

Geosciences 491/591: Field Seminar

Spring 2007
Monday: 12-1pm, PS 215

Instructors:

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Course Goals

1. To explore the tectonic and geomorphic significance of the western edge of the Basin and Range Province through lectures, reading, and field observation.
2. To examine the Neoproterozoic stratigraphy in Death Valley.
3. (Graduate) To prepare for and present a segment of the field trip.
4. (Undergraduate) To provide a brief presentation of a focus project at the department colloquium.

Text:

None Required. Selected readings will be prepared from the professional journals, field-trip guides and other sources. Maps and other resources will also be made available as necessary.

Field trip:

- Dates: Early Friday, April 13 → Saturday, April 21
- Location: Eastern Sierra Nevada and Death Valley
- Focus: Tectonic Geomorphology, Neoproterozoic stratigraphy (Snowball Earth)

Expectations:

Seminar is about having fun and learning some great geology in the field. In order to get the most out of the class and the field trip, we will have a series of lectures/discussions and some reading that will bring us all up to speed on the regional geologic history and the active processes occurring there today. Reading and work loads will be light (This is a one unit course after all!), but I expect us all to put enough effort into this class that we all come away with not only a new understanding of the field area but a greater appreciation for geology in general.

Grading:

Pass/Fail: If you go, have fun and give your presentation, you pass!

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.

Semester Schedule

Date	Day	Lecture Topic	Note
8-Jan	M	Introduction to Course and Field Trip Plan	
15-Jan	M	HOLIDAY – NO CLASS	
22-Jan	M	NO CLASS	
29-Jan	M	Assembling Western North America – Regional Tectonic Context	
5-Feb	M	NO CLASS	
12-Feb	M	Neoproterozoic stratigraphy and exposures in Death Valley	
19-Feb	M	HOLIDAY – NO CLASS	
26-Feb	M	Quaternary Tectonics/Volcanism in Eastern California	
5-Mar	M	NO CLASS	
12-Mar	M	Spring Break! – NO CLASS	
19-Mar	M	Quaternary Climate/Geomorphology in Eastern California	
26-Mar	M	Historical Perspective on Eastern CA: Paiutes, Miners and Water Rights	
2-Apr	M	Lecture/Discussion TBA	
9-Apr	M	Lecture/Discussion TBA – Final/Logistic Preparations	
16-Apr	M	FIELD SEMINAR! (early Friday, April 13 →Saturday, April 21)	
23-Apr	M	Prepare for Colloquium	
30-Apr	M	Prepare for Colloquium – Present on Wednesday, May 2nd	

(Preliminary) Field Schedule

Date	Day	Itinerary	Note
April 13	F	Early Start, Drive to Mono Lake, via Reno	
April 14	Sa	Volcanism: Mono Lake, Long Valley Caldera, Mammoth Mtn., Bishop Tuff.	
April 15	Su	Tectonics: Off-Set Moraines, White Mtns, Walker Lane, Bishop Tuff Faults	
April 16	M	Historical: Mines, Paiutes and Water Rights	
April 17	Tu	Travel Day(?)	
April 18	W	Death Valley – Marble Canyon (?)	
April 19	Th	Death Valley - Neoproterozoic stratigraphy	
April 20	F	Death Valley - Neoproterozoic stratigraphy	
April 21	Sa	Drive Home	