

## GLG 101 Introduction to Geology I: Physical Geology Lecture

**Credits/Periods:** 3 credit/3 periods. When taken with GLG103, transfers to ASU, UA, and NAU and may be used toward satisfaction of the Natural Science requirement for AGECE-A & B blocks and the Optional Science for the AGECE-S block; AA, AB, some AS, and TG-XR degrees. Satisfies Global Awareness (G) and SQ (with GLG103) general education requirements.

**Course Description:** A study of the kind and arrangement of materials composing the Earth's crust and the geological processes at work on and within the Earth's surface. Prerequisites: None

**Section/Time/Place:** MW, Sect. 14614, 5:45 - 7:00p; GCC North Room D 125

**Text(s):** Tarbuck & Lutgens, *Earth*, Custom GCC Edition (ISBN 053655661x) or 9<sup>th</sup> edition (ISBN# 978-0-13-156684-2) both with CD-ROM (required)

**GCC Office:** PS105 **Phone:** 623.845.3654 w/voice mail (leave name & number- *slowly & distinctly*)

**Office Hours (GCC):** TR 10 -10:50a; W 9 -9:50a; T 1:30-2:20p; F 11 – 11:50; or by appointment.

**Office Hours (GCC North Campus):** M 5:00-5:30; D106.

**GeoAssist:** During office hours

**Electronic mail:** gary.calderone@gccmail.maricopa.edu

**Home page:** <http://www.gc.maricopa.edu/appliedscience/gjcweb/gjchome.html>

**Welcome to GLG101!** For the next 17 weeks, we will be studying the dynamic planet we call home. Physical Geology is the scientific study of rocks and minerals, earthquakes, volcanoes, floods, landslides, glaciers, deserts, groundwater and a host of other topics- topics that may influence how you think about buying a home or how you use natural resources. We'll also explore new perspectives on the landscapes in which we live, or those you may see in your travels.

**Course objectives-** after completing this course, you should be able to:

- |   |   |
|---|---|
| •Describe the scientific foundations of physical geology  | •Describe coastal processes                               |
| •Describe the three-part classification of rock processes | •Explain the geological processes associated with deserts |
| •Explain the concept of geologic time                     | •Describe glaciations and glacial landforms               |
| •Describe geologic structures in crustal rocks            | •Describe the importance of geology to man                |
| •Describe the internal structure of the Earth             | •Describe the process of weathering                       |
| •Explain the theory of plate tectonics                    | •Describe the Earth's place in the cosmos                 |

The outline for the course is given as the accompanying course schedule.

### RESOURCES AND STUDY STRATEGIES- HOW TO GET THE MOST OUT OF THIS CLASS

Geology is a physical science course. Science courses, however, are generally not easy for most people and usually take a bit of work. In addition, we all learn differently. Some of us are very analytical, whereas others may prefer a more "hands-on" approach. Still others may prefer more discussion and visual aids. Handily, there are many resources and study strategies available to you. These resources include:

- The Lecture-** The lecture and textbook are your primary resources for this course. For most of the topics, I will be lecturing using a variety of formats- including the straight lecture, games, question and answer, demonstrations etc. Take notes well. Ask questions. Outlines of my lecture notes can be downloaded as Adobe PDF files from my web site or from the eGCC S: Drive. In addition, my web site contains a list of exam essay questions. My PowerPoint files are also located on the eGCC server. See <http://web.gccaz.edu/studenthelpdesk/palette.html> for help on accessing eGCC.
- The Textbook-** your textbook has been specifically chosen out of many potential texts to address the content of the course in the friendliest, most complete, and least expensive manner available. *READ IT!* Reading assignments for each course topic are listed in the accompanying course schedule. I will expect that you have read this material prior to coming to class. (Indeed, several students have also told me that I make a lot more sense after they had read the chapter in the book.) The chapter summaries, review questions, and questions-for-thought make useful study guides for potential exam and quiz material. In addition, the text also contains a glossary of terms, and several appendices of useful information. A copy of the text (in both English and Spanish) is on reserve in the GCC libraries.
- The Textbook On-line Study Guide-** The publisher of the text maintains an on-line study guide. This guide contains sample test questions (and answers) in various formats. These practice tests may help you master some of the more basic geologic terms and concepts.
- The Lab- GLG103,** is coordinated with the lecture classes and designed to give you "hands-on" experience with many of the lecture topics. The **lab manual** also includes useful summaries of concepts that we will cover in lecture.
- Earth Revealed & other video presentations.** - The GCC Main Library houses the Annenberg/CPB project "Earth Revealed" series of videos. This series contains about 25 short (30 minute) videos on every aspect of Physical Geology. Several other high-quality films on various aspects of geology are also available.

- Computer CD-ROM & web-based multimedia presentations.** - Also on reserve in the GCC's library are several multi-platform CD-ROMs including the CD that accompanies your text as well as an excellent presentation entitled "The Theory of Plate Tectonics". A web based tutorial on Geologic Time, Geologic Structures, and the Interpretation of Geologic Maps is located at <http://www.gc.maricopa.edu/appliedscience/gjc-nsf/index.html>. The text also maintains a web site with practice tests. These links are available via my web site.
- Study Groups-** Get together- help each other! I strongly encourage you to form study groups. I do not grade "on a curve" so no one is competing with anyone else for grades. Study groups can be a very effective way of learning and can help reduce some of the stress we may feel when "going it alone".

**HELP ON THE WAY!**

Many students enter this class with a bit of anxiety- "I'm not really a 'scientific' person" or "Science classes have always been difficult for me." Other students may have various disabilities including severe test anxiety, which may make traditional classroom environments very difficult. Fear not, almost all such students before you have actually passed this course- many with very high grades! The success of many of these students, though, was in part because they took advantage of the many programs offered to help! Both GCC and the Physical Sciences department provide special programs to address the various needs of our students. These programs include:

- GeoAssist-** a program where you can get tutorial help on the course content directly from one of the geology instructors in an informal, easy-going environment. GeoAssist is usually held during instructor office hours but may easily be moved to a laboratory or Study Room if props are needed. Bring your questions, confusions, & problems- or just use it as time to practice under the supervision of an instructor.
- Center for Learning (CL)-** The CL provides free support services for all students to assist in improving student learning. These services include: (1) Scheduled and "drop-in", group and one-on-one tutoring in most academic subjects- including geology; (2) Multimedia instructional materials in basic skill areas (English, Reading, Math); and (3) Study Skills Workshops. CL location and hours are given in your GCC Student Handbook.
- Disability Services & Resources (DSR)-** The DSR center at GCC provides a wide variety of services to students with disabilities which otherwise might impair their ability to function in the typical classroom setting. If you have a documented disability that may impair your ability to meet the course requirements and expectations, please contact me during the first week of class to see how we can facilitate your completion of this course.
- Counseling Center-** The Counseling Center provides students with career counseling, personal counseling, personal development counseling and acts as a "clearinghouse"- guiding students to the other services available on campus. Further information on the Counseling Center is provided in your Student Handbook.
- Child Care Resource-** According to campus policies, only those students enrolled in a class are permitted to attend that class. Consequently, children of students are not allowed in the classroom. For emergency childcare, call the Child Care Resource @ (602) 244-2678.

**GRADING**

Assessment for this course will be based on short quizzes, full-period regular lecture exams and a final exam as shown in the table below. Total points may be changed during the semester to accommodate unforeseen circumstances. The grading scale benchmark percentages for letter grades, however, will remain the same. The lowest of your quiz scores will be dropped to accommodate most make-ups. The final exam is optional and may replace your lowest non-zero exam score. If you have a score of 0 on a regular exam, you will have to take the essay version of that exam during the final exam period and will be ineligible to take the final exam. Extra credit points *may* be offered at the discretion of the instructor.

Point distribution:	Grading Scale Points	Grading Scale Percent
Quizzes: 100 pts (Best 10 of 11 @ 10pts each)		
Exams: 400 pts (4 @ 100pts each)		
Final Exam: 100 pts (comprehensive). May replace lowest non-zero exam. If you are satisfied with your grade after the 4 <sup>th</sup> exam (just prior to the final)- you need not take the final exam)		
Total: 500 pts.		
Approximate extra credit: Up to 25 points (≤ 5%)		
	A ≥ 450.0 pts 400.0 ≤ B < 450.0 pts 350.0 ≤ C < 400.0 pts 300.0 ≤ D < 350.0 pts F < 300 pts	A ≥ 90% 80% ≤ B < 90% 70% ≤ C < 80% 60% ≤ D < 70% F < 60%

- Exam and quiz formats:** Multiple choice, matching, listing, true/false, short answer and essay. Quizzes may be unannounced and will cover the reading assignments or material previously covered in class.

## GENERAL CLASS POLICIES

- Attendance:** This is not a distance learning class. Each student will be expected to participate in all classes. After three unexcused absences, the instructor *may* initiate the withdrawal process. If a student misses the majority of class meetings for any particular exam and provides an acceptable excuse to avoid withdrawal, the instructor reserves the right to substitute the all essay make-up exams (see below) for the exam normally taken by the class. Excepting only the most extreme cases, this option will be granted for only one exam.
- Make-up:** Contrary to popular belief, I simply don't have the time to create and proctor make-up to everyone on their own terms. *DO NOT ASSUME THAT YOU CAN MAKE-UP WHATEVER YOU MISSED FOR WHATEVER REASON. FURTHERMORE, ALL OFFICIAL OR UNOFFICIAL REQUESTS FOR MAKE-UP OF ASSESSMENTS OR EXTENSIONS OF TIME MUST BE MADE TO THE INSTRUCTOR'S OFFICE VIA EMAIL, PHONE, OR IN PERSON. DO NOT REQUEST MAKE-UP IN THE CLASSROOM, LAB, OR IN THE GROCERY STORE (i.e. not in my office).*  
**For official excuses:** Official excuses are issued by the Office of Student Life (see Student Handbook for details). Work missed during officially excused absences may be made up by *prior* arrangement with the instructor. It is the student's responsibility to inform the instructor of an officially excused absence as soon as possible.  
**For unofficial excuses:** The drop of the lowest quiz is intended to cover most unofficially excused absences on quiz days. If, for emergency reasons, you miss more than one quiz or if you miss an exam, the instructor, AT HIS/HER OPTION, MAY excuse and offer make-up for emergency absences reported *PRIOR TO OR ON THE DAY OF THE ABSENCE* unless verifiable extenuating circumstances render such reporting unreasonable. It is the student's responsibility and in the student's best interest to report the absence as soon as is reasonably possible. *THERE WILL BE NO MAKE-UPS FOR UNEXCUSED ABSENCES.*
- Make-up assessments:** Advance make-up and make-up arranged prior to the return of the assessment to the class may be distributed and proctored by the Department Secretaries in PS 114. Their hours are shown at <http://www.gc.maricopa.edu/appliedscience/mainweb/asdofficehours.html> and their location is shown at <http://www.gc.maricopa.edu/appliedscience/mainweb/asdPSoffices.html>. Alternatively some assessments including the all essay make-up assessments are administered in the Testing Center. See <http://www.gccaz.edu/VisitorsAndFriends/MapsAndDirections/GCCMap.cfm?see=TDS> for their location. (GCC North make-ups will be administrated through its Testing Center.) Unless otherwise advised by the instructor, you will have one week following the return of the in-class assessment to complete the make-up version. You will need a student ID, paper & pencil. You should also study the relevant questions from the "Things to know to pass this class" page on the instructor's web site. For this reason, you may not make-up both a quiz and an exam using the essay make-ups over the same material.
- Tardiness:** Although tardiness is generally discouraged, minor tardiness (less than 5 minutes) will be tolerated so long as the student does not disrupt the class. You will not, however, be allowed extra time to make-up for the time lost on timed quizzes or exams. Quizzes or exams missed by tardiness will be forfeited.
- Withdrawals:** Withdrawals are not automatic. If you wish to drop the course, it is your responsibility to complete the appropriate paperwork as prescribed by the Admissions Office *OR* inform me so that I may do so. Students who withdraw without completing a Drop/Add form may receive a grade of "F", "W" or "Y". The last dates for student-initiated withdrawals are listed at the bottom of the course schedule.
- Academic Misconduct and Academic Dishonesty** will not be tolerated. Students engaging in misconduct or dishonest practices on exams or quizzes will be dealt with according to the guidelines established in the Student Handbook. The use of any electronic storage or internet devices is prohibited during assessments.
- Class Disruptions** are defined as activities that distract the instructor or other students from the course content. Such activities include cell phone ringers, texting, talking or whispering about unrelated matters during content delivery; compounding the disruption created by a student's tardiness with comments; noisily preparing to leave the class prior to the end of the period; etc. The faculty is not required to tolerate such behavior. After two disruptive incidents the student may be withdrawn.
- Audio/Visual Recording:** Neither audio nor video recording will be permitted except under special circumstances prescribed by Disability Services & Resources.

**GLG101, MW sections, Gary Calderone Fall, 2009**

Week	Dates	Topic	Readings, etc.
1	8/24 8/26	Introduction Scientific Method	T&L, Chapter 1
2	8/31 9/7	Plate Tectonic Theory Labor Day Recess	T&L, Chapters 1, 2, & 13 No Classes
3	9/8 9/9	Plate Tectonic Theory Introductory Concepts: Rock Cycle	T&L, Chapters 1, 2, & 13 T&L, Chapter 1
4	9/14 9/16	Minerals	T&L, Chapter 3
5	9/21 9/23	Exam #1 Igneous Rocks	Full Period Exam 100 points T&L, Chapters 4 & 5
6	9/28 9/30	Igneous Rocks	T&L, Chapters 4 & 5
7	10/5 10/7	Weathering & Soils Sedimentary Rocks	T&L, Chapter 6 T&L, Chapter 7
8	10/12 10/14	Sedimentary Rocks Metamorphic Rocks	T&L, Chapter 7 T&L, Chapter 8
9	10/19 10/21	Exam #2 Geologic Time	Full Period Exam 100 points T&L, Chapters 9
10	10/26 10/28	Geologic Time Geologic Structures	T&L, Chapters 9 T&L, Chapters 10 & 14 (mountains)
11	11/2 11/4	Geologic Structures Earthquakes	T&L, Chapters 10 & 14 (mountains) T&L, Chapter 11
12	11/9 11/11	Earthquakes Veteran's Day Recess	T&L, Chapter 11 No Classes
13	11/16 11/18	Earth Interior Exam #3	T&L, Chapter 12 Full Period Exam 100 points
14	11/23 11/25	Mass Wasting Streams	T&L, Chapter 15 T&L, Chapter 16
15	11/30 12/2	Groundwater Glaciers & Deserts	T&L, Chapter 17 T&L, Chapter 18 & 19 & 21
16	12/7 12/9	Coastal Processes Exam #4	T&L, Chapter 20 Full Period Exam 100 points
17	12/14	Final Exam	Comprehansive Final Exam 100 points

Last Day for student-initiated withdrawal with a grade of "W": 10/2

Last Day for student-initiated withdrawal with a grade of "W" or "Y": 11/30

Course content may vary from this outline to meet the needs of this particular group. The instructor reserves the right to alter the schedule via verbal announcements in class. The student is responsible for noting such changes and acting accordingly-- even if the student was absent on the day that such an announcement was made.

SYLLABUS & COURSE POLICY ACKNOWLEDGMENT  
**GLG 101: Introduction to Geology I: Physical Geology Lecture**

**THIS FORM MUST BE PRESENTED TO THE INSTRUCTOR BY THE SECOND WEEK OF CLASS TO AVOID YOUR WITHDRAWAL FROM THE COURSE. YOU MAY BE REINSTATED AFTER SUCH A WITHDRAWAL BUT NOT UNTIL YOUR INSTRUCTOR HAS RECEIVED THIS FORM.**

I \_\_\_\_\_ acknowledge that I have received a syllabus for the course described above. I have read it and understand the attendance, withdrawal, grading and other policies.

I recognize that it is my responsibility to master the competencies of this course and that a passing grade will be assigned only when I have adequately demonstrated this mastery using the assessment tools provided by the instructor (tests, quizzes, reports, or other assignments).

I recognize that to successfully complete this course, I may be required to spend 2 to 3 hours of study outside of class for every hour spent in class. This extra time may include comprehensive reading of the textbook, active study and/or completion of study guides, multimedia materials or other resources as described in this syllabus.

I am aware of the fact that make-up of exams, quizzes, and or other assignments is not a right but a privilege offered at the discretion of the instructor. Make-up work is intended to accommodate emergency situations and officially excused absences. I realize that it is my responsibility to inform the instructor of such absences as early as possible and that my failure to do so may result in my loss of make-up opportunity. I understand that make-up for unexcused absences may not be offered or accepted.

I understand that it is my responsibility to complete outside assignments by the date specified by the instructor. I understand the instructor is under no obligation to accept late submissions.

I realize that academic dishonesty will not be tolerated. I understand that the instructor will deal with academic dishonesty as described in the Student Handbook (available from the Office of Student Life). Penalties for academic dishonesty may range from a reduction of points to course withdrawal to full expulsion from the college.

I understand that the instructor is under no obligation to provide "extra credit". If extra credit is offered and I choose not to do it, the instructor is under no obligation to offer an alternate.

I further understand that during class time, it is my responsibility to make sure that my cell phone, pager, and/or any other electronic messaging devices are either turned off or placed in silent ringer or vibrate mode to avoid disrupting the class. I understand that my failure to do so may result in a loss of points from my grade, my dismissal from the class period, or my withdrawal from the course.

I also understand that while in class, I am expected to pay attention and participate. I realize disruption of the class with unwarranted talking, snoring, signaling, note-passing, texting, or any other form of inappropriate behavior may result in a loss of points from my grade, my dismissal from the class period, or my withdrawal from the course.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_

OVER -->

*ENTRANCE SURVEY*  
**GLG 101: Introduction to Geology I: Physical Geology Lecture**

Please list any courses (including labs) in Geology or Earth Science that you have taken prior to this one. For each course, please list the school, approximate year and instructor if possible).

How much Physics, Physical Science, Chemistry, and Math have you had?

Are you (choose answer that is closest to your situation):

- (A) a geology major?
- (B) exploring the possibility of majoring in geology?
- (C) unsure of what you're majoring in?
- (D) sure that you are majoring in something other than geology?  
If so, what is your major?
- (E) Other (please explain)?

Did you consult, or have you consulted with an advisor in choosing your courses? [Yes] or [No]

If you answered the previous question "Yes", please rate your experience with your advisor.

[ Positive]      [Neutral]      [Negative]

Any comments on the advising process?

Any comments on the registration process?

Are you aware of the Arizona General Education Curriculum (AGEC) and its impact on your transfer to a university?

Are you currently participating in any extracurricular activities or clubs on campus? If so, which ones? (e.g. athletics, speech, etc.)

What do you hope to get out of this course?

OVER -->