

Math 108c
Introduction to Complex Analysis
Spring 2006
Course Information

Instructor: Malabika Pramanik

Office: 360 Sloan Hall

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Lectures: MWF 11:00 a.m. to 11:55 a.m. in Room 159 Sloan Hall.

Office hours: MW 2 - 3 p.m. (starting April 12) or by appointment.

Course webpage: <http://www.its.caltech.edu/~malabika/teaching/108c-spring2006/index.html>

TA-s : Anna Maltsev and Dmitry Pavlov

Office : 155 Sloan (Anna), 158 Sloan (Dmitry)

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Office hours : Sunday 7-8 pm (Dmitry).

Course Description: Math 108c is the last of the three courses in the 108 sequence and serves as an introduction to standard one-variable complex analysis. Topics to be covered include : Complex numbers, Analytic functions, Cauchy-Riemann equations, Cauchy's theorem, Cauchy's integral formula, Liouville's theorem, Residue theorem, Argument principle, Conformal mappings and other topics.

Prerequisite: Ma108b or equivalent.

Required text: *Complex Analysis*, by Elias M. Stein and Rami Shakarchi, Princeton University Press, 2003. ISBN: 0-691-11385-8.

Recommended texts :

- *Functions of one complex variable*, by J. B. Conway.
 - *Complex Analysis*, by L. Ahlfors.
 - *Function Theory of one complex variable*, by S. Krantz and R. Greene.
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Grading policy: The final grade will be based on a weighted sum of your scores in the homework and exams. The weightage is as follows: Homework 50%, midterm 20%, final 30%.

Homework: Homework will be due by 5:00 pm Wednesday of every week starting the second week of classes. Homework assignments will be posted regularly on the Math 110c homepage. You are encouraged to discuss homework problems among yourselves. But the write-ups you hand in should be entirely your own. Late homework will not be accepted without prior consent of the instructor.

Exams: All exams will be take-home. You are asked to work on the exam questions on your own, and not discuss them with your peers, classmates or friends. Late submissions will not be accepted without well-documented explanations.