

GEOLOGY 1304, Historical Geology **Spring 2016**

Instructor: Dave Rohr, WSB 315; <drohr@sulross.edu>. Office hours 9:30-11:30 M-F; 9:30-10:30 TuTh, or by appointment.

Course description: Geology 1304 covers the history of Earth including the history of life and how it is interpreted from the rocks and fossils.

Course Outline: If you satisfactorily complete this course you will be familiar with:

- Week 1, Review of plate tectonics
- Week 2. general classification of sedimentary rocks
- Week 3.history of geological science
- Week 4.the geologic time scale
- Week 5. fossils Exam 1, February 17
- Week 6. Evolution, extinctions
- Week 7. origin of life.
- Spring Break: March 14-18.
- Week 8. earliest history of the earth
- Week 9. Paleozoic, lithofacies, paleoenvironments, fossils.
- Week 10. Paleozoic
- Week 11. Mesozoic. Exam 2. March 30
- Week 12.Lithofacies, paleoenvironments, fossils, dinosaurs
- Week 13.Cenozoic, lithofacies, paleoenvironments
- Week 14. Cenozoic, paleoenvironments, fossils the Ice Ages
- Final lecture exam:

Methods of Instruction: The course consists of three hours of lecture by Rohr and the corresponding optional lab GEOL 1104, which is two hours of hands-on lab work with a graduate teaching assistant. The lecture will deal with ancient life, the location and shape on ancient land masses, ocean basins, mountain ranges and their relation to the theory of plate tectonics. Labs cover fossils and stratigraphic principles.

Class attendance policy: Attendance is expected in lectures. If you are going to miss a lecture exam for a legitimate reason, let the instructor know **AHEAD** of time.

Grading and examinations: You may review your progress at any time at the Blackboard website. The semester grade is 90% from lecture exams and 10% from homework. Lab is a separate class and grade.
Homework assignments: 5 exercises x 2% each = 10%
First lecture exam: Wednesday, February 17, 30%.
Second lecture exam: Wednesday, March 30, 30 % (only covers material since the first exam)
Final lecture exam: Wednesday, May 11, 6:00 pm, 30%, comprehensive.

Incomplete (I) grades are given where passing work has been done and only a minor part of the requirements are incomplete. Grades are based on a standard curve (100-90=A; 89.9-80=B; 79.9-70=C; 69.9-60=D).

Texts:

- Earth System History* 4th ed. by S. Stanley. **ISBN:** 9781429255264
- Lab Manual (if you are taking the lab): None. Handouts will be provided.

Disability: "Sul Ross State University is committed to equal access in compliance with the Americans With Disabilities Act of 1973. It is the student's responsibility to initiate a request for accessibility services. Students seeking accessibility services must contact Mary Schwartz, M. Ed., L.P.C., in Counseling and Accessibility Services, Ferguson Hall, Room 112. The mailing address is P.O. Box C-122, Sul Ross State University, Alpine, Texas 79832. Telephone: 432-837-8203. E-mail: mschwartz@sulross.edu . ."

Reference Materials: Review copies of old exams are on the Sul Ross Blackboard Site. Homework assignments and other supplementary material are also at this site.

CONDUCT: Students are expected to observe the University's Code of Student Conduct (see Student Handbook, <http://www.sulross.edu/pages/3633.asp>).

"Please" turn OFF all cellular phones, IPODs, MP3s, etc.

Applicable PLO: The student will identify, compare/contrast, synthesize and apply bodies of information of Geology regarding the area of Earth history.

Methods of assessment/evaluation – Learning outcome assessment will be made on the basis of three exams, homework, and weekly laboratory exercises. The exams will assess the application of critical reasoning and problem solving skills through short answer questions and multiple choice questions (with some diagrams). Homework assignments will assess student problem solving skills in applying, describing, and explaining principles and processes of Earth history.

Core Objectives addressed:

- 1) Critical Thinking
- 2) Empirical and Quantitative