

MATH 6379

Functions of a Complex Variable

Spring 2018
MW 12:30-1:50
LDB 205

Instructor:

Dr. Edward W. Swim

Office: LDB 432

Office Hours: TuTh 1:00-2:30 or by appointment.

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Prerequisites: *MATH 2440, equivalent, or consent of the instructor.*

Course Objective: To develop an understanding of and a facility for applying the fundamental tools of mathematical analysis in the setting of the complex plane.

About the Course: This course will explore the complex plane and develop analytical tools for investigating functions of a complex variable, including limits, continuity, differentiation and integration. We will follow a strict *inquiry-based* approach to learning these methods.

Text: None. The only resources you are authorized to use to assist you in the completion of assignments are the handouts and notes from class, your textbooks from undergraduate or graduate courses in real analysis and algebra, any standard calculus textbook, and a partner from class that is assigned by your instructor. You are not authorized the use of any online materials, any other mathematical texts, or discussions with anyone other than your assigned partner.

Exams: We will have one midterm exam (*tentatively scheduled for March 7th*) and a comprehensive final exam. The midterm will be weighted as 20% of your overall score and the final exam will be weighted as 30%.

Homework: Homework problems will be embedded within each handout from class. Most of our class time will be devoted to student presentations of solutions, where presenters are chosen based on a quasi-random order. Once a student's solution has been accepted by the class, the student is then required to submit a copy of the solution in LaTeX. My evaluation of this class participation and your typed solutions will total 50% of your overall score.

Notes:

- *Academic Honesty* – The University expects all students to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain complete honesty and integrity in the academic experiences both in and out of the classroom. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action.
- *Disability Issues* – It is the policy of Sam Houston State University that no otherwise qualified individuals shall, solely by reason of their disability, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any academic program of the university. Students with a disability that affects their academic performance are expected to arrange for a conference with the instructor in order that appropriate strategies can be considered to ensure that participation and achievement opportunities are not impaired.
- *Religious Holy Days* – Students are excused from attending classes or other required activities, including examinations, for the observance of a religious holy day, including travel for that purpose. As a courtesy, it is appreciated if you notify me in advance and in writing of the dates and times that are to be missed so that appropriate arrangements can be made regarding homework and/or exams.
- *Classroom Etiquette* - Students will refrain from behavior in the classroom that intentionally or unintentionally disrupts the learning process and, thus, impedes the mission of the university. Cellular telephones and similar devices must be turned off before class begins. Students are prohibited from eating in class, using tobacco products, making offensive remarks, sleeping, talking at inappropriate times, wearing inappropriate clothing, or engaging in any other form of distraction. Inappropriate behavior in the classroom shall result in a directive to leave class. Students who are especially disruptive also may be reported to the Dean of Students for disciplinary action in accordance with university policy.
- *Visitors in the Classroom* – Unannounced visitors to class must present a current, official SHSU identification card to be permitted in the classroom. They must not present a disruption to the class by their attendance.