Course Change Request

New Course Proposal

Date Submitted: 08/27/25 2:59 pm

Viewing: GEOL 507 : Geological Field Experience

Last edit: 09/22/25 10:55 am

Changes proposed by: ggilleau

Are you completing this form on someone else's behalf?
No

Effective Term: Spring 2026

Subject Code: GEOL - Geology

Course Number: 507

Bundled Courses:

Is this course replacing another course? No

Equivalent Courses:

Catalog Title: Geological Field Experience

Banner Title: Geological Field Experience

Will section titles vary by semester? No

Credits: 1-3

Schedule Type: Fieldwork

Hours of Other Contact Hours per week: 1

Repeatable: May be repeated within degree (RD)

In Workflow

1. **AOES -Curriculum Committee**
2. **AOES Chair**
3. **SC Curriculum Committee**
4. SC Assistant Dean
5. Assoc Provost-Graduate
6. Registrar-Courses
7. Banner

Approval Path

1. 09/10/25 2:55 pm Barry Klinger (bklinger): Approved for AOES - Curriculum Committee
2. 09/10/25 4:54 pm Mark Uhen (muhen): Approved for AOES Chair

Max Allowable Credits: 6

Default Grade Mode: Graduate Regular

Recommended Prerequisite(s): Courses in Physical Geology, Historical Geology, and Mineralogy as an undergraduate

Recommended Corequisite(s): None

Required Prerequisite(s) / Corequisite(s) (Updates only): None

Registrar's Office Use Only - Required Prerequisite(s)/Corequisite(s):

And/Or	(	Course/Test Code	Min Grade/Score	Academic Level	)	Concurrency?

Registration Restrictions (Updates only):

Registrar's Office Use Only - Registration Restrictions:

Field(s) of Study:

Class(es):

Level(s):

Degree(s):

School(s):

Catalog Description: Geological field data acquisition and analysis. This course will be centered on a single field experience during which students will learn basic geologic field skills used to investigate, analyze, and interpret

igneous, metamorphic, and sedimentary rocks, as well as paleontological, geomorphological, and structural features. Research, presentation, and writing exercises will occur before and after the main field experience. Notes: Includes fieldwork.

Justification: What: Creating a new course.
Why: AOES recently added GEOL 301 (Geological Field Experience), aimed at providing additional field experience to students for which a traditional 6-week summer field course is not accessible. We have run 2 spring break field trips under this model in 2024 and 2025 to Death Valley and Utah, respectively. We now want to open this opportunity to geology graduate students as well. Thus, we are proposing a graduate cross-list of GEOL 301. Although this course will be used for many types of field experiences, the attached syllabus provides just one example of a field experience in Death Valley, California.

Does this course cover material which crosses into another department? No

Learning Outcomes:

- Learn basic geological field skills such as note taking and stratigraphic and structural measurements
- Investigate, analyze, and interpret igneous, metamorphic, and sedimentary rocks
- Examine and interpret paleontological, geomorphological, and structural features in the field
- Research, present, and write about the geologic history of the field area

Will this course be scheduled as a cross-level cross listed section? Yes

Please use the Additional Attachments button to attach two syllabi for review, one undergraduate and one graduate, preferably as separate documents. These should be provided in order to demonstrate the difference in expectations and assessments for undergraduates and graduates taking the course.

Attach Syllabus GEOL 507_Syllabus.pdf

Additional Attachments GEOL 301_Syllabus.pdf

Staffing: Drs. Geoff Gilleaudeau, Brittany Hupp, Daniel Segessenman, and Andrew Hoxey

Relationship to Existing Programs: Will count as an elective for the Earth Systems Science MS and the Geology and Earth Science PhD

Relationship to Existing Courses: Graduate cross-list of GEOL 301

Have you reached out to the Libraries to determine whether there are adequate resources to support your course? If not, please email Meg Meiman, Associate University Librarian for Learning, Research, and Engagement at mmeiman2@gmu.edu.

No

Additional Comments:

Reviewer Comments

Key: 19085

GEOL 507: Geological Field Experience
Spring 2026 Syllabus

Professors: Drs. Geoff Gilleaudeau (ggilleau@gmu.edu), Brittany Hupp (bhupp@gmu.edu), Daniel Segessenman (dsegesse@gmu.edu), Andrew Hoxey (ahoxey@gmu.edu)

*In all email communications regarding this course, please include all 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
Death Valley Field Trip Dates: 3/8 to 3/15 (times TBD based on flights)

Books/Recommended Readings: "Geology underfoot in Death Valley and eastern California" by Allen F. Glazner, Arthur Gibbs Sylvester, and Robert P. Sharp; "The broken land: Adventures in Great Basin geology" by Frank L. DeCourten

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 Death Valley region of eastern California and southwestern Nevada. 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 volcanology, 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-field trip attendance and participation
20%: Pre-field trip group presentation
30%: Field trip participation
20%: Leading of activities at several field sites during the field trip (graduate students only)
20%: Post-field trip 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 Death Valley 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 three-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. **3) Graduate students are responsible for leading activities at several field sites during the field trip as planned in advance with the professors.**

*After the trip, we will be preparing a Death Valley 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–
Less than 70% = 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	Precambrian geology of Death Valley	Group A	Go over medical forms
2/12	Paleozoic geology of Death Valley	Group B	Go over and discuss packing list
2/19	Mesozoic geology of Death Valley	Group C	Go over field notebook and sketching/notetaking strategies
2/26	Cenozoic geology of Death Valley	Group D	Go over how to approach an outcrop in the field
3/5	Modern geology of Death Valley	Group E	Prepare a grocery list
3/8 to 3/15	FIELD TRIP!	FIELD TRIP!	FIELD TRIP!
3/19	NO CLASS	NO CLASS	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)	Guidebook chapters due via Blackboard (11:59pm)	Guidebook chapters due via Blackboard (11:59pm)

Students must abide by the Common Policies Addendum.

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.