

Math 390 Course Projects

Spring 2021, University of Puget Sound

Prof. Beezer

1 Project (verbatim from Course Guidelines)

A very large portion of this course will be a project on a topic of your choice. I view this as a substantial undertaking, and the deadlines and grading procedures will reflect this. Note that this comprises 2/5 of your course grade and a failure to make an early and serious start could lead to a very low score.

Here are the components:

1. Topic: Please clear your topic with me prior to researching your proposal. This is mostly to be certain you do not duplicate material I will present in class. This can be done via Zoom or on a Tuesday evening when I am on campus.
2. Proposal: One-page, printed summary of topics you will cover. Must include a researched and credible list of sources you will be consulting. Deliver to me via email. Sign-ups for presentations will be in the order proposals are accepted.
3. Rough Draft: Must be substantially complete for credit.
4. Paper:
 - (a) Ten pages, single-spaced, if using sensible fonts and margins (12 point, 1 inch).
 - (b) Must include a copyright/license on the first page.
 - (c) Must be composed in $\text{T}_\text{E}_\text{X}$, $\text{L}_\text{A}_\text{T}_\text{E}_\text{X}$ or PreTeXt.
5. Presentation: 20 minutes with 5 minutes for questions. Must be composed in Beamer or PreTeXt. These are scheduled to be virtual, but that could change.

Please note:

1. All credit deadlines are at the beginning of class on the indicated date.
2. Topics, proposals and rough drafts will either be accepted for full credit or returned for a retry. Retries for credit may be submitted up until the credit deadline, so plan ahead.
3. You cannot submit work for the next stage of your project until the previous stage has been reviewed and approved. Missing a credit deadline and then failing to give me enough time for a review is not an excuse for being unable to meet the next deadline.

4. Please note the procedures and formats in the table below. Not following these instructions will not extend any credit deadlines.

Component	Percent of Course Grade	Credit Deadline	Notes
Topic	0%		Prior to researching proposal.
Proposal	4%	March 26, 11:59 PM	One-page, PDF, via email.
Rough Draft	6%	April 18, 11:59 PM	PDF, via email.
Paper	20%	April 25, 11:59 PM	PDF, via email.
Presentation	10%	Class prior to presentation	PDF or HTML, via email.

2 Amplification

Some guidelines and comments on your projects.

Proposal.

1. Due before you start researching your proposal. Since the rough draft is due April 18, submitting a proposal on April 16 indicates a lack of commitment.
2. One-page, PDF summary of topics you will cover. Must include a researched and credible list of sources you will be consulting.
3. Deliver to me via email.
4. Signups for presentation times will be in the order proposals are accepted.

Rough Draft.

1. Due at April 18, 11:59 PM.
2. Change: send me a PDF by email.
3. Must be written in \LaTeX or \TeX or \PreTeXt .
4. Pages should be numbered. Ten pages, single-spaced, if using sensible fonts and margins (12 point, 1 inch).
5. “Rough” draft must be substantially complete. I will read this version carefully and make extensive comments. If it is not complete, your score will begin at the estimated percentage of completeness.
6. Audience: your fellow students who have taken the same upper-division courses that you have.
7. *Everything* about good writing that applies in any other course, applies equally well here. No contractions, an introduction, a conclusion, etc., etc. Writing mathematics does not release you from any of this.

8. You will likely have some proofs, but you do not need to include a proof of every result you need to state.
9. Grades on rough draft will be largely about completing this stage properly.

Final Paper.

1. Due at April 25, 11:59 PM.
2. Send me a PDF by email. I will post these on the course page. You *must* include copyright and license information within the text of this paper (on title page, typically). This is required, details will be discussed in class.
3. I will be considering if you have taught yourself something new, and synthesized information and approaches from a variety of sources. Grades will be determined by evidence of substantial self-study and effective communication of your chosen topic. I will not be making extensive corrections on this version.

Presentation.

1. Must be created using the Beamer package for L^AT_EX or as a PreTeXt slideshow.
2. Send me a PDF (or HTML) by email before class the day before your presentation, which I will post.
3. Be sure to practice timing and the number of slides you have available. Running too short or too long will impact your grade.
4. Your presentation should look like a subset of your paper. Simple, but informative, examples are a must for a presentation.
5. Your slides should contain key phrases or formulas that would take a long time to write on the board. It should not contain long paragraphs, and you should not just read your slides.
6. Audience: a wide range of upper-division mathematics majors. Some are graduating, some just finished Math 290.
7. Plan on having half of a class session, but include time for questions within the 25 minutes.
8. Arrive to class on-time as a courtesy to the speaker.
9. Material from these sessions will be covered on the third quiz.
10. I will be considering if you have taught your audience something new and accurately represented the results of your project within the limitations of the presentation format.