

**GEOL 600**  
**Earth Sciences Colloquium, Spring 2025**

**Class times, all Monday:**

- **Discussion section:** 2:00-2:50 pm, ZHS 118
- **(Reception for speaker with snacks:** 2:50-3:30 pm, ZHS 118)
- **Department seminar:** 3:30-4:30 pm, ZHS 159

**Instructors:**

- **Prof. John Vidale** – [jvidale@usc.edu](mailto:jvidale@usc.edu), (310-210-2131), office hours by appointment, 107 ZHS

**Units:** 2

**Introduction**

This 2-unit class will meet twice per week for one hour, structured around a Monday afternoon lecture from a guest speaker. We will meet Monday prior to each lecture to discuss a publication relevant to the talk topic recommended by the speaker. We will distribute the paper on the Tuesday prior to the discussion.

**Assignments**

Students' responsibility for this class is to attend the weekly seminars, carefully read and critically assess related papers, summarize a key point of the topic, or identify and ask relevant questions, and participate in discussions in a collegial, constructive manner. In the last day of class, present a 1-minute video of your research or career goals that incorporates the lessons you have learned during class.

**Weekly assignments**

1. Read assigned paper prior to Monday discussion (reading assigned Tuesday, **complete reading by Monday 2pm**).
2. Attend the Monday 2 pm discussion with at least three questions on the reading for oral participation.
3. Attend the Monday lecture and ask question(s) at the end of the talk.
4. Submit a short synopsis of the seminar and describe things the speaker did that was effective.  
**due: Tuesday morning at 10am**

**Summative assignment**

5. Presentation of brief presentation in class mid-semester.

**Learning objectives**

Students will be able to

- *Identify* research questions and recognize advances and remaining questions from the presentation of novel research findings in geoscience research talks and publications.
- *Summarize* scientific findings from synthesis of complex information.
  - Hone these skills through taking notes on lecture and reading, and refining understanding in discussion sections. Instructor assesses these skills as demonstrated in oral and written contributions.
- *Evaluate* effective scientific communication, assessed by oral discussion and short written summaries of what speakers did well.
  - Hone these skills through discussion sections. Assessed by short written synopses.

- *Contribute* to scientific discourse, assessed by participation in classroom discussions – in a constructive, collegial manner.
  - Opportunities include questions in the discussion section and following the lecture.
- *Create* a narrated PowerPoint or Keynote recorded talk that introduces a scientific research question, with reference to students' thesis research.
  - Leverage the techniques and styles of speakers, and class evaluation of speakers in discussions, to improve students' presentations.

### **Grading**

Written assignments: 12 x 5% each = 60%

Weekly participation in discussions, lecture, and wiki responses: 20%

Final summative recorded presentation assessment: 20%

Pass = good to excellent grasp of academic research – comprehension and collegial discourse – performing at or above the expected level for the student's career level.

Still pass = fair grasp of academic research – comprehension and collegial discourse. Recommendation would be to continue to develop your skills, e.g., by retaking this seminar in future.

No pass = incomplete grasp of academic research – comprehension and collegial discourse – needs improvement to perform at graduate level, continue to develop your skills e.g., by retaking this seminar in future.

### **Missed work and deadlines**

Full participation requires asking at least one question or making a comment during each weekly discussion section (following lecture optional/time dependent), and completion of the written assignments. Late work will have a penalty (max score 4% vs 5%).

Missing more than two weeks of class during the semester (participation and written assignments) requires *advance* approval and completion of alternative assignments (such as attending other seminars and submitting written work). Please contact the instructors with any questions and need for accommodations/support.

### **Technology and participation**

We will be using Blackboard for class information and assignments. You can connect to Blackboard using your USC ID and password.

*Have trouble participating in class?* Contact the instructors to let them know and to be referred to resources for further technical/wellness support.

**Lecture schedule and assigned reading:**

The readings are journal articles that will be available via Blackboard for this course.

The spring semester is currently being scheduled, **for illustration last year's seminars are listed.**

1/09 Mon	Organizational meeting and introductions Meet with your instructor Barbot and your classmates, be ready to introduce yourself.  <b>Seminar:</b> Seismology <b>The confusing gyrations of Earth's inner core</b> John Vidale, Professor of Seismology, USC. <a href="https://science.org/doi/10.1126/sciadv.abm9916">https://science.org/doi/10.1126/sciadv.abm9916</a>
1/23 Mon	<b>Seminar:</b> Seismology The magmatic web below Hawaii John Wilding, California Institute of Technology
1/30 Mon	<b>Seminar:</b> Hydroclimate Dan Ibarra
2/6 Mon	<b>Seminar:</b> Rock Mechanics Heather Savage
2/13 Mon	<b>Seminar:</b> Civil Engineering Buka Nweke
2/27 Mon	<b>Seminar:</b> Paleo-Oceanography Lizzy Trower <a href="https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2022GL100800">https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2022GL100800</a>
3/06 Mon	<b>Seminar:</b> Mineral Physics Matej Pec
3/20 Mon	<b>Seminar:</b> Paleo-oceanography Sophie Hines
3/27 Mon	<b>Seminar:</b> Climate change Tianjia (Tina) Liu, UC Irvine Meteorological and active fire suppression controls on wildfire spread in the Western U.S.
4/03 Mon	<b>Seminar:</b> Moon geophysics Ananya Mallik

Policies will adhere to the standard USC Academic and Support System guidelines:

<https://cet.usc.edu/teaching-resources/syllabus-template/>