AMERICAN UNIVERSITY
OF CYPRUS

Course Code CSM109	**Course Name** Calculus 2	**ECTS Credit** 5
Pre-Requisite CSM103	**Course Type** Compulsory	**Language of Instruction** English
Year of Study 1st /2nd	**Level of Course** BSc/1st Cycle	**Mode of Delivery** On Campus

Course Objectives:

This lesson provides a good knowledge of the basic principles of mathematical calculus, which is a powerful mathematical tool in engineering and science.

Learning Outcomes

Upon successful completion of the course, students will be able to:

- Understand elementary concepts of complex numbers
- Generate functions of many variables
- Manage vectors
- Produce vector fields
- Calculate multiple integrals
- Understand the basic theorems of vector calculus (Theories Green, Gauss and Stokes)
- Solve differential equations

Teaching Methodology:

Lectures 42 hours

Course Content:

Enter the complex numbers.

Functions of many variables.

Limits. Continuity.

Derivative (Partial and Chain, using Taylor Expense, Vector Analysis, Scale and Vector Derivative Derivation).

Complicated functions.

Completions. Multiple and Rectangular and superficial.

Differential equations and some basic theorems of vector calculus such as Green, Gauss and Stokes. Elements of differential equations.

Assessment Methods:

Final Exam

Required Textbooks/Reading:

Title	Author(s)	Publisher	Year
THOMAS CALCULUS	Weir, Hass, Giordano	Pearson-Addison Wesley	
Engineering Mathematics. A Foundation for Electronic, Electrical, Communications and Systems Engineers,	Antony Croft, Robert Davison, Martin Heagreaves, James Flinnt	Pearson	2017