Instructor: Slobodan Simić  
Office: 318A MacQuarrie Hall  
Phone: (408) 924-7485  
Email: simic@math.sjsu.edu or slobodan.simic@sjsu.edu  
Web: http://www.math.sjsu.edu/~simic/Fall13/Math238/238.html

Office hours: In person: M 10:30-12:00, W 10:30-11:30 + 2:45-3:15, and by appointment. Online: every day on Piazza


Prerequisite: Math 138 (with a grade of "C−" or better) or instructor consent

Homework: There will be regular homework assignments mostly based on the textbook. I will grade three problems from each set but will provide solutions to most problems.

Exams: None.

Class paper: Each student will be required to write a short survey/expository paper on a topic of his or her choice related to the course. Papers need to be typeset in L\LaTeX.  

Grading policy: Homework 50%, paper 50%

Course outline: See the course web page for a detailed class syllabus.

Course objectives: The main goal of the course is for students to acquire solid understanding of the basic results and techniques of complex analysis. More specifically, a student should be able to:

• Define the notion of a holomorphic function and give basic examples.  
• State and prove fundamental elementary results on holomorphic functions such as Cauchy’s theorem, Liouville’s theorem, the Maximum Modulus Principle, the Residue theorem, Rouché’s theorem, and the Open Mapping Theorem.  
• Define the notion of the winding number and explain its relation to logarithms.  
• Define the notion of a conformal mapping and give some examples.  
• Define the notion of a meromorphic function.  
• Define the notion of the linear fractional transformation and state its basic properties.  
• State and prove the Schwarz lemma.  
• State the Riemann Mapping Theorem and give an idea of its proof.
• State Carathéodory’s theorem as it relates to the Riemann Mapping Theorem.
• Define the notion of a harmonic function and give basic examples.
• State the basic properties of harmonic functions.
• State the Dirichlet problem and give an idea of its proof for the unit disc.
• State the Schwarz Reflection Principle and Harnack’s theorem.
• Define the notion of analytic continuation.
• State the Picard theorems and give an idea of their proof.
• State the Uniformization Theorem.

Participation: During class please feel free to stop me at any time and ask questions. I encourage and greatly appreciate students’ participation.

Feedback: I appreciate constructive feedback which you can give me via the anonymous feedback form on the class web page, by email, or in person.

Academic integrity: From the Office of Student Conduct and Ethical Development: Your own commitment to learning, as evidenced by your enrollment at San José State University, and the University's Academic Integrity Policy, require you to be honest in all your academic course work. Faculty are required to report all infractions to the Office of Student Conduct and Ethical Development. The policy on academic integrity can be found at http://sa.sjsu.edu/student_conduct.

Campus policy in compliance with the Americans with Disabilities Act: If you need course adaptations or accommodations because of a disability, or if you need special arrangements in case the building must be evacuated, please make an appointment with your instructors as soon as possible, or see them during office hours. Presidential Directive 97-03 requires that students with disabilities register with DRC to establish a record of their disability.

Class attendance: According to University policy F69-24, Students should attend all meetings of their classes, not only because they are responsible for material discussed therein, but because active participation is frequently essential to insure maximum benefit for all members of the class. Attendance per se shall not be used as a criterion for grading.

For more details, see the course web page.