

Instructor Information

Professor: Dr. Kirsten Stor

Office: SCI D355

Phone: (715)346-4607

Office Hours: MW 4:00-4:50, T*RF 10:00-10:50.

*Tuesday's office hour will be held in the lobby of the dorm, Suites@201 Reserve.

Email: Kirsten.Stor@uwsp.edu

Course Information

Title: Introduction to Proofs

Number/time: Math 300 Section 02, 2:00-2:50 MTWR, SCI D223

Text: *Analysis With an Introduction to Proof*, 4th edition by Steven R. Lay

Math 300 is a transition from computational to abstract mathematics. Students will learn logic, proof techniques, set theory, relations and functions, elementary properties of numbers and cardinality. Students will practice reading and writing formal mathematical proofs involving all of the above topics (sections 1-13 in the textbook).

Learning Outcomes

Course Learning Outcomes:

1. Students will be able to recognize classic methods of mathematical proof-writing. Students will be able to write correct proofs in a mathematical format.
2. Students will be able to read proofs written by someone else and identify whether they are correct. If a proof is incorrect, students will be able to explain what is incorrect.
3. Students will understand the foundational mathematical topics listed above.

This course satisfies the General Education Program's Written Communication in the Major requirement. As such, we also have the following:

GEP Written Communication in the Major Learning Outcomes

1. Apply discipline specific standards of ... written communication to compose an articulate, grammatically correct, and organized ... piece of writing ... with properly ... supported ideas ... suitable to the topic, purpose and audience.
2. Critique their own and others' writing... to provide effective and useful feedback to improve their communication.

Grading

Your grade in this course will be determined by the following weighting scheme:

Homework:	20%
Proof Critiques:	10%
Quizzes:	15%
Three Midterms:	30%
Final Exam:	25%

Your letter grade will be assigned by the following pattern:

87-89	B+	
83-86	B	
80-82	B-	etc.

Homework:

There will be weekly homework assignments, usually due on Friday at noon. I expect your work to be neatly and clearly written. You may work with others in the class on these. Finding the homework to be challenging is okay! Keep trying and come to me for hints!

Once we start writing proofs, I will ask you to typeset one proof each week (using LaTeX, which I'll help you get started with). After I hand back the assignment, you will have one week to revise/redo your typeset proof, which you may then resubmit it to be regraded (for potentially full credit).

Proof Critiques:

Each Monday we will begin class critiquing an anonymous classmate's typeset proof. I will hand out copies of the proof and ask you to write comments on the proof. We will then regroup and discuss what you found. The goal of this is to gain practice recognizing mistakes in proofs (both issues with the mathematical logic and with the actual writing, including stylistic issues regarding LaTeX), and to practice clarifying written work. You can then use what we discuss and apply it to your typeset proof for resubmission

Quizzes: We will have a short quiz each Thursday over recent material.

Midterms: There will be three in-class midterms. These will be on 10/6, 11/3 and 12/1 and will cover whatever we have done since the previous exam.

Final Exam: The final will be cumulative.

The final exam is scheduled for 10:15-12:15, Friday, Dec 16th

Class Policies

Calculators: You will not need a calculator for this course.

Late work:

I will accept homework late as follows: Up to one class day late at 80% earned credit, after that at 50% earned credit up to one week after the assignment was due. I will not accept late work after one week.

If you miss a midterm, I will allow you to make it up (before I hand the tests back to the class), but I will not offer full credit for this.

Proof rewrites:

I will not accept rewrites on proofs which were not originally submitted by the due date. Proof rewrites are due one week from the day on which I hand back the original assignment. I will not accept a rewrite after this time.

Extra Help

You are highly encouraged to stop by my office for help. My office hours are mostly there for you, as an upper level class! This can be a challenging course, so don't be shy!

I also suggest going to the MathRoom. The MathRoom doesn't technically serve students in Math 300, but many of the tutors there have taken Math 300.

Don't Cheat

The university has developed a set of expectations for the conduct of all students and instructors. This set of expectations is known as the *Rights and Responsibilities* document, and it is intended to help establish a positive living and learning environment at UWSP. It is located here: <http://www.uwsp.edu/dos/Documents/CommunityRights.pdf>. For more information see the UWSP "Student Academic Standards and Disciplinary Procedures" section of the *Rights and Responsibilities* document, Chapter 14.

Looking up a mathematical proof online, copying it down and submitting it as your own work is academic dishonesty.

Special Accommodations

The Americans with Disabilities Act (ADA) is a federal law requiring educational institutions to provide reasonable accommodations for students with disabilities. If you have a disability and require classroom and/or exam accommodations, please register with the Disability and Assistive Technology Center (on the 6th floor of the Learning Resource Center) and then contact me at the beginning of the course. Without documentation I cannot give you accommodations. For more information, refer to their webpage here: <http://www.uwsp.edu/disability/>

