

**GEOLOGY 2401 - LITHOLOGY
SPRING, 2022**

Instructor: Dr. Urbanczyk, WSB320, phone 837-8110; Office hours: T 10-12; W 8-9; R 8-10 and 2-3

General Statement: Rocks. They are everywhere, and they affect our daily lives, particularly in an arid region such as west Texas. Building and road construction are just two of the uses of natural stone in west Texas. Rocks are also the foundation for the attractive scenery of both Big Bend National Park and the Big Bend Ranch State Park. Plants grow in soil, which is weathered from rocks. Certain plants grow only in soil weathered from specific rock types. In fact, many plants can be used as geologic indicators. Animal distribution in west Texas is also largely controlled by geology. Wild game populations are dependent upon water, and the occurrence of springs is controlled by the local precipitation and by the bedrock geology. Last but certainly not least, rocks contain information regarding their formation and the history of the earth, and therefore are our primary source of information regarding earth history.

This course is designed to provide the student with the basic skills to identify and properly classify rocks in the field. The course also includes an introduction to field techniques and the use of equipment such as the Brunton compass and a GPS unit. We will learn how to construct and use both topographic and geologic maps. We will also get an introduction to GIS.

The course also includes a field trip. Details will be discussed in class.

SACS SLO's: The student will be able to apply a diverse body of Geologic information in the area of Earth history. The student will be able to apply a diverse body of Geologic information in the area of mineralogy and petrology.

SACS Marketable skills: The student will be able to conduct field work. The student will be able to use library resources. The student will be able to communicate in written and oral format.

Organization: Lectures are scheduled for MWF 11 to 11:50 AM - regular attendance is STRONGLY advised.

Lab: Lab will meet from 3:00 – 4:50 PM on Monday afternoons. Attendance in lab is mandatory! If you miss lab other than for legitimate medical or personal reasons, you will not be allowed to make-up the exercise.

Lab exercises are due at the end of lab.

Grading:

Lecture:	Lecture Exam #1	15%
	Lecture Exam #2	15%
	Final Exam	15%
Laboratory (60% labs, 40% exams):		35%
Field Project:		5%
Lecture Exercises, Homework / Weekly Quizzes / Participation:		15%

Final Grade Scheme: 90-100% = A, 80-90%=B, 70-80%=C, 60-70%=D, <60%=F

Texts: Rocks and Rock Minerals by Dietrich and Skinner

Required Materials: Pencils, 3-ring notebook - for lab assignments, field book, 10X hand lens

week	date	Topic	Lab
1	1/10	Introduction/syllabus review	
	1/13	Map review	
	1/15	Map review	
2 MLK	1/17	No Class	Field techniques 1
	1/20	Map review	
	1/22	Field Techniques review	
3	1/24	Field Techniques review	Field techniques 2
	1/27	Field Techniques review	
	1/29	Minerals	
4	1/31	Minerals	Minerals 1
	2/3	Minerals	
	2/5	Minerals	
5	2/7	Exam 1	Minerals 2
	2/10	Igneous Rocks	
	2/12	Igneous Rocks	
6	2/14	Igneous Rocks	Lab Exam 1
	2/17	Igneous Rocks	
	2/19	Igneous Rocks	
7	2/21	Igneous Rocks	Phaneritic Rocks
	2/23	Igneous Rocks	
	2/25	Igneous Rocks	
8	2/28	Igneous Rocks	Aphanitic Rocks
	3/2	Sedimentary Rocks	
	3/4	Sedimentary Rocks	
SB	3/7	Spring Break	
9	3/14	Sedimentary Rocks	Pyroclastic Rocks
	3/16	Sedimentary Rocks	
	3/18	Exam 2	
10	3/21	Sedimentary Rocks	Lab Exam 2
	3/23	Sedimentary Rocks	
	3/25	Sedimentary Rocks	
11	3/28	Sedimentary Rocks	Epiclastic Rocks
	3/30	Sedimentary Rocks	
	4/1	Sedimentary Rocks	
12	4/4	Metamorphic Rocks	Chemical and Biochemical rocks
	4/6	Metamorphic Rocks	
	4/8	Metamorphic Rocks	
13	4/11	Metamorphic Rocks	Non Foliated Rocks
	4/13	Metamorphic Rocks	
GF	4/15	No Class	
14	4/18	Other Rocks	Foliated Rocks
	4/20	Other Rocks	
	4/22	Other Rocks	
16	4/25	Other Rocks	Lab Final Exam
	4/27	Other Rocks	
	5/3	Final Exam 10:15 - 12:15	

Classroom Conduct:

The Student handbook states under Student Misconduct, number 21, "Such prohibition includes disorderly classroom conduct that obstructs, interferes with, inhibits and/or disrupts teaching and/or classroom activities." Behavior which is included in this category: 1)

persistent talking to ones' neighbors during lecture, 2) coming to class late or leaving early, 3) the use of cellular phones or MP3 devices in the classroom. CELL PHONES MUST BE TURNED OFF IN CLASS. This includes texting, emailing and social networking. (*If you are a member of an EMS/VFD group or have a child in day care and they must be able to reach you, let me know and we will discuss.*) Offenders of this policy will be asked once to stop and 5 points will be taken from their grade. If it occurs a second time, the offender will be instructed to leave the classroom, and there will be a meeting with the Dean of Student Life. If there are further incidents, UDPS will be called and offenders will be physically ejected from the classroom and will likely be expelled from the University.

Students Needing Special Accommodations:

SRSU Disability Services. Sul Ross State University (SRSU) is committed to equal access in compliance with 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. Students seeking accessibility/accommodations services must contact Rebecca Greathouse Wren, LPC-S, SRSU's Accessibility Services Coordinator at 432-837-8203 (please leave a message and we'll get back to you as soon as we can during working hours), or email rebecca.wren@sulross.edu. Our office is located on the first floor of Ferguson Hall (Suite 112), and our mailing address is P.O. Box C-122, SUI Ross State University, Alpine. Texas, 79832.