# Math 7350, Section 1
# Complex Analysis

**Textbook:** *Theory of One Complex Variable (3rd Edition)* by Robert E. Green and Steven G. Krantz. AMS Publication, 2006.
**Time and Location:** 9:10-10:30, Tuesday and Thursday in Lockett 235.
**Instructor:** Gestur Olafsson
**Office:** 322 Lockett
**Office Hours:** Tuesday and Thursday 10:40 –11:30. You can also contact me by e-mail, olafsson@math.lsu.edu, or in class for other appointments.
**Phone:** 225-578-1608
**e-mail**: olafsson@math.lsu.edu **or** olafsson@lsu.edu
**web-page:** www.math.lsu.edu/∼olafsson. This syllabus, list of problems, test dates, and solutions to tests will be available on this web-page.

## SYLLABUS

This is a first rigorous course in the theory of functions of one complex variable. We will cover material from Chapter 1 to Chapter 6 and selected topics from the other Chapters (in particular 7, 10, and 14) depending on time. The main topics are:

(1) The complex numbers.
(2) Holomorphic and complex differentiable functions.
(3) Line integrals.
(4) The Cauchy integral.
(5) Power series.
(6) Singularities of meromorphic functions and applications to evaluation of real integrals.

The book emphasize connections with multidimensional calculus. We will in most cases follow the text. But some topics will be presented differently. It is therefore important that you show up in class.

## Homework, Tests, and Grades

Problems from the text will be assigned regularly. Forty per cent of your grade will be based on the homework. Will will assign several problems from each section. You do not have to solve all of them. We will state clearly each time how many of the problems have to be turned in (in most cases three). There will be an in-class midterm (20%) and an in-class final (40%).

## Important dates

- Monday, January 21: Martin Luther King Day.
- Monday, Tuesday, and Wednesday, February 4-6, Mardi Gras.
- Tuesday, March 4, Midterm exam.
- The week 17-23, Spring Break.
- Monday, May 5, 3:00-5:00 PM final exam.