

Course Syllabus: Graduate Seminar
McCoy College of Science, Mathematics, and Engineering
GEOS 6001
Fall 2022

Contact Information

Instructor: Dr. W. Scott Meddaugh

Office: Bolin 307F and Zoom

Office hours: "Drop in" office visits will be handled via Zoom. Additional detail in D2L

Office phone: (940) 397-4469. Messages may be left, but email is preferred as it tends to be answered quicker.

University e-mail: scott.meddaugh@mwsu.edu

We will meet online using Zoom. The Zoom meeting information and link will be provided via email as well posted in D2L. We will meet starting on August 31 (start of second week of the semester).

This semester we will focus on Questions 2, Question 7, and Question 9 from the National Academies Press (NAP) publication titled: *Origin and Evolution of Earth: Research Questions for a Changing Planet* (2008). The free pdf may be downloaded using this [link to National Academy Press for Class Text](#). A copy is in D2L. The ten questions in the 2008 NAP publication are:

Question 1: How did Earth and other planets form?*

Question 2: What happened during Earth's "dark age" (the first 500 million years)?

Question 3: How did life begin?*

Question 4: How does Earth's interior work, and how does it affect the surface?

Question 5: Why does Earth have plate tectonics and continents?*

Question 6: How are Earth processes controlled by material properties?

Question 7: What causes climate to change—and how much can it change?

Question 8: How has life shaped Earth—and how has Earth shaped life?

Question 9: Can earthquakes, volcanic eruptions, and their consequences be predicted?

Question 10: How do fluid flow and transport affect the human environment?

Note that the topics marked by an asterisk were considered in a previous graduate seminar and may not be chosen this year.

The NAP publication provides succinct background and a description of the “current” state of knowledge (though only through the mid-2000’s). Each group of three or four students will prepare a voice-over PowerPoint presentation on Question 7, 8, or 9. The presentation will include updated information at least through 2019 and may be used in one of the introductory geoscience or physical science classes. The presentation will be done online. **The group presentation will make up 65% of your seminar grade.**

This is considered homework and though time will be made available in some seminar meetings to collectively work on the presentation, the bulk of the time will almost certainly be outside of the seminar meeting and you, as a group, must complete the assignment recognizing and in compliance with university guidance on small group meetings (e.g. social distancing, wearing masks, etc.). Ideally, this assignment should be completed using email or other remote communication (e.g. if you choose to use Zoom, I will provide a Zoom meeting link for the class for this purpose).

You are expected to attend seminar in person. If you miss three seminar meetings without providing prior notice and an acceptable reason (documentation may be required), you may be dropped from the course. Note that from time-to-time, seminar may be canceled and advance notice provided via D2L.

In addition to the presentation assignment, you will be given a published paper for which you will write an abstract. The paper provided will not include identifying information such as title, author, institution, journal, etc.

“An abstract summarizes, usually in one paragraph of 300 words or less, the major aspects of the entire paper in a prescribed sequence that includes: 1) the overall purpose of the study and the research problem(s) you investigated; 2) the basic design of the study; 3) major findings or trends found as a result of your analysis; and, 4) a brief summary of your interpretations and conclusions.”. This quote is taken from this [website's abstract writing guide](#). Note that this site is a good reference for writing your thesis! Additional useful information on preparing an abstract is provided at [this website](#)

We will compare your abstract with that of the original paper and discuss similarities and differences. You will receive a grade on your abstract. Your abstract due date will be announced in seminar. You will have at least one week to work on your abstract. **Abstract writing exercise – 10% of your grade.**

The remaining portion of your seminar grade is based on your attendance and participation in seminar. Should you have work-related or other time conflicts, alternative assignments will be provided for your completion so long as prior notice is given via email.

Your seminar grade will be calculated as follows:

Group Presentation – 65% of your grade

Abstract writing exercise – 10% of your grade

Graduate Seminar attendance and participation – 25% of grade; however, attendance below the requirements given above may result in a failing grade (F). Note that several of the seminar meetings may contain videos pertinent to the seminar topic (climate change) or other topics of interest.

Geology Colloquium (if available) – 0% of grade; however, attendance at less than 2/3 of the available colloquium talks (via zoom or other conferencing software) may result in a failing grade (F).