

Syllabus For Math 403/503

Spring, 2021 at Rutgers University-Camden

COURSE TITLE: Complex Variables

TEXT: Basic Complex Analysis (Third Edition), by Jerrold E. Marsden and Michael J. Hoffman, published by W. H. Freeman and Company, 1999.

COURSE DESCRIPTION: This is a three-credit introductory course of complex analysis for undergraduate and graduate students in mathematics and physical sciences. The prerequisite for the course is a solid knowledge of calculus (Unified Calculus I-III). Topics include the algebra and geometry of complex numbers, functions of one complex variable, elementary functions, limits, continuity, differentiation, the Cauchy theorem, the Cauchy integral formula, power series, residue theory, conformal maps, and applications to integration theory and boundary value problems. We will cover materials in Chapters I-VI of the textbook. Our emphasis is a combination of theoretical understanding of the materials and the ability to solve concrete problems.

REMOTE INSTRUCTION PLAN: Remote instruction will be conducted synchronously with Canvas and Zoom serve as the primary platform for instruction and communication. Lectures will be recorded and posted on Canvas along with other relevant course materials so that students can also study these materials asynchronously.

Students are expected to have access to: (1) high speed internet; (2) a laptop, a desktop computer, an iPad, or a tablet; together with a built-in microphone and camera or a separate webcam and a mic; (3) a scanner, or a phone camera with an app for producing PDF documents.

Students are encouraged to study the course materials before classes. Live lectures will be presented during the regular class hours using Zoom through Canvas. Students are required to make an effort to participate in these live remote-lectures. They can ask questions during the lectures using texts and/or microphones. Office hours will also be conducted using Zoom through Canvas. If for some reasons a student cannot participate in a live lecture, the student should promptly study the recorded lecture on the course Canvas site.

COURSE INFORMATION:

- Instructor: Siqu Fu
- Office: BSB 426
- Office hours: MW 2:00 pm–3:00 pm on Zoom or by appointments
- Phone: 856 225-2349.
- E-mail: sfu@camden.rutgers.edu
- Web page: <http://people.camden.rutgers.edu/sfu/>
- Lectures: MW 12:30 pm-1:50 pm

ASSESSMENT: Homework will be assigned and collected regularly. Students are asked to submit their work through Canvas. There will be two midterm tests, taking place on Mondays, March 8 and April 12. The final exam will be on Monday, May 10, 11:30 am-2:20 pm as specified in the campus-wide final exam schedule. Tests will be open book. Students will be given additional time than usual to complete the test, scan their work into a PDF file, and submit the file through Canvas. However, you must complete the tests independently with no helps from other people or web sources except the textbook, your notes, and course Canvas site.

Grades will be assigned based on students' performance in the homework assignments, mid-term tests, and the final exam. Your course grade will be determined according to the following weights:

- Homework/Attendance: 20%
- Test I (March 8): 20%
- Test II (April 12): 25%
- Final (May 10): 35%

ATTENDANCE POLICY: Attendance is expected for every class period with exception for illness, court appearance, and other legitimate emergency. See the Rutgers University attendance policy at <http://policies.rutgers.edu/1027-currentpdf>.

ACADEMIC INTEGRITY: All Rutgers students are expected to be familiar with and abide by the academic integrity policy:
<https://policies.rutgers.edu/sites/default/files/10.2.13%20-%20current.pdf>.
Violations of the policy are taken very seriously.

UNIVERSITY DISABILITY STATEMENT: Rutgers University welcomes students with disabilities into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation:

<https://ods.rutgers.edu/students/documentation-guidelines>.

If the documentation supports your request for reasonable accommodations, your campus disability services office will provide you with a Letter of Accommodations. Please share this letter with your instructors and discuss the accommodations with them as early in your courses as possible. To begin this process, please complete the Registration form at: <https://webapps.rutgers.edu/student-ods/forms/registration>.