

Complex Analysis

UBC MATH 440 & 508

Winter 2015, Term 1

Instructor: Dr. Michael Lamoureux

Office: EOS 4136 (PIMS Offices)

Phone: 604-822-0406

Email: mikel@pims.math.ca

Office hours: Wednesdays 12:00-1:00 in LSK 300B

Webpage: www.math.ubc.ca/~mikel/Math440.html

Text: *Complex Analysis* by E. Stein and R. Shakarchi. The textbook is available at the UBC Bookstore, at Amazon, or online at the UBC library.

Prerequisite: MATH 300 or equivalent and a score of 68% or higher in MATH 320.

Course outline: The UBC course description states the topics covered will include:

- The residue theorem
- The argument principle
- Conformal mapping
- The maximum modulus principle
- Harmonic functions
- Representation of functions by integrals, series, and products
- Other topics at the discretion of the instructor.

From the text, we will review Chapter 2, then cover in depth Chapters 3, 5 and 8. Time permitting, additional topics may be covered. Chapter 1 contains material that the student would have mastered in the prerequisite courses.

Lectures: MWF 11:00-12:00 in the Mathematics Building, Room 105.

Grading Policy: Homework problems will be assigned regularly, distributed in class and posted on the course website. There will be an in-class midterm and a take-home final examination. The final grade will be based on a weighted average of the homework, midterm, and final exam marks, as follows:

Homework	40%
Midterm	20%
Final exam	40%