AMERICAN UNIVERSITY
OF CYPRUS

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

- Examine the convergence of sequences, rows and real numbers dynamics
- Calculate infinite sum values
- Fully study functions of a variable (real)
- Calculate the Derivative of Derivative Functions
- Determine tangential lines in flat curves described in various ways
- Calculate integrals (generally and vaguely)
- Calculate flatbed areas and flat curve lengths
- Reach polynomial functions

Teaching Methodology:

Lectures 42 hours

Course Content:

Functions of a variable.

Sequences, Rows. Limit of function. Continue to function.

Derivatization

Partitioning applications.

Taylor Growth, Indefinite integral.

Definite integral,

Embedded applications.

Assessment Methods:

Final Exam

Required Textbooks/Reading:

Title	Author(s)	Publisher	Year
Calculus	R.L. Finney, M.D. Weir, F.R. Giordano	Pearson	2018
Engineering Mathematics. A Foundation for Electronic, Electrical, Communications and Systems Engineers	Antony Croft, Robert Davison, Martin Heagreaves, James Flinnt	Pearson	2017