

MATH 215
SINGLE VARIABLE ANALYSIS WITH AN INTRODUCTION TO PROOFS
SPRING 2022

Instructor. Eden Prywes

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Office Hours. Fine 310, Tuesdays 1:30 PM - 2:30 PM and Thursdays 10:00 AM - 11:00 AM, or by appointment.

Classroom. Fine Hall 314.

Time. Tuesdays and Thursdays 11:00 AM - 12:20 PM.

Precept. Fridays 11:00 AM-11:50 AM in Jadwin Hall A08.

Teaching Assistants. Jia Shi and Akashdeep Dey, office hours Wednesdays 4:30 PM - 5:30 PM on Zoom: <https://princeton.zoom.us/j/91023975898>.

Undergraduate Course Assistants. Alexander McDonald, Kyrie McIntosh and Ollie Thakar, Fine 601, Tuesdays and Wednesdays 7:00 PM - 9:00 PM.

Course Webpage. <https://math.princeton.edu/~eprywes/S22Mat215/>

Text. *Abbot, Understanding Analysis, 2nd-edition* and *Rudin, Principles of Mathematical Analysis, 3rd-edition*.

Course Description. The course focuses on the theory of differentiation and integration for functions of one real variable. It also serves as a first time introduction to understanding and writing mathematical proofs. The first part of the course will cover an introduction to set theory and the real numbers. The second part will cover the topology of the real numbers. The third and final part of the course will go through differentiation and integration of functions.

[Registrar description](#)

[Department description](#)

Outline. Chapters 1-7 in Abbot.

Assignments. There will be weekly problem sets due on Thursday at 5 PM over Gradescope. You may not consult other sources besides the texts. You may work with other students on the problem sets but you must write up your own solutions. Late assignments will not be accepted. The lowest scored problem set will be dropped.

Midterm Exam. The midterm exam will be in class on Thursday, March 3rd.

Final Exam. The final exam date and location will be set by the course registrar.

Grading.

- Assignments - 40%
- Midterm Exam - 20%
- Final Exam - 40%