

Spring 2025 | GEOL 1109 | Report Writing

Professor: Ryan Kerrigan

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Class time: Mon., Weds., & Fri., 9:00-9:50 AM

Lab time: Thursday 2:00-4:50 PM

Office Hours: Tuesdays 1:00-3:00 or by appointment

Office Phone: (814) 269-2942

Class Room: Krebs B52

Lab Room: Krebs B52

Don't write so that you can be understood, write so that you can't be misunderstood.

-William Howard Taft - 27th president of the United States and tenth Chief Justice of the United States

Welcome to Report Writing!

This course is intended as a capstone course for students in Energy and Earth Resources. The course will introduce and apply various conventions of scientific writing and geologic report preparation. We will cover scientific writing for grant proposals, environmental reports, field guides, professional informal communications, peer-reviewed publications, curriculum vitae and cover letters in the geosciences as well as the associated resources for geologic research and report writing. Students will complete various writing assignments, and oral presentations including a poster presentation to be presented at the UPJ SPACE symposium for undergraduate research.

CLASS GOALS

By the end of this course, students will:

- be able to quickly and efficiently track down published scientific information
- understand how to read and create a Phase I Environmental Site Assessment
- give different types of oral presentations, including a 15-minute professional talk
- use a variety of software packages to assist in written and oral communications
- create a research project, develop a hypothesis, propose a plan to test their hypothesis, present their results in the form of a research paper, oral presentation as well as a poster presentation to be given at UPJ SPACE.
- know how to best represent themselves on a curriculum vitae and in a cover letter

Course Texts:

Required Text:

- Copeland, Peter, 2011, Communicating Rocks: Writing, Speaking, and Thinking About Geology. 1st Edition, Pearson Publishing, 160 pgs. ISBN-10 : 0321689674

Other Useful E-texts:

- Hansen, W. R. ed., 1991, Suggestions to Authors of Reports of the United States Geological Survey (7th ed.): Washington D.C., U. S. Geological Survey, p. 274.
<https://pubs.er.usgs.gov/publication/7000088>
- Robinson, B. P., 1984, Clear Ideas for Scientific Writing: U. S. Geological Survey Open-File Report 83-867, p. 60.
<http://pubs.er.usgs.gov/publication/ofr83867>
- Irvine, T. N. and Rumble, D., (in consultation with L. M. Irvine) 1992, A Writing Guide for Petrological (and Other Geological) Manuscripts: Supplement to the Journal of Petrology, 1-46.
https://levee.wustl.edu/~rlk/papers/irvine_&_rubble_1992.pdf
- American Standards and Testing of Materials, Standard Practice for Environmental Site Assessments - Phase I Environmental Site Assessment Process: Designation E1527-13, p. 47.

Other Helpful Texts:

- *Chicago Manual of Style*, 14th ed., University of Chicago Press:
<http://www.chicagomanualofstyle.org/home.html>
- *How to write & publish a scientific paper (5th ed.)*, Robert A. Day
- *The Elements of Style*, 3rd ed., W. Strunk, Jr., and E. B. White
- *Writing in Earth Science*, R. L. Bates

GENERAL RULES

Clean-up: Please don't make a mess, but if you choose to make a mess, please clean up after yourself.

Safety: Use your brain, do not do anything that would endanger yourself or your classmates. Masks on, maintain social distancing.

Student Accommodations: Students with documented needs for course adaptations or accommodations, emergency medical situations they need to share with me, or require special arrangements for building evacuation, should contact me after class within the first two weeks of class. I'm here to help.

Academic Integrity: Although there will be opportunities for group work in this course, all students are responsible for understanding the material and should indicate with whom they collaborated on any assignment. Group work does not mean that one person does all the work and everyone else puts their name on it...this is considered cheating. Students **should not:** claim other's ideas as their own, turn in other's work as their own, copy sources without proper citation (plagiarism), or allow others to take their work or ideas. If you have questions about academic honesty, see the instructor or refer to the document "Academic Integrity at the University of Pittsburgh at Johnstown." (<http://www.upj.pitt.edu/en/academics/academic-affairs/academic-advising/academic-integrity/>). Anyone found to be in violation of the Pitt-Johnstown standards for academic integrity will fail the course. We will cover scientific ethics in this course, until then use your brain.

Outside Resources: Perhaps there are questions that I cannot answer, or issues you feel you cannot discuss with me, UPJ has outlets for these issues. Kara Bernard, the division administrative assistant, is a wealth of knowledge about random stuff. If you have a problem with me or a problem you don't feel comfortable talking to me about, contact Steve Stern, the Natural Science Division Chair; he is my boss.

Participation: Attendance will be taken each day and this information, combined with your participation in classroom discussions, will be factored into your final grade. Additionally, some meetings will be broken up into individual meetings so you can receive individual feedback on the development on the various projects. You will be expected to sign up and attend each of the individual meeting you schedule. Missing your individual meeting will result in a significant penalty to your attendance/participation points.

Late Work: Contact me prior to any absence/missed: due dates, classes/labs, or quizzes/exam. If you can show me that respect and we will find an arrangement to allow you to make-up/hand-in the missed work. Without prior contact, any work not received by the due date will have points deducted, except for a documented exemption. For each day late 10% of the total possible points will be deducted (this includes weekends and holidays). The work will not be accepted for credit after 10 days.

Formatting Assignments: Please use a standard Microsoft word format for all written assignments: 12 point font, New Times Roman, 1 inch margins, double spaced. With most scientific writing, the shorter the length, the better; it means you are being concise. Do not employ bizarre document lengthening “tricks,” it will not be looked upon kindly.

Writing Center (Academic Success Center): There may be difficulties or deficiencies in your writing that would best be discussed with a qualified tutor in the Academic Success Center (G-16 Owens Library). In these situations, students will be asked to go to the Academic Success Center - Writing Center to meet with a tutor to review a specific topic.

ASSESSMENT

- **10% Attendance, In-Class Exercises, and Participation**
- **10% Phase I ESA Review and Presentation**
- **20% Group Phase I ESA of a local site**
 - 15% Group Participation/Cooperation
 - 25% Individual Grade (Sufficient contribution to the group effort)
 - 10% Peer Review
 - 25% Final Report (Group Grade)
 - 25% Presentation (Group Grade)
- **15% Curriculum Vitae and Cover Letters**
 - 33% Initial Writing CV and Cover Letter tailored to a specific job advertisement
 - 33% Revised CV and Cover Letter (You will have the opportunity to continually increase your grade on this assignment with additional revisions)
 - 33% LinkedIn Profile page
- **45% Scientific Paper, Presentation and Poster**
 - 4% Initial Problem Identification
 - 4% Hypothesis and Citations
 - 4% Proposal
 - 4% Proposal Presentation
 - 5% SPACE Abstract
 - 4% SPACE Registration
 - 5% Draft Poster
 - 15% Final Poster
 - 15% Final Presentation
 - 40% Final Research Paper

Standard grade cut-off apply (100-96.6 =A+, 96.6-93.3=A, 93.3-90=A-, etc)

DESCRIPTION OF PROJECTS

Attendance: Attendance will be taken each day and this information, combined with participation in classroom discussions, will be factored into your final grade. There will be 39 lecture meetings worth 1 point each. There are 13 lab meetings worth 3 points each (*side note:* several lab meetings will be broken up into individual meetings so you can receive individual feedback and help on your projects). That is 78 points towards attendance and the remaining 22 points will consist of an assessment of your participation in class.

Homeworks/In-Class Exercises/Participation: On multiple occasions we will complete grammar exercises both take-home and in-class. In both instances you will be asked to share your results with the class, justifying your responses to the class, demonstrating a full understanding of the specific grammar lesson. These will not be corrected but instead your participation will be judged.

Curriculum Vitae and Cover Letters: After receiving lectures and direction, students will submit a curriculum vitae. Students will find a current job advertisement posting of interest to the student and write a cover letter tailored specifically to that job. The job advertisement must be submitted with the completed cover letter. Once the student has received feedback, students will make revisions and resubmit their CV and cover letter.

Important Dates: January 24th – CV and Cover Letters (with job advert) Due

January 31st – Revised CV and Cover Letter Due

At this point to you can resubmit until you reach your desired score

February 26th – LinkedIn Profiles due (“connect” with me on LinkedIn)

Review of a Phase I Environmental Site Assessment (ESA): Students will be given a Phase I ESA conducted by your professor on sites located in Washington State. Students will be expected to become familiar with your specific site and provide a 10-minute presentation on the site which will consist of a discussion of the site specific conditions including: geology, hydrogeology, historical context, regulatory issues and all *recognized environmental conditions* (RECs) or potential RECs.

Important Dates: January 23rd – Distribution of Phase I ESA Review Projects

February 6th – Presentation of Phase I ESA Review

Completion of a Phase I ESA: Students will be broken into groups to conduct a Phase I ESA of a local site. Students will be responsible for the following: data collection and interpretation; site visit (I will join each group on their site visits); group participation and integration of efforts; completion of Phase I ESA which conforms to the American Standard and Testing of Materials (ASTM) Standard 1527-13; and presentation of the results in class.

Important Dates: February 6th – Groups and Locations for Phase I ESA Assigned

February 6th– February 27th – Phase I Groups Site Visit field trips

March 13th – Phase I ESA written report due

March 13th – Peer-review of group members due

March 13th – Presentation of Phase I ESA results

Research Paper, Presentation and Poster: Each will complete an independent research project. You will be responsible for the following: identifying possible projects; choosing a project and developing a testable hypothesis; submitting a written and oral proposal for their scientific study; data collection and interpretation; presenting the results of the study in a research paper, oral presentation, and poster presentation to be presented at UPJ SPACE.

Important Dates:

- January 15th – Preliminary Research Project Due: Each student must provide a brief write-up for three possible projects for their research paper (one paragraph per possible topic). Grammar and thoughtfulness will be graded.
- January 16th – *Individual Meeting:* Each student will have an individual meeting to discuss their research project options.
- January 30th – *Individual Meeting:* Each student will hand in a tentative hypothesis, a minimum of five scientific citations (in proper formatting), and a sentence or two on the contribution of that citation to their chosen topic.
- February 13th – *Individual Meeting:* Each student will discuss the progress of their research project
- February 20th – GSA-style written proposal due and 10-minute presentation/discussion
- February 27th – *Individual Meeting:* Each student will discuss the progress of their research project
- March 10th – Each student must submit an abstract for their project. After revisions, this abstract will be submitted when you register for UPJ SPACE (character limit of 2000 without spaces)
- March 17th – Each student must register for UPJ SPACE (you must submit proof of registration)
- March 20th – *Individual Meeting:* Each student will submit a detailed outline of their paper, a sketch draft of their poster and will discuss the progress of their research project
- March 24th – Poster for UPJ SPACE due
- March 31st – FINAL Poster for UPJ SPACE due
- March 31st – Practice Presentation for UPJ SPACE Poster Session
- April 2nd – UPJ SPACE Poster Presentation
- April 17th – Research Project Presentations
- April 30th – Date of the Final – Research Project Paper Due

All these dates should be pretty solid, however, if needed, dates may be adjusted to correct for the flow of the class

CLASS SCHEDULE

Schedule of Events *Bold Items generally represents a due date				
Week	Monday (Lec)	Wednesday (Lec)	Wednesday (Lab)	Friday (Lec)
1	<u>January 6, 2025</u>	<u>January 8, 2025</u> Introduction	<u>January 9, 2025</u> Literature Review, Library Resources, and Citations	<u>January 10, 2025</u> Internships
2	<u>January 13, 2025</u> Writing well & Scientific Papers	<u>January 15, 2025</u> CVs & Resumes 3 Research Topics due	<u>January 16, 2025</u> <i>Individual Meetings</i>	<u>January 17, 2025</u> Cover Letters & Interviewing
3	<u>January 20, 2025</u> NO CLASS MLK DAY	<u>January 22, 2025</u> Geology Jobs	<u>January 23, 2025</u> <i>Individual Meetings</i> Hypoth & Cit due Phase I Rev. Given	<u>January 24, 2025</u> Introduction to Phase I's CV & Cover Letter Due
4	<u>January 27, 2025</u> Introduction to Phase I's (cont.)	<u>January 29, 2025</u> Regulatory Review & Site Reconn	<u>January 30, 2025</u> Regulatory Review Online	<u>January 31, 2025</u> Presenting Res. CV & Cover Let. Due
5	<u>February 3, 2025</u> Phase I Review Case Study I	<u>February 5, 2025</u> Phase I Review Case Study I & II	<u>February 6, 2025</u> Phase I Review Presentations	<u>February 7, 2025</u> Phase I Case Study IV
6	<u>February 10, 2025</u> Proposal Writing	<u>February 12, 2025</u> Guest Speaker:	<u>February 13, 2025</u> <i>Individual Meetings</i>	<u>February 14, 2025</u> Plagiarism
7	<u>February 17, 2025</u> Formatting in Microsoft	<u>February 19, 2025</u> Guest Speaker:	<u>February 20, 2025</u> Proposal Presentations Written Proposals Due	<u>February 21, 2025</u> Discuss Proposals
8	<u>February 24, 2025</u> Abstracts	<u>February 26, 2025</u> More on Abstracts LinkedIn Profiles Due	<u>February 27, 2025</u> <i>Individual Meetings</i>	<u>February 28, 2025</u> NO CLASS

Schedule of Events

*Bold Items generally represents a due date

Week	Monday (Lec)	Wednesday (Lec)	Thursday (Lab)	Friday (Lec)
9	<u>March 3, 2025</u> NO	<u>March 5, 2025</u> CLASS	<u>March 6, 2025</u> SPRING	<u>March 7, 2025</u> BREAK
10	<u>March 10, 2025</u> Grammar Lessons SPACE Abstract Due	<u>March 12, 2025</u> <i>Guest Speaker:</i>	<u>March 13, 2025</u> Phase I Group Presentations	<u>March 14, 2025</u> Plagiarism and Ethics
11	<u>March 17, 2025</u> Problem Words and Grammar SPACE Registration	<u>March 19, 2025</u> <i>Guest Speaker:</i> Jason Floyd Pres. Mountain Research	<u>March 20, 2025</u> <i>Individual Meetings</i>	<u>March 21, 2025</u> Posters
12	<u>March 24, 2025</u> Graduate School Poster Drafts Due	<u>March 26, 2025</u> <i>Guest Speaker:</i>	<u>March 27, 2025</u> NO LAB Northeast GSA	<u>March 28, 2025</u> NO CLASS Northeast GSA
13	<u>March 31, 2025</u> Poster Presentations Final Posters Due	<u>April 2, 2025</u> UPJ SPACE	<u>April 3, 2025</u> UPJ SPACE	<u>April 4, 2025</u> Other Certifications
14	<u>April 7, 2025</u> FG Exam Details	<u>April 9, 2025</u> <i>Guest Speaker:</i> Jason Floyd President of PCPG	<u>April 10, 2025</u> ASBOG PRACTICE TEST	<u>April 11, 2025</u> FG Exam Review
15	<u>April 14, 2025</u> <i>Guest Speaker:</i>	<u>April 16, 2025</u> <i>Guest Speaker:</i>	<u>April 17, 2025</u> Research Paper Presentations	<u>April 18, 2025</u> Geotechnical Reports
16	<u>April 21, 2025</u> Job Seeking	Wenesday April 30th 10:30 AM - 12:30 PM FINAL PAPER DUE		