

Math 220B - Complex Analysis

Instructor: Dragos Oprea, doprea at you-know-where dot edu, APM 6-101.

Webpage: <http://math.ucsd.edu/~doprea/220w24.html>.

Lectures: MW 11:00 – 12:20, APM B-412.

Office Hours: M 3:30- 5:00, APM 6-101 or by appointment.

Goals: This is the second in a three-sequence graduate course on complex analysis. Math 220AB and part of Math 220C cover material needed for the Qualifying Exam.

In Math 220B, we will discuss sequences, series and products of holomorphic functions, normal families, Schwarz lemma and applications, Riemann mapping theorem, Weierstrass factorization, Mittag-Leffler theorem, and time permitting, Runge's theorem.

Textbook: Functions of One Complex Variable, by J. B. Conway. In Math 220A, we will cover material corresponding to parts of Conway VI, VII, VIII.

Additional Reading: Complex Analysis, by Lars Ahlfors.

Grade Breakdown: The final grade is based on homework (30%), midterm (30%) and final exam (40%).

Homework: The problem sets are mandatory and are a very important part of the course.

The problem sets are due on Tuesday at 5pm. There will be a 24 hr grace period, but no other extensions can be given. The solutions are to be uploaded on **Gradescope**.

Working with your peers is acceptable, but solutions must be written independently.

Exams: There will be a Midterm on Monday, February 12 (in class), as well as a Final Exam on Monday, March 18, 11:30 – 2:30PM (in class). The exams are closed-book.

Prerequisites: Math 220A. However, this is a graduate level course, so at times, we may use notions from related fields, including topology and real analysis. I am happy to discuss prerequisites on an individual basis. If you are unsure, please don't hesitate to contact me.

Academic Integrity: All students are expected to conduct themselves with academic integrity. Violations of academic integrity will be treated seriously.