

Mathematics 113 - Spring 2005

Complex Analysis

Time and Place: MWF 12–1, Science Center 310.

Instructor: Mihnea Popa.

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Office hours: Mon, Tue 1-2.

Textbook: *Complex Analysis* by Theodore Gamelin.

Course description. The main topics covered in this course are: analytic functions of one complex variable, power series expansions, contour integrals, Cauchy's theorem, Laurent series and the residue theorem, applications to real analysis (including the evaluation of indefinite integrals), conformal mappings, special functions.

Course assistant.

TBA

Office hours. For basic math questions, you should normally attend the office hours held by the course assistant, which will be held weekly. The times for these will be communicated soon. My office hours are intended for more difficult questions, for administrative issues, and for directing you towards reading further topics if interested. Please try to observe this gradation.

Sections. You should all attend the weekly problem session held by the course assistant. The exact time and location of the session will be arranged in class.

Homework. Weekly homework assignments will be handed out each Friday, and they are due the following Friday. Homeworks may be turned in to the course mailbox outside the math office at 325 Science Center any time before 5 PM on Friday. They will be returned hopefully by the end of the following week. Late homework will be accepted only in exceptional circumstances and with prior approval. The lowest score will be dropped at the end of the semester.

Exams and Grading. We will have one midterm on (around March 15 – we'll decide the precise date soon), during regular class hours. The final exam will be held on Friday, May 20 (time and place to be announced).

Final Grade. Your final grade will be based on your performance on homework (30%), midterm (30%) and final exam (40%). If your final exam score is much higher than the midterms, I may assign more weight to it when determining your grade. However, a good final exam score will not make up for missing homeworks.

Collaboration. You are strongly encouraged to discuss homework problems with your fellow students or ask for reasonable hints from the course assistants. However, you have to write up your solutions by yourselves. Collaborating on exams is not permitted.

Supplementary book: *Visual Complex Analysis* by T. Needham (Oxford).