Global Learning Semesters
Course Syllabus
Course: MATH-485 Complex Analysis
Department: Computer Science
Host Institution: University of Nicosia, Nicosia, Cyprus

Course Summary		
Course Code	**Course Title**	**Recommended Credit Hours**
MATH-485	Complex Analysis	3
Semester Offered	**Contact Hours**	**Prerequisites**
Spring	42	MATH-191: Calculus and Analytic Geometry II
Department	**Level of Course**	**Language of Instruction**
Computer Science	Upper Division	English

Course Description

The following topics are covered: complex numbers, holomorphic functions, Cauchy-Riemann equations, harmonic functions, exponential trigonometric and logarithmic functions, integration, Cauchy's Theorem, Cauchy's integral formula, Morera's theorem, Liouville's theorem, the fundamental theorem of algebra, the maximum modulus theorem, Taylor series, power series, Laurent series, Calculus of residue, linear fractional transformation, the Riemann mapping theorem.

Instructor

Dr George Chailos

Course Aims and Objectives

To teach students the field of complex numbers, the extended complex plane and its topological properties, series of complex functions, analytic functions, elementary functions and their mapping properties.

Teaching Methods

The course is delivered through a mixture of lectures, handouts, tutorials, practical exercises and assignments.

Course Teaching Hours

42 hours (42 hours lectures/presentations/tutorials). The course is delivered during the Spring semester in 14-weeks (3 hours/week).

Evaluation and Grading

Class Participation/Homework/Quizzes: 0-30%
Mid-Term(s): 30-50%
Final Exam: 40-50%

Readings and Resources

Required Textbook
Saff, Snider, and Trefethen, Fundamentals of Complex Analysis for Mathematics, Science and Engineering, Second Edition, Prentice-Hall, 1993 (ISBN: 0-13-327461-6)