

GEOL 601 Advanced General Geology

TTh: 9:15 - 10:30am, PS 215

Instructors: Mike McCurry
mccumich@isu.edu
PS 225, 282-3960

Leif Tapanila
tapaleif@isu.edu
PS 228, 282-3871

Office hours: Whenever our doors are open or by appointment.

Course objectives:

- 1) To review principles of physical and historical geology, and give an overview of current hypotheses and research in the geological sciences
- 2) To develop critical thinking and presentation skills
- 3) To meet the ISU Geoscience faculty, discuss potential research projects and funding opportunities.
- 4) To survey Geoscience Department and greater ISU resources
- 5) To have a solid background in Idaho geology

Text: None required, however there will be numerous readings assigned from current literature.

Grading:

Midterm Exam	15%
Final Exam	25%
Oral Presentations	20%
Written Assignments	10%
Journal	20%
Class Participation	10%

Journals

Your journal should be a running record of this class. It should contain all of your class notes, and any assignments that we ask you to include in your journal (we will also have a few writing assignments that you will hand in separately). Make sure to keep it neat and organized and be thorough. Examples of what your journal will contain: class notes, notes on a papers that you read for class, notes on a speaker presenting a paper or personal research, and thoughts, questions, etc., about topics discussed in class.

Oral and written assignment

All students will be expected to lead discussions of some of the assigned papers in this class. Writing assignments will typically be summaries and critiques of similar papers.

Note: Our program is committed to all students achieving their potential. If you have a disability or think you have a disability (physical, learning disability, hearing, vision, psychiatric) which may need a reasonable accommodation, please contact the ADA Disabilities & Resource Center located in Graveley Hall, Room 123, 282-3599 as early as possible.

Course Schedule

Week	Dates	Topic	Faculty
1	Aug. 22 Aug. 24	Sched./Objectives; Intro to Interactive Earth Systems Survey of Idaho Geology and SRP	MM, LT MM
2	Aug. 29 Aug. 31	Geologic Time ISU Geosciences and Library Resources	LT MM, LT
3	Sept. 5 Sept. 7	Discussion: Geologic Time Bulk Earth and Elements of Global Dynamics	LT MM
4	Sept. 12 Sept. 14	Discussion: Bulk Earth and Elements Basics on Life History on Earth	MM LT
5	Sept. 19 Sept. 21	Discussion: Life History Fidelity of the Sedimentary Record	LT LT
6	Sept. 26 Sept. 28	Discussion: Sedimentary Record Impacts and Other Catastrophes	LT MM @ ESSS LT
7	Oct. 3 Oct. 5	Seminar Field Trip: no class Discussion: Proterozoic Life/Weathering Processes	LT
***	***	Utah Field Trip: Oct. 7-8, meet Saturday at 6:00 am	
8	Oct. 10 Oct. 12	Basics of Geochemistry Discussion: Geochemistry; Review	MM MM/LT
9	Oct. 17 Oct. 19	MIDTERM The Paleocene–Eocene Thermal Maximum (PETM)	LT
10	Oct. 24 Oct. 26	Volcanism	MM LT @ GSA
11	Oct. 31 Nov. 2	Discussion: Volcanism Petrology, Earth Materials and Igneous Processes	MM LT @ 5IBW
12	Nov. 7 Nov. 9	Discussion: Petrology KT and FF Mass Extinctions	MM LT
***	***	Nevada Field Trip: Nov. 10-13, meet Friday at 9:30 am	
13	Nov. 14 Nov. 16	Discussion: KT and FF Mass Extinctions Environmental Geology	LT MM
14	Nov. 20–24	<i>THANKSGIVING HOLIDAY: NO CLASS</i>	
15	Nov. 28 Nov. 30	Discussion: Environmental Geology Modern Global Climate Change	MM MM/LT
16	Dec. 5 Dec. 7	Discussion: Modern Global Climate Wrap-up and Review	MM/LT MM/LT
17	Dec. 14	Final Exam: Thurs., December 14: 7:30–9:30 am	

* dates in bold = no class that day