

Elementary Real Analysis, Math 315

Professor: Shabnam Akhtari
Office: 320 Fenton Hall
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Office Hours:

Classroom: 251 STB
Class time: MTWF 9:00-9:50
Prereq: MATH 253 or equivalent; one from MATH 232, 262, 307.

Text. Understanding Analysis, by Stephen Abbott.

Exams. There will be two reading assignments, one midterm and a final exam.

Reading Assignment 1, due in the beginning of class on Tuesday, 4 Oct.

Midterm Exam will take place in the class on Tuesday, 1 Nov.

Reading Assignment 2, due in the beginning of class on Tuesday, 8 Nov.

Final Exam will take place in Dec.

▷ Bring your UO student-ID to all your exams.

▷ The use of cellular phones, or any type of headset during tests is strictly forbidden.

Problem Sets. There will be weekly homework assignments. The assignments will be collected every WEDNESDAY in the BEGINNING of class. Homework problems will be posted on *CANVAS* weekly. Late assignments will NOT be accepted.

Grades. Homework: 20%

Midterm : 30%

Reading Assignments :10%

Final Exam: 40 %

Course Objectives.

Math 315 is the theoretical version of single-variable calculus. Certain topics introduced in calculus, including continuity, differentiation and integration, power series, sequences and series, uniform convergence and continuity, will be treated rigorously.

Learning Outcome.

Students will learn the content and techniques of real analysis, so that they can solve new problems and write proofs for important theorems. Students should be able to demonstrate an understanding of the nature of mathematical proof. They will learn to read and write proofs. Students should be able to communicate their knowledge and ideas effectively through mathematical writing skills.

Further Remarks.

- Students should expect to spend at least 10 hours per week outside of lecture working on this course.

- Reading the textbook is very important.

- Doing the homework assignments well is the best way to prepare for the exams.

- Students are encouraged to ask questions in the class and during the office hours. Always remember that if you are lost you can be sure that others will appreciate your question too! In order to ask questions effectively, make note to yourself as you review lecture notes, as you study the text and as you work on homework.

General policies.

- In the midterm and the final, you must bring photo ID!
- I do not accept late homework.
- I will usually devote our Tuesday classes to going over the homework that is due the following day.
- Homework will be graded by the grader (though usually only a subset of the questions set will be graded) and I will grade the midterms, and the final.
- If you miss a class, it is your responsibility to find out what happened in that class.

Students with disabilities.

I am committed to an inclusive learning environment. If there are any disability-related barriers to your participation or performance in the course, please contact the Accessible Education Center to discuss appropriate accommodations. I will work closely with the center to make my course accessible to all students.