Complex Analysis

Course Information
Fall 2017

Course Description

Complex analysis applies calculus techniques to study complex-valued functions of a real or complex variable. The set of complex numbers is viewed as a plane, and functions from this set to itself are viewed as transformations of this plane. Such a function is differentiable at a point according to the same definition used in single variable calculus, yet leads to some unexpected results in the new context, such as Cauchy's Integral Formula, the Fundamental Theorem of Algebra, the Residue Theorem, the Identity Theorem, and the Maximum Modulus Theorem.

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Book: *Complex Variables and Applications*, 4th edition, Churchill and Brown, ISBN: 978-0070108738

Grade Components

Classwork:	10%
Homework:	10%
Quizzes:	20%
Exams:	60%

Classwork consists of participation in discussion, and activities such as team quizzes, worksheets, and other group work. Classwork activities are normally be graded on a scale of zero to ten.

Homework exercises from the textbook will be routinely, to be due at the beginning of the next class period. Homework assignments will be graded on a scale of zero to ten.

Quizzes are about twenty minutes long and occur almost every week, normally on Wednesday, covering the previous week's worth of material. These will be graded on a scale of zero to ten.

Exams are hour long assessments and are cumulative in nature. We will have about three exams per trimester. These will be graded on a scale of zero to one hundred points.

Homework is normally computational in nature; more complex problems may be assigned as take-home quizzes or exams.