Course Code Course Name Semester Theory Practice Lab Credit ECTS Theory of Complex 5 8

MAT325 Functions

Prerequisites MAT102, MAT116 Admission Requirements MAT102, MAT116

Language of Instruction French Course Type Compulsory Course Level Bachelor Degree

Introduce the student to the universe of complex functions and provide basis for topics such as functional analysis, Objective

Riemann surfaces, complex geometry and modular forms.

Complex numbers. Holomorphic functions. Power series. Analytic functions. Derivative and limit. Properties of

analytic functions. Laurent series. Classification of singularities. Conformal maps. Rouche teorem. Cauchy integral

theoremi. Maksimum principle. Residue theorem. Belirli intgegral hesabına uygulamaları.

References Introuction to complex analysis, Bak & Newman.

Theory Topics

Content

Week **Weekly Contents**