

# Geology 104 Sections 1 & 2

## PHYSICAL GEOLOGY

Spring 2020

<b>Instructor:</b>	Samantha Kaplan		
<b>Office:</b>	D-327 Science Building		
<b>Office Hours:</b>	Tuesdays & Thursday 3:15 – 4:15 pm, and by appointment		
<b>Office Telephone:</b>	715-346-4149		
<b>Email:</b>	skaplan@uwsp.edu		
<b>Required Texts:</b>	<i>Earth: An Introduction to Physical Geology</i> , 13th ed. by Tarbuck, Lutgens, Linneman and Tasa		
<b>Lecture:</b>	Tuesday & Thursday	2:00 – 3:15 pm	D102 Science
<b>Lab:</b>	Section 1 - Tuesday	10:00 – 11:50 am	D324 Science
	Section 2 - Thursday	10:00 – 11:50 am	D324 Science

**Students with Disabilities:** Students with learning and/or physical disabilities are encouraged to contact me to make any special arrangements for taking lecture notes or exams.

**Catalog Description:** 4 credits. Introduction to the study of minerals and rocks and the processes that act upon and within the earth. 3 hrs lecture, 2 hrs lab per wk.

**General Education Designation:** GEP: NSc

### Learning Outcomes:

- Apply scientific method with respect to plate tectonics and Earth's interior
- Understand the taxonomy of minerals and rocks
- Be able to interpret topographic and geologic maps
- Apply knowledge and make predictions of Earth processes, resources and geohazards
- Assess the interrelationship of geologic processes, geologic events and life on Earth

## Classroom Policies

- Attendance is required for all lectures and laboratory sessions.
- No talking, texting, emailing, web-surfing, or listening to music during class. This is disruptive and discourteous to your peers and to the professor. Phones and other electronic devices must be turned off. Laptops may be used for note taking, but only with prior approval. Any student found violating these rules will be asked to leave the classroom.
- I do not post lecture notes on-line and I do not share my lecture notes with students. Please do not ask. If you miss class, it is your responsibility to get the notes from a classmate. I will post Power Point lecture slides following class (not before).
- E-mail communication must contain a subject line, the course number (Geol 104) and your section number (1 or 2) and be courteous and coherent for a response.
- Canvas will be used for most course communication outside of class meetings. Please check Canvas regularly for course updates and announcements.

## Assessment:

- **Labs:** Laboratory sessions are mandatory. Lab exercises parallel lecture topics and are designed to give students hands-on experience working with rocks, maps and other geological materials. There will be 4 lab tests, each worth 7% of your course grade. There will also be weekly lab exercises worth a total of 9% of your grade.
- **Exams:** There will be four exams covering lecture and laboratory content. The first three exams are non-cumulative and take place during lecture session. The fourth exam is cumulative and takes place during finals week. The first three exams are each worth 13% of the course grade. The final exam is worth 16%.
- **Attendance:** Attendance is worth 8% of your course grade. Attendance will be taken during lab sessions, but not lecture. Participation in lecture is expected and repeated absences will affect your grade.
- **Evaluation summary:**

	<u>Percent Each</u>	<u>Percent Total</u>
Lab Tests (4)	7%	28%
Attendance and Participation	8%	8%
Lab Exercises	9%	9%
Exams (3)	13%	39%
Final Exam (1)	16%	16%
<b>Total</b>		<b>100%</b>

- **Final Letter Grades:** Letter grades will be assigned as follows:

<b>Percent</b>	<b>Letter Grade</b>
≥93	A
90-92.9	A-
87-89.9	B+
83-86.9	B
80-82.9	B-
77-79.9	C+
73-76.9	C
70-72.9	C-
67-69.9	D+
63-66.9	D
≤62.9	F

### **Student rights and responsibilities**

- UWSP has guidelines regarding student rights and responsibilities in class and on campus. These are outlined on the Dean of Student's website and in the Student Handbook. Do review these resources if you have not already:
  - <https://www.uwsp.edu/dos/Pages/stu-conduct.aspx>
  - <https://www.uwsp.edu/dos/Pages/stu-academic.aspx>
  - <https://www.uwsp.edu/dos/Pages/handbook.aspx>
  - <https://www.uwsp.edu/dos/Documents/AcademicIntegrityBrochure.pdf>
  - <https://www.uwsp.edu/dos/Documents/UWSP14-Final2019.pdf>

## Tentative Schedule (check Canvas for updates)

<u>Date</u>	<u>Class Topic</u>	<u>Reading</u>
T 21-Jan	Intro & Plate Tectonics	Chapter 1, 2
R 23-Jan	Plate tectonics cont'd	Chapter 1, 2
	<i>LAB</i>	
	<i>NO LAB - watch video</i>	
T 28-Jan	Mineral Chemistry & Properties	Chapter 3
R 30-Jan	Igneous rocks	Chapter 4
	<i>LAB</i>	
	<i>Minerals</i>	
T 4-Feb	Volcanic Processes	Chapter 5
R 6-Feb	Igneous Processes	
	<i>LAB</i>	
	<i>Igneous Rocks</i>	
T 11-Feb	Sedimentary Rocks	Chapter 7
R 13-Feb	Sedimentary Processes	Chapter 6
	<i>LAB</i>	
	<b>LAB QUIZ &amp; Sedimentary Rocks</b>	
T 18-Feb	<b>EXAM 1 (Chapters 1-7)</b>	
R 20-Feb	NO CLASS - watch assigned video	
	<i>LAB</i>	
	<i>NO LAB - homework exercise</i>	
T 25-Feb	Metamorphic Rocks	Chapter 8
R 27-Feb	Geologic Time	Chapter 9
	<i>LAB</i>	
	<i>Metamorphic Rocks</i>	
T 3-Mar	Stratigraphy	Chapter 9
R 5-Mar	Structure: Faults & Folds	Chapter 10
	<i>LAB</i>	
	<b>LAB QUIZ &amp; Topo Maps</b>	
T 10-Mar	Streams & Floods	Chapter 16
R 12-Mar	Groundwater & Karst	Chapter 17
	<i>LAB</i>	
	<i>Streams</i>	
T 17-Mar	SPRING BREAK	
R 19-Mar	SPRING BREAK	
T 24-Mar	Groundwater cont'd. & Glaciers	Chapter 17, 18
R 26-Mar	<b>EXAM 2 (Chapters 8-10, 16, 17)</b>	
	<i>LAB</i>	
	<i>Groundwater &amp; Karst</i>	

<u>Date</u>	<u>Class Topic</u>	<u>Reading</u>
T 31-Mar	NO CLASS - Glacier Video	Chapter 18
R 2-Apr	NO CLASS - Climate Homework	Chapter 21
LAB	<i>NO LAB - Glacial Features exercise</i>	
T 7-Apr	Climate Change	Chapter 21
R 9-Apr	Eolian Processes	Chapter 19
LAB	<b>LAB QUIZ</b>	
T 14-Apr	The Sea Floor	Chapter 13
R 16-Apr	Earth's Evolution and Paleogeography	Chapter 22
LAB	<i>Coastal &amp; Eolian Processes</i>	Chapter 20
T 21-Apr	Fold Belts and Orogeny	Chapter 14
R 23-Apr	<b>EXAM 3 (Chapters 13, 18-22)</b>	
LAB	<i>Geologic Maps</i>	
T 28-Apr	Earthquakes	Chapter 11
R 30-Apr	Earth's Interior	Chapter 12
LAB	<i>Mapping Earthquakes</i>	
T 5-May	Geologic Resources	Chapter 23
R 7-May	Energy & Exam Review	
LAB	<b>LAB QUIZ</b>	
T 12-May	<b>FINAL EXAM 8:00 - 10:00 AM</b>	