

GEOL-1031-005 INTRO TO EARTH SCIENCE LABORATORY

Time/Location: Mon. 12:40-2:40 PM, KOM 320

Instructor: Dr. Clay Harris **Office Hrs:** <http://frank.mtsu.edu/~cdharris/ofc-hrs.htm>

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**No make-up
quizzes or labs.
NO EXCEPTIONS!**

Required materials (@campus bookstore): Lab manual (< \$60), full G1031 kit (< \$10), ten Form B Scantrons

Lab manual: *Introduction to Earth Science Laboratory Manual, Clay Harris* (2007 edition)

Grading: Grades will be based on 10 pre-lab assignments (= 10 pts total) located at www.frank.edu/~cdharris/GEOL1031/pre-labs.html, two of the three lab quizzes (= 20 pts total), an independent study exercise (= 5 points) and two lab practicals (= 70 pts total); these total 105 points.

You will need to purchase ten "Test Answer Sheet B" (50 answer, 1/2 sheet) Scantrons for the pre-lab assignments. Quizzes are 10 points each and will be given at the beginning of class. Anyone arriving more than 5 minutes late will not be able to take the quizzes or exams. Quizzes cover material from one or more previous labs. You'll do your lab activities in groups of 3 or 4 students, mostly during class time. We'll also review and discuss your completed lab work during class time. Your written work may or may not be collected for points.

Attendance: Attendance is required and will be recorded. Your grade and success in this class is highly dependent on your being here to learn the material. No make-up labs or quizzes will be given. Full-time attendance will be worth 1 "bonus" point per lab, up to a total of 10 points. There are 13 lab sessions this semester. No attendance points will be awarded for the lab practicals or the independent study exercise(s). If you miss 5 or more labs during the semester, you'll receive an 'F'. NO EXCEPTIONS. Attendance will be based on submission of your pre-lab exercise, which can only be submitted at the beginning of each laboratory session. It is YOUR responsibility to remember to turn in your pre-lab, and no late submissions will be accepted, nor will you be allowed to work on the pre-lab during class. This essentially means each pre-lab is worth two (2) points.

Grade scale	Week	Tentative	Lab topic	Point value*
A = 93 - 100	1	Aug. 31	Mineral identification	1(+1)
B+ = 87 - 92.5	2	Sept. 7	Labor Day, no lab	0
B = 83 - 86.5	3	Sept. 14	Igneous rocks & plate tectonics; Mineral traits quiz - Quiz 1	10 + 1(+1)
B- = 80 - 82.5	4	Sept. 21	Sedimentary rocks	1(+1)
C+ = 77 - 79.5	5	Sept. 28	Metamorphic rocks	1(+1)
C = 73 - 76.5	6	Oct. 5	Review & Lab practical exam	35
C- = 70 - 72.5	7	Oct. 12	Structural geology	1(+1)
D+ = 67 - 69.5		Oct. 19	Fall Break, no lab	0
D = 63 - 66.5	8	Oct. 26	Field trip - MTSU campus	1(+1)
D- = 60 - 62.5	9	Nov. 2	Fossils I & II; Quiz 2	10 + 1(+1)
F = below 60	10	Nov. 9	Topographic maps	1(+1)
	11	Nov. 16	Tennessee Geology; Quiz 3	10 + 1(+1)
	12	Nov. 23	"EPR Research Voyage" (independent computer exerc.)	no lab 5
	13	Nov. 30	Tennessee weather & climate	1(+1)
	14	Dec. 7	Review & Lab practical exam	35

Available points: 115

* all aspects of this syllabus are tentative; any changes will be announced in class

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Grade scale: The grading scale is based on a 100 point total and a standard grade distribution. The only exception is for an A -- this is due to the 10 bonus points that are available (i.e. if you do the math, the lowest 'A' = 80.6%). If points are awarded for as yet *unassigned* work, the grade scale will be adjusted accordingly.

Scheduling: The campus field trip may be postponed to a later date due to rain or cold. However, we will still have a lab on that day, Part I of the Fossil and Geologic Time lab will be done in class instead. The exercise "East Pacific Rise Research Voyage" is an independent-study, computer-based activity which you will do on your own time in lieu of attending class on November 23.

Course goals: My philosophy of instruction for this course involves a hierarchy of learning. I have ranked the following outcomes in order from those I value the most (#1) to the least important (#10).

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| #1) independent critical thinking | #6) communicating ideas with appropriate terms |
| #2) asking well-reasoned questions | #7) expressing yourself clearly |
| #3) focusing on <u>why</u> more so than <u>what</u> | #8) questioning the value of ideas |
| #4) learning ways of knowing | #9) memorizing terms |
| #5) learning the subject matter, especially fundamental principles of geoscience | #10) getting the right answer |

Note that getting the right answer ranks at the bottom of my list. This doesn't mean that I don't want you to know material (that's #5), but rather that I want you to reconsider your priorities. In other words, #10 should result from your efforts on 1-9. In this classroom, the anticipated outcomes are for you to: (1) become familiar with what geoscientists do and how they do it, and (2) improve your ability to learn technical material.

By its very nature -- being a physical science -- earth science is somewhat challenging. In fact, getting a university education is all about rising to a challenge and adapting to novel situations. Many of the concepts and skills you will be introduced to in this class will be new to you.

You will probably be frustrated from time to time by certain aspects of this course. However, by focusing on developing new cognitive abilities, rather than just getting in and out of class each day, you will very likely succeed with less effort and be happier with the outcome. Too often students become uncooperative learners because the right answer evades them. Rather than falling into that trap, focus instead on the higher ranked goals in the list above.

Notices:

No electronic digital devices (cell phones, computers, beepers, Black Berry's (sp?), MP3 players, etc.) are allowed in class. No exceptions unless you have a documented disability that requires the use of a digital device.

Academic misconduct will not be tolerated. Any student caught cheating will fail the assignment, quiz, or exam. If the episode of cheating is deemed to be sufficiently serious, it will be referred to the Assistant Dean for Judicial Affairs and Mediation Services. In case of referral, your instructor will assign a failing grade and request that the student be expelled from the university for academic misconduct.

If you have a disability that may require assistance or accommodation, or you have questions related to any accommodations for testing, note takers, readers, etc., contact the Office of Disabled Student Services at 898-2783.

The Counseling and Testing Center (898-2670; KUC 329) is available if you are having difficulties with this or any MTSU class.

Tennessee Lottery scholarships require students to maintain a 2.75 GPA for the first 24 semester hours and a 3.0 for 48 semester hours. When a recipient drops below the required GPA, they lose the scholarship.