GOL 131.001 – Introductory Geology – Spring 2017

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Office Hours: MW 2:15-4:00 p.m., TF 9-11:00 a.m., R 12-2:00 p.m., drop in, or by appointment.

Lecture Meetings: Monday, Wednesday, Friday, 11:00-11:50 a.m., Miller Science, Room 335

Course Description: Introductory Geology (GOL 131) – 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. Required lab fee. No prerequisites. Corequisite GOL 131L.

Required Materials:

- **The Changing Earth: Exploring Geology and Evolution**, 7th edition, Monroe & Wicander, 712 p., Cengage Learning, ISBN: 978-1-285-73341-8.
- **Introductory Geology Laboratory Manual**. For GOL 131L, available in all SFA bookstores.
- **Four Scantron forms** (Form 882) for the four scheduled exams.
- You are expected to bring a notebook and/or binder to all class meetings to organize notes and handouts for reference. You will need a pencil and eraser for class assignments and exams. You may find a ruler, calculator, and colored pencils useful for some classwork.

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 service course.

General Education Core Curriculum Objectives/Outcomes: The student is expected to develop the following core objectives established by the THECB:

CO 1. Critical Thinking Skills. Creative thinking, innovation, inquiry, analysis, and evaluation and synthesis of information (SLO 1-4).
CO 2. Communication Skills. Effective development, interpretation, and expression of ideas through written and visual communication (SLO 4-5).
CO 3. Empirical and Quantitative Skills. Manipulation and analysis of numerical data or observable facts resulting in informed conclusions (SLO 1-2,4).
CO 4. Teamwork. The ability to consider different points of view and to work effectively with others to support a shared purpose or goal (SLO 3-5).

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 on 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 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).

Course Format: Lectures will be paired with course assignments and activities that will introduce and reinforce the fundamental principles of geology. You are expected to complete readings prior to the class meetings for which they are assigned – your preparation for class is essential to our exploration of the topics and your own success. Four exams (including the final exam) will assess your mastery of course material. A course schedule at the end of this syllabus outlines course topics, required readings, and exam dates. Course assignments will be assigned as needed. The corequisite GOL 131 lab will provide you with hands-on experience in observation and interpretation of minerals, rocks, and topographic maps. You will receive separate grades for GOL 131 and GOL 131L.

D2L: Course content (lecture slides, handouts, assignments, etc.) will be posted using the Desire2Learn (D2L) learning environment, which you can access through mySFA. Grades will be posted on D2L, but note that calculated grades shown on D2L may differ slightly from my Excel grade determinations, which are final. D2L will also be used for group communication and important notifications. It is your responsibility to check the site regularly for access to course materials and information.

To receive D2L communications in a timely manner, please set your D2L preferences to forward announcements to your preferred email address. To do this, log in to D2L through mySFA. Click on your name in the top right corner, and select “Account Settings” from the dropdown menu. Select the “Email” tab. Scroll down to “Forwarding Options.” Check the box to forward incoming messages, and enter your preferred email address. Save!

Course Assignments. Course assignments will include short, in-class exercises and homework assignments. These assignments will be designed to explore and apply your understanding of course concepts. A particular focus of these assignments will be concept sketching – producing annotated diagrams that identify Earth’s features, describe processes, and characterize relationships between features and processes. Many of these assignments will be turned in for credit. Note that completion of many of these assignments will be contingent upon working with classmates, or other conditions that cannot be duplicated outside of class, and so cannot be made up in the event of an absence.

Exams. Four exams – including the final – are scheduled for this semester (see course schedule). Exams will test course concepts, including lecture material, assigned readings, and course assignments. Exams will include short format questions (e.g., multiple choice) and diagrams (e.g., concept sketching, course assignments). The final exam will be cumulative. The date of the final exam is provided on the course schedule – plan accordingly. You will need a pencil, eraser, and Scantron Form 882 for exams. Use of any electronic device during exams is not permitted.

Attendance: You are expected to attend all lecture and lab meetings. I will take attendance for accounting purposes. Excused absences include illness, serious emergency, and events during which you are representing the University. You need not contact me regarding an absence unless you wish your absence to be excused for the purpose of adjusting deadlines. If you wish your absence to be excused, you must provide timely, written verification – advanced notification is required for anticipated absences. Exams will not be rescheduled for unexcused absences. Poor planning and vacations do not constitute excused absences.

If you have been absent, check D2L for lecture slides and course assignments. Contact a classmate for lecture notes. You are welcome to attend office hours or make an appointment for clarification of missed concepts or assignments.

Late Work: If you have an excused absence or are having trouble completing an assignment on time, please talk with me ***well before*** the due date (i.e., *NOT* at the last minute) about alternative arrangements. Otherwise, a 10% per school day penalty will apply to all late assignments. No assignment will be accepted for credit after the assignment has been graded and returned.

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).

- Course Assignments 18 %
- Exam 1 20 %
- Exam 2 20 %
- Exam 3 20 %
- Final Exam 22 %

Success! Your academic achievement naturally depends on your level of involvement in this course. You improve your chances of success if you: complete readings and assignments, attend all lectures and labs, take advantage of office hours, participate in activities and discussions, study regularly, make use of available resources, and ask questions. Do not hesitate to ask for help. I am invested in your education and academic success, and will provide appropriate assistance as requested. I guarantee my availability during office hours, but feel free to drop by or make an appointment. There will be no extra credit opportunities for this course – focus your attention on the tasks at hand.

Classroom Courtesy: Please be considerate of your classmates and of me. Refrain from distracting behaviors, and keep electronic devices silent. Use of electronic devices for purposes other than participating in class (e.g., note-taking) is distracting, and therefore not acceptable in the classroom.

Communication: Seek me out when you have questions or concerns. I guarantee my availability during office hours, but you are welcome to stop by any time – if my door is open, I'm available. Email (stevenslm@sfasu.edu) is preferable to telephone communication – I won't check voicemail when I'm off campus for the evening. I will contact you through SFA email or D2L – it is your responsibility to make sure you check your messages regularly.

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), Room 325, Human Services Building, 936-468-3004/1004 (TDD) as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodations 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. Please be in touch with me at the beginning of the semester to discuss arrangements for accommodations.

Academic Integrity: Completing our work with academic integrity is a responsibility of all university faculty and students. Academic dishonesty includes both cheating and plagiarism. Cheating includes but is not limited to 1) using or attempting to use unauthorized materials on any class assignment or exam; 2) falsifying or inventing 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 one's own. Examples of plagiarism include, but are not limited to 1) submitting an assignment as one's own work when it is at least partly the work of another; 2) submitting a work that has been purchased or otherwise obtained from the internet or another source; and/or 3) incorporating the words or ideas of an author into one's work without giving the author credit. Penalties may include, but are not limited to reprimand, no credit for the assignment or exam, repeating the assignment or exam, completing a new assignment, failure of the course, or expulsion from the university. ***You are encouraged to ask questions about completing your coursework with academic integrity*.**

Withheld Grades: Ordinarily, at the discretion of the instructor of record and with the approval of the academic chair, 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 grade point average. The circumstances precipitating the request must have occurred after the last day in which a student could withdraw from a course. Students requesting a WH must be passing the course with a minimum projected grade of C.

Course Schedule: This syllabus contains a detailed course schedule. You are responsible for keeping up with the schedule and completing readings and assignments on time. If it becomes necessary to modify the schedule, I will notify you accordingly.

Course Schedule – GOL 131 Section 001 – Introductory Geology – Spring 2017			
Week	**Date**	**Topic**	**Reading**
1	M Jan. 16	***No Class – MLK, Jr. Day***	
	W Jan. 18	Why Geology?	Chapter 1
	F Jan. 20	Investigating Geology	
2	M Jan. 23	Earth's Origin	
	W Jan. 25	Earth's Layers	
	F Jan. 27	Plate Tectonics: Evidence	Chapter 2
3	M Jan. 30	Plate Tectonics: Mechanisms	
	W Feb. 1	Plate Tectonics: Rates & Motion	
	F Feb. 3	Minerals & Matter	Chapter 3
4	M Feb. 6	The Origin of Magma	Chapter 4
	W Feb. 8	Igneous Rocks	
	F Feb. 10	Volcanism & Volcanoes	Chapter 5
5	M Feb. 13	**EXAM 1** (Chapters 1-4)	
	W Feb. 15	Volcanic Hazards	Chapter 5
	F Feb. 17	The Sedimentary Cycle	Chapter 6
6	M Feb. 20	Sedimentary Rocks	Chapter 7
	W Feb. 22	Metamorphic Rocks	Chapter 8
	F Feb. 24	Metamorphism	
7	M Feb. 27	Earthquakes	Chapter 9
	W Mar. 1	Seismic Hazards	
	F Mar. 3	Earth's Interior	
8	M Mar. 6	Deformation	Chapter 10
	W Mar. 8	Mountain Building	
	F Mar. 10	**EXAM 2** (Chapters 5-10)	
9	M Mar. 13	***No Classes – Spring Break***	
	W Mar. 15		
	F Mar. 17		
10	M Mar. 20	Mass Wasting	Chapter 11
	W Mar. 22	The Work of Streams	Chapter 12
	F Mar. 24	Streams from Head to Mouth	
11	M Mar. 27	Flooding	
	W Mar. 29	Groundwater	Chapter 13
	F Mar. 31	Aquifers	
12	M Apr. 3	Groundwater Concerns	
	W Apr. 5	Caves & Geysers	
	F Apr. 7	**EXAM 3** (Chapters 11-13)	
13	M Apr. 10	Ice Ages & Glaciation	Chapter 14
	W. Apr. 12	Continental Glaciation	
	F Apr. 14	***No Class – Easter Holiday***	
14	M Apr. 17	Alpine Glaciation	Chapter 14
	W Apr. 19	Deserts	Chapter 15
	F Apr. 21	Deserts	
15	M Apr. 24	Oceans, Coasts & Shorelines	Chapter 16
	W Apr. 26	Shoreline Processes	
	F Apr. 28	Coastal Living	
16	M May 1	Geology of Texas	Handout
	W May 3	Geology of Texas	
	F May 5	Geology of Texas	
17	W May 10	**FINAL EXAM, 10:30 a.m. – 12:30 p.m.**	