

Blinn College
Course Syllabus Physical Geology - G1403

1. COURSE TITLE, NUMBER, AND SECTION(S):

Physical Geology, CRN 11432, GEOL 1403 - 309, Tues./Thurs. 7:45 – 9:00 am, Tues. 12 – 2:40 pm, Fall 2012

2. INSTRUCTOR INFORMATION:

Instructor: Dr. Sarah Laughlin

Office: Bookstore Building - G234

Office Hours: T 2:50-3:20, Th 9:10-9:40

Telephone (Office): 979 209-7495

E-mail: sarah.laughlin@blinn.edu

3. COURSE DESCRIPTION:

General principles of physical geology. The course is an introduction to the materials, processes, and structure of the earth. Topics include earthquakes, volcanoes, plate tectonics, mountain building, weathering and erosion, glaciation, oceans, and mineral resources. Includes an introduction to geological practices and principles. The laboratory experience includes map interpretation and the study of rocks and minerals. In class time is set at three-class lecture hours and three laboratory hours per week. Credit: Four semester hours.

4. PREREQUISITES:

Exemption from or passing score on the reading section of the state test or completion of READ 0306 with a "C" or higher score.

5. CORE CURRICULUM:

This is a Core Course in the 42-Hour Core of Blinn College. As such, students will develop proficiency in the appropriate Intellectual Competencies, Exemplary Educational Objectives, and Perspectives. Link at: http://www.blinn.edu/academics/core_curriculum.html.

6. MEASURABLE STUDENT LEARNING OUTCOMES:

- Examine and analyze rock and mineral specimens and their occurrence and determine their context within the rock cycle.
- Comprehend plate tectonic theory and evaluate its significance to geology. Relate the nature of Earth's internal structure and tectonics to geological phenomena (e.g., volcanoes, earthquakes, deformational structures, etc.).
- Understand geologic time and the rock record, including formation of Earth and Solar System. Be able to apply principles of relative and numerical dating.
- Recognize the role of surficial processes (water, wind, ice and gravity) and identify resulting landforms; identification and interpretation of landforms based on topographic maps.
- Relate geology to human affairs; assess geohazard risk (earthquake, volcanoes, floods), and natural resources.

7. REQUIRED TEXTBOOKS & MATERIALS:

Textbook: *Earth; An Introduction to Physical Geology* 10th Edition, 2010, Tarbuck, Lutgens, and Tasa. Pearson Prentice Hall, Pearson Education Inc., Upper Saddle, New Jersey, 07458

Lab Manual: *AGI/NAGT Laboratory Manual in Physical Geology* 9th Edition, 2011, Busch (Ed.), Pearson Prentice Hall, Pearson Education Inc., Upper Saddle, New Jersey, 07458

Lecture Notes: Students are responsible for taking their own lecture notes.

Supplemental Data and Information:

Open Geology-aid Lab – Friday, G215 from 1:30-3:30 pm,
E-Campus (Go to - <https://ecampus.blinn.edu/>).

8a. COURSE REQUIREMENTS:

This course has both a lecture and lab components of which participation is required, this includes reading the assigned material before coming to class. Good reading habits and reading comprehension skills are important to doing well in this course. Besides the scheduled lecture, lab, and final exams; weekly lab assignments, scheduled quizzes, are included as part of the requirements for this course.

a. Lab Work: Lab assignments are done during the lab period and must be completed to receive credit for the lab. Students are required to have read over the assigned lab chapter and any other posted readings *before coming to lab.*

b. Quizzes: Ten quizzes will be given over the semester of which the seven best will be counted toward the quiz grade. Quiz material will be over assigned readings from the posted material, the textbook or the lab book. There is no make-up for missed quizzes because three quizzes will be dropped.

c. Reading Assignment(s): One or two specific reading assignments may be given during the semester. These assignments can have a set of questions that accompany and may be followed with an assignment quiz. These assigned reading may be topical on recent or current, geologic events that have taken place, as such they cannot be scheduled at the start of the semester. Students will have at least one week to complete assignment.

8b. EXAM AND MAJOR ASSIGNMENT CALENDAR:

| Section 309 | |
|--------------------------------------|----------------|
| September 27 th | Lecture Exam 1 |
| October 2 nd | Lab Exam 1 |
| October 25 st | Lecture Exam 2 |
| November 29 th | Lecture Exam 3 |
| December 4 th | Lab Exam 2 |
| December 11 th @ 10:15 am | Final Exam |

9. CRITERIA FOR GRADING AND DETERMINING FINAL GRADE:

This class has 3 lecture exams, 2 lab exams, 1 final exam, 10 quizzes, 13 lab exercises, and 1 to 2 reading assignments. Course grade is based on a total of **1000** class points. Breakdown of the point distribution and grading scheme is shown below.

Lecture and Lab Exams: Students are expected to take these exams at their scheduled time. If an exam is missed, even with an "excused absence", the student must notify me (email preferred) within 24 hours of missing the exam or they will lose the privilege to petition for a make-up exam. Do not miss a lab exam. If a make-up lecture exam is approved it may be different than those taken by the rest of the class. An essay format may be used for make-up exams. An approved make-up exam must be taken within the same week as the scheduled exam, preferably within 48 hours of missing the scheduled exam.

Lab Assignments: to obtain class points for lab assignments, lab work must be completed during the scheduled lab time. There is no formal make-up for missed labs. If a student knows they will miss a lab or has missed a lab, they need to contact me as soon as possible; they may be able to attend the lab of one of my other physical geology sections. Student will not receive class points for missed labs.

Quizzes: 10 quizzes will be given of which the lowest three quiz grades will be dropped. No make-up quizzes are given since three quizzes will be dropped.

Reading Assignments: One or two reading assignments may be conducted using material on the E-Campus webpage as outside work in connection with lecture. Student will have one week to complete assignment. Failure to complete this assignment in a timely manner will result in a grade of zero.

Point Distribution:

| Grading Item | Class Points | Point Scale |
|--|---------------------|-----------------------|
| Lecture Exams (3); 100 points each | 300 | 1000 - 900 points = A |
| Lecture Quizzes (best 7 out of 10): 10 points each | 70 | 899 - 800 points = B |
| Lab Exercises (13); 14 points each | 182 | 799 – 700 points = C |
| Lab Exams (2); 100 points each | 200 | 699 - 600 points = D |
| eCampus Reading Assignment (1 or 2) | 48 | Below 600 points = F |
| Comprehensive Final Exam (20% of course grade) | 200 | |
| Total Class Points: | 1000 | |

The Lecture Exams, Lab Tests, and Final Exam will include a variety of question formats, including multiple-choice, fill in the blank, and essay questions. All exams are closed book. Exams and lab tests will be returned in class for students to review. The exams usually are returned a week after it has been taken. No lecture or lab exams grades are dropped.

Missed Classes and Exams:

If a student misses a class or exam they must notify me within one working day (24 hours of missing the class) preferably by e-mail (the phone is second option). A student may petition to have an absence excused if I have been notified of the missed class. An Excused Absence Petition Form will be available on my eCampus Physical Geology Course site, the form needs to be completed with any official written confirmation (doctor's note, court documents, funeral announcement etc.) attached to the form. If the reason for the missed class or exam is known ahead of time such as a court date or funeral I need to know before the student misses the class an alternative arrange may be able to be made at that time.

The Excused Absence Petition Form must have all the information filled; along with a statement why the student missed the class, why it should be excused, and the supporting documents should be attached it must be signed. The form must be given to me, in person, the day they return to class. (Note: doctor's appointments should be made at some other time than scheduled exams and during the geology lab times.) I will only accept 1 Excused Absence Petition Form from any individual during the semester.

10. BLINN COLLEGE POLICIES:

a. Civility Statement. Members of the Blinn College community, which includes faculty, staff and students, are expected to act honestly and responsibly in all aspects of campus life. Blinn College holds all members accountable for their actions and words. Therefore, all members should commit themselves to behave in a manner that recognizes personal respect, and demonstrates concern for the personal dignity, rights, and freedoms of every member of the College community, including respect for College property and the physical and intellectual property of others. Civility applies to attire as well as language, behavior, and cell phones.

Civility Notification Statement. If a student is asked to leave the classroom or have access to the online classroom denied because of uncivil behavior, the student may not return to that class until he or she arranges a conference with the instructor. It is the student's responsibility to arrange for this conference. This statement reflects step one in a possible four step process. The Incivility Protocol is detailed in the *Blinn College Student Handbook*, www.blinn.edu/student%20handbook.pdf

b. Attendance Policy. The College District believes that class attendance is essential for student success; therefore, students are required to promptly and regularly attend all their classes. A record of attendance will be maintained from the first day of classes and/or the first day the student's name appears on the roster through final examinations. If a student has one week's worth (3 classes) of unexcused

absences during the semester, he or she will be sent an e-mail by the College District requiring the student to contact his or her instructor and schedule a conference immediately to discuss his/her attendance issues. Should the student accumulate two weeks' worth (6 classes) of unexcused absences, he or she will be administratively withdrawn from class.

There are four forms of excused absences recognized by the institution:

1. Observance of religious holy days - The student should notify his or her instructor(s) not later than the 15th day of the semester concerning the specific date(s) that the student will be absent for any religious holy day(s);
2. representing the College District at an official institutional function;
3. high school dual credit students representing the independent school district at an official institutional function; and
4. military service.

Other absences may be considered excused at the discretion of the faculty member with appropriate documentation. A student enrolled in a developmental course is subject to College District-mandated attendance policies. Failure to attend developmental classes shall result in removal from the course as defined by the College District.

It is the student's responsibility to officially drop a class he or she is no longer attending. To officially drop a class the student must obtain the class withdrawal form from Enrollment Services, complete the class withdrawal form, secure the required signatures, and return the completed form to Enrollment Services. The last day to drop this semester with a Q is November 16th, 2012.

How attendance will be implemented in my class; Attendance is taken in each lecture and lab class, missing either a lecture or a lab will count as an absence. **A lecture sign-in sheet will be distributed during lecture and a lab sheet will be distributed for students to sign upon completion of the lab work; it is the student's responsibility to sign each time!** You must be present from the start of the lab class to the end in order to receive credit for the lab (unless a special and prior arrangement has been made with me in advance).

c. Scholastic Integrity. Blinn College does not tolerate cheating, plagiarism, or any other act of dishonesty with regard to the course in which you are enrolled. The following text defines the faculty member's responsibility with regard to the scholastic integrity expectation for this and all courses at Blinn College.

It is the responsibility of faculty members to maintain scholastic integrity at the College District by refusing to tolerate any form of scholastic dishonesty. Adequate control of test materials, strict supervision during testing and other preventive measures should be utilized, as necessary, to prevent cheating or plagiarism. If there is compelling evidence that a student is involved in cheating or plagiarism, the faculty member should assume responsibility and address the infraction. Likewise, any student accused of scholastic dishonesty is entitled to due process as outlined in Blinn College Board Policy FLB (Local). The Scholastic Integrity Policy is located in the *Blinn College Student Handbook*, (Link at; www.blinn.edu/student%20handbook.pdf). In a case of scholastic dishonesty, it is critical that written documentation be maintained at each level throughout the process.

d. Students with Disabilities. Blinn College is dedicated to providing the least restrictive learning environment for all students. Support services for students with documented disabilities are provided on an individual basis, upon request. Requests for services should be made directly to the Office of Special Populations serving the campus of your choice. For the Bryan campus, the Office of Special Populations (Administration Building) can be reached at (979)209-7251. The Brenham, Sealy and Schulenburg campuses are served by the Office of Special Populations on the Brenham campus (Administration Building Room 104) and can be reached at (979)830-4157. Additional information can be found at <http://www.blinn.edu/Disability/index.html> .

Note: Do this as soon as possible so that documentation and accommodations can be arranged it may take a couple of weeks to get the forms if you wait. I cannot give any accommodation to students without the Disability Coordinator's consent.

e. Final Grade Appeals Policy. If a student wishes to appeal a final grade in a course, Blinn College Board Policy FLDB (Local), Course Grade Complaints, outlines the timeline for the appeal and the four steps in the appeal. This policy is located in the *Blinn College Student Handbook*, (Link at; www.blinn.edu/student%20handbook.pdf).

f. Electronic Devices. All the functions of all personal electronic devices designed for communication and/or entertainment (cell phones, pagers, beepers, iPods, and similar devices) must be turned off and kept out of sight in all College District classrooms and associated laboratories. Any noncompliance with this policy shall be addressed in accordance with the College District Civility Policy (Administrative Policy). This information is contained in Blinn College Board Policy FLB (Local).

g. Problem Resolution. If you have a complaint about your class, you should first request a conference with your instructor to try and resolve the problems or issues. If the problems or issues cannot be resolved at the instructor level, you should request a conference with the Division Chair, Mr. Dwight Bohlmeier, Science 241, dbohlmeier@blinn.edu .

h. Health Concerns. Food and drink containers are not allowed in either the lab or the classroom during lab or lecture activities.

i. Dress. Students should dress in appropriate clothing for the classroom and lab.

j. Student E-mails. Students are assigned a Blinn College E-mail address that must be checked regularly for official Blinn College communications and course information. I will be using only the student's BLINN Email account through eCampus to contact you about the class; students should check their account regularly.

11. COURSE CONTENT AND SCHEDULE:

Dr. Sarah Laughlin - Tentative Class Schedule Fall 2012, Physical Geology, Section 309
Lecture: 309 – T, Th, 7:45 – 9:00 am / Lab: 309 – T, 12:00 – 2:40 pm

| Week | Lecture Topic Tuesday & Thursday | Lab Topics Tuesday Lab |
|------|--|--|
| 1 | Course Overview – CIS, Class Policy, Information (Quizzes, Exams, Grading, Etc), Ecampus Introduction to Geology (Text Chap 1) | Introduction to Geology (Text Chap 1) Lab 1 – The Rock Cycle |
| | Plate Tectonics (Text Chap 2) | |
| 2 | Mineral Properties (Text Chap 3) | Lab 2 – Minerals, Lab Manual Chap 3 (Forms on Ecampus) |
| | Igneous Rocks (Text Chap 4) (Quiz 1 Chap 1-4) | |
| 3 | Volcanic Hazards (Text Chap 5) | Lab 3 – Igneous Rocks, Lab Manual Chap 5 (Forms on Ecampus) |
| | Weathering and Soil (Text Chap 6) (Quiz 2 Chap 5-6) | |
| 4 | Sedimentary Rocks (Text Chap 7) | Lab 4 – Sedimentary Rocks, Lab Manual Chap 6 (Forms on Ecampus) |
| | Metamorphic Rocks (Text Chap 8) (Quiz 3 Chap 7-8) | |
| 5 | Exam 1 Review | Lab 5 – Metamorphic Rocks, Lab Manual Chap 7 and Rock Review, Lab Manual Chap 4 (Forms on Ecampus) |
| | Lecture Exam 1 Text Chap 1-8 September 27, 2012 | |
| 6 | Geologic Time (Text Chap 9) | Lab Exam 1 – Rocks and Minerals October 2, 2012 |
| | Crustal Deformation (Text Chap 10) (Quiz 4 Chap 9-10) | |
| 7 | Earthquakes (Text Chap 11) | Lab 6 – Geologic Time and Structural Geology, Lab Manual Chap 8 and 10 (Forms on Ecampus) |
| | Earth's Interior (Text Chap 12) (Quiz 5 Chap 11-12) | |
| 8 | Divergent Boundaries (Text Chap 13) | Lab 7 – Earthquakes, Lab Manual Chap 16 and Plate Tectonics, Lab Manual Chap 2 (Forms on Ecampus) |
| | Convergent Boundaries (Text Chap 14) (Quiz 6 Chap 13-14) | |
| 9 | Exam 2 Review | Lab 8 – Topographic Maps, Lab Manual Chap 9 (Forms on Ecampus) |
| | Lecture Exam 2 Text Chap 9-14 October 25, 2012 | |
| 10 | Surface Water (Text Chap 16) | Lab 9 – Surface Water, Lab Manual Chap 11 (Forms on Ecampus) |
| | Mass Wasting (Text Chap 15) (Quiz 7 Chap 15-16) | |
| 11 | Ground Water (Text Chap 17) | Lab 10 – Ground Water, Lab Manual Chap 12 (Forms on Ecampus) |
| | Video and discussion TBA (Quiz 8 Chap 17, video) | |
| 12 | Shorelines (Text Chap 20) | Lab 11 – Shorelines, Lab Manual Chap 15 (Forms on Ecampus) |
| | Deserts (Text Chap 19) (Quiz 9 Chap 19- 20) Last day to drop class with a Q (Fri., Nov. 16th) | |
| 13 | Glaciers (Text Chap 18) | Lab 12 – Deserts, Lab Manual Chap 14 (Forms on Ecampus) |
| | Thanksgiving (Wednesday – Sunday) | |
| 14 | Exam 3 Review | Lab 13 – Glaciers, Lab Manual Chap 13 (Forms on Ecampus) |
| | Lecture Exam 3 Text Chap 15-17, 19, 20, 23 November 29, 2012 | |
| 15 | Energy and Mineral Resources (Text Chap 23) | Lab Exam 2 – Geologic Time through Glaciers Tuesday, December 4, 2012 |
| | Climate Change (Text Chap 21) Review for Final Exam (Quiz 10 Chap 21, 23) | |
| 16 | Final Exam Tuesday, December 11, 2012 10:15 – 12:15 pm | |

Revised August 20, 2012

All readings listed above are required to be done before coming to class.

Note: Always check eCampus for Lab Information and Forms that you will need to print out and bring to class in addition to your lab book.