



SPRING 2026

Tuesday 4:30-6:30 p.m.
Location: PLS 1146

COURSE DIRECTOR: Dr. Philip Piccoli (Office: 1109 Geology Building)

OFFICE HOURS: By appointment or Tuesdays 2-3:30 PM; best to email me if you want to talk.

CONTACT INFORMATION: For questions, e-mail: piccoli@umd.edu

EXPECTED LEARNING OUTCOMES:

1. Identify a geologic problem and design experiments to test it properly.
2. Produce a clear and concise written proposal and research paper.
3. Make clear and effective oral presentations appropriate for the general public and specialists in the discipline.
4. Apply material from prior courses and the literature to solve a scientific problem.
5. Learn to self-critique scientific oral and written communications, and appropriately critique those of others.

January 27th:

Topics: Orientation: Selecting and Refining a Project; Getting Started.
Discussion of Grading Policy.

February 3rd:

Topic: Scientific Method I: History, and including how it applies to the Senior Thesis.

February 10th:

Topic: English Skills: Written and Spoken English.

Due (393): **Project Description Due** by email to me. Put PROJECT DESCRIPTION in the subject line, and your name and GEOL393 in the file name. See handout.
Due: start of class.

February 17th:

Topic: Preparing an Oral Presentation.

Due (393): **Project Approval Sheets Due.** Submit in paper form: place in my mailbox, or give them to me in class. Due: start of class.

February 23rd (Monday):

Due (393): **Project Paragraph + Outline Due.** See the handout in ELMS for details.

Due (394): **Written Progress Report Due.** 500 words minimum (not including name, title, and other heading information) to include an updated abstract indicating your progress to date.

Project Paragraphs + Outlines (GEOL 393) and Written Progress Reports (GEOL 394) in PDF and Word format are due to Todd and me by 4:00 p.m..

February 24th (Tuesday):

In-class time to work on presentations, and practice talks.

February 27th (Friday): **Presentations @ 1:00 p.m. (2204 ESJ)**

Due at 11:00 a.m. (393, 394): Electronic copies of PowerPoint Files to Todd.

Presentations (393): Oral Presentation of Topic for 393

Presentations (394): Oral Progress Report for 394

March 3rd: GEOL 393 and GEOL 394

Note: One on One Meetings (Review Presentations). Required.
Writing Lab (in CHEM 1215)

March 10th:

Topic: Scientific Method II: data collection, numbers, digits, uncertainty. Broader impacts, scientific integrity, copyright and plagiarism, question and answer.

Special Note: At this point, you should be in conversations with your advisor about preparing your rough drafts (plural). Writing your rough drafts must be a cooperative and iterative process, involving your effort and advice from your advisor(s).

March 17th: Spring Break (March 15-22)

March 24th:

Topics: Discussion of Research Progress (For both GEOL 393 and 394)
Preparing the Final Paper and Final Presentation

March 31st:

Note: Writing Session in 1215 CHEM: Question and Answer Period (optional).

April 7th (Tuesday):

Note: Writing Session in 1215 CHEM: Question and Answer Period (optional).

April 10th (Friday):

Due at Noon (393, 394): **Rough Drafts** are due. Send electronic versions (Word and PDF) to me by email. Ask your advisor(s) for their preference (email, paper). You must deliver your rough draft to your advisor(s).

April 14th (Tuesday):

Note: Research Question and Answer Period (optional).

April 17th (Friday):

Returned (393, 394): Rough Drafts returned from me (GEOL 393 and GEOL 394). Students need to make arrangements for when you will get the rough draft back from your advisor. *From this point, you have 11 days to work on your final proposal/thesis prior to turning it in.*

April 21st (Tuesday):

Note: Workshop on how to make posters (1215 CHEM).

April 28th (Tuesday): No Class.

Due at 9:00 a.m. (393): **Final Proposal Due** (electronic, to Todd)

Due at 9:00 a.m. (394): **Final Report Due** (electronic, to Todd)

Final Proposals and Thesis due to Todd in both PDF and Word formats, and a copy to your advisor(s) in whatever format they require.

May 5th (Tuesday):

Note: Poster Help (CHEM 1215) if needed (optional)

May 6st (Wednesday):

Due at Noon (393/394): Electronic Copy of Poster to Todd

May 8th (Friday): 1:00 p.m.-4:00 p.m. (Chemistry Atrium – *tentative location*)

Presentation (393, 394): Poster Presentations (family and friends are invited)

Other Information

Academic Accommodations:

If you have a documented disability that may affect your work in Senior Thesis (393/394) you should discuss this with me by no later than the second week of class. You should contact Disability Support Services: <http://counseling.umd.edu/DSS/>

Academic Integrity:

The University of Maryland has a nationally recognized [Code of Academic Integrity](#), administered by the Student Honor Council. This Code sets standards for academic integrity at Maryland for all undergraduate and graduate students. As a student you are responsible for upholding these standards for this course. It is very important for you to be aware of the consequences of cheating, fabrication, facilitation, and plagiarism. Students are prohibited from cheating on exams, plagiarizing papers, having another person write their paper, submitting the same paper for credit in two courses without authorization, buying papers, submitting fraudulent documents, and forging signatures.

Please place this as an appendix in your 393 final proposal and 394 final thesis papers:

"I pledge on my honor that I have not given or received any unauthorized assistance or plagiarized on this assignment."

Artificial Intelligence (AI) in Assignments:

Any use of AI tools in completing class assignments must be disclosed. Upon submission of assignments, the original document (prior to modification by AI software) and the final product must be submitted. Prior to using any AI software, your primary advisor must be aware that you intend to do so as any information submitted through AI software could/will become publicly available. Examples of AI software include Grammarly, QuillBot, ChatGPT, Dall-E, Adobe Firefly, Microsoft Bing AI, Synthesia, elicitor.org, etc.

Computing Guide for Senior Thesis Work:

Monday before the first talk of the semester: (talk to Todd (karwoski@umd.edu) about his availability, and for his preferred method of file transfer)

Project Paragraph+Outlines or *Progress Reports* (for GEOL 393 and *GEOL 394*, respectively):
Supply the file to Todd Karwoski by the date and time specified; you must be sure that Todd gets it directly from you.

Week of both Friday presentations: PowerPoint Files for oral presentations, or poster files (Spring semester), must be delivered, by a method to be determined by you and Todd, to Todd by 11 a.m. Friday, *or at another time, as indicated by Todd*. It is your responsibility to be sure that he receives the PowerPoint file or other appropriate file, and that it is in working order.

Electronic copies of Final Papers (393, 394): Electronic copies of final papers are due in Microsoft Word and PDF formats. Please do not leave blank pages in your presentation; please single space the document; and, wrap text around figures. Please have a separate title page. Pages should be numbered, but no number should be on the cover page. E-mail the file if appropriate, or present a disk to Todd, or follow Todd's instructions if he presents you with an alternative.

Course Evaluations and Policies:

CourseEvalUM will be open for students to complete their evaluations for the Fall semester. Students can go directly to the [website](#) to complete their evaluations.

Relevant undergraduate student/course policies and procedures:

<http://www.ugst.umd.edu/coursereLATEDpolicies.html>

Course Organization:

One meeting per week, unless otherwise noted, at the beginning of the semester. Students are expected to meet weekly with their main research advisor, and maintain communication with me and their advisor on at least a weekly basis.

Grading:

(More detail is in the Guide to Grading available on ELMS): The rough draft of your 393 or 394 paper will account for 10% of the final course grade, the final paper will account for 60%, and the final presentation will account for 30%. Note however, that failure to make either of the two required presentations without an approved excuse (e.g., a medical excuse backed by a formal medical document), or failure to submit the final paper on time, can result in failure of the course. The grade for the rough draft will be based on the rough draft rubric, which will be on ELMS.

Notice of Mandatory Reporting:

As a faculty member, I am designated as a “Responsible University Employee,” and I must report all disclosures of sexual assault, sexual harassment, interpersonal violence, and stalking to UMD’s Title IX Coordinator per University Policy on Sexual Harassment and Other Sexual Misconduct. If you wish to speak with someone confidentially, please contact one of UMD’s confidential resources, such as [CARE to Stop Violence](#) (located on the Ground Floor of the Health Center) at 301-741-3442 or the [Counseling Center](#) (located at the Shoemaker Building) at 301-314-7651. You may also seek assistance or supportive measures from UMD’s Title IX Coordinator, Angela Nastase, by calling 301-405-1142, or emailing titleIXcoordinator@umd.edu.

Senior Thesis Grants:

Some funds may be available to support your research. Ask me if interested.

Writing Guides:

Suggested Alternate Writing Guides:

- 1) (Primary Guide) Irvine, T.N., Rumble, Douglas, and Irvine, L.M., 1992, A writing guide for petrological (and other geological) manuscripts: Journal of Petrology, p. 1- 46. Can be found online [here](#).
- 2) Fogarty, M. (2011) Grammar Girl Presents: The Ultimate Writing Guide for Students. St. Martin’s Griffin, New York. (most of this information is available online: free)

If you feel you are having difficulty writing, please be sure to utilize the Writing Center resource available to you.

GEOL 394 Papers are accessible on the web for all to see. Given the importance of having a clean and well-edited version available for others to see, students will have the opportunity to submit an edited copy of their final papers for inclusion on the Senior Thesis web page. You will have four weeks beyond the current semester CMNS graduation date for submission of the revised document. To do so, submit the document to P.Piccoli in both Word and PDF formats. The purpose of this is to fix minor problems with grammar, formatting, etc. This will not be graded, and can’t be (scientifically) substantively different than the graded version, but rather provides an opportunity to present your best product to the public.