*GLENDALE COMMUNITY COLLEGE: COURSE SYLLABUS: SPRING 2012* ***SECTION: 16722***

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

***Credits/Periods:*** 3 credits/3 periods. Transfers to ASU, UA, and NAU and may be used toward satisfaction of the Natural Science requirement for AA, AAS, and AGS degrees; or the Physical Science requirement of the TGECC degree program.

***Course Description:*** A study of what the Earth is made of, a bit about how we think it works, and why we might care about such things. ***Class Pre-requisites***: None

***Time/Place:*** MWF 9:00-9:50 AM/PS-167

***Instructor:*** Steve Kadel ***Office***: PS-107 ***Office Phone***: (623) 845-3618

***Office Hours:*** M,F 10:00-11:00, T 11:00 AM -12:00 PM; W 3:30-4:30 PM, R 2:00-3:00 PM; ***other times by appointment***

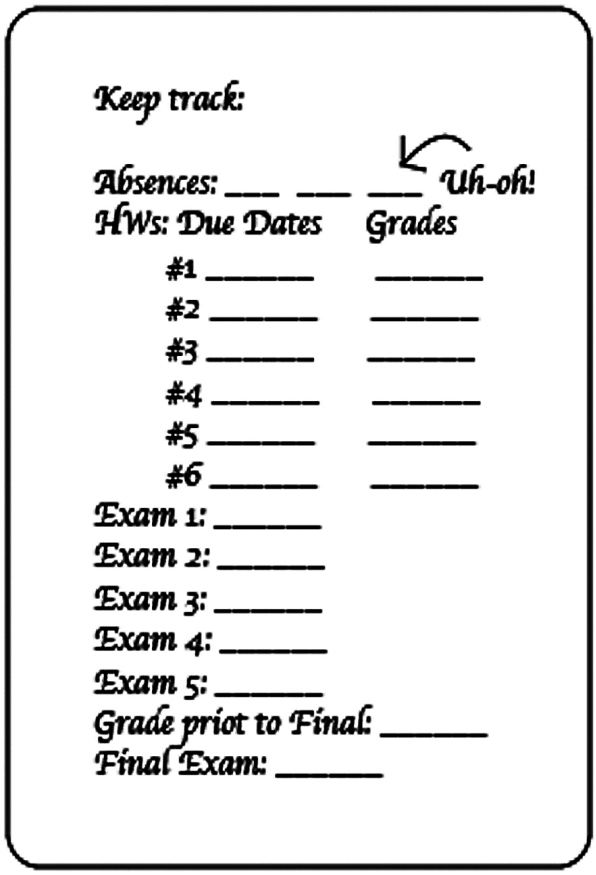
***E-mail:*** s.kadel@gcmail.maricopa.edu

***Text*** (required)***:*** Tarbuck & Lutgens, *Earth*, GCC Special Ed. ***OR*** 10th Ed. ISBN-13: 9781256156901 ***OR*** 9780321663047

***Welcome to GLG101!*** For the next 16 weeks, we will be studying the dynamic planet we call home. Physical Geology is the study of not only rocks and minerals, but also earthquakes, volcanoes, floods, landslides, glaciers, deserts, groundwater, oil and natural gas, and lots of other neat stuff - topics that may even influence how you think about buying a home or how you use energy. You might even gain a new perspective on the landscapes around town, those you may see on vacation - the Grand Canyon, for example - and even the surfaces of other planets!

***Course objectives***- upon successfully completing this course, you'll be able to:

- Recognize quite a few different types of rocks and understand how they form.
- Understand the concept of geologic time.
- Understand the basics of the Theory of Plate Tectonics.
- Understand groundwater and how it moves.
- Understand & describe the processes of weath-ering, erosion, deposition, lithification.
- Understand and describe desert and glacial processes and landforms.
- Name three or four places NOT to build a house, or even a road!
- Tell your friends/kids a little about why the mountains are where they are.




Study Buddy: _____

E-mail: _____

Phone: _____ **GRADE CODE:** _____

**What do *I* need to do to successfully (C or better) complete this class?**

- *Attend ALL classes (minus 5 pts per undexcused absense) and participate in class!*

- *Take thorough notes, print out online chapter review notes, ask questions!*

- *Turn in all 6 HW assignments ON TIME and DISCUSS with instructor prior to handing in.*

- *STUDY for and complete all 5 exams on the day they occur*

- *Take the FINAL EXAM (if I am not exempted from it)*

- *Achieve 70%+ on the sum total of all these exams and assignments/attendance*

**Remember - only YOU can ensure your success in this class. I *facilitate*, you *EARN* your grade.**

***SILENCE ALL CELL PHONES AND/OR PAGERS <u>BEFORE</u> <u>ENTERING</u> <u>CLASS</u>!***

## Resources and Study Strategies- How to get the most out of this class

Geology is a physical science course. Science courses 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 straight lecture, games, question and answer, demonstrations etc. **Take notes well**. **Ask questions**.
•**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. 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***. Quiz material will come from reading assignments and the preceding lectures. The chapter summaries that I hand out in class make excellent study guides for potential exam and quiz material. In addition, the text also contains a **glossary of terms**, and several appendices of useful information.
•**Talking with the Instructor Before or After Class** - you will find that I love to talk geology, so don't be shy about asking questions. I know that many of you may not be at all familiar with geology before this class. Why take the class if you already know it all?! Believe me, I still remember my intro. classes - It wasn't THAT long ago!
•**The Lab** - GLG103, Physical Geology Laboratory is required in conjunction with GLG101 (it need not be taken during the same semester) for full Natural Science credit in most of our degree programs. The lab is coordinated with the lecture classes and is designed to give you "hands-on" experience with many of the rocks, minerals and geologic processes we discuss in lecture.
•**Study Groups** - Get together - help each other! I strongly encourage you to form study groups. 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 anxiety - "I'm not really a 'scientific' person" or "Science classes have always been difficult for me." Other students may have various disabilities including test anxiety, which may make traditional classroom environments very difficult. Fear not, almost all such students preceding you have 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 the college and the Applied Science 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 various Instructors' Office Hours (hours for this semester will be posted on the door of PS-174 after the first week of classes). 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 skills areas (English, Reading, Math); and (3) Study Skills Workshops. The CL location and hours of operation are given in your Student Handbook.
•**Disabled Student Resources (DSR) -** The DSR center at Glendale C.C. provides a wide variety of services to students with disabilities which otherwise might impair their ability to function in the typical classroom setting. Hearing-impaired students may be provided with a trained "signer" who translates my lectures in real time. DSR provides reading services and word enlargement services for visually impaired students, and administers quizzes and examinations to these students. Any student who has any recognizable disability that he/she feels may impair their ability to perform the course requirements and expectations should contact me during the first week of class to see how we can accommodate and facilitate your completion of this course.
•**Counseling Center** - The Counseling Center provides students with career counseling, one-on-one 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 particular 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 at (602) 244-2678, from 8:30 PM – 5:00 PM, M-F.

***Grading***

Grading for this course will be based on attendance, 6 homework assignments, 16 quizzes, 5 full-period regular lecture exams, and a Final Exam. Letter grades will be assigned on a straight 10% basis: 90-100% = A; 80-89% = B; 70-79% = C; 60-69% = D; 0-59% = F. Points below are based on a total of 1000. Point totals may be changed slightly during the semester. Your lowest quiz score and lowest exam score will be dropped – this includes the Final Exam. Should a student have ***a B average (79.5%) or better*** going into the Final Exam, without dropping any exams, the Final Exam may be skipped and dropped. In no instance can taking the Final Exam lower your grade. However, **if you are required to take the Final Exam (C or lower going in) and you don't show up for the Final Exam, you will receive an un-droppable 0 for the Final Exam.**

Extra credit will be offered for a total of about 15 points during the semester, distributed among the exams. **Coming by office hours and asking geology-related questions - 1 point per office visit - can achieve an additional bonus of up to 5 extra credit points.** ***You should request the point be added before you leave my office.***

| **Point distribution:** | GRADE |
|---|---|
| | |
| Attendance: 80 pts. (minus 5 pts for *every* unexcused absence) | A = ≥895 pts |
| Homework Assignments: 120 pts (6 @ 20 pts) | B = 795-894.5 pts |
| Quizzes: 300 pts. (Best 15 of 16 @ 20 pts) | C = 695-794.5 pts |
| Exams: 400 pts (Best 4 of 5 @ 100 pts) | D = 595-694.5 pts |
| Final Exam: 100 pts total (cumulative) | F = ≤594.5 pts |
| Total: 1000 pts. | |

•**Quiz formats**: Multiple choice, matching, listing, true/false, short answer – **the quizzes will be you BEST STUDY GUIDES** for the exams. Quizzes will occur **at the beginning of class each Friday**. **No make-ups will be given for missed quizzes. Be ON TIME!**

•**Exam formats**: Multiple choice, matching, listing, true/false, short answer.

• **HW format**: Homework assignments will be given at the start of a week, with a week to complete and turn each in, and will cover topics related to the reading assignments or material covered in class since the previous HW assignment. Up to **20 points** for HW assignments will be awarded as follows:

Correctly answer question(s) given to research: **11** points
***Discuss with me the answer*** and importance for a few minutes (office hours): ***8 points***
Reference (website or full text/periodical reference) of where information was found: **1** point

Each student will complete their own HW assignments, will **discuss them with me individually** during office hours, and will obtain a grade based on their demonstrated understanding and individual work on the assignment. **DO NOT** come by to "discuss" your HW ***before even trying*** to find the answers. You're supposed to be discussing what you've found out/learned, not fishing for answers.

***General Class Policies***

•**Attendance**: Each student will be expected to attend ***all classes***. After three unexcused absences or disruption of class, the instructor ***may*** initiate the withdrawal process. 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! The instructor may excuse absences for emergency situations unofficially. Instructor-excused absences must be obtained *prior to, or on the day of, the student's absence.* Make-ups for such absences will be at the discretion of the instructor. ***There will be no make-ups for unexcused absences.***
•**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 exams.
•**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. Students who withdraw without completing a Drop/Add form will receive a grade of "F" or "Y". The last dates for student-initiated withdrawals are listed at the bottom of the class schedule on the next page.
•**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.
•**Audio/Visual Recording:** Neither audio nor video recording of the lectures will be permitted.

T&L = Tarbuck & Lutgens 10th Edition (your textbook)

| Week | Week of (Monday) | Topic | Readings, etc. |
|---|---|---|---|
| 1 | 1/16 | **NO CLASS 1/16 (MLK Day)**<br>Scientific Method/Earth's Systems<br>**Quiz 1** | <br>T&L Ch. 1 |
| 2 | 1/23 | Intro to Plate Tectonics; **HW#1**<br>Matter and Minerals; **Quiz 2** | T&L Ch. 2<br>T&L Ch. 3 |
| 3 | 1/30 | Matter and Minerals; **HW#2**<br>Plutonic Igneous Rocks | T&L Ch. 3<br>T&L Ch. 4 |
| 4 | 2/6 | Volcanic Igneous Rocks; **Quiz 3**<br>***EXAM #1*** | T&L Ch. 5 |
| 5 | 2/13 | Weathering & Soils<br>Sedimentary Rocks | T&L Ch. 6<br>T&L Ch. 7 |
| 6 | 2/20 | **NO CLASS 2/20 (Presidents' Day)**<br>Sedimentary Rocks<br>Metamorphic Rocks; **HW#3** | <br>T&L Ch. 7<br>T&L Ch. 8 |
| 7 | 2/27 | Geologic Time<br>Earth Through Time<br>***EXAM #2*** | T&L Ch. 9<br>T&L Ch. 22 |
| 8 | 3/5 | Mass Wasting<br>Running Water**; HW#4** | T&L Ch. 15<br>T&L Ch. 16 |
| 9 | **3/12** | **SPRING BREAK – No Classes Meet** | **NONE** |
| 10 | 3/19 | Groundwater<br>Glaciers and Glaciation | T&L Ch. 17<br>T&L Ch. 18 |
| 11 | 3/26 | Deserts and Winds<br>Shorelines<br>***EXAM #3*** | T&L Ch. 19<br>T&L Ch. 20 |
| 12 | 4/2 | Geologic Structures; **HW#5**<br>Earthquakes | T&L Ch. 10<br>T&L Ch. 11 |
| 13 | 4/9 | Earth's Interior<br>***EXAM #4***<br>Divergent Boundaries/Seafloor | T&L Ch. 12<br><br>T&L Ch. 13 |
| 14 | 4/16 | Convergent Boundaries/Continents; **HW#6**<br>**NO CLASS 11/25 – Thanksgiving Break** | T&L Ch. 14 |
| 15 | 4/23 | Global Climate Change<br>Energy and Mineral Resources | T&L Ch. 21<br>T&L Ch. 23 |
| 16 | 4/30 | Planetary Geology<br>***Exam #5 (4/30)*** | T&L Ch. 24 |
| 17 | **5/7 (MON)** | **FINAL EXAM 9:00-10:50 AM** | T&L Chs. 1-24 |

**Last day for student-initiated withdrawal with a guaranteed grade of "W": 3/2**
**Last day for withdrawal, with a grade of "W" or "Y": 4/23**
**THESE WITHDRAWAL DATES ARE ABSOLUTE AND NON-NEGOTIABLE!**

*Course content may vary slightly from this outline to meet the needs of this particular group. The instructor reserves the right to alter the schedule via verbal announcements or instructions in class EXAM* ***AND HW DATES ARE APPROXIMATE****. The student is responsible for noting such changes and acting accordingly* ***- even if the student was absent on the day such announcements were made, so ATTEND CLASS****.*

*GLENDALE COMMUNITY COLLEGE- SYLLABUS ACKNOWLEDGMENT:* **SECTION 16722**

**GLG 101: Introduction to Geology I: Physical Geology Lecture**
**SPRING 2012 Instructor: Steve Kadel**

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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 to complete this course, I may need to spend 2 to 3 hours of study outside of class for every hour spent in class.

Signature: _____

Printed Name: _____ **GRADE CODE:** _____
(choose 1 letter followed by 3-digit number)

Date: _____

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**Questionnaire:**

How did you select this and other courses for which you are registered this semester? On-line schedule? Paper schedule? Did you visit a campus advisor? If so, what assistance did you receive from this person?

Have you ever had a course in Geology or Earth Science prior to this one?

If yes, when and where (list all courses including labs)?

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).

What do you hope to get out of this course?

What part (if any) of geology lab do you think will be most interesting to you?

What (if any) part of geology do you think will be most interesting to you?