GEOL 1303: Physical Geology

3 credits

Fall 2019

Section 30: MWF 10:00-10:50 am VIN 139
Section 70: TR 9:30-10:45 am VIN 139

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

Office Hours: MWF 9a-10a, M 1p-3p, and TR 11a-12p, or by appointment

Required Materials:
- SmartWork6 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.
GRADING:
- 5 HW Assignments (5% each) 25%
- 10 in-class activities/assignments (3% each) 30%
- 4 Lecture Exams (5% each) 20%
- 1 Final Comprehensive Exam 10%
- Daily Attendance 15%
  - 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 5 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. October 31st 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.

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>IDEA Forms</td>
</tr>
</tbody>
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SMARTWORK ASSIGNMENTS
To complete the homework assignments you will need to register with Smartwork using the registration code you got when you purchased the book. If you didn’t get a code when you purchased the book you can purchase one during the registration process. Use the following instructions to create an account with Smartwork:

To enroll in SmartWork you will need a valid ASU email address and a Registration Code from W. W. Norton. Registration codes are bundled with new books at your instructor’s request. If you do not have a registration code, you may purchase one when signing up.

Register For Smartwork

1. Click on the link for any of the Pre-Lab Reading Quizzes from the link in the menu in Blackboard.
2. Select “No, I need to register, purchase, or sign up for trial access.” Click the green button to continue.
3. Fill out all fields and enter either the registration code that came with your book or select the “I want to purchase access” option. NOTE: Use your ASU email as the email address for your Smartwork account. Don’t forget to record your account information for future reference!

Access your homework through the links in the appropriate area on Blackboard.

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. Don’t just 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:
1. “Angelo State University 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 Act of 2008 (ADAAA), and subsequent legislation.”

2. 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 the Office of Student Affairs, University Center, Room 112 at (325) 942-2047 or (325) 942-2211(TDD/FAX) or by e-mail at studentservices@angelo.edu to begin the process. The Office of Student Affairs
will establish the particular documentation requirements necessary for the various types of disabilities.

Reasonable accommodations will be made for students determined to be disabled or who have documented disabilities.

**TITLE IX:**
Angelo State University is committed to providing and strengthening an educational, working, and living environment where students, faculty, staff, and visitors are free from sex discrimination of any kind. In accordance with Title VII, Title IX, the Violence Against Women Act (VAWA), the Campus Sexual Violence Elimination Act (SaVE), and other federal and state laws, the University prohibits discrimination based on sex, which includes pregnancy, and other types of Sexual Misconduct. Sexual Misconduct is a broad term encompassing all forms of gender-based harassment or discrimination and unwelcome behavior of a sexual nature. The term includes sexual harassment, nonconsensual sexual contact, nonconsensual sexual intercourse, sexual assault, sexual exploitation, stalking, public indecency, interpersonal violence (domestic violence or dating violence), sexual violence, and any other misconduct based on sex.

You are encouraged to report any incidents involving sexual misconduct to the Office of Title IX Compliance and the Director of Title IX Compliance/Title IX Coordinator, Michelle Boone, J.D. You may submit reports in the following manner:
Online: Incident Form
Face to Face: Mayer Administration Building, Room 210
Phone: 325-942-2022
E-Mail: michelle.boone@angelo.edu

**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

SYLLABUS CHANGES
The faculty member reserves the option to make changes as necessary to this syllabus and the course content. If changes become necessary during this course, the faculty will notify students of such changes by email, course announcements and/or via a discussion board announcement. It is the student’s responsibility to look for such communications about the course on a daily basis.

COURSE EVALUATION:
Students are provided the opportunity and are strongly encouraged to participate in a course evaluation at the end of the semester.

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.

http://books.wwnorton.com/books/SmartWorkcontent.aspx?tid=4643
http://blackboard.angelo.edu
http://www.angelo.edu/incident-form
https://www.angelo.edu/content/files/14197-op-1011-grading-procedures
http://www.angelo.edu/student-handbook/community-policies/academic-integrity.php
http://www.angelo.edu/student-handbook/community-policies/academic-integrity.php
http://www.angelo.edu/dept/writing_center/academic_honesty.php
http://www.angelo.edu/dept/writing_center/academic_honesty.php
http://www.angelo.edu/student-handbook/
http://www.angelo.edu/catalogs/
http://www.aapg.org
https://www.angelo.edu/physics/geoscience_degree.php
http://www.angelo.edu/dept/physics/Geosciences/geoscience_careers.php
<table>
<thead>
<tr>
<th>Week</th>
<th>Lecture Topics</th>
<th>Assigned Reading</th>
<th>Exams and HW Due Dates</th>
</tr>
</thead>
</table>
| #1: 8/26 - 8/30 | Syllabus  
Scientific Method  
Solar System Formation | Prelude  
Chapter 1 |                                      |
| #2: 9/2 - 9/6 | No classes Monday  
Planet Earth  
Minerals | Chapter 2  
Chapter 5 |                                      |
| #3: 9/9 - 9/13 | Continental Drift  
Plate Tectonics | Chapter 3  
Chapter 4 | HW #1 due 9/15 @ 11:59pm |
| #4: 9/16- 9/20 | Igneous Rocks | Chapter 6 | Exam #1: Chapters 1-5 (R/F) |
| #5: 9/23 - 9/27 | No class this week |                  |                                      |
| #6: 9/30 - 10/4 | Sedimentary Rocks  
Metamorphic Rocks | Chapter 7  
Chapter 8 | HW #2 due 9/29 @ 11:59pm |
| #7: 10/7 - 10/11 | Weathering, Erosion  
& The Rock Cycle | Interludes B and C | Exam #2: Chapters 6-8 and  
Interludes B and C (R/F) |
| #8: 10/14 - 10/18 | Volcanoes  
Earthquakes | Chapter 9  
Chapter 10 |                                      |
| #9: 10/21 - 10/25 | Mountain Building  
Geologic Time | Chapter 11  
Chapter 12 | HW #3 due 10/20 @ 11:59pm |
| #10: 10/28 - 11/1 | Geologic Time  
Energy Resources | Chapter 14 | Exam #3: Chapters 9-12 (R/F) |
| #11: 11/4 - 11/8 | Hydrologic Cycle  
Streams and Floods | Interlude F  
Chapter 17 |                                      |
| #12: 11/11 - 11/15 | Groundwater  
Deserts | Chapter 19  
Chapter 21 | HW #4 due 11/10 @ 11:59pm |
| #13: 11/18 - 11/22 | Glaciers | Chapter 22 | Exam #4: Chapters 14, 17, 19 and  
Interlude F (R/F) |
| #14: 11/25 - 11/29 | Climate Change  
No classes Nov. 27-29 | Chapter 23 |                                      |
| #15: 12/2 - 12/6 | Climate Change | Cumulative | HW #5 due 12/1 @ 11:59pm |
| #16: 12/9-12/13 | Final Exam |                  | Sec. 30: M 10:30a-12:30p  
Sec. 70: R 8:00a-10:00a |