CoSM Class Syllabus / Policy

2019 / Spring Semester
GOL 131.002
Introductory Geology

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Office: E.L. Miller Science, Room 310
Office Hours: T: 1-5, W: 9-12 or 2-5; or by appointment

Class meeting time and place: TR: 9:30-10:45; Room 335 Miller Science

Please feel free to stop by any time to ask questions, discuss any problems you may be having with the material or to help facilitate further understanding. If these office hours conflict with your schedule, please call or email to make an appointment.

Text and Materials:
• *The Changing Earth* (7th Ed.), Monroe et al. (recommended* not required)
• 4 scantrons (Form 882)
• *Introductory Geology Laboratory Manual* (available in all SFA bookstores)

*No textbook is required, but I recommend that you purchase a text if your personal learning style benefits from having a textbook for reference. There are no required textbook assignments but it can be beneficial. Previous editions purchased through various booksellers would also be a viable option. Textbook editions vary little in content; updates are generally associated with pictures and graphics.*

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.

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.

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, and analysis, 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 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 phenomenons and communicate the resulting conclusions in 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)

**Course Requirements:**
GOL 131 (Introductory Geology) is an introduction to the fascinating and complex processes of planet Earth – an ever-changing dynamic environment. Billions of years of processes, both tranquil and violent, have sculpted the surface of the earth and helped create the landforms we see today and the study of geology is the key to understanding these processes. Current technology gives us keys to understanding the development of continents, ocean basins, mountain chains, volcanoes, earthquakes and many other cataclysmic events. Geology is also the study of the earth’s resources; how they form, where to find them, ways we extract them and how we plan to protect and preserve them for future generations.

**The U.S. Department of Education Definition of the Credit Hour:** a credit hour is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally established equivalency that reasonably approximates not less than one hour of classroom or direct faculty instruction and a minimum of two hours out of class student work each week for approximately fifteen weeks for one semester of credit.

This class is a **3-credit hour course** and has a weekly requisite 1-credit hour lab where you will gain hands-on experience with minerals, rocks, and topographic maps. You will receive
separate and individual grades for the lecture and laboratory sections of the course. With respect to the lecture section of this course, expect to spend at least 6-9 hours a week on this course reading outside content, completing classroom activities, responding to discussion prompts, and studying for exams.

**Grading Policy:**
All lecture exams will include a multiple-choice section with additional sections that will vary between exams but may include any or all of the following sections: 1) multiple choice questions; 2) true / false questions; 3) fill in the blank questions; 4) short answer questions; 5) figure illustration; 6) short essay questions. All exams will take place in our classroom unless otherwise stated in class.

The exams will cover questions from lecture, assigned reading material and activities conducted in class and as outside assignments. You will need a Scantron (Form 882) and a number 2 pencil for the exams. The essay questions are part of the test and are sometimes extra credit. When answering the essay questions, I expect you to use complete sentences, correct grammar and spelling. The final exam will be comprehensive, meaning that this test will be over all the topics discussed during the semester and will be given at the University’s scheduled time.

**Make up exams, regardless of the reason for missing the exam, will be given during dead week on Thursday, May 9 during our regularly scheduled class time.** No outside work or extra credit will be assigned to help improve your grade, so come prepared for the exams. It is imperative that you attend all lectures and labs, pay attention in class, take detailed notes and use those notes to study. In other words – get your money’s worth!

**Lecture grades are computed as follows:**
- Grades from lecture tests 1, 2, and 3 count 22% each;
- Cumulative final exam test grade 24%;
- Outside activities, discussion posts count 10%;
- Grade Scale: 90-100 = A, 80-89 = B, 70-79 = C, 60-69 = D, < 60 = F
## Tentative Schedule

<table>
<thead>
<tr>
<th>DATE</th>
<th>TOPIC</th>
<th>Reading (pages)</th>
<th>Supplementary Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 22</td>
<td>Course Information</td>
<td>Syllabus</td>
<td>Student Questionnaire</td>
</tr>
<tr>
<td>January 24</td>
<td>Origin of our Solar System</td>
<td>Ch. 1 (3-15)</td>
<td>Solar System Activity</td>
</tr>
<tr>
<td>January 29</td>
<td>Earth’s Structure</td>
<td>Ch. 1 (16-24)</td>
<td>Earth’s Layers Activity</td>
</tr>
<tr>
<td>January 31</td>
<td>How old is Earth?</td>
<td>Ch. 17 (413-418)</td>
<td>Geologic Time Activity</td>
</tr>
<tr>
<td>February 5</td>
<td>Plate Tectonics</td>
<td>Ch. 1 (16-24),</td>
<td>Plate Tectonics Discussion</td>
</tr>
<tr>
<td>February 7</td>
<td>Minerals, Physical Properties</td>
<td>Ch. 2 (27-48)</td>
<td></td>
</tr>
<tr>
<td>February 12</td>
<td>Mineral Resources</td>
<td>Ch. 3 (61-71)</td>
<td>Physical Properties Activity</td>
</tr>
<tr>
<td>February 14</td>
<td>Exam 1</td>
<td>Ch. 1, 2, 3, 17</td>
<td></td>
</tr>
<tr>
<td>February 19</td>
<td>Igneous Rocks, Plutons</td>
<td>Ch. 4 (87-107)</td>
<td>Igneous Rock Discussion</td>
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<tr>
<td>February 21</td>
<td>Sediments and Soils</td>
<td>Ch. 6 (137-155),</td>
<td>Soil Resources Activity</td>
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<td></td>
<td>Ch. 7 (159-161)</td>
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<tr>
<td>February 26</td>
<td>Sedimentary Rocks</td>
<td>Ch. 7 (161-178)</td>
<td>Depositional Environments Activity</td>
</tr>
<tr>
<td>February 28</td>
<td>Metamorphic Rocks</td>
<td>Ch. 8 (181-197)</td>
<td>Stress and Strain Activity</td>
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<tr>
<td>March 5</td>
<td>The Rock Cycle</td>
<td>Ch. 3 (71-85)</td>
<td>External Resources</td>
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<tr>
<td>March 7</td>
<td>Exam 2</td>
<td>Ch. 4, 6, 7, 8</td>
<td>Exam 2 Review</td>
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<tr>
<td>March 12</td>
<td>Volcanoes</td>
<td>Ch. 5 (111-133)</td>
<td>Shield Volcano Activity</td>
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<tr>
<td>March 14</td>
<td>Earthquakes</td>
<td>Ch. 9 (201-230)</td>
<td>IRIS Earthquake Modeling Activity</td>
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<tr>
<td>March 16-24</td>
<td>Spring Break</td>
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<tr>
<td>March 26</td>
<td>SCGSA – No class</td>
<td>D2L Assignment</td>
<td>Current Events Discussion</td>
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<tr>
<td>March 28</td>
<td>SCGSA – No class</td>
<td>D2L Assignment</td>
<td>Current Events Discussion</td>
</tr>
<tr>
<td>April 2</td>
<td>Mountain Building</td>
<td>Ch. 10 (235-253)</td>
<td>Mountain Building Activity</td>
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<tr>
<td>April 4</td>
<td>Field Trip – No class</td>
<td>D2L Assignment</td>
<td>Current Events Discussion</td>
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<tr>
<td>April 9</td>
<td>Mass Wasting</td>
<td>Ch. 11 (257-276)</td>
<td>Exam 3 Review</td>
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<tr>
<td>April 11</td>
<td>Exam 3</td>
<td>Ch. 5, 9, 10, 11</td>
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<tr>
<td>April 16</td>
<td>Surface Water</td>
<td>Ch. 12 (283-305)</td>
<td>Drainage Systems Activity</td>
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<td>April 18</td>
<td>Easter Break</td>
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<tr>
<td>April 23</td>
<td>Groundwater</td>
<td>Ch. 13 (309-332)</td>
<td>Seismic Profiles of Karst Features</td>
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<tr>
<td>April 25</td>
<td>Glaciers</td>
<td>Ch. 14 (337-359)</td>
<td>The Great Lakes and Glaciers</td>
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<tr>
<td>April 30</td>
<td>Deserts</td>
<td>Ch. 15 (363-378)</td>
<td>Desert Discussion Activity</td>
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<tr>
<td>May 2</td>
<td>Shorelines</td>
<td>Ch. 16 (385-409)</td>
<td>Mapping Ancient Shorelines using the Fossil Record</td>
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<tr>
<td>May 7</td>
<td>Natural Resources of Texas</td>
<td></td>
<td>Final Exam Review</td>
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<tr>
<td>May 9</td>
<td>Make-up Exams</td>
<td></td>
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<tr>
<td>May 16</td>
<td>Final Exam</td>
<td>All Chapters</td>
<td>8:00 – 10:00 a.m.</td>
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*Topics may be presented in a different order, but notes will be posted before lecture on the d2l webpage for the class. Reading pages are based on the 7th edition of The Changing Earth.

**Tentative Examination Schedule:**

<table>
<thead>
<tr>
<th>Exam</th>
<th>Date</th>
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<tbody>
<tr>
<td>Exam 1</td>
<td>Thursday, February 14, 2019</td>
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<tr>
<td>Exam 2</td>
<td>Thursday, March 7, 2019</td>
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<tr>
<td>Exam 3</td>
<td>Thursday, April 11, 2019</td>
</tr>
<tr>
<td>Final Exam</td>
<td>Thursday, May 16, 2019 (8:00 – 10:00 a.m.)</td>
</tr>
</tbody>
</table>

- Exact dates and times will be announced in class and posted on d2l at least one week in advance.
- All make up exams will be given on Thursday, May 9, 2019, during class time.

**Cell phones, calculators, and other electronic devices are NOT permitted during exams. If you are using them in an exam, it will be assumed that you are cheating and you will receive a grade of “0” on that exam.**

**Attendance Policy:**

- Daily attendance will be taken for university accounting purposes. Success in this course will reflect the level effort you put into the course, both in the classroom and online.
- Be prepared for lectures by reading the material to be covered prior to attending class. Questions are encouraged and welcome – do not hesitate to ask.
- No electronic devices are needed during lectures for this class, including cell phones and calculators. Please turn them off and do not use them in class. Ringing phones and beeping electronics disturb others in the class and interrupt lectures. If you interrupt class with your personal electronic devices, you will be asked to leave for the day. You are here to learn, not correspond with your friends.
- If you are late to class, please seat yourself quietly. Try not to be late because it interrupts others in the class. If you need to use the restroom or become ill, please excuse yourself from the lecture quietly.
- If you need to study for another class, do it elsewhere. The classroom is not the place to sleep either. Basically, refrain from activities in lectures that will distract or disturb the other students in the room, because you are all paying for the class and most people want to get what they are paying for.

**Classroom Etiquette:**

- Ball caps and hats should be removed while in the classroom.
- Pants should be worn as they were designed. If you have to hold up your pants while you walk, they do not fit. Wear appropriate clothing.
- Headphones, earbuds, or other auditory devices will not be allowed during lecture unless required by Disability Services.
- No tobacco products, electronic cigarettes, or vapor products are allowed.
- Do not distract other students or the instructor.
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/academic_integrity.asp

Withheld Grades Semester Grades Policy (A-54)
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.

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.

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 in a timely manner may delay your accommodations. For additional information, go to http://www.sfasu.edu/disabilityservices/.