

# Semester Writing Project Sedimentology GY 306 W

Benjamin J. Linzmeier, PhD

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## Submitting assignment

**Due:** Incremental throughout the semester

**Submit:** A .doc or .docx files to Canvas

## Learning Objectives

- Become comfortable with reading primary scientific literature.
- Build a framework for the development of hypotheses that can be tested with sedimentology.
- Summarize a scientific argument into an abstract for non-specialist researchers.

## Purpose

Develop a testable hypothesis based on primary research literature and convince a group of your peers to spend limited funding to test your hypothesis.

## Knowledge

After doing this assignment you will understand:

1. How to clearly define testable hypotheses in sedimentary geology.
2. How funding for research through the National Science Foundation (NSF) and other funding bodies works.

## Skills

After doing this assignment you will be able to:

1. Communicate a specialized research idea to a broader audience of your peers using text and figures.
2. Write persuasively but with a technical focus.
3. Assess the feasibility (given written information) of research projects.

## Rhetorical aspects of a research proposal

The purpose of a proposal is to convince your audience that you have a hypothesis that is worth testing, you have the skills to test the hypothesis, and you have the facilities to help you test the hypothesis. Generally these are written for peers who are not necessarily specialists in the field of research being proposed. This means that reviewers must be informed of the relevant background information to help assess the feasibility of the work proposed. In addition, proposals also highlight the broader impact of the work on the discipline and wider community.

Review criteria for NSF proposals can be read [on this website](#). The review focuses on the “Intellectual Merit” or will the work advance our knowledge of the world. The other “Broader Impacts” criteria focus on how the work impacts society at large.

## Components of the project

### *Proposal Abstract (Due October 15th)*

The proposal abstract is limited to less than 500 words and should summarize the entire proposal to be assessed by a semi-specialist audience. In the final abstract, details about activities in the proposal and the broader impacts will be detailed. For an example, take a look [at this abstract on the NSF website](#). Search for more recently funded proposals [at this web portal](#) to see more examples of proposal abstracts.

### *Proposal First Draft (Due October 29th)*

The first draft of your proposal should be similar to the final draft. Aim for less than 20 pages, double spaced, with several figures, a table, and refer to papers that you have read for the proposal. Think about using preliminary data that either you have collected or have found in papers or online databases to help support your proposed research plan.

### *Peer-review of Proposal (Due November 5th)*

Your peer review of the proposal should focus on assessing the completeness of the background information presented, potential feasibility of the project, and the possibility of broader impact to the discipline and community at large.

### *Proposal Final Draft (Due November 17th)*

The final draft of the proposal includes the abstract, figures, proposal text body, and references in a double-spaced form that is less than 20 pages long. You should expect to refer to 15 to 20 papers to provide background for your proposed research. You should also expect to make 4 to 6 figures and 1 to 3 tables.

### *Presentation of Proposal (TBD near December 1st)*

You will be presenting on the proposal that you *peer review* and not your own. The goal of the presentation is to convince others to fund the proposal you present based on its merits (i.e. how likely it is to succeed and impact it may have). The presentation will be capped at 10 minutes and there will be 4 minutes for discussion/questions. These will happen in the last two weeks of the semester.

## Example timeline

Below is a week-by-week example timeline for this project. I suggest starting to find a topic area of interest early and to discuss it with me. Then, a major component of your effort will focus on reading and researching the existing literature for what we know about the topic already and methods to address it.

Week	Tasks
3	Browse recent papers in sedimentology journals
4	Browse recent papers, schedule meeting with me
5	Meet with me, make preliminary reading list (4-6 papers)
6	Meet with me, read 3-4 papers, start draft
7	Meet with me, read 3-4 papers, write draft
8	Expand reading list, read 3-4 papers, write draft
9	Write abstract, read 2-3 papers
10	Write draft, make figure, read 1-2 papers
11	Write draft, make figure, read 1 paper
12	Peer review, make figure
13	Revise draft, edit figures, start presentation
14	Revise draft, edit figures, work on presentation
15	Thanksgiving, work on presentation
16	Work on presentation

## Grading

All of these components will comprise 25% of the final course grade. Initial assignments, like the abstract and first draft, will be graded with a focus on how you present your argument. The grading the final draft will focus on presentation, feasibility, completeness, and if it serves the general purpose of a proposal well. Peer review and review from me will provide constructive comments for the revision of the final proposal draft. Presentation grading will focus on how you present the work and the clarity you bring independent of the proposal you present.

Component	Weight
Abstract	5%
Proposal First Draft	10%
Peer Review	20%
Proposal Final Draft	50%
Presentation	15%