

GLENDALE COMM. COLLEGE: COURSE SYLLABUS

SECTION: 16721

GLG 101 Introduction to Geology I: Physical Geology Lecture

Spring 2012

HONORS SYLLABUS ADDENDUM

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 the kind and arrangement of materials composing the earth's crust and the geological processes at work on and within the earth's surface.

Time/Place: MW 1-2:15pm; PS 175

Text: Tarbuck & Lutgens *Earth* 10th Ed. - - ISBN# 0321663047**or** ISBN # 9780321663047

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

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

or other arrangements made by appt.

Electronic mail: pam.nelson@gcmail.maricopa.edu

Web page: <http://www.gc.maricopa.edu/appliedscience/pjnweb/PJNTeaching.html>

This syllabus is to be used IN ADDITION TO the regular syllabus to lay out the course requirements for honors students in GLG 101.

Welcome to Honors Section/Component of Geology 101! As you have seen in the general course syllabus, I have attempted to give all students in this course a challenging but reasonable set of expectations to complete GLG 101. As Honors students, you are training to become the "best and brightest", and, as such, the Honors component of this class adds additional challenge to your geologic experience. The options you have in completing your honors projects should be chosen to suit your interests and personality. ***They should also be challenging enough to merit honors credit.*** Furthermore, I've been a student all too recently and I know how hard it is to stay on top of things unless you have a deadline. As you will see, I have laid out several deadlines for different phases of your projects. ***Be aware that you will NOT be allowed to turn in late work.*** You are responsible for completing the assignments in a timely manner.

Please remember that I am available during office hours and by appointment to help you in organizing your thoughts and ideas for your projects. Please see me if and when any difficulties arise... and plan enough in advance with your work that you don't have to call in a panic the night before the project is due! ☺ I will be setting up an e-mail group for Honors Students to contact you all, so please provide me with the e-mail you check most often (preferably your GCC gmail account).

I look forward to working with you this semester!

The following work is required for honors credit in GLG 101:

1. Completion of all general course requirements as listed in accompanying general syllabus.
2. Completion of specific Honors components as follows.

Part I: Extension of Class Learning through Take-Home Exam Essay Questions

For this component of your Honors experience, you will be expanding upon concepts learned in class and tested on the general class exam. At the completion of each in-class exam, you will select, at random, an essay question from a set I have written. You will be required to complete only one question. You will be given approximately one week to complete the assignment using any outside resources you deem necessary. The essay answers should be as long as it takes to answer the question successfully, but will generally be 2 - 4 pages, 12-point font, typed and double-spaced. Further instructions will be provided with each essay question.

There will be one essay question for each of the first three exams, and each question will be worth 25 points of your Honors points.

Part II: Service Learning (50 points)

For this component of your Honors experience, you will be completing work and projects that will "serve" your fellow students, Glendale Community College, and your community.

You may *CHOOSE ONE*** of the following options to obtain up to 50 points credit:**

1. Compilation of an Extensive On-Line Bibliography of Geologically Relevant K-12 Activities

This project entails compiling a list of relevant on-line sources that explains, tests or provides exercises on geologic topics that would be useful in teaching geology to K-12 students. The project should include no less than 10 citations for unique web sites that include K-12 level explanations of the topic. You should provide a complete reference to the specific page you are examining. For each site, you will include the following:

- A (minimum) one half-page summary of the information contained in this source
- Evaluation of the usefulness of the site and the approximate age group to whom this would be useful
- Description of (at least) one thing that was especially good about the site
- Description of (at least) one thing that could be improved on the site
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At least 3 of the 10 - if not more - of the sites should include some type of activity or test that is described or explained. These evaluations will be used to help choose exercises to be done with future visiting students and/or during future classroom visits. The result of this project will be a written report for each site with information as above. You will not have to do an in-person presentation for this project. Each citation should include a (minimum) one half-page summary of the information contained in this source.

An alternative to using text-based web sites for this project is the analysis of videos on an on-line video site. The videos should be analyzed using the same list as above but your project should also include some type of re-usable worksheet or game that could be used along with 2-3 of the websites that would make the experience more engaging and active for the students viewing the videos.

2. Design and Leading of Physical Geology exercises during elementary & secondary school visits to Glendale Community College

Numerous school groups pass through Glendale's campus every semester. In the past, many of these students have benefited from presentations on rocks and minerals (GLG 101). **The goal of your project will be to design a Physical Geology component that can be used with school-age groups as they pass our way. The project should be aimed at younger children (elementary or early secondary students) and should have appropriate terminology and topic depth.** Your grade will be awarded based on preparing a presentation about any topic covered over the semester in Physical Geology. **The activity must include some active involvement on the part of the students.** Reusable presentation materials (i.e., handouts, games or puzzles for students or PowerPoint presentations for older groups) should be produced to describe some of the aspect of your subject or hands-on component. A number of options are available with respect to how this project can be completed; your proposal (see below) should include your topic and ideas about what you might like to include. These ideas can be refined as the project progresses. There are a plethora of activities available on-line that could be modified and added to in order to produce a directly applicable set of activities. If young student groups are not available at GCC, you will be allowed/required to present your project to a student group of your choosing (a sibling's or one of your own children's?) or to your fellow classmates or myself once the project is complete. Should you choose this option, you will be given a grading rubric describing how your final presentation will be graded so that you can prepare accordingly.

3. Mapping of Earthquake Epicenters & Understanding Earthquake Data

An integral part of understanding the modern science of Geology is understanding the basics of Plate Tectonics. Nowhere can the boundaries of such plates be better "seen" than by plotting the locations of earthquakes around the world over time. As both an aid to your understanding of Plate Tectonics, and as a resource for future introductory students, you may choose to complete the project of plotting (with push-pins or the equivalent) the epicenters of several hundred earthquakes (which have occurred since Jan. 1, 2000) on an oversized physiographic map of the world located just outside my office at PS-106. I will make earthquake mapping tools available to you at convenient times throughout the semester should you choose this option. The map tools will be available for "check-out" in the main lobby of the Physical Science Building, with a sign-in and sign-out sheet to keep track of who has worked on it and when. For credit on this project, you must put in at least **1 hour** of work on the map project during the semester (no less than **20** individual pins placed, per student).

In addition you will write a short paper (approx 3 pages typed and double spaced, 12-point standard font) explaining why the earthquakes you and others have plotted are located in the areas they appear. This should include both a general explanation of why ALL the pins are located as they are as well as a more detailed description of at least one specific plate boundary and (1) what 2 plates are interacting here and what type of plate they are (continental or oceanic), (2) what specific type of boundary it is, (3) why the earthquakes appear at this location, and (4) why the earthquakes have the magnitudes shown. Note: You may choose any plate boundary OTHER THAN the San Andreas transform.

4. Another Service Learning project as suggested by the student

If you have an idea of how you can directly apply the information of this course into a project or activity that improves the learning and understanding of another, please see me to present your idea for approval. There are a myriad of Web 2.0 tools out there that could be utilized to design a service-learning project. Original proposals using these "new" tools will be welcome as well.

DEADLINES for Part II:

1. Proposal - DUE 1/25/12 - 10 pts.

Proposal should be approx. 1 page long and include what option you have selected, why you have chosen it, and what your timeline is (approximately: ex. "By 2/3 I will have...") for completing separate parts (if any) of your exercise. Option 1 proposals should include a selection of topic and one example of a web site (not the summary, just the site) that you will be using. Options 2 & 4 proposals should include your selection of or a list of potential exercises and topic you would like to put together. Option 3 proposals should include times you will be available to work in the PS building to complete your work. Once you have completed your proposal and selected this project, you will receive a copy of the rubric that will be used in grading your assignment.

2. Project Completion - DUE 3/5/12 - 40 points

Intermediate deadlines, as proposed by you above, should be followed throughout the semester to complete this component in an orderly fashion. *NO late projects will be accepted and the project MUST follow your proposal.* If you choose to change topics or projects, you must clear this with me before proceeding. Start your project early and complete it in a timely fashion.

**** NOTE:** For projects including a PPT or oral presentation that have not been presented to an elementary group, time will be scheduled for you to present your project to me during a non-class time. A schedule of times/options will be given to you a week before the due date of the project.*******

Part III: Geologic Research (75 points)

For this component of your Honors experience, you will be completing work that will enrich your understanding of Physical Geology.

You may CHOOSE ONE of the following options to obtain up to 75 points credit:

This option entails completion of a slightly longer, more in-depth research project presented at a college level. This component of your credit will consist of library research and compilation on a geologically relevant topic of interest to you. The topic should be related to some topic we discuss during GLG101 or GLG103, but **should examine a different specific topic or go into greater depth than the information we discuss in class.** This topic may be related to and expand upon the research you do for your service learning project if you so choose.

The final result of your geologic research can be presented in various ways. The most straightforward way is through producing a short, well-written research paper, complete with relevant figures, that summarizes your research; this written portion of your paper (not counting the figures) should be no less than 6 pages long: typed, double-spaced and in 12-point standard font. Other options might include: a shorter paper accompanied by a movable or hands-on component for presenting to future students; a web site designed to show relevant pictures and figures relating to your topic and the highlights of your research (be sure to cite your sources for images); a PowerPoint presentation showing relevant pictures and facts and presented to me one-on-one; utilization of Web 2.0 tools in presenting your information; or others as approved by me. ALL projects should be supported by figures/diagrams/photos (with appropriate citations) in some way.

DEADLINES for Part III - Research Project:

1. Proposal for Research paper - Due 3/28/12 - 10 points

Proposal should be approx. 1 page long and include:

- What topic you have chosen (if you need help in choosing, please see me during office hours or by appointment) and why the topic is of interest to you
- What method of presentation you wish to use for your final work
- A detailed and specific time-line of things you need to do to complete your research
- A short list (no less than 5) of print-based or internet resources that you intend to begin using to compile your research.
- A brief description of your previous experience in doing research activities (i.e., this is my first ever research paper vs. I've done lots of research papers in high school and other GCC classes).

2. "Check up" - DUE 4/23/12 - 15 points

This check-up should consist of greater than 50% of what your final project is expected to look like and your COMPLETE set of references. This is basically to make sure you're on the right track and working on your project throughout the semester (vs. waiting until the last minute).

3. Final project - 50 points - DUE 4/30/12

** NOTE: For projects including a PPT or oral presentation that have not been presented to an elementary group, time will be scheduled for you to present your project to me during a non-class time. A schedule of times/options will be given to you a week before the due date of the project.

****** CITATION AND PLAGIARISM RULES APPLY
TO ALL ASSIGNMENTS (See following).**

Papers or projects that do not include complete citations will
receive an immediate "0" grade. ***

Grading

Grading for this course will be based on an average of your grades on homework assignments, quizzes and exams as listed below. HONORS STUDENTS WILL HAVE AN ADDITIONAL 200 points of assignments in addition to the standard syllabus. 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 slightly during the semester.

Point Distribution/ General Syllabus:

Check-off Exercises (awarded as a percentage of total number of exercises by the end of the semester)	25 points
Homework Assignments (5 @ 10 points each) =	50 points
Quizzes (5 best of 6 @ 20 points each; drop your lowest quiz grade) =	100 points
One-hour exams (2 best of 3 @ 100 points each; drop your lowest regular one-hour exam grade) =	200 points
Final Exam (150 points total; 100 pts. new material & 50 pts. cumulative) =	<u>150 points</u>
GRAND TOTAL =	525 points

Additional assignments for honors students:

Exam essay questions (3 @ 25pts each)	75 pts
Service Learning Project =	50 pts.
Geologic Research Component =	<u>75 pts.</u>
TOTAL =	200 pts.

GRAND TOTAL FOR HONORS GRADE SCALE = 725 pts.

Point breaks for honors: A=725-650, B=650-580, C=579-505, D=504-435, F=lower than 434

Completion of ALL Honors projects is required to obtain Honors credit for this course. Any student failing to complete the above-listed Honors assignments will receive a grade of "F" for the course. This will obviously affect your academic standing and ability to remain an Honors Student, so please plan time for your projects accordingly.

Instructions for In-Text and End-of-Paper CITATIONS for this course:

EVERY TIME you use information from an outside source (i.e., it doesn't come straight from your own brain as an original thought), you must give the original source credit. In science, there are several ways these citations appear in different publications; to eliminate confusion as to how to cite your information, we'll stick with the MLA type of citation used in the Glendale Community College English Department. Many of you may have used or will use this citation during your ENG102 course.

WARNING: Any time you don't use citations, you're claiming in the information as your own, original thought. If it's not an original thought, then you are committing plagiarism, and expulsion from GCC can result from your mis-handling of information. BE CAREFUL!

Each piece of information in your paper, whether it be an individual sentence which has been paraphrased by you or a whole paper that you are summarizing must be cited, both with a shorter, abbreviated, in-text citation (which immediately follows the cited information within your paper) and with the full citation of the source of the information at the end of your paper. Remember that any information that you copy directly from a source (without paraphrasing it) must be surrounded by quotation marks to show that it's a direct quote. **Note: If you are using a different citation style (MLA, APA, etc.) for another course or are more familiar with a different citation style, feel free to use that style as long as it is a complete citation that notes information that is not of your own devising.**

Examples:

For a magazine article:

In-text: Christopher Chyba believes that life originated from organic materials within meteorites that made contact with Earth's surface (Radetsky, 1998).

End-of-paper citation: Radetsky, Peter. "Life's Crucible." Discover February 1998: 34-41.

For an internet web page:

The end-of-paper citation must be the COMPLETE web page address. I should be able to type the address in and get to the EXACT information that you cited within your paper on that ONE page. For example, giving me the web page www.usgs.org (for the United States Geological Survey) would not tell me what specific information you used on their site. To make your citations cleaner, please include a short summary/title for the page you used prior to the web address. This title, or an abbreviated version of this title, can then be used in your in-text citation.

In-text: Scientific techniques in biology and geology have determined that the oldest life on earth is approximately 3.5 billion years old (Earth's Beginnings).

End of paper citation:

Earth's Beginnings: <http://geol.queensu.ca/museum/exhibits/archean/archean.html>

Although the papers you will complete in this course are significantly shorter than an actual research paper, the hints and information given on the following English department web links may be of use to you. Check them out, and/or ask me if you have any questions:

Avoiding Plagiarism (English): http://www.gc.maricopa.edu/English/plagiarism_studentresources.html

Citation Guides (Library): <http://lib.gccaz.edu/lmc/help/guides/>

Documentation Guides (extensive): <http://www.gc.maricopa.edu/English/writing.html#2>

Course Schedule: GLG 101 - HONORS MW 1 pm - Spring 2012

Date(s)	Topic	Honors Due Dates	HOMEWORK (See sheet)	Quizzes/ Exams
1/16 NC 1/18	NO CLASS - MLK Day Introduction; Scientific Method Basic Concepts and Processes Plate Tectonics, Center of the Earth			
1/23, 25	Minerals	Service Project Proposal (1/25)		QUIZ #1 (1/25)
1/30, 2/1	Igneous Rocks		HW#1 TQ/RQ (2/1)	QUIZ #2 (2/1)
2/6 2/8	Catch-up & Review for Exam -----	-----	-----	EXAM #1 (2/8)
2/13, 15	Weathering & Soils Sedimentary Rocks	Exam #1 Essay Question (2/15)		
2/20 NC 2/22	NO CLASS - PRESIDENT'S DAY Sedimentary Rocks, cont.			QUIZ #3 (2/22)
2/27, 29	Metamorphic Rocks Geologic Resources		HW #2 TQ/RQ (2/29)	
3/5 3/7	Catch-up & Review for Exam -----	Service Project Due (3/5) -----	[3/5 Extra Credit for MiniPaper HW] -----	EXAM #2 (3/7)
3/12-3/16	NO CLASS - SPRING BREAK	HAVE FUN!		
3/19, 21	Geologic Time Geologic Structures	Exam #2 Essay Question (3/21)		
3/26, 28	Earthquakes Earth's Interior	Research Project Proposal (3/28)		QUIZ #4 (3/28)
4/2, 4	Plate Tectonics		Mini Paper HW (4/2) ----- HW #3 TQ/RQ (4/4)	QUIZ #5 (4/4)
4/9 4/11	Catch-up & Review for Exam -----	-----	-----	EXAM #3 (4/11)
4/16, 18	Mass Wasting **Last 6 chapters may be in any order** Running Water & Streams	Exam #3 Essay Question (4/18)		
4/23, 25	Groundwater Glaciers	Research Project Check-Up (4/23)		QUIZ #6 (4/25)
4/30, 5/2	Deserts Waves & Beaches Global Climate Change	Research Project Due (4/30)	HW #4 TQ/RQ (4/30)	
Mon 5/7 @ 1pm	FINAL EXAM - PARTIALLY CUMULATIVE			FINAL EXAM

GLENDALE COMMUNITY COLLEGE- SYLLABUS ACKNOWLEDGMENT:

GLG 101: Introduction to Geology I: Physical Geology Spring 2012

Instructor: Pamela Nelson Section #16721 MW 1pm - HONORS

I acknowledge that I have received an additional HONORS 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 be required to spend 2 to 3 hours of study outside of class for every hour spent in class.

I understand that I must complete all of the Honors projects listed in the syllabus to obtain Honors credit for this course. Should I choose not to complete one of the projects, I will be immediately withdrawn from the course and transferred to a non-Honors section or failed in the Honors section.

Signature: _____

Printed Name: _____

Date: _____

E-mail: _____

Questionnaire:

How long have you been participating in the Honors Program at GCC?

Have you been in Honors courses at any other school, including High School?

What expectations do you have of the honors requirements for this course?

Use the space below to list, explain, write or describe anything else you think will help me help you in this course... I look forward to working with you!!!

GLENDALE COMMUNITY COLLEGE- SYLLABUS ACKNOWLEDGMENT:

GLG 101: Introduction to Geology I: Physical Geology

Spring 20112

Instructor: Pamela Nelson

Section #16786/16721 (MW 1:00-2:15pm)

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 be required to spend 2 to 3 hours of study outside of class for every hour spent in class.

Signature: _____

Printed Name: _____

Date: _____

E-mail address: _____

Questionnaire:

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)?

Are you (choose an 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)?

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?

Which of the following best describes your feeling about taking a science course?

I'm: (a) excited! (b) pleased (c) neutral (d) hesitant (e) terrified!

In which of the following ways do you think you learn best (circle all that apply)?

- (a) By hearing something
- (b) By reading something
- (c) By actively touching or examining something
- (d) By writing something

On the back of this sheet, please list, explain, write or describe anything else you think will help me help you in this course... I look forward to working with you!!!