Global Learning Semesters
Course Syllabus
Course: MATH-190 Calculus and Analytic Geometry I
Department: Computer Science
Host Institution: University of Nicosia, Nicosia, Cyprus

Course Summary		
Course Code	**Course Title**	**Recommended Credit Hours**
MATH-190	Calculus and Analytic Geometry I	3
Semester Offered	**Contact Hours**	**Prerequisites**
Fall, Spring	56	MATH-160: College Algebra OR Pass the Mathematics Placement; minimum efficiency in algebra.
Department	**Level of Course**	**Language of Instruction**
Computer Science	Lower Division	English

Course Description

The course includes a thorough reference to the fundamental concepts of infinitesimal calculus such as limits, derivatives, and integrals. More specifically the following topics are covered: Basic theory of real valued functions, limits and continuity, the derivative and some of its applications, implicit differentiation, L'Hopital's rule, analysis of functions, Rolle 's Theorem, Mean value theorem, and elementary theory of integration.

Instructor

Dr George Chailos

Course Aims and Objectives

This course introduces the student to the concept of infinitesimal calculus with both theory and applications. It also prepares the student for the continuation of calculus in the next two calculus courses (MATH-191 and MATH -270).

Teaching Methods

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

Course Teaching Hours

56 hours (56 hours lectures/presentations/tutorials). The course is delivered during the Fall and Spring semesters in 14-weeks (4 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

Howard A. Anton, Irl Bivens, Stephen Davis, Calculus, Seventh Edition, Wiley 2002. ISBN: 0-471-38157-8.

Recommended Reading

Edwards and Penney, Calculus with Analytic Geometry, Fifth Edition, Prentice Hall 1998 (ISBN: 0-13-760414-9).
Swokowski, Calculus, Sixth Edition, PWS-KENT 1994 (ISBN: 0-534-93624-5).