AL ALBAYT UNIVERSITY

Faculty of finance and business administration

Department of finance and business economics

Course: 0507121- Principles of mathematical econonomics.
<u>Objectives of this course.</u>

The main goal of the course is to realize the nature of the Mathematical Economics and provide students with basic knowledge of differentiation and its application in microeconomics, and macroeconomics.

<u>Textbook:</u>

The textbook for this course is Mathematics for Economics and Business, by Jacqus, Ian. 5th edition (2006).

<u>Course outline:</u>

CH1: Linear Equations
    a-Graphs of Linear Equations.
    b-Algebraic Solution and Demand Analysis.
    c-Supply and Demand Analysis.
    d-Algebra.
    e-Transposition of Formulae.
    f-National Income Determination.

CH2: Non-linear Equations
    a-Quadratic Functions.
    b-Revenue, Cost and Profit.
    c-Indices and Logarithms.
    d-The Exponential and Natural Logarithm Functions.

CH3: Mathematical of Finance
    a-Percentage.
    b-simple interest rate
    c-Compound Interest.
    d- Time value of money
    e-Investment Appraisal.

Ch4: Differentiation
a-The Derivative of a function.
b-Rules of Differentiation.
c-Marginal Functions.
d-Further Rules of Differentiation.
e-Elasticity.
f-Optimization of Economic Functions.
g-Further Optimization of Economic Functions.
h-The Derivative of the Exponential and Natural Logarithm Functions.

CH5: Partial Differentiation
A-Functions of Several Variables.
b-Partial Elasticity and Marginal Functions.
c-Constrained and Unconstrained Optimization.

Assessment and Grading:

First Exam	20%
Second Exam	20%
Attendance and class participant	10%
Final Examination	50%
Total	100

Good Luck