

GEOLOGY 2401 – LITHOLOGY LAB
SPRING 2024
Geology Program
Department of Natural Sciences
College of Agriculture, Life, and Physical Sciences
Sul Ross State University
Mon 3-5

Dr. Liz Measures

Office: WSB 319
 Email: measures@sulross.edu
 Phone: 837-8117
 Main Office: 837-8112
 Mail Drop: WSB 216

Office hours:

MWF 8:30 am – 10:00 am
 TuThr 2:30 pm – 4:00 pm

or by appointment; call or email to arrange

Course Description

A hands-on introduction to the basic concepts of identification, classification and origins of igneous, sedimentary and metamorphic rocks. Laboratory exercises consist of hand specimen identification and classification of suites of all three rock classes.

This class will:

- 1) provide you with the skills needed to identify and classify hand samples of all three rock types. Samples will be seen in lab and possibly in the field.
- 2) provide you with a background in the vocabulary, past and present, used in the description of all three rock types to enable you to read and understand technical literature and to be able to communicate your findings in written format.
- 3) provide you with the information to interpret the origin, history and tectonic implications of any rock sample.

Expected Student Learning/Course Objectives/Outcomes

At the end of the semester, the successful student will be able to apply critical reasoning and problem-solving skills to:

- * identify the three rock classes in hand sample using accepted classification schemes (SLO # 2 and SLO # 5)
- * describe a rock and interpret and explain its origin (SLO # 1 and SLO # 2)
- * interpret the tectonic significance of a rock sample (SLO # 3)

Pre-requisites/Co-requisites

Physical Geology (GEOL 1303/1103), Historical Geology (GEOL 1304/1104)

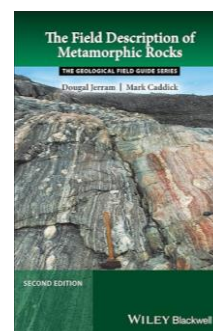
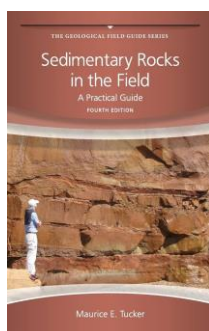
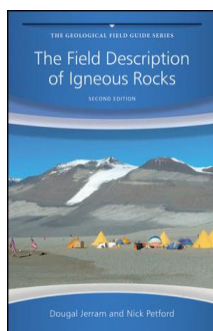
Required Texts - Wiley-Blackwell Geological Field Series books

Field Description of Igneous Rocks, 2nd ed. 2011. Jerram and Petford.
Sedimentary Rocks in the Field, A Practical Guide, 4th ed. 2011. Tucker.
Field Description of Metamorphic Rocks, 2nd ed. 2022. Jerram and Caddick.

ISBN: 9780470022368

ISBN: 9780470689165

ISBN: 9781118618752

**Materials**

notebook/paper

pencils

map pencils

hand lens

small stapler

Geology Undergraduate (Bachelor of Science) Student Learning Outcomes (SLO's):

1. The student will be able to apply a diverse body of Geologic information in the area of Earth history.
2. The student will be able to apply a diverse body of Geologic information in the area of mineralogy and petrology.
3. The student will be able to apply a diverse body of Geologic information in the area of structural geology and tectonics.
4. The student will be able to apply a diverse body of Geologic information in the area of stratigraphy.
5. The student will be able to apply a diverse body of Geologic information in the area of field techniques.

GEOLOGY UNDERGRADUATE (BACHELOR OF SCIENCE) STUDENT MARKETABLE SKILLS:

1. The student will be able to conduct fieldwork.
 2. The student will be able to use field equipment.
 3. The student will be able to use lab equipment.
 4. The student will be able to use library resources.
 5. The student will be able to communicate in written and oral format.
-

LIBRARY

The Bryan Wildenthal Memorial Library offers FREE resources and services to the entire SRSU community. Access and borrow books, articles, and more by visiting the library's website, library@sulross.edu. Off-campus access requires logging in with your LoboID and password. Librarians are a tremendous resource for coursework and can be reached in person, by email (srsulibrary@sulross.edu) or phone (432-837-8123).

ACADEMIC INTEGRITY

Students are expected to demonstrate scholarly behavior and academic honesty in the use of intellectual property. A scholar is expected to be punctual, prepared, and focused; meaningful and pertinent participation contributes to learning.

Examples of academic dishonesty include, but are not limited to:

- *Turning in work as original that was used in whole or in part for another course and/or professor;
- *Turning in another's person's work as one's own;
- *Copying from professional works or internet sites without citation;
- *Collaborating on a course assignment, exam, or quiz when collaboration is forbidden.

Violations of academic integrity can result in failing assignments, failing a class, and/or more serious university consequences. These behaviors also erode the value of college degrees and higher education overall.

Use of AI is considered to be academic dishonesty in this course. Use of AI will result in a final grade of "F" in this course.

CLASSROOM CLIMATE OF RESPECT

This class should foster free expression, critical investigation, and open discussion of ideas. All people in the class must help create and sustain an atmosphere of tolerance, civility, and respect for the viewpoints of others.
