**Business Mathematics QMS-110**

**Fall 2022/2023**

Instructor: Dr. Basel M. Al-Eideh

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Office hours: Monday and Wednesday (12:30 -2:00) or by appointment.

Textbook: Introductory Mathematical Analysis

Authors: Ernest F. Haeussler & Richard S. Paul

Publisher: Prentice Hall

Prerequisite: QM-091 or passing the Math Level Test

**Course Content**

**Chapter 11**

11.1 The Derivative

11.2 Rules for Differentiation

11.3 The Derivative as a Rate of Change

11.4 Product and Quotient Rules

11.5 The Chain Rule.

**Chapter 12**

12.1 Derivatives of Logarithmic Functions

12.2 Derivatives of Exponential Functions

12.4 Implicit Differentiation

12.5 Logarithmic Differentiation

12.7 Higher-Order Derivatives

**Chapter 13**

13.1 Relative Extrema

13.4 The Second Derivative Test

13.6 Applied Maxima and Minima

**Chapter 17**

17.1 Partial Derivatives

17.4 Higher Order Partial Derivatives

17.6 Maxima and Minima for functions

of Two Variables

17.7 Lagrange Multipliers

**Chapter 14**

14.2 The Indefinite Integral

14.3 Integration with initial Conditions

14.4 More Integration Formulas

14.5 Techniques of Integration

14.7 The Fundamental Theorem of

Integral Calculus

**Chapter 17**

17.9 Multiple Integrals

**Chapter 6**

6.1 Matrices

6.2 Matrix Addition and Scalar

Multiplication

6.3 Matrix Multiplication

6.4 Solving Systems by Reducing

Matrices

6.5 Solving Systems by Reducing

Matrices (continued)

6.6 Inverses

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**Quizzes (60%): TBA**

**Final Exam (40%): Monday 26/12/2022**

**Time: 11:00 AM – 1:00 PM**

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***NOTE***: *No make up for any exam.*