UNIVERSITY of NICOSIA

Course Syllabus

Course Code	Course Title	ECTS Credits
MATH-108DL	Finite Maths and Applied Calculus	6
Prerequisites	**Department**	**Semester**
MATH-105DL	Computer Science	Fall/Spring
Type of Course	**Field**	**Language of Instruction**
Required	Accounting, Marketing, MIS, Business Adm., Economics, Sports Science	English
Level of Course	**Lecturer(s)**	**Year of Study**
1st Cycle	Dr Zacharias Kountouriotis	1st
Mode of Delivery	**Work Placement**	**Corequisites**
Distance Learning	N/A	None

Course Objectives:

The main objectives of the course are to:
- Introduce students to linear models and provide them with the necessary knowledge to set them up using realistic data.
- Discuss matrix operations and Gauss-Jordan elimination in detail.
- Cover linear systems of m equations with n unknowns.
- Introduce students to nonlinear problems.
- Discuss the derivative and its applications in detail.
- Introduce students to the integral and its applications.

Learning Outcomes:

After completion of the course students are expected to be able to:
1. Implement linear model theory to set up and solve problems related to their majors.
2. Use Gauss-Jordan elimination to solve linear systems.
3. Compute derivatives and basic integrals.
4. Use derivatives and integrals to solve applied problems.

Course Content:

- Chapter 1: Linear Functions and Applications
- Chapter 2: Systems of Linear Equations, Matrices and Applications
- Chapter 3: Inequalities, Systems of Inequalities and Applications
- Chapter 4: Nonlinear Functions and Applications
- Chapter 5: The Derivative and its Applications
- Chapter 6: The Integral and its Applications

Learning Activities and Teaching Methods:

Lectures, Handouts and Assignments.

Assessment Methods:

Homework Assignments, Final Examination

Required Textbooks / Readings:

Title	Author(s)	Publisher	Year	ISBN
Finite Mathematics an Applied Calculus Notes	Stavros P.			

Recommended Textbooks / Readings:

Title	Author(s)	Publisher	Year	ISBN
Calculus With Applications	Lax, Peter D., Terrell, Maria Shea	Springer	2014	978-1-4614-7946
A Beginner's Guide to Finite Mathematics	Wallis, W.D	Springer	2012	978-0-8176-831-9