MATH 440/508: Complex Analysis
(3 credits)

Instructor: Mathav Murugan
Lectures: MWF 9-10 on Zoom. Please see Canvas homepage for Zoom login information.
Office hours: Monday 10-11, Wed 12-1 or by appointment on Zoom
Course webpage: Canvas
Text: Complex Analysis by Elias Stein and Rami Shakarchi. The textbook is available online at UBC Library.
Prerequisite: Math 300 (or equivalent) and a score of 68% or higher in Math 320.
Outline. The UBC course description is as follows:

• 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 (Possible options here are the geometric properties of conformal mappings, Prime number theorem and Riemann zeta function).

Chapter 1, 2, 3 and 8 of the textbook will be relevant for this course.

References: Functions of One Complex Variable (I and II) by John Conway, Complex Analysis by Theodore W. Gamelin
Evaluation: Homework will be assigned approximately once every two weeks for 60% of the grade. Late submissions will not be accepted.
The final exam will be worth 40% of the grade.
The final will be invigilated via Zoom and it is absolutely necessary for every student to have a webcam. If a student does not have a webcam in their computer, they will not be able to complete the course.
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