

GEOL 315/500: UTAH FIELD TRIP

Spring 2025 Syllabus

Professors: Drs. Geoff Gilleaudeau (ggilleau@gmu.edu), Brittany Hupp (bhupp@gmu.edu), Daniel Segessenman (dsegesse@gmu.edu), Tian Gan (tgan2@gmu.edu)

*In all email communications regarding this course, please include all four professors.

Pre- and Post-Trip Meeting Time: Wednesdays 10:30 to 11:45am

Pre- and Post-Trip Meeting Place: Exploratory Hall Room 1005

Pre- and Post-Trip Meeting Dates: 1/29, 2/5, 2/12, 2/19, 2/26, 3/5, 3/26, 4/2

Utah Field Trip Dates: 3/8 to 3/15

Books/Recommended Readings: “Roadside Geology of Utah Second Edition” by Felicie Williams, Lucy Chronic, and Halka Chronic; “Geology Underfoot in Southern Utah” by Richard Orndorff, Robert Wieder, and David Futey

Course Goals:

An old adage states that you are only as good of a geologist as the quantity of rocks you have seen in the field. Through your geology major at GMU, you are exposed to tons of valuable information through lectures and labs, but nothing substitutes for the experience of seeing geological features in their natural environment. In this class, we have the opportunity to explore one of the most exciting geological regions in the world first-hand—the US state of Utah. The course will be divided into three parts: 1) familiarizing ourselves with the geology of this region before we go in the field; 2) the field trip itself (!); and 3) summarizing the information we learned once we return from the field. The diversity of geological features we will see and discuss in this course will be truly astounding—from the Precambrian to the Modern, and covering igneous petrology, sedimentology, geomorphology, paleontology, and structural geology, among others. We will also have a chance to visit important cultural sites, putting our geological adventures into perspective.

“The mountains are calling, and I must go.”

-John Muir

Grading Scheme:

10%: Pre- and post-meeting attendance and participation

30%: Pre-meeting group presentation

30%: Field trip participation

30%: Post-meeting field guide write-up

*Prior to the field trip, each person will be assigned a group (see below), and that group will be responsible for an ~30 to 40-minute presentation on some aspect of Utah geology. These presentations will help us familiarize ourselves with the geological features we will see in the field.

A guide and grading rubric for these presentations is presented in a separate document on Blackboard.

*Each person will be given a geological field notebook to use when we are in the field. Your responsibilities in the field are two-fold: 1) you must be punctual and follow the code of conduct and all logistical guidelines provided by the professors to keep the trip running smoothly; and 2) you should be making detailed geological notes on each locality we visit. In the field, the professors will provide guidance on your notetaking. Failure to be punctual, follow the code of conduct, or causing problems with the logistical aspects of the trip will be considered grounds for losing points for “Field Trip Participation” at the discretion of the professors.

*After the trip, we will be preparing a Utah Field Trip Guidebook. Each group will be responsible for writing one chapter of that guidebook based on what we saw in the field. It should include photographs taken in the field, as well as text with citations. A guide and grading rubric for these field guide chapters is presented in a separate document on Blackboard.

***You must attend 5 out of 6 of the pre-trip class meetings in order to attend the trip unless expressly given permission by the professors.**

Final Grading Scale:

97 to 100% = A+

93 to 97% = A

90 to 93% = A-

87 to 90% = B+

83 to 87% = B

80 to 83% = B-

77 to 80% = C+

73 to 77% = C

70 to 73% = C-

60 to 70% = D

Less than 60% = F



Class Schedule

Date	Presentation Topic	Student Presenters	Goal for Remainder of Class
1/29	Syllabus and introductions	Professors	Draft code of conduct together
2/5	Tectonics and basin evolution	Group A	Go over medical forms
2/12	Paleozoic and Mesozoic sedimentology and stratigraphy	Group B	Go over and discuss packing list
2/19	Cenozoic and Modern sedimentology and stratigraphy	Group C	Go over field notebook and sketching/notetaking strategies
2/26	Paleontology and paleoecology	Group D	Go over how to approach an outcrop in the field
3/5	Igneous and structural geology	Group E	Prepare a grocery list
3/8 to 3/15	FIELD TRIP!	FIELD TRIP!	FIELD TRIP!
3/19	NO CLASS	-	-
3/26	Work on guidebook chapters	Everyone	Work on guidebook chapters
4/2	Work on guidebook chapters	Everyone	Work on guidebook chapters
4/9	Guidebook chapters due via Blackboard (11:59pm)	-	-

Assigned Groups

Group A: Madison Thompson, Alyssa Turner, Alexandra Davies, Amber Gamgort

Group B: Mason Brown, Elena Taylor, Owen Alfaro, Timothy George

Group C: Justin Wilder, Sara Thomasian, Marie Bakker

Group D: John Saretzky, Paige Klug, Marcia Brisson

Group E: Jackie Chun, Bobbie Marcoux, Parker Hagerty, Maddie Reese

Academic Integrity

The integrity of the University community is affected by the individual choices made by each of us. Mason has an Honor Code with clear guidelines regarding academic integrity. Three fundamental

and rather simple principles to follow at all times are that: (1) all work submitted be your own; (2) when using the work or ideas of others, including fellow students, give full credit through accurate citations; and (3) if you are uncertain about the ground rules on a particular assignment, ask for clarification. No grade is important enough to justify academic misconduct. Plagiarism means using the exact words, opinions, or factual information from another person without giving the person credit. If you have any doubts about what constitutes plagiarism, please see us.

Disability Accommodations

Disability Services at George Mason University is committed to providing equitable access to learning opportunities for all students by upholding the laws that ensure equal treatment of people with disabilities. If you are seeking accommodations for this class, please first visit <http://ds.gmu.edu/> for detailed information about the Disability Services registration process. Then please discuss your approved accommodations with us. Disability Services is located in Student Union Building I (SUB I), Suite 2500. Email: ods@gmu.edu | Phone: (703) 993-2474

Privacy

Students must use their Mason email account to receive important University information, including communications related to this class. We will not respond to messages sent from or send messages to a non-Mason email address.

Policy on Chat GPT or other AI tools:

Chat GPT or other AI tools can be used to get started on researching a topic for the assignments for this class. However, you **CANNOT turn in text for any assignment in this class that was written directly by Chat GPT or another AI tool.** Any text handed in written by an AI tool will be given an automatic zero and be reported to the university academic integrity office. Handing in AI-written work is cheating.