
TEXTBOOK PROJECT

Your textbook project is worth 30% of your final grade, and has three major components: the weekly portfolio, your individual chapter, the team textbook.

- **Weekly Portfolio:** You will submit a weekly portfolio **every Friday by 5:00 pm**. This will be written in \LaTeX using the Portfolio Template given on our course website and submitted electronically to my email address (haencha@duq.edu) with the subject line: WeeklyPortfolio-Haensch (except replace “Haensch” with the obvious). Your portfolio will consist of the following:
 - **Narrative Summary:** A half-page narrative summary of what we’ve done this week and what it means in the context of the course. Some weeks you will be assigned additional prose reading outside of class, you should reflect on this in your weekly portfolio narrative.
 - **Glossary of Terms:** On each weekly problem set we will encounter several new vocabulary words. As a class, we will come up with satisfactory definitions for these terms. You should include the terms and definitions from each week.
 - **Proofs:** Each week you will be responsible for submitting several proofs in your weekly portfolio, I will post on the course log reminding you which proofs these should be.

You will submit a total of 11 weekly portfolios (no portfolios will be collected on 10/23 and 10/30). Late portfolios will not be accepted, but if you are having trouble meeting the deadlines, please come and see me. I am happy to work with you on a case-by-case basis.

- **Individual Chapter:** In pairs, you will be responsible for writing one chapter of the final textbook. I will assign the chapters randomly. These will also be written in \LaTeX using the Textbook Template on the course website. Individual chapters will be due electronically on **Tuesday, December 1st**, our first day back after thanksgiving.
 - **Narrative Introduction:** This narrative introduction will tell the reader what this chapter is about, highlighting key techniques and results that will appear in the chapter. Ideally, you should be able to put this together from your weekly portfolio narratives without too much difficulty. (2 points)
 - **Glossary of Terms:** Again, this will come directly from your weekly portfolios, further motivation to keep your weekly submissions up-to-date. (3 points)
 - **Theorems:** Throughout the semester we have worked with conjectures, establishing their veracity and writing proofs. In this section of the textbook you will state these corollaries and theorems and provide proofs. Again, the majority (although not all) will come from your weekly portfolio. (15 points)
 - **Examples:** To conclude each chapter, you should give a section providing at least three examples of the theorems and techniques of your chapter at work. These will look similar to the numerical examples we will encounter on our weekly problem sets, and require some sort of supporting text. (5 points)
- **Team Textbook:** Your final textbooks will be due on the last day of class, **Tuesday Dec. 8th**. You will be responsible for collating the whole thing into one textbook; I’ll help you out with \LaTeX tips and templates. The week between individual chapters and final textbook submissions will be an opportunity to edit each other’s chapters. Your final textbook will be worth 5 points.

Due Dates

To recap, here are the important due dates that you should keep in mind:

- Fridays at 5:00 pm - Weekly portfolios are due.
- Tuesday Dec. 1st, 5:00 pm - Individual chapters are due electronically.
- Tuesday Dec. 8th, 5:00 pm - Team textbooks are due electronically.

You are always welcome to submit things ahead of these deadlines to get this project finished sooner.

Grading

Your final grade on the textbook project will simply be:

$$\frac{\text{points earned}}{\text{points possible}}$$

Below are the basic guidelines that I use when grading the various sections of your weekly portfolio, individual chapter, and final textbook. So each portfolio will be worth 15-25 points depending on the number of proofs I collect. Your individual chapter will be worth roughly 60 points. The final textbook will be worth 5 points.

Narrative Summary:

Points	
2	Summary is well written and covers the relevant topics.
1	Summary is poorly written and misses important points.
0	There is no summary.

Glossary of Terms:

Points	
3	Glossary contains all terms with flawless definitions.
2	Glossary contains all terms with slightly incorrect definitions.
1	Glossary is missing terms and definitions.
0	There is no glossary of terms.

Examples:

Points	
5	Three or more relevant and interesting examples are correctly presented.
4	Three or more examples with supporting text containing minor errors.
3	Three or more examples with supporting text containing major errors.
2	Three or more examples with no supporting text.
1	Fewer than three examples with no supporting text.
0	There are no examples.

Theorems and Proofs:

Points (per proof)	
5	Proof is perfect, contains valid reasoning, and follows all guidelines for writing.
4	Proof contains valid reasoning, follows all guidelines for writing, but may contain minor errors in writing.
3	Significant mathematical progress has been made towards a proof but either the argument has major errors or it does not meet the writing guidelines.
2	Some significant mathematical progress has been made for each conjecture but there are key errors present in the mathematics or major issues with the written presentation.
1	Evidence of having at least one good idea and making an effort to write a formal proof.
0	Essentially no progress has been made towards a valid proof.

Final Textbook:

Points	
5	The PDF compiles and looks good (i.e. consistent across chapters, no typesetting errors).
1-4	The PDF compiles and looks bad.
0	The PDF does not compile.