GEOL 1403: Physical Geology
4 credits
Summer 1 2019

Section 10: MTWR 10:00-11:50 am VIN 139
Lab Section 02Z: MW 2:00-3:50 pm VIN 139

Instructor: Dr. Elizabeth C. Koeman-Shields
Office: VIN 124
Phone: 325-486-6767 (office)
Email: ekoemanshields@angelo.edu

Office Hours: MTWR 1:00 - 2:00 pm, or by appointment

Required Materials:
- SmartWork for Earth Portrait of a Planet, [SmartWork information](#)
- ASU email account that you check regularly
- [Blackboard course site](#)

Student Learning Outcomes:
This course is designed to familiarize the student with the processes, principles, and theories involved in Physical Geology. The student will also learn and practice how to study and work together and how to carefully defend their thinking when answering questions or participating in a discussion. Learning outcomes will be evaluated by homework, lab assignments, quizzes, and exams. At the end of this course, the student will be able to:

1. Describe the scientific method and apply it in a geological context.
2. Describe Earth’s major systems and explain how they interact.
3. Identify common rocks and minerals and interpret how they form.
4. Describe and interpret the development of landforms and geologic structures.
5. Construct and interpret geologic and topographic maps, cross-sections, and topographic profiles.
6. Explain the plate tectonic theory and explain its relationship to earth processes, features, and landforms.

CELL PHONES AND OTHER ELECTRONIC DEVICES:
You may use a laptop or tablet to take notes during class. Please do not disturb others with their use. Please keep all electronics on vibrate or silent. The use of any electronic device not authorized by the instructor during a test may result in the forfeiture of your grade for that test. All electronic devices should be turned off and stored out of sight during tests.
CORE CURRICULUM STUDENT LEARNING OUTCOMES:
The following list of core curriculum student learning outcomes will be met and measured during this course:

<table>
<thead>
<tr>
<th>Student Learning Outcome</th>
<th>Assessment Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Gather, analyze, evaluate, and synthesize information relevant to a question or issue.</td>
<td>Lab Quiz</td>
</tr>
<tr>
<td>2. Develop, interpret, and express ideas through effective visual communication.</td>
<td>Lab Assignment</td>
</tr>
<tr>
<td>3. Manipulate and analyze numerical data and arrive at an informed conclusion</td>
<td>Homework/In-class Assignment</td>
</tr>
<tr>
<td>4. Manipulate and analyze observable facts and arrive at an informed conclusion</td>
<td>Average Lab Grade</td>
</tr>
<tr>
<td>5. Work effectively with others to support and accomplish a shared goal.</td>
<td>In-class/Lab Assignment</td>
</tr>
</tbody>
</table>

GRADING:
- 7 Graded Lab Assignments (3% each) 21%
- 6 Pre-lab quizzes (0.5% each) 3%
- 2 Lab Quizzes (10% each) 20%
- 4 HW Assignments (5% each) 20%
- 3 Lecture Exams (6% each) 18%
- 1 Final Comprehensive Exam 9%
- Daily Attendance 9%
  - In the form of daily quizzes (based on previous lecture topic and/or assigned reading).
    There will be no make-ups for daily attendance; however, the lowest 3 scores will be dropped.
- Extra Credit Project (+0-5 pts): Brief, illustrated report about a scientific paper on a geology topic of your own choosing. Details to be provided after Exam 1.

There will be no make-ups for homework, in-class activities, or quizzes. Make-up exams will be given for tests ONLY under extenuating circumstances. Prior email notification is needed for a make-up exam.

ATTENDANCE POLICY:
You are expected to attend all scheduled class meetings. Missed daily quizzes CANNOT be made up (that is what the 3 dropped are for). Attendance will be checked at each class meeting via in-class quizzes. Please inform me well ahead of time if you will need to be absent for any reason including religious holidays. NOTE: You are NOT automatically dropped if you stop attending class. June 24th is the last day to drop a course.
LECTURE:
A typical class meeting will combine mini-lectures, discussions, group activities, multimedia presentations, and other demonstrations and activities to give you an opportunity to learn concepts in as active a manner as possible.

Register For SmartWork:
1. Go to the SmartWork page
2. Click on “Sign in, register a code, or purchase access”
3. Select “No, I need to register, purchase, or sign up for trial access.” Click the green button to continue.
4. Fill out all fields, click “I want to view purchase options” and go through the prompts of finding Angelo State University. NOTE: Use your ASU email as the email address for your SmartWork account. Don’t forget to record your account information for future reference!
5. Select “Free Smartwork5 for Earth” and click “Get Free Item(s)"

Access your course in SmartWork: You will then need to add yourself to the correct student set for your course.
1. Log into SmartWork
2. Click on the gear menu in the upper-right corner of your screen.
3. In the dropdown menu, select “Add Yourself to a Student Set.”
4. In the pop-up window, enter in the five-digit Student Set ID number 145890.

Access the SmartWork help pages by clicking the gear icon in the upper-right corner of the screen after logging in. This will give you information on how to use the SmartWork system to do your assignments.

For each homework assignment you will complete a list of questions. You can submit answers to the questions up to 4 times, however, each additional submission after the first will cost you a 5% deduction on your grade. So don’t just go guess until you get it right, it will cost you.

CLASS PREPARATION ASU EMAIL:
Since class announcements will be routinely distributed via email and Blackboard, you will need to regularly check your ASU email account and our course Blackboard site (daily). All course correspondence will be through your ASU email account and Blackboard. Please see the email policy in Bb for more details. ASU provides Internet and email services to you at any of the computer labs on campus. Call 942-2911 to set this up if necessary.

STUDENTS WITH DISABILITIES:
ASU is committed to the principle that no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services, programs or activities of the university, or be subjected to discrimination by the university, as provided by the Americans with Disabilities Act of 1990 (ADA), the Americans with Disabilities Act Amendments of 2008 (ADAAA), and subsequent legislation.
The Office of Student Affairs is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability, and it is the student’s responsibility to initiate such a request by contacting: Ms. Dallas A. Swafford, Director of Student Disability Services, 325-942-2047

**TITLE IX:**
Angelo State University is committed to the safety and security of all students. If you or someone you know experience sexual harassment, sexual assault, domestic or dating violence, stalking, or discrimination, you may contact ASU’s Title IX Coordinator: Michelle Nicole Boone, J.D., Director of Title IX Compliance, 325-486-6357, michelle.boone@angelo.edu, May er Administration Building 204A.

**RELIGIOUS HOLY DAY:**
A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. A student who is absent from classes for the observance of a religious holy day shall be allowed to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence.

**INCOMPLETE GRADE POLICY**
It is policy that incomplete grades be reserved for student illness or personal misfortune. Please contact faculty if you have serious illness or a personal misfortune that would keep you from completing course work. Documentation may be required. See ASU Operating Policy 10.11 Grading Procedures for more information.

**ACADEMIC INTEGRITY:**
Students are expected to maintain complete honesty and integrity in all work. Any student found guilty of any form of dishonesty in academic work is subject of disciplinary action and possible expulsion from ASU. The College of Science and Engineering adheres to the Statement of Academic Integrity.

**PLAGIARISM:**
Plagiarism is a serious topic covered in ASU’s Academic Integrity policy in the Student Handbook. Plagiarism is the action or practice of taking someone else’s work, idea, etc., and passing it off as one’s own. Plagiarism is literary theft.

In your discussions and/or your papers, it is unacceptable to copy word-for-word without quotation marks and the source of the quotation. It is expected that you will summarize or paraphrase ideas giving appropriate credit to the source both in the body of your paper and the reference list.

Papers are subject to be evaluated for originality via Turnitin. Resources to help you understand this policy better are available at the ASU Writing Center.

**COPYRIGHT POLICY:**
Students officially enrolled in this course should make only one printed copy of the given articles and/or chapters. You are expressly prohibited from distributing or reproducing any portion of
course readings in printed or electronic form without written permission from the copyright holders or publishers.

GENERAL POLICIES RELATED TO THIS COURSE:
All students are required to follow the policies and procedures presented in these documents:
  1) Angelo State University Student Handbook
  2) Angelo State University Catalog

GEOLOGIC EXHIBITION ORGANIZATION (GEO):
GEO, the student organization of all interested in geology (not just majors/minors), meets almost every Wednesday @ 6:00PM. GEO is a student chapter of the American Association of petroleum Geologists (AAPG). Sigma Gamma Epsilon, the national honor society of the earth sciences is related to GEO.

YOU CAN MAJOR OR MINOR IN GEOLOGY @ ASU!
See the BS in Geoscience requirements. A Geology Minor requires 18 hours of geology courses. Good and rewarding careers exist for geologists, geophysicists, hydrogeologists, secondary science teachers, and petroleum engineers. Talk to your professor and read information about geoscience careers.

FINAL NOTE:
It is my goal to make this class both interesting and informative for you. With a reasonable amount of effort, it should be possible for everyone to meet the course objectives and earn a passing grade. With additional effort, aptitude, and investment of time, students may earn even higher course grades. If at any time you run into difficulties with the material, or need assistance or clarification, please do not hesitate to ask for help. I am here for you, and I will be glad to entertain any reasonable requests.

---

i  http://books.wwnorton.com/books/SmartWorkcontent.aspx?tid=4643
ii  http://blackboard.angelo.edu
iii  https://digital.wwnorton.com/earth5
iv  https://www.angelo.edu/content/files/14197-op-1011-grading-procedures
v  http://www.angelo.edu/student-handbook/community-policies/academic-integrity.php
vi  http://www.angelo.edu/student-handbook/community-policies/academic-integrity.php
vii  http://www.angelo.edu/dept/writing_center/academic_honesty.php
viii  http://www.angelo.edu/student-handbook/
ix  http://www.angelo.edu/catalogs/
x  http://www.aapg.org
xi  https://www.angelo.edu/physics/geoscience_degree.php
xii  http://www.angelo.edu/dept/physics/Geosciences/geoscience_careers.php
<table>
<thead>
<tr>
<th>Day</th>
<th>Lecture Topic(s)</th>
<th>Assigned Reading</th>
<th>Lab Exercises and Assigned Readings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mon: 6/3</td>
<td>Syllabus</td>
<td>Prelude Chapter 1</td>
<td>1: Topographic maps (p. 1 - 7)</td>
</tr>
<tr>
<td></td>
<td>Scientific Method</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Solar System Formation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tues: 6/4</td>
<td>Planet Earth</td>
<td>Chapter 2</td>
<td>Pre-lab Quiz #1 due at 2pm</td>
</tr>
<tr>
<td></td>
<td>Minerals</td>
<td>Chapter 5</td>
<td>2: Rock-forming minerals (p. 18 - 29)</td>
</tr>
<tr>
<td>Wed: 6/5</td>
<td>Continental Drift</td>
<td>Chapter 3</td>
<td></td>
</tr>
<tr>
<td>Thurs: 6/6</td>
<td>Plate Tectonics</td>
<td>Chapter 4</td>
<td></td>
</tr>
<tr>
<td>Fri: 6/7</td>
<td>Igneous Rocks</td>
<td>Chapter 6</td>
<td></td>
</tr>
<tr>
<td>Mon: 6/10</td>
<td>Sedimentary Rocks</td>
<td>Chapter 7</td>
<td>Pre-lab Quiz #2 due at 2pm</td>
</tr>
<tr>
<td></td>
<td>HW #1 due at midnight</td>
<td></td>
<td>3: Igneous Rocks (p. 34 - 37)</td>
</tr>
<tr>
<td>Tues: 6/11</td>
<td>Metamorphic Rocks</td>
<td>Chapter 8</td>
<td></td>
</tr>
<tr>
<td>Wed: 6/12</td>
<td>Exam #1 (Chapters 1-5)</td>
<td></td>
<td>Pre-lab Quiz #3 due at 2pm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4: Sedimentary Rocks (p. 42 - 48)</td>
</tr>
<tr>
<td>Thurs: 6/13</td>
<td>Weathering, Erosion &amp; The Rock Cycle</td>
<td>Interlude B and C</td>
<td></td>
</tr>
<tr>
<td>Fri: 6/14</td>
<td>Volcanoes</td>
<td>Chapter 9</td>
<td></td>
</tr>
<tr>
<td>Mon: 6/17</td>
<td>Earthquakes &amp; Seismicity</td>
<td>Chapter 10</td>
<td>Pre-lab Quiz #4 due at 2pm</td>
</tr>
<tr>
<td></td>
<td>HW #2 due at midnight</td>
<td>Interlude D</td>
<td>5: Metamorphic Rocks (p. 54 - 57)</td>
</tr>
<tr>
<td>Tues: 6/18</td>
<td>Mountain Building</td>
<td>Chapter 11</td>
<td></td>
</tr>
<tr>
<td>Wed: 6/19</td>
<td>Geologic Time</td>
<td>Chapters 12 and 13</td>
<td>LAB QUIZ 1: (Labs 2 - 5)</td>
</tr>
<tr>
<td>Thurs: 6/20</td>
<td>Exam #2 (Chapters 6-10, Interludes B-D)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fri: 6/21</td>
<td>Energy Resources</td>
<td>Chapters 14 and 15</td>
<td></td>
</tr>
<tr>
<td>Mon: 6/24</td>
<td>Hydrologic Cycle</td>
<td>Interlude F</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HW #3 due at midnight</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tues: 6/25</td>
<td>Streams and Floods</td>
<td>Chapter 17</td>
<td></td>
</tr>
<tr>
<td>Wed: 6/26</td>
<td>Exam #3 (Chapters 11-15, Interlude F)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thurs: 6/27</td>
<td>Groundwater</td>
<td>Chapter 19</td>
<td></td>
</tr>
<tr>
<td>Fri: 6/28</td>
<td>Deserts</td>
<td>Chapter 21</td>
<td></td>
</tr>
<tr>
<td>Mon: 7/1</td>
<td>Glaciers</td>
<td>Chapter 22</td>
<td>LAB QUIZ 2: (Labs 1, 6-7)</td>
</tr>
<tr>
<td></td>
<td>HW #4 due at midnight</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tue: 7/2</td>
<td>Climate Change</td>
<td>Chapter 23</td>
<td></td>
</tr>
<tr>
<td>Wed: 7/3</td>
<td>Final Exam - Cumulative</td>
<td>10:15 a - 12:15 p</td>
<td></td>
</tr>
</tbody>
</table>