In this course we will cover a wide range of processes which take place within and on our planet. These will include things that take place over small, human time scales, such as natural disasters, as well as over long, geologic time scales like the building of mountains and spreading of oceans. Throughout the semester try and keep in mind that the things we discussed are part of an interconnected Earth system and the various field of Earth science and geology oftentimes rely on one another to fully understand any scientific problem they address. Ultimately, I want you to come out of this class feeling like you can look at the world around you with a different lens and have some appreciation for the systems and processes at work all over the globe!

**Course Description:** Introductory Geology (GEOL 1303) - Four semester hours, three hours lecture, two hours laboratory per week. Designed for the student with no geology background. Introduction to the study of minerals, rocks, and the processes that modify and shape the surface features of the Earth. Focus on energy, mineral and water resources; volcanism; and other practical aspects of geology. No prerequisites.

**Lecture:** We will meet in Miller Science 335 for our scheduled lecture periods, Tuesday and Thursday, 9:30 -10:45 a.m. Some course work (readings, assignments, quizzes) will be online (Brightspace). There is a detailed course schedule at the end of this syllabus.

**Lab:** I am not at all involved with the lab sections. The labs are administered by Mr. Wesley Turner (turnerwl@sfasu.edu) and taught by graduate teaching assistants. Your lab instructor will give you a Lab Syllabus that outlines lab-specific policies. If you have questions about lab assignments, please contact your lab instructor.

**Required Course Materials:**
- Physical Geology 2nd Ed., Earle: [https://opentextbc.ca/physicalgeology2ed/](https://opentextbc.ca/physicalgeology2ed/) This textbook is open access (free) so you may use the pdf, print it out, what have you.

**Program Learning Outcomes:**

PLO 1. Demonstrate knowledge of the fundamental core geologic concepts (Mineralogy, Petrology, Structural Geology, Stratigraphy, Geophysics and Geochemistry). (Concepts)

PLO 2. Execute geologic procedures and methods accurately, appropriately and efficiently. (Skills)

PLO 3. Apply principles of logic and reasoning to develop and analyze geologic problems. (Logical - Reasoning)

PLO 4. Demonstrate competence in using various geologic tools, including technology, to formulate, represent, and solve problems. (Critical thinking - Problem Solving)

PLO 5. Demonstrate proficiency in communicating geologic information in an appropriate form to the
**Student Learning Outcomes:** After successful completion of this course, students will be able to:

SLO 1. Demonstrate an understanding of fundamental geologic concepts as they relate to Earth processes and landscape evolution through geologic time (CO 1, 3).

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 (CO 1, 3).

SLO 3. Demonstrate knowledge of the interdependence of science and technology and the influences on geologic reasoning associated with identifiable and testable hypotheses of geologic processes (CO 1, 4).

SLO 4. Critically assess the interrelationships between geologic phenomena and communicate the resulting conclusions in oral, visual, and written formats (CO 1, 3, 4).

SLO 5. Demonstrate an understanding of the skills and attitudes necessary for effective teamwork in collaborative learning activities (CO 3, 4).

**General Education Core Curriculum Objectives/Outcomes:** By enrolling in Fundamentals of Earth Science, you are also enrolling in a Core Curriculum Course that fulfills 3 hours of the Life and Physical Science requirement. The Texas Higher Education Coordination Board has identified six core learning objectives: Critical Thinking Skills, Communication Skills, Empirical and Quantitative Skills, Teamwork, Personal Responsibility, and Social Responsibility. This course will address those as follows.

- **Critical Thinking Skills** - To include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.
  - Students will be encouraged to think about how the various concepts we discuss are connected and build on each other through the course. Exams and activities will be used to reinforce this and assess their understanding.

- **Communication Skills** - To include effective development, interpretation and expression of ideas through written, oral, and visual communication.
  - Students will present a project on a topic of their choosing (related to the course).

- **Empirical and Quantitative Skills** - To include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.
  - Students will analyze data and make justified interpretations in both the lab and in class activities.

- **Teamwork** - To include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal.
  - The course has a required group project/presentation.

**Workload:** A unit of credit is the semester hour, defined by the federal government as one class meeting per week (or its equivalent) for one 15-week semester. For each semester hour, you are expected to spend at least 2 hours per week in preparation and study.

**Brightspace:** All course content, modules, and useful resources are posted in the Brightspace (D2L) learning environment, which you can access through mySFA. It is your responsibility to check the site regularly to keep up with assignments and course announcements. Grades will be posted on Brightspace, but the grades Brightspace calculates may differ slightly from my Excel grades, which are final. Please do not email me through D2L; instead, contact me directly at Zachariah.fleming@sfasu.edu. For technical assistance with Brightspace, please contact 936-468-1919, d2l@sfasu.edu, https://www.sfactl.com/student-support, or the Virtual Lab zoom hours (see purple box on the Brightspace home page).
Assignments: There will be weekly assignments which look to assess your understanding of course concepts. These assignments will either be provided via Brightspace, or be part of class. So be aware that if you miss class, you may miss portions of your grade.

Readings: I expect you to keep up with chapter readings throughout the course. These are meant to supplement your understanding of the material we cover in lecture.

Class Meetings: It is your responsibility to take good notes during class meetings so that you have a record of concepts, chalkboard sketches, activities, and discussions not included in my PowerPoint slides. All slides will be posted on Brightspace after class. You do not have my permission to record lectures or screenshot slides.

Presentation: You will be responsible for a group project/presentation that explores a course topic beyond, but related to, what we cover in class. The general requirements are that the project is clearly and directly related to Earth Science/Geology. Project deadlines are on the course schedule on the last page of this syllabus. Further details will be provided later in the semester.

Exams: Three exams are scheduled for this semester that tests course concepts, including lecture material, readings, activities, and discussions; material covered strictly in lab is not included. Exams contain a variety of question types, such as multiple choice, matching, ordering, and free response (e.g., short answers, diagrams). The final exam is cumulative. Exam dates are provided on the course schedule – plan accordingly.

Course Schedule: The course schedule at the end of the syllabus outlines the schedule of meetings, modules, exams, and other course activities. Plan your time! It is good practice to enter all deadlines and other important dates into whichever app or planner you use to track your work. I reserve the right to modify the schedule as needed, and I will notify you accordingly.

Attendance: You are expected to attend all course meetings.

If You Have Been Absent: I do not need/want/expect an explanation, a doctor’s note, or any other evidence. I only want you to communicate with me to get caught up! You are responsible for making up missed work. Here’s how:
1. The syllabus will tell you what you missed. Check Brightspace for new course materials and announcements.
2. Contact a classmate for a copy of any notes.
3. Contact me to arrange new due dates or for assistance with missed material. *You do not need to contact me about an absence unless you need new deadlines or assistance.*
4. Attend student hours or make an appointment with me or your TA for additional assistance.

Late Work: If you have an upcoming absence or are having trouble completing an assignment on time, contact me *by the business day before* the due date about alternative arrangements. Otherwise, a 5% per school day penalty (to a maximum loss of 50%) applies to all assignments. No assignment will be accepted for full credit after the assignment has been graded and returned – keep on top of your work!
Final Grades: Your final grade will be determined by summing the weighted averages of your grades in each of
the categories below. Letter grades will be assigned as follows: A (90.0–100), B (80.0–89.9), C (70.0–79.9), D
(60.0–69.9), F (< 60.0).

- Activities 25 %
- Midterm Exams (2) 30 %
- Final Exam 30 %
- Presentation 15 %

Statement on AI Usage: Any use of AI assistance will be considered cheating and handled as such.

Office Hours: Office hours are the times when I guarantee my availability to you. Student hours are a good time to
discuss course topics, ask questions, discuss your course progress, talk about ways to improve your understanding,
or just chat. My office hours for this semester are listed at the top of this syllabus. Office hours are open to all
students, no appointment necessary, so please drop in. To plan longer meetings or for meetings at other days and
times, please email me.

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Reading</th>
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<tbody>
<tr>
<td>1/18</td>
<td>Intro. &amp; Earths Interior</td>
<td>Ch. 1, 22</td>
</tr>
<tr>
<td>1/23</td>
<td>Earth Interior; Plate Tectonics</td>
<td>Ch. 9, 10</td>
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<tr>
<td>1/30</td>
<td>Minerals; Igneous Systems</td>
<td>Ch. 2, 3</td>
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<tr>
<td>2/6</td>
<td>Igneous Systems; Weathering and Erosion</td>
<td>Ch. 4, 5</td>
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<tr>
<td>2/13</td>
<td>Sedimentary Systems</td>
<td>Ch. 6</td>
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<td>2/20</td>
<td>Metamorphism</td>
<td>Ch. 7</td>
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<tr>
<td>2/27</td>
<td>Review; Exam 1</td>
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<tr>
<td>3/4</td>
<td>Geo Time</td>
<td>Ch. 8</td>
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<tr>
<td>3/9</td>
<td>Spring Break</td>
<td>Ch. 12, 11</td>
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<tr>
<td>3/18</td>
<td>Deformation</td>
<td>Ch. 13</td>
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<tr>
<td>3/25</td>
<td>Earthquakes; Groundwater</td>
<td>Ch. 14, 16</td>
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<td>4/1</td>
<td>Review; Exam 2</td>
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<td>4/8</td>
<td>Glaciers</td>
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<td>4/15</td>
<td>Deserts; Energy</td>
<td>Ch. 20, 19</td>
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<td>4/22</td>
<td>Climate</td>
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<td>4/29</td>
<td>Group Presentations</td>
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<td></td>
<td>Final - May 9th 8-10am</td>
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This schedule is subject to change. I will notify you of any changes and provide an updated syllabus schedule.

Academic Integrity (4.1)

The Code of Student Conduct and Academic Integrity outlines the prohibited conduct by any student enrolled in a
course at SFA. It is the responsibility of all members of all faculty, staff, and students to adhere to and uphold this policy.

Articles IV, VI, and VII of the new Code of Student Conduct and Academic Integrity outline the violations and
procedures concerning academic conduct, including cheating, plagiarism, collusion, and misrepresentation.
Cheating includes, but is not limited to: (1) Copying from the test paper (or other assignment) of another student, (2) Possession and/or use during a test of materials that are not authorized by the person giving the test, (3) Using, obtaining, or attempting to obtain by any means the whole or any part of a non-administered test, test key, homework solution, or computer program, or using a test that has been administered in prior classes or semesters without permission of the Faculty member, (4) Substituting for another person, or permitting another person to substitute for one’s self, to take a test, (5) Falsifying research data, laboratory reports, and/or other records or academic work offered for credit, (6) Using any sort of unauthorized resources or technology in completion of educational activities.

Plagiarism is the appropriation of material that is attributable in whole or in part to another source or the use of one’s own previous work in another context without citing that it was used previously, without any indication of the original source, including words, ideas, illustrations, structure, computer code, and other expression or media, and presenting that material as one’s own academic work being offered for credit or in conjunction with a program course or degree requirements.

Collusion is the unauthorized collaboration with another person in preparing academic assignments offered for credit or collaboration with another person to commit a violation of any provision of the rules on academic dishonesty, including disclosing and/or distributing the contents of an exam.

Misrepresentation is providing false grades or résumés; providing false or misleading information in an effort to receive a postponement or an extension on a test, quiz, or other assignment for the purpose of obtaining an academic or financial benefit for oneself or another individual or to injure another student academically or financially.

Withheld Grades Semester Grades Policy (5.5)

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 coursework 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 to compute the grade point average. For additional information, go to https://www.sfasu.edu/policies/course-grades-5.5.pdf.

Students with Disabilities

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 promptly may delay your accommodations. For additional information, go to http://www.sfasu.edu/disabilityservices/.

Student Wellness and Well-Being

SFA values students’ overall well-being, mental health and the role it plays in academic and overall student success. Students may experience stressors that can impact both their academic experience and their personal well-being. These may include academic pressure and challenges associated with relationships, emotional well-being, alcohol and other drugs, identities, finances, etc.
If you are experiencing concerns, seeking help, SFA provides a variety of resources to support students’ mental health and wellness. Many of these resources are free, and all of them are confidential.

**On-campus Resources:**
The Dean of Students Office (Rusk Building, 3rd floor lobby)
www.sfasu.edu/deanofstudents
936.468.7249
dos@sfasu.edu

SFA Human Services Counseling Clinic Human Services, Room 202
www.sfasu.edu/humanservices/139.asp
936.468.1041

The Health and Wellness Hub “The Hub”
Location: corner of E. College and Raguet St.

To support the health and well-being of every Lumberjack, the Health and Wellness Hub offers comprehensive services that treat the whole person – mind, body and spirit. Services include:
- Health Services
- Counseling Services
- Student Outreach and Support
- Food Pantry
- Wellness Coaching
- Alcohol and Other Drug Education

www.sfasu.edu/thehub
936.468.4008
thehub@sfasu.edu

**Crisis Resources:**
- Burke 24-hour crisis line: 1.800.392.8343
- National Suicide Crisis Prevention: 9-8-8
- Suicide Prevention Lifeline: 1.800.273.TALK (8255)
- johCrisis Text Line: Text HELLO to 741-741