# **GEOLOGY 5334 - GEOLOGICAL METHODOLOGY**

Fall 2024

Geology Program, Natural Sciences Department, ALPS College Sul Ross State University Tues Thrs 11:00-12:15

#### **Dr. Elizabeth Measures**

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#### **OFFICE HOURS**

Mon 2 pm to 5 pm Thrs 2:30 pm to 5 pm

or by appointment; call or email to arrange; weekly schedule is posted next to office door

## **COURSE DESCRIPTION**

This hands-on course is designed to orient the Geology graduate student to geological problems from research and project design, to field and lab work, to writing and presentation of results. Students will be made familiar with, and will use, the geologic literature and sources available in the library and on-line. Students will be made familiar with the geology of west Texas through lecture, readings and possible field trips. Field and lab methods of gathering geological information will be covered, demonstrated and practiced. Students will learn about the scientific method. Students will practice writing outlines and rough drafts. Plagiarism, formatting and editing will be covered. Students will be familiarized with the different options of MS plans in the Geology Program.

### **METHODS OF INSTRUCTION**

The course consists of three hours of lecture, class participation/discussion, and activities each week.

One day field trip(s) **may** be offered.

#### **TEXT**

none

articles and books as needed

#### **MATERIALS**

Notebook/paper

pens & pencils

### STUDENT RESPONSIBILITES STATEMENT

All full-time and part-time students are responsible for familiarizing themselves with the **Student Handbook** and the Undergraduate & Graduate Catalog and for abiding by the **University** rules and regulations. Additionally, students are responsible for checking their Sul Ross email as an official form of communication from the university. Every student is expected to familiarize him/herself with the requirements of such laws.

## CLASS ATTENDANCE/CONDUCT/ELECTRONICS POLICY

Attendance is expected in lectures. Come on time and do not leave during class or leave class early. Lecture exams and exercises missed cannot be made up at a later time **unless** prior arrangements are made. If you are going to miss an exam/homework/deadline for a legitimate reason, let the instructor know AHEAD of time. Use of electronic devices, not specifically related to taking notes or recording lecture, is

considered inconsiderate, rude and disruptive and will not be tolerated. You are expected to check your Sul Ross e-mail and to access Blackboard.

# **GRADING**

The semester grade:	Grading Scale	
30% for resource notebook	100-90.00	Α
30% for proposal presentation/	89.99-80.00	В
written proposal	A's & B's are expected	
40% from weekly activities/discussions/	79.99-70.00	С
homework/exam/other	69.99-60.00	D
	<59.99	F

Incomplete (I) grades are given where passing work has been done and only a minor part of the requirements are incomplete.

# SCHEDULE IS TENTATIVE AND SUBJECT TO CHANGE

	Tue		Thr			
1	27-Aug	Geol prog req	29-Aug	Chair & committee	Aug 31	Sept 1
2	3-Sep	Chair & committee	5-Sep	Library, Research &	Sept 7	Sept 8
3	10-Sep	Library, Research & Resources	12-Sep	Library, Research & Resources	Sept 14	Sept 15
4	17-Sep	Library, Research & Resources	19-Sep	Grant writing	Sept 21	Sept 22
5	24-Sep	Grant writing	26-Sep	Field Methods	Sept 28	Sept 29
6	1-Oct	Field Methods	3-Oct	Texas Geology	Oct 5	Oct 6
7	8-Oct	Texas Geology	10-Oct	Lab Methods	Oct 12	Oct 13
8	15-Oct	Lab Methods	17-Oct	Plagiarism	Oct 19	Oct 20
9	22-Oct	Plagiarism	24-Oct	Diagrams, Figures & Software	Oct 26	Oct 27
10	29-Oct	Diagrams, Figures & Software	31-Oct	Diagrams, Figures & Software	Nov 2	Nov 3
11	5-Nov	Diagrams, Figures & Software	7-Nov	Grammar	Nov 9	Nov 10
12	12-Nov	Formatting & Thesis Guidelines	14-Nov	Formatting & Thesis Guidelines	Nov 16	Nov 17
13	19-Nov	Formatting & Thesis Guidelines	21-Nov	Formatting & Thesis Guidelines	Nov 23	Nov 24
14	26-Nov	exam	28-Nov	Thanksgiving Holiday	Nov 30	Dec 1
15	3-Dec	Oral Proposal	5-Dec	Dead Day	Dec 7	Dec 8
	MON 9- Dec	- Resource Notebook, Draft Proposal & Powerpoint due			-	

#### **EXPECTED LEARNING/COURSE/PROGRAM OBJECTIVES**

At the end of the semester, the successful geology graduate student will be able to identify, compare/contrast, synthesize and apply bodies of geologic information to:

- \* researching, writing, and presenting a topic of study (SLO 3, SLO 4)
- \* field and lab research techniques (SLO 3)
- \* analyzing and discussing current research papers in the geosciences (SLO 4)
- \* geology of west Texas (SLO 1, SLO 2)

# **Geology Graduate (MS) Student Learning Outcomes (SLO's)**

The geology graduate student will be able to:

- 1. Apply diverse bodies of geologic information in the area of **advanced sedimentary geology**.
- 2. Apply diverse bodies of geologic information in the areas of **advanced igneous processes**, **metamorphic processes**, **structure and tectonics**.
- 3. Apply diverse bodies of geologic information to *field and lab research techniques*.
- 4. Communicate diverse bodies of geologic information through the standard scientific format of an *oral presentation based on a written scientific paper*.

## **Geology Graduate (MS) Student Marketable Skills:**

- ★ The student will be able to conduct field work.
- ★ The student will be able to use field equipment.
- ★ The student will be able to use lab equipment.
- ★ The student will be able to use library resources.
- ★ The student will be able to communicate in written and oral format.

## DISABILITIES ACCOMMODATION ADA statement

Sul Ross State University (SRSU) is committed to equal access in compliance with the Americans With Disabilities Act of 1973. It is SRSU policy to provide reasonable accommodations to students with documented disabilities. It is the student's responsibility to initiate a request each semester for each class for accessibility services. Students seeking accessibility services/accommodation services must contact Mrs. Mary Schwartze Grisham, LPC, SRSU's Accessibility Services Director at 432-837-8203 or email <a href="mailto:mschwartze@sulross.edu">mschwartze@sulross.edu</a>, or contact Alejandra Valdez at 830-758-5006 or email <a href="mailto:Alejandra.valdez@sulross.edu">Alejandra.valdez@sulross.edu</a>, or contact Alejandra Valdez at 830-758-5006 or email <a href="mailto:Alejandra.valdez@sulross.edu">Alejandra.valdez@sulross.edu</a>. The office is located on the first floor of Ferguson Hall, room 112. The mailing address is P.O. Box C-122, Sul Ross State University, Alpine, Texas, 79832.

You will be provided with an accommodation letter which must be given to the instructor as early as possible in the semester.