

**GLENDALE COMM. COLLEGE: COURSE SYLLABUS****SECTION: 14526****GLG 103 Introduction to Geology I: Physical Geology Lab****Fall 2009**

*Credits/Periods:* 1 credit/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:* May accompany GLG 101. Study of common rock-forming minerals, rocks, and maps.

*Time/Place:* Tuesdays, 11:30am to 2:00pm; PS-174

**Instructor:** Pamela Nelson    **Office:** PS106    **Phone:** 623.845.3680 (voice mail)

Office Hours: M thru F 9:15-9:45am, M 2:30-4pm, and F 1:30-3pm or

**other arrangements made by appointment**

**Electronic mail:** [pam.nelson@gcmail.maricopa.edu](mailto:pam.nelson@gcmail.maricopa.edu)

**Web page(GCC related):** <http://www.gc.maricopa.edu/appliedscience/pjnweb/PJNTeaching.html>

**Text(s):** *GLG103: Physical Geology Laboratory Manual, Fall 2009 edition*

**Welcome to GLG103!** GLG103, Physical Geology Laboratory is required in conjunction with GLG101 (Physical Geology Lecture) for full Natural Science credit in most of our degree programs. The lab is coordinated with the lecture classes and designed to give you "hands-on" experience with many of the lecture topics. The lab, however, may be taken independently of GLG101 and is also designed as an independent class. In this class, we will be learning how to identify rocks and minerals and interpret geologic maps- skills that may prove useful in deciding where to buy or build a house, or perhaps find gold or other precious commodities.

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

- Describe how the Scientific Method works.
- Describe how physical properties distinguish and identify minerals from one another.
- Describe the processes and characteristics that distinguish the different rock types.
- Identify some of the more common minerals and rocks that you may encounter while "in the field." (i.e. outside) (Emphasis on Arizona and the Southwest)
- Interpret and use Topographic maps
- Interpret geologic structures both above and below ground on Geologic maps.

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

Geology is a physical science course. Science courses usually take a bit of work to complete. Because we all learn differently, some people will breeze through parts of the course, while others may stumble a bit. I try to teach this class using as many different educational techniques and teaching tools as possible; however, there are also other resources and study strategies available to you. These resources include:

- **The Lab "Lecture"** - The lab lecture and the lab manual are your primary resources for this course. For most of the topics, I will be lecturing and emphasizing demonstrations. Take notes well and always ask questions.
- **The Lab Manual** - Your Lab Manual has been designed to address the content of the course in the friendliest, most complete, and least expensive manner available. **READ IT! I will expect that you have read this material prior to coming to class.** (Indeed, several students have told me that the lab exercises go much faster and more smoothly after they had read the lab manual.)
- **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".
- **Display Cases & Study Samples** - Numerous exhibits of minerals, rocks, fossils, maps, and other information are displayed throughout the Physical Science Building (on GCC Campus). **In particular, study samples will be made available prior to exams in PS-115 (across from the secretary's office in the common area.** These make excellent study devices by providing further examples of the materials you will be studying in lab.

## ***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 Glendale Community College and the Applied Science department provide special programs to address the various needs of our students. These programs include:

- **GeoAssist** - This program, offered by the GCC Applied Science department's Geology Instructors, is a place where you can get tutorial help for any of the introductory geology courses directly from one of the geology instructors, in an informal, easy-going environment. GeoAssist utilizes the office hours of all geology faculty to bring you free tutoring. Hours for the current semester will be posted 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.
- **GCC Center for Learning (CFL)** - The CFL (on GCC Campus) 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. CFL location and hours are given in your Student Handbook.

- **Disability Service and Resources (DSR)** - The DSR center 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 disability that may have some impact on your work in the class and for which you may require accommodations, you need to notify the Disability Service and Resources Office, located in TDS 100. Their phone number is 623-845-3080.**
- **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.

### ***General Class Policies***

- **Attendance:** Each student will be expected to attend all classes. 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! Absences for emergency situations may be excused unofficially by the instructor. **Instructor-excused absences must be obtained *prior to the student's absence* to ensure ability to make up work missed. Work may only be made up in a lab section taught the same week with the **PRIOR APPROVAL** of both myself and the instructor of the lab in which you wish to make up your work.** There will be no make-ups for unexcused absences.
- **Tardiness:** Tardiness is generally discouraged; should you be late, be responsible and do not disrupt the class. You will NOT be allowed extra time to make up for the time lost on quizzes or exams. **No make-ups will be allowed on quizzes or exams missed because of tardiness.**
- **Class Disruption:** If a student (or students) disrupts the class or disturbs the learning of the other students, he/she will be issued a warning. If the behavior continues, the instructor may move the student to a different seat in the classroom and may officially withdraw the student from the course if the disruption continues.
- **Withdrawals:** **Students who miss two consecutive weeks of class without notifying me will be withdrawn from the course.** If you need to drop the course, it is your responsibility to complete the appropriate paperwork as prescribed by the Admissions Office.

Last day for student-initiated withdrawal w/o instructor signature, with a grade of "W": 10/2/09

- **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. Discipline may include a warning, grade adjustment or failure of the assignment or even failure of the course.
- **Audio/Visual Recording:** Please request permission if you wish to record class lectures. No audio or video recording of the lectures will be permitted without the instructor's permission.

### **Grading**

Assessment for this course will be based on completion of your lab exercises, a short quiz given each week over the preceding lab material, two practical 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. Total points may be changed during the semester. Extra credit will be offered on quizzes and exam.

<b>Point Distribution</b>	
Labs: 65 pts (13 @5 pts) & In-class Field Study: 15 pts.	$A \geq 310.5$ pts
Quizzes: 90 pts (9@10 pts.) (Drop the lowest of 10 total)	$276 \leq B < 310.5$ pts
Exams: 100 pts (2@50pts)	$241.5 \leq C < 276$ pts (Transferable)
Final Exam: 75 pts (Cumulative)	$207 \leq D < 241.5$ pts
Total: 345 pts.	$F < 207$ pts

**Exam and quiz formats:** Exams and quizzes will have multiple choice and short answer questions. Most quizzes and exams will consist of sample identification questions and map interpretation questions. Quizzes will cover the material covered in class since the last quiz or exam, including the information in the lab manual assigned for that section. Extra credit questions will be offered and may cover up-coming material. Quizzes and exams will be taken by each student during the assigned class time.

**An additional 10 points extra credit will be offered during the semester. More information will be forthcoming.**

The course schedule is shown on the following page. 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. The student is responsible for noting such changes and acting accordingly - even if the student was absent on the day such announcements were made.

## GLG103, Tuesday sections

Fall 2009

Week	Dates	Topic	Quiz/Exam/Homework
1	8/25	Ex 1 Introduction - Plate Tectonics (5 pts)	
2	9/1	Ex 2 Mineral Physical Properties (5 pts)	Quiz (10 pts) over Plate Tectonics
3	9/8	Ex 2 Mineral Identification (5 pts)	Quiz (10 pts) over Physical Properties
4	9/15	<b>Practical Exam #1: Minerals</b> Ex 3 Rock Textures Part I (5 pts)	Exam (50 pts) 90 minutes
5	9/22	Ex 3 Rock Textures Part II (5 pts)	Quiz (10 pts) over Rock Textures Part I
6	9/29	Ex 4 Igneous Rocks (5 pts)	Quiz (10 pts) over Rock Textures Part II
7	10/6	Ex 5 Sedimentary Rocks (5 pts)	Quiz (10 pts) over Igneous Rocks
8	10/13	Ex 6 Metamorphic Rocks Ex 7 Rock Identification (5 pts)	Quiz (10 pts) over Sedimentary Rocks
9	10/20	<b>Practical Exam #2: Rocks</b> Ex 8 Relative & Absolute Dating (5 pts)	Exam (50 pts) 90 minutes
10	10/27	Ex 9 Geological Maps I (5 pts)	Quiz (10 pts) over Relative Dating
11	11/3	Ex 10 Topographic Maps I (5 pts)	Quiz (10 pts) over <i>Geologic Maps</i>
12	11/10	Ex 11 Topographic Maps II Ex 12 Applications of Topo Maps (5 pts)	Quiz (10 pts) over Topo Maps I
13	11/17	Ex 13 Geological Maps II (5 pts)	Quiz (10 pts) over Topo Maps II
14	11/24	Open Lab/Review	
15	12/1	Ex 14 Field Trip (15 pts)	
16	12/8	<b>Final Practical Exam: 66% Maps, 33% Rocks &amp; Minerals</b>	Exam (75 pts) full period

10/2 - Last day for student-initiated withdrawal, without instructor signature and with a grade of "W"

11/30 - Last day for student-initiated withdrawal, with instructor signature and with a grade of "W" or "Y"

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