אוניברסיטת
בן-גוריון בנגב

The Department of Mathematics
2021–22–B term

Course Name Introduction to Complex Analysis

Course Number 201.1.0071

Course web page
  https://www.math.bgu.ac.il//en/teaching/spring2022/courses/
  introduction-to-complex-analysis

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Office Hours https://www.math.bgu.ac.il/en/teaching/hours

Abstract

Requirements and grading[1]

Course topics

.1 Complex numbers, open sets in the plane.

.2 Continuity of functions of a complex variable

.3 Derivative at a point and Cauchy–Riemann equations

.4 Analytic functions; example of power series and elementary functions

.5 Cauchy's theorem and applications.

.6 Cauchy's formula and power series expansions

.7 Morera's theorem

.8 Existence of a logarithm and of a square root

.9 Liouville's theorem and the fundamental theorem of algebra

.10 Laurent series and classfiication of isolated singular points. The residue theorem

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[1]Information may change during the first two weeks of the term. Please consult the webpage for updates