MATH 630 – Introduction to Complex Analysis

Lectures MWF 3:30-4:20 pm, Willard 122

**General information**
Instructor Dr. Anna Zemlyanova
Office Cardwell 237
Office hours M 1:30-2:20pm, F 2:30-3:20pm and by appointment.
E-mail azem@k-state.edu
Course Web-page https://www.math.ksu.edu/~azem

**MATERIAL AND STRUCTURE:** This course is an introduction to the theory of functions of a complex variable with basic techniques and some applications. Topics include complex numbers and the extended complex plane, elementary functions of a complex variable, differentiation, the Cauchy-Riemann equations, simple conformal mappings, contour integration, Cauchy theorem, Cauchy integral formula, Taylor and Laurent series, and residue theory. We will look at some applications in fluid mechanics and electrostatics. Students are expected to regularly attend lectures, which will be used to explain new material, to work out examples, and to answer questions. They are strongly urged to read the material in advance and to begin the homework assignments early. Interaction and participation in class are expected, and attendance to office hours is very welcome.


**CALCULATOR POLICY:** Basic scientific calculator can be used during exams. No other electronic equipment will be allowed.

**HOMEWORK ASSIGNMENTS:** There will be weekly homework assignments due each Friday in class. Please staple all the sheets and put the assignment number and your name on the front page. Write the statement of each problem and explain all your steps.

**NO LATE HOMEWORK WILL BE ACCEPTED.**

**MIDTERM EXAMS:** There will be two in-class tests during the semester and a final exam during the final exams week. Tentative dates for the in-class tests are September 29th (Monday) and November 3d (Monday). The dates of the tests may be changed by the instructor. All the changes will be announced in class.

**FINAL EXAM:** The final exam is scheduled on December 15th (Monday), 4:10 – 6:00 PM, Willard 122.

**ALL ASSIGNMENTS ARE CONSIDERED INDIVIDUAL. WORK IN GROUPS IS NOT PERMITTED IN THIS CLASS.**
GRADES: Homework average is worth 30%, in-class tests 40% (20% each), final exam 30%. Your final grade will be assigned as follows: 90 to 100% correspond to an A, 80 to 89.99% correspond to a B, 70 to 79.99% correspond to a C, 60 to 69.99% correspond to a D, and less than 60% correspond to an F.

MAKE UP WORK: Make-up work will be permitted to be done only when a student has legitimate conflicting obligations, such as illness or emergency or University-sponsored activities. These conflicts do not excuse the student from course responsibilities. The student is responsible for informing the instructor of any legitimate excuses and making arrangements for make-up work, if permitted, as soon as possible.

DISABILITIES: Any student with a disability who needs a classroom accommodation, access to technology or other academic assistance in this course should contact disability support services (dss@k-state.edu) and/or the instructor. Students who require assistance during an emergency evacuation should discuss their needs with their instructors and DSS. DSS serves students with a wide range of disabilities including, but not limited to, physical disabilities, sensory impairments, learning disabilities, attention deficit disorder, depression, and anxiety.

REGARDING ACADEMIC HONESTY: Kansas State University has an Honor System based on personal integrity, which is presumed to be sufficient assurance that, in academic matters, one's work is performed honestly and without unauthorized assistance. Undergraduate and graduate students, by registration, acknowledge the jurisdiction of the Honor System. The policies and procedures of the Honor System apply to all full and part-time students enrolled in undergraduate and graduate courses on-campus, off-campus, and via distance learning. The honor system website can be reached via the following URL: www.ksu.edu/honor. A component vital to the Honor System is the inclusion of the Honor Pledge which applies to all assignments, examinations, or other course work undertaken by students. The Honor Pledge is implied, whether or not it is stated: 'On my honor, as a student, I have neither given nor received unauthorized aid on this academic work'. A grade of XF can result from a breach of academic honesty. The F indicates failure in the course; the X indicates the reason is an Honor Pledge violation.

CLASSROOM CONDUCT: All student activities in the University, including this course, are governed by the Student Judicial Conduct Code as outlined in the Student Governing Association By Laws, Article VI, Section 3, number 2. Students who engage in behavior that disrupts the learning environment may be asked to leave the class.

CHANGES: The instructor reserves the right to modify the contents in this description if conditions arise during the semester that make such changes desirable. Such changes will be announced in class; it is your responsibility to keep abreast of such changes.