

NEAR EAST UNIVERSITY - COMMON COURSES COORDINATION UNIT



Department of Mathematics
Course Information Sheet & Course Outline

Course Code MTH172	Course Name Math. for Bus. & Econ. II	Credit 3	ECTS 6
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Pre-requisite: MTH171

Language: English	Course Type: Compulsory	Year: 2019/2020	Semester: Spring
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Weekly Hours	Class Hours	Laboratory	Practicum	Learning Sessions			
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Learning Outcomes

After the completion of this course, the student will be able to

- Solve problems involving Matrices
- Use Matrices to solve problems involving systems of linear equations
- Solve real life problems involving matrices
- Evaluate limits of functions from their graphs and/or equations
- Analyze and apply the notions of continuity and differentiability to algebraic functions.
- Determine derivatives for functions involving powers, exponentials, logarithms and combinations of these functions and solve business and economic applications using these derivatives.
- Use derivatives to construct graphs of selected functions.
- Use basic integration techniques to solve simple differential equations.
- Demonstrate the connection between area and the definite integral.
- Integrate selected functions and solve business and economic applications using these results.
- Apply the Fundamental Theorem of Calculus to evaluate definite integrals.
- Apply the concepts of limits, derivatives and integrals to solve problems involving functions unique to business applications and interpret these concepts graphically

Course Description

Course Objectives TO APPLY MATHEMATICS IN THEIR RELEVANT COURSES

Textbooks and/or References 1. Introductory Mathematical Analysis, 11th Edition, Ernest F. Haeussler et al, Pearson-Prentice Hall, 2005

Course Content

1. Matrices, Matrix Algebra, and Special Types of Matrices
2. Transpose of a Matrix, Determinant, and Inverse
3. Systems of Linear Equations
4. Cramer's Rule and Row Echelon Form
5. Functions, Limits and Continuity
6. Derivative and Chain Rule
7. Product Rule and Quotient Rule
8. Integration
9. Area
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