Geological Sciences 202: Earth Materials  
Fall 2012

Professors: Dr. Clara Chan and Dr. Susan McGeary  
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Office hours: T 11-12 in 106 Penny Hall (Chan) or TBA 108 Penny Hall (McGeary) or appointments welcome. Although we are often in our offices, we prefer that you make an appointment if you need help outside of office hours. We welcome questions by email, but if answers are extensive, we may ask you to meet us in person.

TA: Dale Lambert  
dplamber@udel.edu (Please put “GEOL202” at beginning of the subject line)

Office hours: M 1-2pm in 011 Penny Hall

Class: Tuesday and Thursday 9:30-10:45 in 209 Penny Hall

Labs: Tuesday 2-5 or Wednesday 2:30-5:30 in 011 Penny Hall  
Note that labs start right away during week 1. Some labs may take longer than the lab period, and you will be expected to complete them outside of class time.

Textbook: Perkins, Mineralogy, 3rd Ed. Required: always bring to lab.

The reading assignments are specified below. Please read them before the class. You may be quizzed on the reading assignment. Excerpts from other texts may be used for topics not covered by your textbook.

Supplies: Clicker (see notes on use below)

10x hand lens, from the bookstore. Always have this on hand—you never know when you’re going to need it!

Course Website on Sakai. Access announcements, lecture slides, and some assignments here.

UD Capture is recording class lectures. http://udcapture.udel.edu/2012f/geol202-010/

Grading: Laboratory exercises 10%

Lab quizzes 15%

4 mini-exams, 10% each 40%

Final, including lecture and lab parts 20%

Project 5%

Participation 5%

Field trips and homework 5%

We grade on the following scale:

A 93.0%-100%
A- 90.0-92.9%
B+ 87.0-89.9%
B 83.0-86.9%
B- 80.0-82.9%

C+ 77.0-79.9%
C 73.0-76.9%
C- 70.0-72.9%

etc.
We will consider grading on a curve (for final grades) if the median is lower than a C. Most assignments will be graded on the following scale:

- check plus = excellent = 100% credit
- check = good = 85%
- check minus = 70% assuming the assignment was completed or
- 0 for incomplete or missing assignments.

You will be responsible for checking answer keys for correct answers. Longer assignments (e.g. project) will be assigned letter grades. Grades will be posted on the Sakai gradebook so that you can keep track of your progress.

Organizational matters and policies:
We like to include some activities during lecture time. We ask that you keep an open mind and participate enthusiastically. Note that the “participation” portion of the grade includes attendance and engagement in all class activities, including non-graded clicker questions and evaluations.

If you have a disability (e.g. physical, learning, etc.), please come talk to us and contact the Disability Support Service office (www.udel.edu/DSS) ASAP so that we can help arrange accommodations as soon as possible.

If you have athletic or other type of activities that will conflict with class/lab any time this semester, come talk to us this week, or as soon as you learn about them. There is really no replacement for lecture/discussion and some labs will be either difficult or impossible to make up.

Late work policy: We have low tolerance for late work, as it delays grading and return of work to your classmates. A whole grade level will be deducted from your score for every day your work is late (e.g. A becomes B, B becomes C, etc.). You must still let us know when to expect your work or we will automatically give you a zero. The only exceptions are for extended fieldwork, family emergencies and illness. Also, unless you are seriously ill, exams and quizzes cannot be postponed. We reserve the right to ask for evidence for any excuse, and to replace delayed exams/quizzes with alternate assignments.

Please do not use cell phones in class. We reserve the right to answer your cell phone if it rings in class or lab; or read and answer your texts if you are seen texting.

Register your clicker using the link in Sakai. (You can register multiple clickers if you’re concerned about picking up your roommate’s or lose and replace your clicker mid-semester.) We plan to use clickers for (1) quizzes (graded), (2) discussion questions (credit for participation), and (3) to check your comprehension (participation). Clickers are required in class and in lab. If you forget your clicker once, you will be forgiven (allowed to answer quizzes and other questions by paper). The next time(s), you will not be given credit. Using a classmate’s clicker is cheating, and academic honesty policies apply. For more information, see http://it.udel.edu/ats/.

Field Trips are mandatory – dates are announced below in the Class Schedule.

Academic honesty is expected in all your work at UD, so we want ensure everyone is clear about what is and is not okay. Your first assignment is to read the Academic Honesty portion of the UD Code of Conduct, reproduced at the end of this syllabus. You will then compose an
Academic Honesty Pledge and sign it. If you are ever unsure if what you are doing is okay, you must ask.

GEOL 202 Class Schedule

Note: Schedule subject to change! Readings will be assigned in class.

Week 1: Aug. 28 (SM&CC) and 30 (CC) The Big Picture! Intro to Earth Materials
Lab: (CC) Mineral properties
Homework: Academic Honesty statement (due Thursday); Mineral classification (due next Tuesday)

Week 2: Sept. 4 (CC) and 6 (CC) Mineral Chemistry and Crystallography
Lab: (CC) Mineral Symmetry

Week 3: Sept. 11 (CC) and 13 (CC) Crystallography, Igneous Minerals and Silicate Types
Lab: (CC) Crystallography and introduction to project assignment
Mini-Exam Mineral chemistry and crystallography (Thursday)

Week 4: Sept. 18 (CC) and 20 (CC) More Igneous Minerals
Lab: (CC) Igneous minerals
Homework: Phase diagrams

Week 5: Sept. 25 (SM) and 27 (AGI guest) Igneous Rocks
Lab: (SM) Igneous rocks – mafic
FIELD TRIP to Palisades Saturday September 29 (show up at Penny parking lot 7:45am)

Week 6: October 2 (SM) and 4 (SM) More Igneous Rocks
Lab: (SM) Igneous rocks - silicic
Mini-Exam: Igneous rocks and minerals(Thursday)

Week 7: Oct. 9 (CC) and 11 (CC) Weathering, Sedimentary Processes, and Minerals
Lab: Mineral Project Presentations

Week 8: October 16 (SM) and 18 (SM) Sedimentary Processes and Rocks
Lab: (CC) Sedimentary minerals

Week 9: October 23 (SM) and 26 (SM) Sedimentary Rocks
Lab: (SM) Sedimentary Rocks
FIELD TRIP to Penn Sed Rx Saturday October 27 (show up at Penny parking lot 7:45am)

Week 10: October 30 (CC) and November 1 (CC) Metamorphism and Metamorphic Minerals
Lab: (CC) Metamorphic and ore minerals
Mini-Exam: Sedimentary Rocks and Minerals and Processes

Week 11: November 6 (Election Day and GSA) and 8 (CC) Metamorphism
Lab: No labs this week
Homework: Phase Diagrams
Week 12: November 13 (SM) and November 15 (SM)  Metamorphism
  Lab: (SM) Metamorphic Rocks (Low to medium grade)
  FIELD TRIP  Local Metamorphics  Saturday November 17

Week 13: November 20 (SM) Metamorphism and November 22 Thanksgiving
  Lab: No labs this week

Week 14: November 27 (SM) and 29 (SM) Metamorphism
  Lab: (SM) Metamorphic Rocks (high grade and high P-low T)
  Mini-Exam:  Metamorphism

Week 15: December 4 (CC&SM)  Last class – review for final and evaluations
  Lab:  Lab exam
Academic Honesty – policy and pledge

To do by Thursday:
1) Read the following statement.
2) Compose an Academic Honesty Pledge and sign it, and also print or type your name. (Turn in on Thursday.)
3) What are some situations that are not described in the statement, but may come up in this class. What are possible gray areas (could be academic dishonesty or not, depending on situation, or who you ask, or…)? Jot down these ideas and bring to class for brief discussion Thursday.


Academic Honesty
1. Statement of Policy
   All students must be honest and forthright in their academic studies. To falsify the results of one’s research, to steal the words or ideas of another, to cheat on an assignment, or to allow or assist another to commit these acts corrupts the educational process. Students are expected to do their own work and neither give nor receive unauthorized assistance. Any violation of this standard must be reported to the Office of Student Conduct. The faculty member, in consultation with a representative from the Office of Student Conduct, will decide under which option the incident is best filed and what specific academic penalty should be applied.

2. Academic Violations
   a. Plagiarism
      Plagiarism is the inclusion of someone else’s words, ideas, images, or data as one’s own. When a student submits academic work that includes another’s words, ideas, images, or data, whether published or unpublished, the source of that information must be acknowledged with complete and accurate references and, if verbatim statements are included, with quotation marks as well. By submitting work as his or her own, a student certifies the originality of all material not otherwise acknowledged. Plagiarism includes, but is not limited to:
         i. The quotation or other use of another person’s words, ideas, opinions, thoughts, or theories (even if paraphrased into one’s own words) without acknowledgment of the source; or
         ii. The quotation or other use of facts, statistics, or other data or materials (including images) that are not clearly common knowledge without acknowledgment of the source.
   b. Fabrication
      Fabrication is the use of invented information or the falsification of research or other findings. Fabrication includes, but is not limited to:
         i. The false citation or acknowledgment of a direct or secondary source, including the incorrect documentation of a source;
         ii. The citation, in a bibliography or other list of references, of sources that were not used to prepare the academic work;
         iii. The inclusion in an academic work of falsified, invented, or fictitious data or information, or the deliberate and knowing concealment or distortion of the true nature, origin, or function of such data or information; or
         iv. The unauthorized submission of an academic work prepared totally or in part by another.
c. **Cheating**
Cheating is an act or an attempted act of deception by which a student seeks to misrepresent that he or she has mastered information that has not been mastered. Cheating includes, but is not limited to:

i. Copying of all or any portion of another’s academic work and submitting it, in part or in its entirety, as one’s own;

ii. Allowing another person to copy one’s own academic work—whether intentionally or recklessly;

iii. The unauthorized use or possession of a class textbook, notes, or any other material to complete or prepare an academic work;

iv. The unauthorized collaboration with any other person on an academic exercise, including collaboration on a take-home or make-up academic exercise;

v. The unauthorized use of electronic instruments, such as cell phones, PDAs, or personal response systems (clickers) to access or share information; or

vi. The unauthorized completion for another person of an academic work, or permitting someone else to complete an academic work for oneself, including through the use of personal response systems (clickers).

d. **Academic Misconduct**
Academic misconduct is any other act that disrupts the educational process or provides a student with an academic advantage over another student. Academic misconduct includes, but is not limited to:

i. The unauthorized possession, copying, distribution, sale, or other transfer of all or any part of an academic exercise, or the answers or solutions to an academic exercise, whether or not the exercise has been administered;

ii. Changing, altering, attempting to change or alter, or assisting another in changing or altering any grade or other academic record, including grades or records contained in a grade book or computer file, that is received for or in any way attributed to academic work;

iii. Entering any University building, facility, office, or other property, or accessing any computer file or other University record or storage for the purpose of obtaining the answers or solutions to an academic exercise or to change a grade;

iv. Continuing to work on an academic exercise after the specified allotted time has elapsed; or

v. Bribing another person to obtain an academic exercise, including answers to questions of an unadministered academic exercise.

e. **Other forms of academic dishonesty not described here but in violation of the Academic Honesty Statement of Policy.**