PURE MATHEMATICS 421
"INTRODUCTION TO COMPLEX ANALYSIS"

Calendar Description: H(3-1T)
Complex numbers. Analytic functions. Complex integration and Cauchy's theorem. Maximum modulus theorem. Power series. Residue theorem.
Prerequisites: Mathematics 349 and 353; or consent of the Division.
Text: "Introductory Complex Analysis and Applications", by Derrick, Academic Press.

Syllabus

Topics	Number of Hours
Complex Numbers	3
Analytic Functions	4
Elementary Functions	3
Line Integrals	2
The Cauchy Theorem	4
The Cauchy Integral Formula	3
Taylor-Series and Laurent Series	4
Singularities	3
The Residue Theorem	3
Evaluation of Improper Real Integrals	4
Elementary Conformal Mapping, Linear Fractional Transformation	3
TOTAL HOURS	**36**

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