

General Course Syllabus for GEL 1010 Physical Geology Spring 2012

Sec 001 MW 8:00 - 010:15pm Sec 003 TR 2:00 - 4:15 Rm: SI2008

Professor: Uwe Richard Kackstaetter, Ph.d. (Dr. "K") Office: SI2014

Office Hours: M T 10:30 - 1:30, W 10:30 - 12:00, other times by appointment

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URL: <http://college.earthscienceeducation.net>

Course Description

The course studies the materials of the earth, its structure, surface features and the geologic processes involved in its development. It includes laboratory experience. During the class you will learn the basic theories, concepts, and assumptions utilized in geology. Beginning with the study of common minerals, their abundance and formation, we will delve into igneous, sedimentary, and metamorphic rocks and their rock forming processes, sedimentary environments, and continue through theory of plate tectonics, to land forms, maps and map reading, geological structures, finally finishing with geologic hazards such as earthquakes, and the geologic time and history of the earth. Fieldtrip(s) are required for this course, some selfguided.

Required Materials

- Marshak, S., 2008, Earth: Portrait of a Planet; 3rd edition, W.W.Norten, ISBN-13: 978-0-393-93036-8.
- Kackstaetter, U.R., 2008, Physical Geology Laboratory e-Manual, 1st edition, CD, ISBN 978-0-9820580-0-8
- MSCD EAS (2011), Mineral and Rock Identification Kit, EAS Professional Projects (available through Bookstore)
- i-clicker (ABSOLUTE MUST! YOUR GRADE DEPENDS ON IT) (available through Bookstore)

Specific (Measurable) Student Behavioral Learning Objectives

Upon completion of the course the student should be able to:

1. Discuss and explain the science and principles of geology;
2. Describe and identify common rocks and minerals;
3. Comprehend geologic processes and how they create materials of the earth and modify the earth;
4. Understand the theory of plate tectonics and it's relation to the distribution of major landforms;
5. Relate how geologic processes control and influence the environment;
6. Be able to interpret maps, create cross sections and identify common landforms and processes.
7. Identify geologic formations of the front range, environments of deposition and geologic structures.

Outline of Course Content

Major Topics & Subtopics

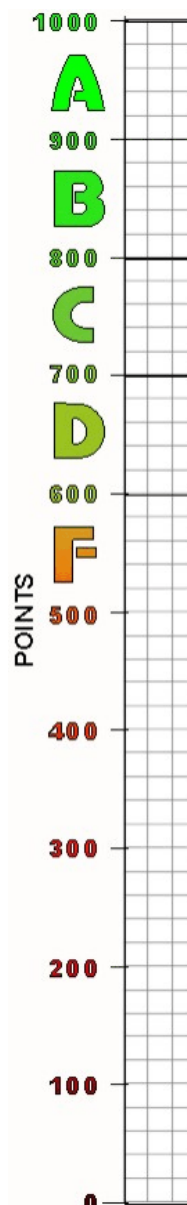
- I. Elements, Minerals, and Crystals
- II. Igneous Rocks (Extrusive [Volcanoes] & Intrusive)
- III. Weathering, Transport, Environments of Deposition
- IV. Sediments and Sedimentary Rocks
- V. Metamorphism, Metamorphic Rocks, and Hydrothermal Rocks
- VI. Plate Tectonics & Geologic Structures (Earthquakes)
- VII. Geologic Time & History
- VIII. Map Reading, Geomorphology, Landform Interpretation

Grading in Physical Geology

	Max. Points	My Points	MY GRADE
Participation	150		Keep track of your grade! Color in Grade Graph to the right! <i>(Don't forget to drop lowest score for Exams)</i>
Mineral ID Lecture/Lab Exam	400 (100 pts ea. Lowest score dropped)		
Rock ID Lecture/Lab Exam			
Geo Time & Correlation Lecture/Lab Exam			
Geo. Structure & Map Lecture/Lab Exam			
Geo. Hazards Lecture/Lab Exam			
6 Online Chapter Quizzes (Ch.5:Minerals; Ch. 6,7,8:Rocks; Ch. 9,10:Geohazards; CH 12,13: Geologic Age; Ch.3,4,11: Mountains & Plates; Ch 14,15,19 Resources)	150 (25 pts. ea.)		
Rock / Mineral Project	150		
COMPREHENSIVE FINAL (50 questions) *	150		
TOTAL	1000		

* Students with an average exam score above $\geq 80\%$ and NONE of the exams less than 70% may opt out of the Final Exam. They will receive their exam average times 1.5 as the Comprehensive Final Exam Score.

FINAL GRADE: **A = 900 - 1000 points** **B = 800 - 899 points** **C = 700 - 799 points**
 D = 600 - 699 points **F = ≤ 599 points**



PARTICIPATION: You are EXPECTED to attend class & labs and PAY ATTENTION in both. Attendance & Student Responses will be tracked using the I-clicker interactive student response system. The timely purchase of the device is REQUIRED in order to earn full participation points (see point distribution below). If you forget your clicker or do not have one (NOT recommended), you MUST sign a special roll in order to receive at least partial credit for attending class (Lowest score of the day minus 10%). **Points can NOT be assigned retroactively !!!** Students can earn daily points toward their participation grade by responding CORRECTLY to i-clicker questions randomly presented during lectures / labs. I absolutely DESPISE students with less than 80% participation, whining about their grade at the end of the semester. (So, don't even try!). In regards to attendance & class materials: Any handout, any notes, any exam questions discussed will only be given IN CLASS. If you miss class, you are on your own. I do not keep extra copies and NO, I do not have or publish lecture notes for your convenience! (THIS NOT AN ONLINE CLASS!)

Point Distributions:

15 Week Course meeting	(a) twice per week: 5pts/day	(b) once per week: 10pts/day
10 Week Course meeting	(a) twice per week: 7.5pts/day	(b) once per week: 15pts/day
8 Week Course meeting	(a) twice per week: 9.4pts/day	(b) once per week: 18.8 pts/day

ABSENCES: Frankly, registering for this course is equivalent and as serious as you taking a job. I expect from you the same professional courtesies that you would extend toward your employer. As with any employer, you do NOT get paid for missed days, meaning, there are NO participation points awarded if you do not show up for class. Period! However, similarly to the real employment world, I will grant you "sick or leave days" worth a total of 10 participation points, which you may use at your digression. As with most employment situations, you may "cash in" your remaining "sick or leave days" for extra credit at the end of the semester. Absences beyond these allotted points will never be awarded anything, no matter the reason, including but not limited to illness, work conflicts, car accidents, booked vacations, etc.

Exception: Jury-Duty: You must bring official proof of your actual court room duty validated by the court / judge! (No, the little card you get in the mail soliciting you for jury duty does NOT count!)

Note: Nothing in this policy shall require the instructor to reschedule classes, repeat lectures or other ungraded activities or provide ungraded individualized instruction solely for the benefit of students who are unable to attend regularly scheduled classes or activities.

EXAM or TEST MAKE-UP: There is NO make-up for the Final. As far as the 5 lab/lecture exams are concerned, the lowest grade will be dropped. This way you do NOT have to worry about scheduling inconvenient make-ups or that the missing exam will effect your grade ☺. However, if you miss 2 or more tests, only ONE of the scores will be dropped, the others will still count!

Exception: Jury-Duty: You must bring official proof of your actual court room duty validated by the court / judge! (No, the little card you get in the mail soliciting you for jury duty does NOT count!)

COMPREHENSIVE FINAL EXAM: Students with an average lab/lecture exam score of above 80% and with NONE of the exams less than 70% may opt out of the Final Exam. If these qualifications are met, a student must OPT OUT IN WRITING by completing a special form (available online) and attach exam scores as proof. They will then receive their lab/lecture exam average from ALL the exams multiplied by 1.5 as their Comprehensive Final Exam Score. Students who do NOT file this form with all the proof necessary before the final exam MUST TAKE THE FINAL or they will receive a "0" even if they qualify!

Disclaimer: Students who take the final and receive a lower score than their average score computed, can NOT revert back to their average score because it is higher. If you take the Final, you will receive the Final Exam score as your Grade. (No Exceptions!)

ONLINE QUIZZES: These assessments in this course are NOT study guides. They are designed to establish proficiency in understanding the college text material. They are not designed to help you figure out exactly which questions you got wrong and why. You will receive the test score indicating your aptitude in the text material. I will NO longer make individual questions available or go through them in detail, or find a particular test for you to go over, or to give you the questions to take home, etc. If you want to study in order to see how well you do on individual questions, read the textbook intentionally and then work through the practice exercises associated with each chapter.

FIELD TRIPS: To help you identify geologic features in the field, there will be at least one mandatory Saturday field trip. Additional field exercises are devised as self study tours to be taken at your convenience, therefore avoiding scheduling conflicts. Fieldtrip guides are included in the electronic Lab Manual. They may also be downloaded from my website. For details about this assessment please see the additional handout & field trip guides.

LATE WORK: Since all labs and other assignments are available within the first few weeks of class, I will not accept ANY late work. Please note, this means ANY!!! You had practically the whole semester to complete the exercise(s), so don't blame broken printers, crashed computers, uncooperative emails, sudden work conflicts or bouts of illness the day(s) before or even during the deadline for missing the deadline. *Hint: Turn your work in early and there will be NO problems!*

EXTRA CREDIT: Students may earn extra credit for the LAB exams by doing the lab exercises BEFOREHAND and submitting them by the deadline given. Extra credit for the Rock / Mineral Field Project is included in the project packet. Many exams / assignments also include approx. 10% extra credit, giving students the opportunity to earn a high score of 110% (Except take-home or open note exams). NO OTHER ADDITIONAL EXTRA CREDIT WILL BE GIVEN. So please DON'T ask.

E-MAIL: You may e-mail me any time at kackstae@mscd.edu. In general, I will NOT accept any assignments via e-mail. These must be turned in as hard copies AT THE ALLOTTED DUE DATES!!!!

ELECTRONIC DEVICES (see also "CIVILITY"): Put ALL your consumer electronics away (which means they are NOT to be visible, even if you don't use them) including but not limited to cell phones, ipods, MP3 players, headphones, etc. They are NOT to be used at any time during my class. Cell phone calculators are NOT ALLOWED, you must bring a "real" calculator. Personal

computers are allowed in class only with approval from the instructor and a written and signed contract. Permission for use of PCs will be immediately revoked for the remainder of the course if a student is found to be engaged in unrelated activities, such as checking e-mail, surfing the web, playing games, etc. Texting, emailing, gaming, listening to music or similar unrelated activities during classtime is not only rude and unprofessional, it is highly annoying to me and the majority of your fellow students. If you are caught you will be unceremoniously asked to leave my class and you will lose any or all participation points for that day. Repeat offenders will face disciplinary action on the college level. You have been warned!

CHEATING & PLAGIARISM: If you copy another student's work, both of you, the "copier" and the "copied" will receive 50%. YOU SHARE THE WORK, YOU SHARE THE GRADE!!! If more than one student is involved in the copying, the grade will be prorated accordingly, e.g., 3 students = 33% each, 4 students = 25% each, and so forth! Be especially careful when you work on assignments in a group with other students. (Note: You may share DATA that was collected together, you *MAY NOT SHARE WRITE-UPS*). The same is true when copying from the internet. Each plagiarized source costs you at a minimum 50% of your assignment grade. (The Internet will get the other 50%!) I-CLICKER WARNING: Responding to i-clicker questions for someone else (e.g., by using their i-clicker together with your own) CONSTITUTES ACADEMIC CHEATING (same as cheating on a test or exam). Any student found involved in academic dishonesty (e.g. cheating on exams, answering i-clicker questions for someone else, copying whole book / internet pages) may receive an "F" for the course grade, and disciplinary action at the college level may be recommended.

CIVILITY: The student code of conduct will be enforced in this class. The short version of the code: Students are expected to assist in maintaining a classroom environment conducive to learning and respectful of the instructor and fellow students. Students have an opportunity to gain from time spent in class. Therefore, students are prohibited from using cell-phones or beepers, text messaging, eating or drinking in class, making offensive remarks, reading newspapers, using their laptop or PDA for class unrelated activities (such as browsing the internet, checking email, watching videos, etc.) or doing other assignments unrelated to the class, sleeping or engaging in any other form of distraction. While you may feel that you are doing it quietly and unobtrusively enough, it does indeed distract other students (as scores of them have reported to me). Inappropriate behavior shall result minimally in a request to cease the behavior and upon continuation despite warnings to leave the class.

STUDENTS WITH DISABILITIES: The Metropolitan State College of Denver is committed to making reasonable accommodations to assist individuals with disabilities in reaching their academic potential. If you have a disability which may impact your performance, attendance, or grades in this class and requesting accommodations, then you must first register with the Access Center, located in the Auraria Library, Suite 116, (303) 556-8387.

The Access Center is the designated department responsible for coordinating accommodations and services for students with disabilities. Accommodations will NOT be granted prior to my receipt of your faculty notification letter from the Access Center. Please note that accommodations are never provided retroactively (i.e., prior to the receipt of your letter). Once I have received your official Access Center Faculty Notification Letter, I would be happy to meet with you to discuss your accommodation. All discussion will remain confidential. Further information is available by visiting the Access Center website at <http://www.mscd.edu/~access/>.

Please be aware that I am unable to grant certain accommodation: My presentations contain copyrighted material and can NOT be printed, copied, transcribed, forwarded or made available electronically or otherwise OUTSIDE OF MY PERSONAL COMPUTER AND CLASSROOM. Solution: Get an excellent notetaker! I also do NOT extend any deadlines on assignments, because (a) all my assignments are given out during the first week of class and (b) my assignment deadlines ARE ALREADY THE EXTENDED ONES, already tailored to the weakest of the weak students and those with disabilities. Solution: Start assignments right away. In this manner I can help you with plenty of time for completion.

OTHER: Students at Metropolitan State College of Denver who because of their sincerely held religious beliefs, are unable to attend classes, take examinations, participate in graded activities or submit graded assignments on particular days shall, without penalty, be excused from such classes and be given a meaningful opportunity to make up such examinations and graded activities or assignments. Advance written notice that the student will be absent for the religious reasons must be given to the instructor during the first two weeks of the semester.

Nothing in the above policy shall require the instructor to reschedule classes, repeat lectures or other ungraded activities or provide ungraded individualized instruction solely for the benefit of students who, for religious reasons, are unable to attend regularly scheduled classes or activities. However, presentations, critiques, conferences, and similar activities involving individual students shall be scheduled to avoid conflicts with such student's religious observances or holidays provided that reasonable advance notice of scheduling conflicts is given to the instructor.

"NC" Policy - all students may request an NC (No credit) notation without faculty approval through the second week of classes. NC notations with faculty approval will only be granted through the sixth week of class. A request for an NC will not be granted after that week.

"I" Policy - The Incomplete notation will be assigned when a student has completed a major portion of the course requirements (75% minimum) but is unable to complete all of the course requirements due to unusual circumstances, such as hospitalization. (No, being stressed out, starting assignments too late and being unable to finish them, or going on a cruise during finals week which you booked last year are all NOT considered unusual circumstances). Authorized third party documentation of such unusual circumstances will be absolutely required before an "I" is even taken under consideration. All students found eligible to receive an "I" in the course must complete a contract with the instructor stating specifically by when and how the "I" must be remedied.

This syllabus may be modified at any time without prior notice.