

Undergraduate Mathematics Seminar Proposal Guide

A main goal for part I of this course is to develop a topic on which you can give an hour public seminar in part II of this course. To assess your progress toward this goal you will submit a written proposal. Together with its first and second drafts, this proposal is 60% of your grade.

This documents gives guidelines on what should be in the proposal. The proposal should be quite detailed. The content development needed to give the presentation should be done now, so that next semester you only need to work on the mechanics of giving a good talk.

Introduction

Explain the topic briefly. To specify the scope of what you will present on, it may be useful to list subtopics that you will include and subtopics or related topics that you will specifically exclude. Argue that this topic meets the topic guidelines on:

- The topic should be very interesting to the presenter and also interesting to the audience.

Summary of how previously studied mathematics topics are used

Relate the topic to specific material in specific courses. Argue that this topic meets the topic guidelines on:

- Non-Duplicative.
- Appropriate Level for the Audience.

Sources about the topic

Describe the sources to be used. If they are long sources, such as books, then specific sections or pages should be indicated. Argue that this topic meets the topic guidelines on:

- Appropriate Level for the Presenter.
- Appropriate Size.

Bibliography

Include full citations of the sources you are using.

Content

Present the actual content of the talk. All the main elements should be described, but some details can be deferred. For example:

- If you are going to state and prove a theorem in your talk, then state it formally here. You can write “proof to be filled in” and skip the proof if you like.
- State the examples you plan to use and their solution. You can skip the intermediate details if you like.

Organize the content in the order it will go in the talk, using sections and subsections to break it up. For each (sub)section list the number of slides or number of minutes that you expect it to take. Break into (sub)sections of no more than 3 slides or 5 minutes.

Appendix: Draft of the presentation slides

Formatting of the slides need not be polished. Elements can be missing if a placeholder is included. For example, you can put “make diagram showing...” and do the diagram later.

Zeroth Draft

Your Zeroth Draft is not graded. Bring 4 copies. We will use the following procedure:

- One person distributes copies of their proposal to the other people, who then have a couple of minutes to read it.
- That person gives a five-minute presentation on the topic and why it is a good topic.
- The others ask questions, make suggestions, etc. on the proposal and presentation. They write their comments on the proposal and return it.
- Repeat for the other people.

First Draft

The first draft of the proposal counts for 10% of your grade.

- You can omit the appendix.

Use the sectioning in the guide with additional sections as you see fit. I will mark corrections harshly, but grade leniently.

Second Draft

The second draft of the proposal counts for 20% of your grade.

I will grade this as if it was the final version, so all elements should be present and the proposal should be polished.

Final Version

The final version of the proposal counts for 30% of your grade.