

MATH 520, COMPLEX ANALYSIS

Section 39734, Spring 2026

Instructor:	Igor Kukavica	Time:	MWF 11:00–11:50am
Email:	kukavica@usc.edu	Place:	KAP 159

Office Hours: TBA

Class Website: <http://ikukavica.dreamhosters.com/520>

Textbook: Lars V. Ahlfors: Complex Analysis, Third Edition

Other good books in the subject:

John B. Conway: Functions of One Complex Variable, Second Edition

TA: TBA

Objectives and a Tentative Course Outline: The list of topics (this is a rough outline - minor variations are possible):

Theory of analytic functions: power series and integral representations, calculus of residues, harmonic functions, normal families, approximation theorems, conformal mapping, analytical continuation, factorization theorem, Riemann mapping theorem

Prerequisites: Math 425b

Grading Policy: Homework 60%, Exams 40%

Dates: Exams: Exam #1 In February, date TBA (in class); Exam #2 in March, date TBA (in class).

Class Policy: Regular attendance is essential.

- During every lecture, dedicate to it your full attention. Do not double-task! We will start and finish on time.
- Students are responsible for all the material covered and all announcements made in class. You will also be expected to be familiar with all the material in the corresponding sections of the textbook
- I strongly recommend taking notes
- You must register for the class to attend, except during the first week of classes

Statement for Students with Disabilities: USC welcomes students with disabilities into all of the University's educational programs. The Office of Student Accessibility Services (OSAS) is responsible for the determination of appropriate accommodations based on documented disability. Students requesting accommodations must register with OSAS each semester. A full list of services is available at osas.usc.edu. Contact OSAS by phone (213-740-0776) or email (osasfrontdesk@usc.edu).

If you are already registered, please provide me with your faculty notification letter as early as possible so that we can discuss your accommodations.

Statement on Academic Integrity: Plagiarism—the presentation of someone else's ideas as your own, whether intentional or accidental—is a serious academic offense with serious consequences. Other forms of academic misconduct include, but are not limited to: cheating on an exam, collaborating when not permitted, fabricating data, or submitting the same work for credit in multiple courses without permission.

The University's Student Handbook and SCampus (scampus.usc.edu) provide the university's policies and procedures for handling violations of academic integrity (§ 11.00). All cases of suspected academic dishonesty will be referred to the Office of Academic Integrity.

Disclaimer: It may be necessary to make some adjustments in the syllabus during the semester.