

MATH 5680: Advanced Complex Analysis

Spring 2023

Instructor: Tony Shaheen

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Office Hours: to be announced in class.

Course Website: Follow the link from <http://www.calstatela.edu/research/ashahee/>

Lectures: Monday and Wednesday, 4:30 pm—5:45pm in SH 338.

Optional Textbook: There is no required textbook for the course. If you would like to get a textbook, two that I recommend are (1) Basic Complex Analysis by Marsden and Hoffman, and (2) Complex Variables and Applications by Brown and Churchill. I especially recommend the Marsden/Hoffman book.

Prerequisite: Math 4680.

Description: Sequences, series, power series, Laurent series, singularities of functions, residues, residue theorem, applications of the residue theorem to integrals and series, and other topics in complex analysis.

Student learning outcomes: The student should be familiar with the mathematical objects covered in the course. The student should be able to state definitions, make computations, and prove theorems about the objects in the course.

Grading: Your grade will be based on two tests and a cumulative final. Each exam will be worth 1/3 of your grade.

Homework: Homework will be assigned, but not collected. The homework problems and solutions will be posted on the course website.

Exams: There are two tests and a final. The below dates are tentative. The final time/day is scheduled by the school and it may change.

Test 1: Monday, March 13.

Test 2: Monday, April 24.

Tentative Final Date: Wednesday, May 17, 2:30 pm—4:30 pm.

ADA statement: Reasonable accommodation will be provided to any student who is registered with the Office of Students with Disabilities and requests needed accommodation. All tests will be taken at home this semester. If you get time and a half or double time with OSD, then you will be allowed to use the same amount of time as with OSD for your exams at home.

Academic honesty statement: Students are expected to do their own work. Copying the work of others, cheating on exams, and similar violations will be reported to the University Discipline Officer,

who has the authority to take disciplinary actions against students who violate the standards of academic honesty.

Student responsibilities: Students are responsible for being aware of all announcements that are made in class, such as changes in exam dates, due dates of homework and papers, and cancellation of class due to instructor's absence. Students are responsible for announcements made on days that they are absent.

Students must check their CSULA email account regularly for information from the instructor and the Department. Failure to do so may result in missed deadlines or other consequences that might adversely affect students. Note that you can forward this email account to any other account of your choosing.