

GLG 101: Physical Geology (4 credits) Spring 2019

Lecture: Tues & Thurs 1:00 -2:15 (Rm 180)

Lab: Tues & Thurs 2:30-4:20 (Rm 280)

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Office Hours: Wausau--282A TTh 11:45-12:45; or by appointment

UWSP--SCI D331 M 9:30-10:30 and W 1:00-2:00; or by appointment

Geology 101 (Physical Geology) is a 4-credit natural and laboratory science that will fulfill requirements for the laboratory science credits necessary for your AA&S degree. This course will cover the physical nature of Earth. We will discuss topics that include the processes in operation above, on, and beneath the surface of Earth that continue to shape its physical evolution (e.g. plate tectonics, volcanism, faulting and earthquakes, glaciation, running water); the origin and nature of common minerals and rocks and their distribution in the world; and landscapes and their origins (e.g. mountain ranges, glacial forms, river valleys, etc.). Lab work will include the study of common rocks, minerals, interpretation of geological and topographic maps, along with data, map, and chart analysis.

The **two overarching goals** of this course are:

- 1) to create a joy of learning about the Earth we inhabit and to spread that self-satisfaction and knowledge to others, such as your friends and [future] children. I want you to be able to look around you wherever you go, marvel at what you see, and understand why it is the way it is.
- 2) to impart to you a relevance of scientific knowledge and processes so that you can become a better thinker and decision-maker during your life economically, politically, socially, and personally.

At the completion of this course, I will be able to:

- 1. Interpret the tectonic history of the Earth through geologic time
- 2. Determine past Earth processes and environments through analysis of various rocks and minerals
- 3. Understand the transfer of energy and matter throughout the spheres of the geosystem
- 4. Evaluate environmental and physical conditions as they relate to the underlying tectonic history and modern geological processes
- 5. Understand how geology relates to their everyday lives
- 6. Communicate scientific ideas

At the completion of this course, students will have improved their skills at:

- 1. Oral and written communication
- 2. Accessing, reading and critically evaluating on-line and traditional resources
- 3. Collecting and evaluating data

Required Text: We will be using a freely available open source textbook http://opengeology.org/textbook/ Links to required reading assignments are available on D2L.

Additional resources: Lecture notes, flashcards, and videos are available on the course D2L website: http://d2l.uwc.edu/.

Required Materials: Please bring these items with you to class each day unless otherwise noted.

- 3-ring binder or folder to hold class handouts, labs, and notes
- pencil <u>with eraser</u>

Grading

Generally, the following division will apply to all course grades (i.e. exams, assignments, final grades):

Α	94-100%	В	84-88%	C	74-78%	D	64-68%
A-	90-93%	B-	80-83%	C-	70-73%	D-	60-63%
B+	87-89%	C+	77-79%	D+	67-69%	F	<59%

Your final grade will be calculated as follows. Grades will be available throughout the semester on D2L. **Assignments:** 25% of total course grade

Periodically throughout the semester we will have in-class activities and assignments. You are responsible for turning in all assignments by the due dates listed on D2L. Sometimes, we'll do in-class activities which will be collected for points and those are not listed on the syllabus. If you do not contact me ahead of time for missing class, you will not be given the assignment.

Reading Quizzes: 10% of total course grade

There are assigned readings from our online textbook. Every week you will take at least one reading quiz on D2L. All reading quizzes are due by 11:59pm on the Sunday of the week that they are assigned. One quiz will be dropped from the gradebook.

Exams: 40% of total course grade

This consists of 3 mid-term exams. Exams will be mostly multiple-choice, matching, and short answer format. *No make-up exams will be given*.

Lab: 25% of total course grade

Your lab grade will count for 30% of your overall course grade and will include: lab assignments, mineral exploration game, mineral quiz, and a rock quiz. You must bring to each week's lab your lab folder/binder, lecture text, and pencils with erasers (pens are strongly discouraged in the lab). You must download and read each week's lab from the course D2L site prior to lab. Lab is a required component in this course.

CLASSROOM CONDUCT To maintain a good learning environment, rude and/or disruptive behavior will **NOT** be tolerated. You will be asked to leave the class if your behavior is deemed inappropriate. The following examples are considered rude and disruptive:

- Consistently arriving late to class
- Private conversations during lectures and discussions
- Habitually leaving and returning to class in one class period
- Allowing your cell phone to ring on numerous occasions or texting

As the instructor of this course, I reserve the right to determine what constitutes as disruptive behavior and you as a student do not have that right. If the disruptive behavior continues or is serious enough, a student may be subject to discipline and may receive a sanction that may range from subtraction of points towards the course grade to permanent removal from class. **Academic and non-academic misconduct** can affect your grade, your permanent student record, even your ability to continue as a student. There are serious consequences, clearly explained in a publication called <u>Student Rights and Responsibilities</u> available from Student Services. **Plagiarism** and other forms of cheating are considered academic misconduct, and interfering with other students' ability to learn is considered non-academic misconduct. Lab reports and assignments are to be submitted by each student.

Missed Lecture & Lab procedures

Since this class only meets twice a week for half of the semester (and online after Spring Break), it's imperative to make every effort to attend each session. If you notice a conflict that will prevent you from attending, please contact me as soon as possible. I will only allow make-up work for excused absences and will be determined on a case-by-case basis. Please contact me to discuss an excused absence.

Accommodations

Students with approved Individualized Accommodation Plans should make an appointment with me to discuss accommodation needs. Students who are seeking accommodations services who do not already have an approved Individualized Accommodation Plan should first contact the Student Services Office.

Week	Dates	Lecture Topic	D2L Assignments (due Sundays 11:59pm)	Lab (Tuesdays only)				
1	1/29	Introduction & Minerals	RQ1, A1	Mineral Properties				
	1/31	Minerals	11021711					
2	2/5	Continental Drift	RQ2, A2, A3	Mineral Identification				
	2/7	Plate Tectonics	1102, 112, 113					
3	2/12	Igneous Rocks	RQ3, RQ4, A4	Mineral Quiz				
	2/14	Weathering	RQJ, RQT, AT	riiilei ai Yuiz				
4	2/19	Sedimentary Rocks	DOE DO6 45 46	Igneous Rocks				
	2/21	Metamorphic Rocks	RQ5, RQ6, A5, A6	Igneous Rocks				
5	2/26	Exam 1	RQ7, A7, EC1	Sedimentary Rocks				
	2/28	Volcanoes	RQ7, A7, LC1					
6	3/5	Earthquakes	RQ8, A8, EC2	Metamorphic Rocks				
	3/7	Faulting	RQO, AO, ECZ					
7	3/12	Folding	RQ9, A9	Rock Quiz Study Day				
	3/14	Relative Geologic Time	NQ3, A3					
8	3/19	Absolute Geologic Time	RQ10, A10	Rock Quiz				
	3/21	Exam 2	KQ10, A10					
9	3/25-3/31	Spring Break						
10	4/1-4/7	Streams & Floods	RQ11, A11, V1, L6					
11	4/8-4/14	Groundwater	RQ12, A12, V2, L7					
12	4/15-4/21	Glaciation	RQ13, A13, V3, L8	All lab activities will be				
13	4/22-4/28	Coastal Geology	RQ14, A14, V4, L9	All lab activities will be completed online.				
14	4/29-5/5	Climate Change	RQ15, A15, V5, L10					
15	5/6-5/12	Geologic Resources	RQ16, A16, V6, L11					
16	5/13-5/19							
17	May 17	Exam 3 1:00-3:00pm in 180						