Course Syllabus: Physical Geology
McCoy College of Science, Mathematics, and Engineering
GEOS 1134-201
Online spring 2020

Contact Information

Instructor: Dr. Andrew Katumwehe
Labs: Will be posted online
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Course Description

This course is an online overview of the Earth, its mineral and rock components, and the variety of physical processes, both surface and subsurface that have operated over the long history of Earth. Lectures, are of limited length and cover only the most essential aspects, however this gives you the basic knowledge if they are complimented with more reading. This online course syllabus contains a detailed schedule including a list of specific topics and corresponding textbook readings including materials so far covered.

Please you will need the required Lab Manual in your lab section and dropbox will be created to submit your reports. At the end of this course, you will be familiar with the structure of earth, surface and subsurface, an explanation for the occurrence and distribution of oceans, mountains, earthquakes and large geologically "quiet" regions such as the eastern portion of the United States. You will also understand the role of rivers, winds, oceans, and gravity that continuously shape the Earth's surface.

Required Textbook & Instructional Materials

Earth: An Introduction to Physical Geology (Tarbuck, 12th Edition)
Laboratory Manual in Physical Geology (Cronin and Tasa, 11th Edition)

Academic Misconduct Policy & Procedures

Grading

Lecture Portion of course = 55% of final grade. Exam 1 = 10% of final grade; Lecture Exam 2 = 15% of final grade; Final Exam = 20% of final grade; lecture quizzes 15%. Lab Portion of course = 40% of final grade. Lab Quizzes 1 and 2 (Rock and Mineral Identification) each determine 5% of your final course grade. The Lab Comprehensive Final Quiz is worth 10% of final course grade (and yes, there will be rocks and minerals to identify on the lab final!). Lab exercise completion, and homework assignments (usually one per week) determine your overall Lab Completion grade which is worth 20% of your final course grade. All

lab assignments must be turned in within one week of original due date. Late submissions will receive a grade penalty of generally one letter grade per week. A Missed exam or quiz must be made up within one week or you may receive a grade of zero. Only the final lab exam will be cumulative and will include material from previous lab assignments and exercises. The homework assignments will be posted in D2L and during laboratory lectures. Please note that the research paper has been removed however the overall grade for lecture quizzes is now 15%

Table 1: Grade points as discussed in the grading section above.

Graded Items	Contribution to Final Course Grade
Exam 1	10%
Exam 2	15%
Final Exam 3	20%
Lecture Quizzes	15%
Lab Overall Grade (includes lab quizzes, lab participation and attendance, homework assignments and assessments	40% (Labs for mineral and rock each quiz is 5% of final course grade Lab final is 10% of final course grade). The lab participation grade (20% of final course grade) is derived from lab assignments, lab participation and homework submittals.

Table 2: Final grades are normally rounded up to the nearest integer before assigning the final course letter grade. For example, a final calculated course grade of 89.8% will be rounded up to a final course grade of 90%.

Grade	Points
A	90 and above
B	80-89
C	70-79
D	60-69
F	Less than 60

Homework
See Grading Section for details – All Homework will be submitted to your lab TA or dropbox on D2L

Lab Assignments
See Grading Section for details – All Lab Assignments must be submitted to your lab TA during your regular lab section meeting.

Exams
See Grading Section for details – Two online lecture exams are included in your course grade; see Grades section for details. Exam 2 has a time limit of 50 minutes and 110 minutes for the final exam. You will not have an option of right clicking to copy and use in google. So you need to be ready to sit for an exam not relying on google search.

After lecture quizzes
Each individual extra credit opportunity will be worth up to one (1.0) extra credit point. Generally, these opportunities will involve a short written response to a question or problem posed after the lecture or more often than not, simply your signature on an attendance sheet. Accessing D2L shows on the percentage sign

in's and will affect your grade. You may earn up to 4 points added to your final grade via these "regular" extra credit opportunities.

Late Work

Late work will be accepted through 05/06/2020 please refer to the conditions above. However, the following penalties will apply in all cases of late submittals: 10% for one day past due; 20% for two days past due; 30% for three days past due; after three days a grade of zero may be recorded. No course assignments will be accepted after 05/10/2020.

Important Dates on the spring 2020 schedule of classes.

Last Day to drop this course with a grade of "W" is 4pm, March 30, 2020 Drops after this date will receive grades of "F." Refer to academic calender: Drops, Withdrawals & Void

Desire-to-Learn (D2L)

The MSU D2L program is a mandatory part of this course. Lectures, review materials, and course information will be available through D2L. You can log into D2L through the MSU Homepage. If you experience difficulties, please contact the technicians listed for the program or contact your instructor.

Grade Appeal Process

Students who wish to appeal a grade should consult the Midwestern State University Undergraduate Catalog

Notice

Changes in the course syllabus, procedure, assignments, and schedule may be made at the discretion of the instructor. Changes will be communicated to all students through D2L**.** Please check the course news on a regular basis for schedule updates and your school email.

Course Schedule – Lecture Topics and Exams, Text Reading (Page 1 of 3)

Date	Topic and Topic Number	Textbook Pages
13- March	Time and Geology. Relative time and absolute time scale	Pages 272-281
15- 19 March	**Spring break - No Classes**	
23- March	Deformation - Folds and Fractures (continued)	Pages 302-325
25- March	Crustal Processes - Surface Geological Observations; Deformation - Folds and Fractures	Pages 302-325
27- March	Crustal Processes - Earthquakes	Pages 326-361
30- March	**SECOND EXAM** (will cover all material presented or assigned through October 25) - 20% of grade	
01- April	Crustal Processes - Oceans	Pages 386-417
03-April	Crustal Processes - Mountains	Pages 418-441
06-April	Crustal Processes - Mass Wasting	Pages 442-465
08-April	Crustal Processes - Mass Wasting **Assignment 8**	Pages 442-465
10-April	Crustal Processes - Surface and Running Water	Pages 466-499
15-April	Crustal Processes - Surface and Running Water **Assignment 9**	Pages 466-499
17-April	Crustal Processes - Ground Water	Pages 500-531
20-April	Crustal Processes - Ground Water **Assignment 10**	Pages 500-531
22-April	Crustal Processes - Glaciers	Pages 532-569
24-April	Crustal Processes - Part 7. Winds and Deserts **Assignment 11**	Pages 570-593
27-April	Crustal Processes - Part 8. Oceans and Shorelines	Pages 594-629
29-April	Climate Change -Small Planet	Pages 630-665
04-May	Climate Change – Part II **Assignment 12**	Pages 630-665
06-May	Geological History	
11-May 08:00am-10:00am	**THIRD EXAM** (will cover all material presented in the lecture and the lab section of the course) - 20% of grade.	

Course Schedule –for Labs, Lab Quizzes, Homework, Research Paper, and Assessments (Page 1 of 2)

Date (Week of date listed unless otherwise noted as a specific date)	Lab Topic, **Lab Quiz, Research Paper**	Homework and Self-Assessment Assignments
27-Jan	Lab #1 - Mineral Identification – Lab Book Section 3	
03-Feb	Lab #2 Mineral Identification – Lab Book Section 3. Note that T, Th Labs will meet as scheduled. Monday lab students will stay on schedule; any slippage will be made up later in the semester.	HW 1 and Assessment 1
10-Feb	Lab #3 Mineral Identification – Lab Book Section 3	HW 2 and Assessment 2
17-Feb	**Lab Mineral Quiz - 5% of grade**. Also, Lab #4 Introduction to Rocks - Lab Book Section 4	HW 3 and Assessment 3
24-Feb	Lab #5 Igneous Rocks - Lab Book Section 5	HW 4 and Assessment 4
02-March	Lab #6 Sedimentary Rocks – Lab Book Section 6	HW 5 and Assessment 5
09-March	Lab #7 Metamorphic Rocks – Lab Book Section 7	HW 6 and Assessment 6
23-March	**Lab Rock and Mineral Quiz - 5% of grade**; Also, Lab #8 Dating of Rocks, Fossils, and Geological Events – Lab Book Section 8	HW 7 and Assessment 7
30-March	Lab #9 - Topographic Maps and Earthquakes	HW 8 and Assessment 8
06-April	Lab #10 - Geological Structures, Block Diagrams, and Maps	HW 9 and Assessment 9
03-April	Lab #11 River Processes and Hazards – Lab Book Section 11	HW 10 and Assessment 10
15-20	Spring Break	
20-April	#12 Groundwater and Glaciers - Lab Book Sections 12 and 13	HW 11 and Assessment 11

Course Schedule –for Labs, Lab Quizzes, Homework, Research Paper, and Assessments (Page 2 of 2)

Date (Week of date listed unless otherwise noted as a specific date)	Lab Topic, **Lab Quiz**	Homework and Self-Assessment Assignments
02-May		
06-May	**LAB FINAL QUIZ (includes Rocks and Minerals) - 10% of grade**	None

End of course syllabus