these are exams.

ACTIVITY
You will each develop a quality and complete activity that encompasses several TEKS (see handout). Get together and discuss your planned activities so that as many of the earth science TEKS as possible are addressed. Some of you may want to include your field trip activities in your activities. Please discuss your plans with each other and with your instructor.

FIELD TRIPS
At common convenience, we will visit local outcrops for rousing discussion of earth science principles. Working in pairs, you will collect samples and process them for fossils.

COURSE GRADE (300 possible points)
Exam 1: 50 points
Exam 2: 50 points (comprehensive)
Lab and field work: 100
Activity: 100 points

INCOMPLETES
I do not give incompletes without proof of major medical or similar serious problems. I will require an explanatory letter for my file.

STATEMENTS
In this course students will conform to the University rules for academic honesty. For further information see http://www.utdallas.edu/student/slife/dishonesty.html Information from this course can be provided to students with disabilities through University services. For more information see http://www.utdallas.edu/student/slife/hcsvc.html