

**Dr. Kelsch, Office: WSB 316**

**432-837-8657, jkelsch@sulross.edu**

**Office Hours: Mon 11-noon, 2-3; Tue 11-noon, 2-3; Wed 11-noon; Thur 11-noon**

**ENVIRONMENTAL GEOLOGY LABORATORY – GEOL 1105, Spring 2024; Tue 3-4:40pm**

**GENERAL DESCRIPTION OF THE COURSE:**

This course is designed to give the student opportunities to apply and further explore the concepts of environmental geology taught in the associated lecture class GEOL 1305. Environmental geology can be thought of as applied geology, or all parts of geology with which human society interacts. This laboratory course covers Earth materials, natural hazards, water resources and pollution, and global climate change.

**Materials required:**

Lab Manual: Freeman, Tom: Environmental Geology laboratory.

**General Objectives: Each student will develop:**

1. Knowledge about the application of the scientific method as a tool for understanding Earth's processes
2. Knowledge about the composition and formation of common rocks and minerals
3. An understanding of hazardous earth processes
4. An understanding of how the extraction and use of natural resources affects our environment
5. A general knowledge of Earth climate and changes to this climate

**Student Learning Objectives: Each student will demonstrate the ability to:**

1. Identify and interpret common rocks and minerals, understand soils
2. Describe the basic concepts of the connection between the biology and geology
3. Interpret natural hazards, including these related to river systems, landslides, earthquakes, volcanoes, coasts and meteorite impacts
4. Explain current issues pertaining to water resources, water pollution, and the impacts on these from mineral and energy resource extraction and use
5. Evaluate basic issues pertaining to climate change

**Grading:**

- Lab exercises: There are eleven lab exercises, the best ten of which will each count for 9% of the total class grade.
- There will be a final examination taken during the last lab session that will count for 10% of the total class grade.

	points for each	number of each	total points	percent of grade
Lab exercises	90	10	900	90%
Final exam	100	1	100	10%

**Letter grading:**

Final course grade will be based on a percentage in the standard grading system: 100-90 (A), <90-80 (B); <80-70 (C), <70-60 (D), <60 (well, you know what, let's not have any of those...)

### **Attendance and Make-up Policy:**

The only acceptable excuses for missing class are those due to illness, approved Sul Ross sanctioned events, and observation of religious holidays. All excused absences must be documented on paper. Please inform the professor at least 1 week prior to missing class (email, note on office door, etc.). With an appropriate excuse, you must make up missed exams within TEN days of the last day of the absence or you have failed to meet your course responsibilities and will receive a zero. University policy dictates that your instructor can drop you with an F from the course after 6 absences from TR classes or after 9 absences from MWF classes.

### **THECB/SACS Core Curriculum Core Competencies Objectives:**

Personal Responsibility – Students will develop principles of personal responsibility for living in a diverse world; to include intercultural competency, knowledge of civic responsibility, and the ability to engage effectively in regional, national and global communities

Social Responsibility – Students will develop principles of social responsibility for living in a diverse world, to include the ability to connect choices, actions, and consequences to ethical decision-making

### **ADA Statement**

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. Alpine 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 [mschwartz@sulross.edu](mailto:mschwartz@sulross.edu). Our office is located on the first floor of Ferguson Hall (Suite 112), and our mailing address is P.O. Box C122, Sul Ross State University, Alpine. Texas, 79832.

### **Library Information**

The Bryan Wildenthal Memorial Library in Alpine 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](http://library.sulross.edu). Off-campus access requires logging in with your LoboID and password. Librarians are a tremendous resource for your coursework and can be reached in person, by email ([srsulibrary@sulross.edu](mailto:srsulibrary@sulross.edu)), or phone (432-837-8123).

### **Academic Integrity**

Students in this class 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 is appreciated. Examples of academic dishonesty include but are not limited to: Turning in work as original that was used in whole or part for another course and/or professor; turning in another person's work as one's own; copying from professional works or internet sites without citation; collaborating on a course assignment, examination, or quiz when collaboration is forbidden.

**Semester schedule:**

Week:

Lab Topic:

2

Sedimentary rocks

3

Weathering

4

Metamorphic rocks

5

Earthquakes

6

Rivers

7

Igneous rocks

8

Coastal processes

9

Ground water

10

Waste and water

11

Hazardous waste

12

Climate