

COURSE SYLLABUS FOR MATH 112: INTRODUCTORY REAL ANALYSIS

COURSE DESCRIPTION A rigorous treatment of differentiation, integration, and other concepts of calculus.

MEETING TIME AND PLACE Science Center 221.

OFFICE HOURS AND PLACE Tuesday 3-4, Science Center 514.

TEXT Walter Rudin's "Principles of Mathematical Analysis."

COURSE WEBSITE <http://www.math.harvard.edu/~lurie/112.html>

COURSE ASSISTANT Akhil Mathew (amathew@college.harvard.edu).

PREREQUISITES Math 21a,b. Either an ability to write proofs or concurrent enrollment in Mathematics 101.

TOPICS • Metric spaces.

- Limits and continuity.
- Infinite sequences and infinite series.
- Real and complex numbers.
- Differentiation and integration.

GRADING Grades will be based on homework ($\frac{1}{2}$), an in-class midterm given on February 23 ($\frac{1}{4}$), and a final exam ($\frac{1}{4}$). Homework will be assigned on Tuesday every week (starting in the second week) and will be due on Tuesday of the following week.