

GEOL 599: Special Topics – The Cutting Edge of Geoscience Research, Spring 2022

Seminar Mondays, 3:30-4:30pm, ZHS 159 (not flexible)

Discussion Fridays, 10:00-10:50am, ZHS 118 (flexible)

Instructors for Fall 2021:

Prof. *Julien Emile-Geay* – ZHS 275, ph. 02945, email julieneg@usc.edu

office hours Wednesday 11:30-1:00pm, or by appointment

Introduction

This 2-unit class will meet twice per week for one hour, structured around a Monday afternoon lecture from a visiting speaker, or on some occasions from a USC faculty member. We will meet the week prior to each lecture to discuss a paper recommended by the speaker. We will send around the paper on the Tuesday prior.

Your main responsibilities for this class are to attend the weekly seminars, carefully read and critically assess related papers, identify & ask relevant questions, and participate in discussion.

Homework involves:

- reading the relevant paper prior to the Friday discussion
- coming to that discussion with at least one question prepared on the basis of your reading
- posing at least 2 additional questions on the basis of the Monday lecture and the paper reading; you should submit a written copy of your questions (guideline would be for 2-3 total) *by Tuesday morning at 10am* (sending them by email is fine)
- writing a final summative reflection, due by the end of final exam week; this should be a 1-2 pp single spaced reflection on what you have learned from participating in this class.

Learning objectives

The learning objectives of this class include:

- Gaining familiarity with major topics in modern-day geoscience research, across the breadth of the discipline (i.e., extending beyond your individual area of expertise).
- Developing skills in reading, critically evaluating, and discussing oral presentations and recent scientific literature, including identifying key open questions.
- Practicing oral communication through participation in discussion sections.

These learning objectives are woven into each of the class sessions and related homework.

Grading

Written questions: 12 x 5% each = 60%

Participation in other discussions and in Monday seminars: 25%

Final summative class reflection: 15%

Participation will be evaluated on the basis of asking at least one question or making a comment during each weekly meeting. If you miss more than two weeks of class during the semester, determined on the basis of handing in your written questions, you will not receive credit unless you have discussed your absences in advance with me (e.g., if going on fieldwork).

Please approach the instructors with any questions (email, phone, or in office, as above).

Statement for students with disabilities

Any student requesting academic accommodations based on a accessibility issues is required to register with the Office of Student Accessibility Services (OSAS) each semester. A letter of verification for approved accommodations can be obtained from OSAS. Please be sure the letter is delivered to your instructors as early in the semester as possible. OSAS is located in STU 301 and is open 8:30 a.m.–5:00 p.m., Monday through Friday. OSAS website: <https://osas.usc.edu> and contact information: (213) 740-0776 (Phone), (213) 740-6948 (TDD only), (213) 740-8216 (FAX). Email: osasfrontdesk@usc.edu

Statement on academic integrity

USC seeks to maintain an optimal learning environment. General principles of academic honesty include the concept of respect for the intellectual property of others, the expectation that individual work will be submitted unless otherwise allowed by an instructor, and the obligations both to protect one's own academic work from misuse by others as well as to avoid using another's work as one's own. All students are expected to understand and abide by these principles. SCampus, the Student Guidebook, contains the University Student Conduct Code (see University Governance, Section 11.00), while the recommended sanctions are located in Appendix A.

Emergency preparedness/course continuity in a crisis

In case of a declared emergency if travel to campus is not feasible, USC executive leadership will announce an electronic way for instructors to teach students in their residence halls or homes using a combination of Blackboard, teleconferencing, and other technologies. See the university's website on Campus Safety and Emergency Preparedness. This is especially relevant in light of the fluid COVID-19 situation.

Schedule (as of 10/31)

Date	Speaker, Institution	Sub-discipline	Host/topic	Student Coordinator	Note
01/10/2022	Julien Emile-Geay	Organizational meeting		N/A	
01/17/2022	No seminar	MLK day			
01/24/2022	Lorenzo Polvani, Columbia	Atmospheric science/ Volcanism	JEG		in-person
01/31/2022	Elena Miranda (CSUN)	Geochronology	Platt		
02/07/2022	Todd Ehlers (U. Tübingen)	Geochemistry	West		
02/14/2022	Sarah Aarons, Scripps	Geochemistry	Berelson		
02/21/2022	No seminar	President's day			
02/28/2022	Andreas Schmittner, OSU	Paleoceanography	Stott		
03/07/2022	Amina Schartup, Scripps	Geochemistry	Feakins		
03/14/2022	No seminar	Spring Break			
03/21/2022	Charles Koven (LBL)	Climate/Carbon	JEG		
03/28/2022	Alice-Agnes Gabriel, UCSD	Earthquakes	Vidale		
04/04/2022	Danica Roth (CO school of mines)	Geomorphology	West		
04/11/2022	Jean-Philippe Avouac, CalTech	Tectonics	Vidale		
04/18/2022	Michael Mann, PSU	Climate	Stott		
04/25/2022	Melissa Kemp, UT Austin	Paleobiology	Feakins		
05/02/2022	Christie Rowe, McGill	Geology of faults	Houston		

Summative Assessment (Essay) due on May 5.