Spring 2023 | GEOL 1109 | Report Writing

Professor: Ryan Kerrigan
Office: Krebs 227A
Office Hours: Tuesdays 1:00-3:00 or by appointment
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Class time: Mon., Weds., & Fri., 11:00-11:50 AM
Class Room: Krebs B52
Lab time: Wednesday 2:00-4:50 PM
Lab Room: Krebs 220

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:

Require 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.
  http://www.nwrc.usgs.gov/lib/lib_sta.htm
- 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.
  http://cgiss.boisestate.edu/~billc/Writing/Levine_Rumble.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 27th – CV and Cover Letters (with job advert) Due
February 3rd – Revised CV and Cover Letter Due
At this point to you can resubmit until you reach your desired score
March 3rd – 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 25th – Distribution of Phase I ESA Review Projects
February 8th – 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 8th – Groups and Locations for Phase I ESA Assigned
February 8th–March 15th – Phase I Groups Site Visit field trips
March 15th – Phase I ESA written report due
March 15th – Peer-review of group members due
March 15th – 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 17th – 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 18th – *Individual Meeting:* Each student will have an individual meeting to discuss their research project options.

January 25th – *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 15th – *Individual Meeting:* Each student will discuss the progress of their research project

February 22nd – GSA-style written proposal due and 10-minute presentation/discussion

March 1st – *Individual Meeting:* Each student will discuss the progress of their research project

March 13th – 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 20th – Each student must register for UPJ SPACE (you must submit proof of registration)

March 22nd – *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 27th – Poster for UPJ SPACE due

March 31st – FINAL Poster for UPJ SPACE due

April 3rd – Practice Presentation for UPJ SPACE Poster Session

April 5th – UPJ SPACE Poster Presentation

April 15th – Research Project Presentations

April 26th – 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	January 9, 2023 Introduction	January 11, 2023 Reading Scientific Papers	January 11, 2023 Literature Review, Library Resources, and Citations	January 13, 2023 Internships
2	January 16, 2023 **NO CLASS** **MLK DAY**	January 18, 2023 Writing Well **3 Research Topics due**	January 18, 2023 *Individual Meetings*	January 20, 2023 Geology Jobs
3	January 23, 2023 CVs & Resumes	January 25, 2023 Cover Letters & Interviewing	January 25, 2023 *Individual Meetings* **Hypoth & Cit due** **Phase I Rev. Given**	January 27, 2023 Introduction to Phase I's **CV & Cover Letter Due**
4	January 30, 2023 More Phase I's	February 1, 2023 Regulatory Review & Site Reconn	February 1, 2023 Regulatory Review Online	February 3, 2023 Presenting **Res. CV & Cover Let. Due**
5	February 6, 2023 Phase I Review Case Study I	February 8, 2023 Phase I Review Case Study I & II	February 8, 2023 **Phase I Review Presentations**	February 10, 2023 Phase I Case Study I
6	February 13, 2023 Proposal Writing	February 15, 2023 Guest Speaker:	February 15, 2023 *Individual Meetings*	February 17, 2023 Plagarism
7	February 20, 2023 Formatting in Microsoft	February 22, 2023 Guest Speaker:	February 22, 2023 **Proposal Presentations** **Written Proposals Due**	February 24, 2023 Problem Words & Grammar Lessons
8	February 27, 2023 Problem Words & Grammar Lessons	March 1, 2023 Ethics and Citing	March 1, 2023 *Individual Meetings*	March 3, 2023 Abstracts

Schedule of Events *Bold Items generally represents a due date				
Week	**Monday (Lec)**	**Wednesday (Lec)**	**Thursday (Lab)**	**Friday (Lec)**
9	March 6, 2023 **NO**	March 8, 2023 **CLASS**	March 8, 2023 **SPRING**	March 10, 2023 **BREAK**
10	March 13, 2023 More Abstracts **SPACE Abstract Due**	March 15, 2023 Guest Speaker:	March 15, 2023 **Phase I Group Presentations**	March 17, 2023 Problem Words & Grammar Lessons
11	March 20, 2023 Poster Presentations **SPACE Registration**	March 22, 2023 Guest Speaker:	March 22, 2023 *Individual Meetings*	March 24, 2023 Graduate School
12	March 27, 2023 FG Exam	March 29, 2023 Guest Speaker:	March 29, 2023 Posters	March 31, 2023 Elevator Speeches
13	April 3, 2023 Poster Presentations	April 5, 2023 **UPJ SPACE**	April 5, 2023 **UPJ SPACE**	April 7, 2023 Guest Speaker:
14	April 10, 2023 Other Cerifications	April 12, 2023 Guest Speaker:	April 12, 2023 **ASBOG PRACTICE TEST**	April 14, 2023 FG Exam Review
15	April 17, 2023 Guest Speaker:	April 19, 2023 Job Seeking	April 19, 2023 **Research Paper Presentations**	April 21, 2023 Job Seeking
16	**Wenesday** April 26th 10:30 AM - 12:30 PM **FINAL PAPER DUE**			