CoSM Class Syllabus / Policy

2021 / Fall Semester
GEOL 1001 Laboratory
Fundamentals of Earth Science

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Department: Geology
Email: turnerwl@sfasu.edu
Phone: 936-468-1049
Office: E.L. Miller Science, Room 307
Office Hours: Wednesday and Thursday from 1-3 PM or via zoom by appointment

Class meeting time and place: Room 302 Miller Science, time varies according to section. Labs will not begin meeting in-person until the second week of school.

Please feel free to contact me or your TA any time to ask questions, discuss any problems you may be having with the material or to help facilitate further understanding.

Course Description:
Fundamentals of Earth Science (GEOL 1001) Two hours lecture, two hours laboratory per week along with weekly lab manual reading assignments and online quizzes. This course is designed as an introduction to the fundamental principles of Earth Science. Topics include the earth’s structure and surface landforms; mineral and energy resources; geologic hazards such as volcanoes, earthquakes and landslides; water resources; and the unifying theory of plate tectonics. No prerequisites.

Program Learning Outcomes:
There are no specific program learning outcomes for this major addressed in this course. It is a general education core curriculum course and / or a service course.

Student Learning Outcomes for Lecture and Lab:
After successful completion of this course students will be able to:

SLO 1. Demonstrate an understanding of fundamental geologic concepts as it relates to Earth processes and landscape evolution through geologic time. (Critical Thinking, Empirical and Quantitative Skills)

SLO 2. Use quantitative reasoning to interpret geologic data (tables, figures, graphs) from primary research, data assimilation and models to assess the differences in competing scientific theories associated with rock formation. (Critical Thinking, Empirical and Quantitative Skills)

SLO 3. Demonstrate knowledge on the interdependence of science and technology and the influences geologic reasoning associated with identifiable and testable hypotheses of geologic processes. (Critical Thinking, Teamwork)

SLO 4. Critically assess the interrelationships between geologic phenomena and communicate the resulting conclusions in oral, visual and written formats. (Critical Thinking, Communication, Empirical and Quantitative Skills, Teamwork)

SLO 5. Demonstrate an understanding of the skills and attitudes necessary for effective teamwork in collaborative learning activities. (Communication, Teamwork)
General Education Core Curriculum
The Texas Higher Education Coordinating Board has identified six core learning objectives: Critical Thinking Skills, Communication Skills, Empirical and Quantitative Skills, Teamwork, Personal Responsibility, and Social Responsibility. SFA is committed to the improvement of its general education core curriculum by regular assessment of student performance on these six objectives.

By enrolling in GEOL 1001 you are also enrolling in a Core Curriculum Course that fulfills the Physical and Life Sciences Core Curriculum requirement. The chart below indicates: (a) The core objectives that are required to be taught in this course per the Texas Higher Education Coordinating Board (THECB), (b) How the required core objectives will be addressed.

### Core Curriculum Objective Table

<table>
<thead>
<tr>
<th>Core Objective</th>
<th>Definition</th>
<th>How the Core Objective Will be Addressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical Thinking Skills</td>
<td>To include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information</td>
<td>Identification and evaluation of unknown rock and mineral samples through pre-defined methods; analysis of trends and projection of future events concerning climate and resource usage</td>
</tr>
<tr>
<td>Communication Skills</td>
<td>To include effective development, interpretation and expression of ideas though written, oral, and visual communication</td>
<td>Interpretation of seismic data and communicating the risks of earthquakes</td>
</tr>
<tr>
<td>Empirical and Quantitative Skills</td>
<td>To include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.</td>
<td>Interpretation of resource usage data and impact on society; analysis of topographic map data;</td>
</tr>
<tr>
<td>Teamwork</td>
<td>To include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal</td>
<td>Group identification of unknown rock and mineral samples, analysis of topographic maps</td>
</tr>
</tbody>
</table>

**Text and Materials:**

*Fundamentals of Earth Science Laboratory Manual* (available in all SFA bookstores)

The lab manual is **required** and will be needed the first day of lab activities, the week of **August 30th**.

A new lab manual must be purchased from the bookstores. Each new lab manual contains perforated quiz pages that will be turned in to get credit for the weekly in-class lab quizzes.
**Course Requirements:**
This class is a 3-credit hour course and has a weekly requisite lab where students will gain experience with earth materials, gathering and analyzing data, communicating their findings and working as a team to explain scientific processes. Grades from the lecture and lab will be averaged, with the lab counting 1/3 of the grade. You will receive one grade for the entire course, assigned by your lecture instructor.

**Attendance Policy:**
Attendance is mandatory for understanding the material and participating in class. Opportunities for make-up exercises/exams must be approved by the Laboratory Coordinator. The following constitutes an excused absence:

- Illness: note from doctor for day of the lab.
- Death in Family: must be documented by obituary clipping from newspaper or funeral home.
- Jury Duty: must be documented by note from judge or other court official.
- School Function: name must appear in Faculty Bulletin or note must be sent from instructor, coach, etc.

For excused absences, makeup material time and date should be discussed with the lab coordinator. For materials missed without an excused absence, materials must be made up within two weeks of the original due date. For all missed material, contact the lab coordinator for makeups.

You are expected to come to lab, to be on time, and to stay for the duration of the lab. Whenever it is possible, arrangements should be made BEFORE the lab time so that provisions can be made.

If you become ill or have a restroom emergency during the lab period, please excuse yourself quietly. If you need to study for another class or read the paper, the library is available. If you need to nap, that is best done at home – not in the classroom. If you are sleeping or reading other material, you cannot be participating and I will assume you to be absent in mind and spirit, if not in body, for the day. Use your time wisely and learn how to plan ahead.

**Laboratory Exercises:**
Weekly laboratory exercises will reinforce lecture material with practical exercises designed to enhance specific General Education Core Curriculum Objectives. Each week, students will be introduced to these core objectives in the form of classroom exercises and electronic assignments delivered through the SFA platform Desire2Learn (d2l). Students will be responsible for accessing and completing pertinent materials from d2l.

Each week, the student will be responsible for:

1. Required reading of the upcoming chapter in the lab book to help prepare for the laboratory exercises.
2. A weekly requisite electronic pre-quiz administered through d2l before the laboratory meeting to ensure the student is prepared for the laboratory exercises.
3. Laboratory exercises completed in class. During the laboratory exercises, students will work individually and in teams to complete the in-class assignments.
4. A weekly in-class quiz to test comprehension of the laboratory exercises.
5. A weekly requisite electronic post-quiz administered through d2l after the laboratory meeting to ensure retention of the material.

The electronic quizzes will help to prepare you for the lab exercises assigned the following week and reinforce the material covered in the laboratory exercises. The pre-quizzes will cover selected reading
material assigned, the post-quizzes will help students synthesize the material and retain the information. All quizzes, both electronic and in-class, should be taken individually. The electronic quizzes will open on Friday at 12:00 a.m. and remain available until Monday at 12 midnight of the following week.

Grading Policy
Your laboratory grade will consist of the following:

- Weekly laboratory exercises (11 exercises @ 10 points each) 110
- Weekly electronic pre-quizzes (11 quizzes @ 5 points each) 55
- Weekly electronic post-quizzes (9 quizzes @ 5 points each) 45
- Online exams (Midterm and Final Exam, 25 points each) 50
- In-class exams (Midterm and Final Exam, 100 points each) 200

Total Points 460

Grades for laboratory classroom activities, exams, and electronic assignments will be delivered through d2l.

You will not receive a separate grade for your lab performance. Your laboratory average will be sent to your lecture instructor and your final grade for the course will be assigned by your lecture instructor. Lab grades will be posted using Desire2Learn (d2l), which can be accessed through https://d2l.sfasu.edu. You may log in using your mySFA username and password.

Academic Integrity (A-9.1)
Academic integrity is a responsibility of all university faculty and students. Faculty members promote academic integrity in multiple ways including instruction on the components of academic honesty, as well as abiding by university policy on penalties for cheating and plagiarism.

Definition of Academic Dishonesty
Academic dishonesty includes both cheating and plagiarism. Cheating includes but is not limited to (1) using or attempting to use unauthorized materials to aid in achieving a better grade on a component of a class; (2) the falsification or invention of any information, including citations, on an assigned exercise; and/or (3) helping or attempting to help another in an act of cheating or plagiarism. Plagiarism is presenting the words or ideas of another person as if they were your own. Examples of plagiarism are (1) submitting an assignment as if it were one's own work when, in fact, it is at least partly the work of another; (2) submitting a work that has been purchased or otherwise obtained from an Internet source or another source; and (3) incorporating the words or ideas of an author into one's paper without giving the author due credit. Please read the complete policy at http://www.sfasu.edu/policies/4.1-student-academic-dishonesty.pdf.

Withheld Grades Semester Grades Policy 5.5)
Please copy and paste the following information regarding Withheld Grades into your syllabus. Add additional information as needed to meet your departmental or course needs.

Ordinarily, at the discretion of the instructor of record and with the approval of the academic chair/director, a grade of WH will be assigned only if the student cannot complete the course work because of unavoidable circumstances. Students must complete the work within one calendar year from the end of the semester in which they receive a WH, or the grade automatically becomes an F. If students register for the same course in future terms the WH will automatically become an F and will be counted...
as a repeated course for the purpose of computing the grade point average. For additional information, go to http://www.sfasu.edu/policies/course-grades-5.5.pdf.

**Students with Disabilities**

*Please copy and paste the following statement and place in your course syllabus.*

To obtain disability related accommodations, alternate formats and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, and Room 325, 468-3004 / 468-1004 (TDD) as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services in a timely manner may delay your accommodations. For additional information, go to http://www.sfasu.edu/disabilityservices/.

SFASU values students' mental health and the role it plays in academic and overall student success. SF A provides a variety of resources to support student's mental health and wellness. Many of these resources are free, and all of them are confidential.

**On-campus Resources:**

SF ASU Counseling Services  
www.sfasu.edu/counselingservices  
3rd Floor Rusk Building  
936-468-2401

SFASU Human Services Counseling Clinic  
www.sfasu.edu/humanservices/139.asp  
Human Services Room 202  
936-468-1041

**Crisis Resources:**

Burke 24-hour crisis line 1(800) 392-8343  
Suicide Prevention Lifeline 1(800) 273-TALK (8255)  
Crisis Text Line: Text HELLO to 741-741
## Fall 2021 Course Calendar:

### GEOL 1001 Lab Fundamentals of Geology Calendar

<table>
<thead>
<tr>
<th>Week Dates</th>
<th>Chapter/Module</th>
<th>Assignments (all times are CST)</th>
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</thead>
<tbody>
<tr>
<td><strong>Unit 1: Earth Materials</strong></td>
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</tbody>
</table>
| Week 1 8/23 - 8/27 | Getting Started Pre-Lab Material | Read Syllabus, Watch Intro Videos  
Pre-Quiz 1 and Lab Orientation Quiz Opens 8/23 |
| Week 2 8/30 - 9/3 | Chapter 1: Introduction to Minerals | Pre-Quiz 1 and Lab Orientation Quiz Due 8/30 @ 11:59 PM  
In-Class Quiz 1 due at end of lab  
Post-Quiz 1 and Pre-Quiz 2 Opens 9/3 |
| Week 3 9/6 - 9/10 | Chapter 2: Sediment and Erosion | Post-Quiz 1 and Pre-Quiz 2 Due 9/6 @ 11:59 PM  
In-Class Quiz 2 due at end of lab  
Post-Quiz 2 and Pre-Quiz 3 Opens 9/10 |
| Week 4 9/13 - 9/17 | Chapter 3: Sedimentary Rocks | Post-Quiz 2 and Pre-Quiz 3 Due 9/13 @ 11:59 PM  
In-Class Quiz 3 due at end of lab  
Post-Quiz 3 and Pre-Quiz 4 Opens 9/17 |
| Week 5 9/20 - 9/24 | Chapter 4: Igneous Rocks | Post-Quiz 3 and Pre-Quiz 4 Due 9/20 @ 11:59 PM  
In-Class Quiz 4 due at end of lab  
Post-Quiz 4 and Pre-Quiz 5 Opens 9/24 |
| Week 6 9/27 - 10/1 | Chapter 5: Metamorphic Rocks | Post-Quiz 4 and Pre-Quiz 5 Due 9/27 @ 11:59 PM  
In-Class Quiz 5 due at end of lab  
Online Midterm Exam Opens 10/1 |
<table>
<thead>
<tr>
<th>Week 7</th>
<th>Midterm Exam</th>
<th>Fall 2021 SFASU GEOL 1001 Laboratory</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/4 - 10/8</td>
<td>Online Midterm Exam Due 10/4 @ 11:59 PM</td>
<td>In-Class Midterm during the lab period</td>
</tr>
<tr>
<td></td>
<td>Pre-Quiz 6 Opens 10/8</td>
<td>Pre-Quiz 6 Due 10/11 @ 11:59 PM</td>
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</tbody>
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**Unit 2: Earth in Society**

<table>
<thead>
<tr>
<th>Week 8</th>
<th>Chapter 6: Earthquakes and Seismology</th>
<th>Pre-Quiz 6 Due 10/11 @ 11:59 PM</th>
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</thead>
<tbody>
<tr>
<td>10/11 - 10/15</td>
<td>Chapter 7: Powering our Planet; Fossil Fuels</td>
<td>In-Class Quiz 6 due at end of lab</td>
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<tr>
<td></td>
<td>Post-Quiz 6 and Pre-Quiz 7 Opens 10/15</td>
<td>Post-Quiz 6 and Pre-Quiz 7 Due 10/18 @ 11:59 PM</td>
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<table>
<thead>
<tr>
<th>Week 9</th>
<th>Chapter 7: Powering our Planet; Fossil Fuels</th>
<th>Post-Quiz 7 and Pre-Quiz 8 Opens 10/22</th>
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</thead>
<tbody>
<tr>
<td>10/18 - 10/22</td>
<td>Chapter 8: Rock and Mineral Resources</td>
<td>Post-Quiz 7 and Pre-Quiz 8 Due 10/25 @ 11:59 PM</td>
</tr>
<tr>
<td></td>
<td>Post-Quiz 7 and Pre-Quiz 9 Opens 10/29</td>
<td>In-Class Quiz 7 due at end of lab</td>
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<table>
<thead>
<tr>
<th>Week 10</th>
<th>Chapter 8: Rock and Mineral Resources</th>
<th>Post-Quiz 7 and Pre-Quiz 9 Due 11/1 @ 11:59 PM</th>
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</thead>
<tbody>
<tr>
<td>10/25 - 10/29</td>
<td>Chapter 9: Streams and Rivers; Hydroelectric Power</td>
<td>In-Class Quiz 9 11/2 - 11/5</td>
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<td>Post-Quiz 9 and Pre-Quiz 10 Opens 11/5</td>
<td>Post-Quiz 9 and Pre-Quiz 10 Opens 11/5</td>
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<thead>
<tr>
<th>Week 11</th>
<th>Chapter 9: Streams and Rivers; Hydroelectric Power</th>
<th>Post-Quiz 9 and Pre-Quiz 10 Due 11/8 @ 11:59 PM</th>
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<tbody>
<tr>
<td>11/1 - 11/5</td>
<td>Chapter 10: Groundwater; Geothermal Energy</td>
<td>In-Class Quiz 10 due at end of lab</td>
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<td></td>
<td>Post-Quiz 10 and Pre-Quiz 11 Opens 11/12</td>
<td>Post-Quiz 10 and Pre-Quiz 11 Opens 11/12</td>
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<thead>
<tr>
<th>Week 12</th>
<th>Chapter 10: Groundwater; Geothermal Energy</th>
<th>Post-Quiz 10 and Pre-Quiz 11 Due 11/15 @ 11:59 PM</th>
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<tbody>
<tr>
<td>11/8 - 11/12</td>
<td>Chapter 11: Alternative Energy</td>
<td>In-Class Quiz 11 due at end of lab</td>
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<td>Post-Quiz 10 and Pre-Quiz 11 Opens 11/19</td>
<td>Online Final Exam Opens 11/19</td>
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<tr>
<td>Week 14</td>
<td>Thanksgiving Break - No Labs</td>
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<tr>
<td>11/22 - 11/26</td>
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<tr>
<th>Week 15</th>
<th>Final Exam Week</th>
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<tbody>
<tr>
<td>11/29 - 12/3</td>
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</table>

Online Final Exam Due 11/29 @ 11:59 PM  
In-Class Final Exam during the lab period

Schedule is subject to change**