MATH 644: Analytic Function Theory, Spring 2025

TR 1:30 - 2:45 pm

(KELL 313)

This syllabus contains the policies and expectations that the instructor has established for this course. Please read the entire syllabus carefully before continuing in this course. These policies and expectations are intended to create a productive learning atmosphere for all students. Unless you are prepared to abide by these policies and expectations, you risk losing the opportunity to participate further in the course.

Instructor: Dr. Malik Younsi (myounsi@math.hawaii.edu) Office: Physical Science Building (PSB) 321

Office Hours: Tuesdays 12:30 - 1:20 pm, Thursdays 12:30 - 1:20 pm, and by email appointment.

Course Description

This is an introductory Complex Analysis course at the graduate level. Topics to be covered include analytic functions and their main properties, complex integration, Cauchy's theorem and topological aspects, meromorphic functions and residues, Möbius transformations and conformal maps, normal families and the Riemann mapping theorem. Additional topics will be covered if time permits.

Holidays and Breaks

• March 17 - 21 : no classes (Spring Recess)

Exam Dates

- Midterm Exam 1 : Tuesday, February 25, 1:30 2:45 pm.
- Midterm Exam 2 : Tuesday, April 8, 1:30 2:45 pm.
- Final Exam : Thursday, May 15, 12:00 2:00pm.

Required Resources

- Course Webpage: http://www.math.hawaii.edu/~myounsi/teaching/math644/
- Lecture Notes: Attend lectures regularly and take your own notes.
- **Textbook:** The main references for the course will be Saeed Zakeri's textbook *A course in complex analysis.*

About Attendance

Attendance is highly encouraged. Lectures may include material not in the textbook! The lectures may also present material in a different order than in the textbook.

Graded Components

- Homework 30% of course average There will homework assignments posted on the course webpage.
- Midterm Exams 40% of course average There will be two closed book midterm exams in class. The exams will be 75 minutes long and will be given at lecture.
- Final Exam 30% of course average There will be one closed book cumulative final exam as scheduled by the university on Thursday, May 15, 12:00 - 2:00pm.

Your *course average* will be determined by a weighted average of the graded components above. Your *final grade* for the class will be based on your course average *and* on your participation.

Late Homework Policy

Syllabus

A student's homework assignment shall be considered late if it is not turned in to the instructor by the end of lecture on the due date. Late homework assignments will not be accepted.

Disability Support Services

Any student who feels he or she may need an accommodation based on the impact of a disability is invited to contact me privately. I would be happy to work with you and the KOKUA Program (Office for Students with Disabilities) to ensure reasonable accommodations in my course. KOKUA can be reached at (808) 956-7511 or (808) 956-7612 (voice/text) in room 013 of the Queen Lili'uokalani Center for Student Services.

Academic Integrity

Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty are required to report any suspected instance of academic dishonesty to the Academic Judiciary.

Counseling

The Counseling and Student Development Center (CSDC) provides support to UH Manoa students to assist with personal, academic and career concerns.

See http://manoa.hawaii.edu/counseling/ for more information.