

608. Analysis I. (Fall 2020)

Instructor: Ryan Hynd (rhynd@math.upenn.edu)

Office Hours: 4:00-5:30 Tuesdays, 4:30-6:00 Wednesdays

Office zoom room: <https://upenn.zoom.us/j/6821862203> (Links to an external site.)

Grader: Kaitian Jin (kaitian@sas.upenn.edu)

Lectures: Tuesdays and Thursdays 1:30 – 2:50pm EST

Description: This is the first of a two-course graduate sequence in complex, real, and functional analysis. This semester, we will cover topics in complex analysis (Cauchy's theorem, meromorphic functions, singularities, entire functions, conformal mappings) and real analysis (measure theory, integration).

Zoom: This course will be completely online. The zoom link we'll use for all of our class meetings is

<https://sasupenn.zoom.us/j/91973605691?pwd=eUZWL0xBUTRHaFRsaEZST3RXRnVOdz09> (Links to an external site.)

and the passcode is 084502. I will also record each class session to the cloud.

Prerequisites: Math 508, 509, and 510 or their equivalents.

Required Textbooks: Complex Analysis by Stein and Shakarchi, Real Analysis: Modern Techniques and Their Applications by Gerald Folland.

Grading: 54% Homework, 15% first exam, 15% second exam, 15% third exam, 1% participation.

Homework: 10 HW assignments consisting of problems from the textbooks. Your HW percentage grade will be "curved" by multiplying it 60/54 and taking the maximum of that number with 1; in a sense, this simulates dropping your lowest grade while not giving preference to any particular assignment.

HW policy: HW will be due on Thursdays and each assignment must be typed and submitted online to the grader. Please do not make a habit of turning in HW late. You may collaborate on HW, but you must write your own solutions.

Exams: There will be three in class exams. See the list of important dates below and please mark your calendars. There will be no makeup exams. If you miss a test for an appropriate reason, your other two exams will be weighted accordingly. If you miss two exams, you will receive an incomplete.

Important dates:

Sept 1 first day of class

Sept 7 Labor Day holiday

Oct 1 exam 1

Nov 5 exam 2

Nov 26 Thanksgiving Day holiday

Dec 10 exam 3 (and last day of class)