

Geology 310: Rocks and Minerals

Fall 2011

Meeting time: TR 2:15 – 4:45 in UH 060

Instructor: Dr. Prajukti (juk) Bhattacharyya

Undergraduate teaching assistant: Brittany Saylor

Office: Upham Hall 119

Phone: 472-5257

E-mail (works best!): bhatacj@uww.edu

Office hours: Wednesdays 2:30 – 4:30, Thursdays 11:00 – 12:00 noon, or by appointment. Please call or email me if you want to set up a meeting time.

Web site: <http://facstaff.uww.edu/bhatacj/rocksandminerals.html>

I will post a day-to-day course blog as well as important course information, homework assignments etc. on this web site so please check this site often.

Please also check the course D2L site for weekly quizzes and assignments

Optional proposed Text: *Simon & Schuster's Guide to Rocks and Minerals*

I will use short scientific papers as reading material instead of a regular textbook

Course policies

Cheating and plagiarism are not tolerated in this course. You plagiarize if you present someone else's ideas and works as your own without giving credit to the original source. Your work **MUST** be your own to receive credit in this course and this includes any homework, lab assignment and tests. **If you are caught cheating or plagiarizing you will receive a grade of zero (0) for the assignment.** Please talk to me if you need further clarification on what constitutes cheating and/or plagiarism.

Please turn off your cell phones and behave in a non-disruptive manner during class

Assignments and other activities

Starting the week of September 4, there will be a short homework assignment every week. **This assignment will be due before class every Tuesday. I will look at your responses before class, so please make sure you complete this assignment on time, otherwise you will receive a grade of zero (0).** You can drop the grades for two (2) of these assignments. You will receive a grade of zero (0) for a missed assignment. These assignments together make up **20% of your total grade.**

There will be 12 lab assignments and a final during the semester starting this week. The labs and the lecture components go hand-in-hand in this course, so the assignment for each week may take both Tuesday and Thursday class periods to complete. It is your responsibility to receive the lab assignment for each week and complete it by the due date. Each lab will be worth **5% of your**

total grade. You must be present in lab to get credit for them. There will be **NO** make up for these labs, but you can drop the grade for two (2) labs. You will receive a grade of zero (0) for a missed lab. The labs will count for **50% of your total grade.**

Your final will be a lab final involving identifying unknown rocks and minerals samples. It is mandatory and is worth 20% of your total grade. It will be held on Tuesday, December 20, 3:15-5:15 PM (official date and time for the final).

There will be one take-home assignment for the time I will be gone for 2011 Geological Society of America Annual Meeting (October 6-12). This assignment is worth 10% of your total grade.

Tests, assignments, and/or Evaluations:

10 weekly homework assignments Drop 2 out of 12	20% of total grade
10 weekly lab assignments Drop 2 out of 12	50% of total grade
Take home assignment	10% of total grade
Lab final	20% of total grade

Make-ups:

You cannot make up ANY of the weekly assignments unless you provide written documentation for your inability to complete those. Acceptable excuses include medical emergency (with doctor's note), university activities (with documentation) and family emergency (with written and signed note). You can drop your two lowest grades out of 12 assignments.

If you miss a lab you **CANNOT MAKE IT UP**, but you can drop your lowest two grades out of 12. If you miss a lab, you will receive a grade of zero (0) for that lab.

Attendance:

Attendance in class and during the labs is **mandatory**, even though I will not take attendance. It is very difficult to receive a good grade in this course if you consistently miss class. The exams will be based on topics discussed in class so just reading the book may not be enough. If you miss class **you** are responsible for getting the information covered in class from other students. You will get credit for labs only if you are present during the lab sessions.
Study groups and active class participation are strongly encouraged.

Assignment of final letter grades

Your letter grade will be calculated based on the percentage of the total possible points for the semester weighed as shown above.

Percentage	Letter grade	What it means
96% and above	A	<ul style="list-style-type: none"> • Excellent quality work • You submitted ALL assignments and tests and got 92% or better • You attended almost all classes and participated in in-class activities unless you had a really compelling reason
92-96%	A-	
88-92%	B+	<ul style="list-style-type: none"> • Good comprehension of course material (superior) • You submitted ALL assignments and got 80% or better on all of them • You attended almost all classes and participated in in-class activities unless you had a really compelling reason
84-88%	B	
80-84%	B-	
76-80%	C+	<ul style="list-style-type: none"> • Adequate and satisfactory comprehension of course material. A sincere effort made towards learning the material. • You submitted most/all assignments and got 68% or above on most of them • You attended almost all classes and participated in in-class activities unless you had a really compelling reason
72-76%	C	
68-72%	C-	
64-68%	D+	<ul style="list-style-type: none"> • Unsatisfactory but indicates some minimal command of the course materials. No apparent effort made towards learning the course material. • You did not submit all assignments or got below 68% on the ones you turned in • You missed quite a few classes and/or did not participate in the in-class activities
60-64%	D	
56-60%	D-	
Below 56%	F	<ul style="list-style-type: none"> • Unsatisfactory and unworthy of course credit
<p>NOTE: to get a SATISFACTORY grade, you HAVE to receive the equivalent of a “C” or above in this course. Even though a letter grade of “C-” is considered a passing grade, it <u>does not</u> count as “satisfactory” and will go on your transcript as NC.</p>		

Your instructor and the university have a responsibility to promote academic honesty and integrity. You, as a student, are (1) responsible for the honest completion and representation of your work, (2) expected to present accurate citation of sources of information used in papers, reports, tests, etc., (3) expected to respect the academic endeavors of others. Students who violate these standards will be penalized under UWS Chapter 14.

The University of Wisconsin – Whitewater is dedicated to a safe, supportive and non-discriminatory learning environment. It is the responsibility of all undergraduate and graduate students to familiarize themselves with University policies regarding Special Accommodations, Academic Misconduct, Religious Beliefs Accommodations, Discrimination and Absence for University Sponsored Events (for details please refer to the Undergraduate and Graduate Timetables; the “Rights and Responsibilities” section of the Undergraduate Bulletin; the Academic Requirements and Policies and the Facilities and Services sections of the Graduate Bulletin; and the “Student Academic Disciplinary Procedures (UWS Chapter 14); and the “Student Nonacademic Disciplinary Procedures” (UWS Chapter 17).

The UW System standard for work required per credit is that students are expected to invest at least 3 hours of combined in-class and out-of-class work per week for each academic unit (credit) of coursework; thus, a 3-credit course will typically require a minimum of 9 hours of work per week (144 hrs./semester)

(Source: <http://acadaff.uww.edu/On-lineSyllabiMandinfo.html>)

STUDENTS WITH SPECIAL NEEDS SHOULD INFORM THE INSTRUCTOR

Tentative Course Calendar (subject to change)

- Wk 1. Introduction, rocks and minerals, WHY BOTHER? (economics, environment, everyday use)
- Wk 2 Plate tectonics and rocks and mineral
- Wk 3 Description and identification of igneous rocks, texture and mineral composition
- Wk 4 Minerals and environment: Asbestos and other mineral dust
- Wk 5 Formation of hydrothermal veins and metal sulfide mineral deposits, economic minerals
Take home assignment during October 6-12. Assignment due Thursday, October 13
- Wk 6 Tectonic history, bedrock geology and economic mineral deposits of Wisconsin
- Wk 7 Minerals and economy: Sulfide minerals
- Wk 8 Minerals and economy: Rare Earth Elements
- Wk 9 Minerals and environment: Arsenic, mercury, uranium ores
- Wk 10 Formation of sedimentary rocks, plate tectonics and different depositional environments for sedimentary rocks
- Wk 11 Minerals and environment: Phosphates
- Wk 12 Minerals and environment: Iron ores, bauxite
- Thanksgiving Day**
- Wk 13 Minerals (and rocks) and environment: Methane hydrates, carbon sequestration
- Wk 14 Metamorphism and metamorphic rocks and minerals
- Wk 15 Minerals and economy: Gemstones

Grade calculation chart

Wk of	Weekly Homework		Labs		Total points to date	
	Max points	You got	Max points	You got	Maximum	Your points
9/4	20		50		70	
9/11	20		50		140	
9/18	20		50		210	
9/25	20		50		280	
10/2-9	20		50		350	
I will be out of town for GSA Annual Meeting during October 6-12. Do your take-home assignment						
<u>Due by</u> <u>10/13</u>	Take-home assignment				450	
	100					
10/16	20		50		520	
10/23	20		50		590	
10/30	20		50		660	
11/6	20		50		730	
11/13	20		50		800	
Thanksgiving Day 11/24. No lab this week						
11/27	20		50		870	
12/4	20		50		940	
<u>On</u> <u>12/20</u>	Final (identification of unknown samples)				1140	
	200					

Add up ALL your points to date to get your total points any time during the semester.

To calculate your percentage at any time during the semester, divide your total points by the maximum points possible and multiply the result by 100. This will give you an idea of your current letter grade.

Your two lowest lab and quiz grades will be dropped to calculate your final grade out of 1000 points. Even if you got full scores on all quiz and labs, two scores each will be dropped.

Assignments in bold are mandatory and will not be dropped.