**Business Mathematics (QM-110)**

**Fall 2023/2024**

**Instructor**: Dr. Raed Al-Husain

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**Office hours:** Sunday, Tuesday, Thursday 2:00-3:00 PM or by appointment

**Textbook:** Introductory Mathematical Analysis (13th Ed., or Arab World Ed.) authors: Ernest Haeussler, Richard Paul and Richard Wood

**Lecture:** 12:00–12:50, 13:00-13:50 (hall BUSI CG-1008) and 15:00–15:50 (hall BUSI D2-1007)

**Tutorial Hours**

Instructor: Dr. Hana Al-Omar or Mrs. Noorah Al-Qamlas

**Exams & Grades**

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| --- | --- | --- | --- |
| Item | Grade | Day & date | Time |
| Tutorial | 10% | As scheduled | In Class |
| Quizzes & HWs | 20% | Scheduled in Class | In Class |
| Midterm Exam | 30% | Wed, Nov 8, 2023 | 12:30 – 13:30 |
| Final Exam | 40% | Sun, Jan 2, 2024 | 11:00 – 13:00 |

Course Rules

1. Quizzes will not be repeated or multiplied, even if absent with an excuse. However, one quiz that has the lowest grade will not be counted towards your grade.
2. The midterm will cover Chapters 11, 12 and 13. The final will cover everything that was taught during the course.
3. Although attendance is not part of the grade; however, absence of **6 lectures**, with or without excuses, will lead to a definite “FA” grade.
4. You must attend classes on time! Thus, at the beginning of the class period you are supposed to be sitting in your class and not waiting in the hallway outside the class. You will not be allowed to attend the class, if you are more than 10 minutes late.
5. No student is allowed to leave the class for any reason during lecture. If you decided to leave for any reason, you will be counted as half-absent.
6. Conditions such as being on probation, taking the course for the nth time, or having social or medical conditions, have no effect on the course grade. Please, do not discuss such factors with me.

**Grade Scale**

The grade scale will be according to the following scheme:

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Score** | 92 | 88 | 84 | 80 | 76 | 72 | 68 | 64 | 60 | 56 | <56 |
| **Grade** | A | A- | B+ | B | B- | C+ | C | C- | D+ | D | F |

**Course Content (13th Ed.)**

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| --- | --- |
| **Chapter 11**11.1 The Derivative11.2 Rules of Differentiation11.3 The Derivative as a Rate of Change11.4 Product and Quotient Rule11.5 The Chain Rule and the Power Rule | 17.6 Maxima and Minima for Functionsof Two Variables17.7 Lagrange Multipliers |
| **Chapter 12**12.1 Derivative of Logarithmic Functions12.2 Derivative of Exponential Functions12.4 Implicit Differentiation12.5 Logarithmic Differentiation12.7 Higher Order Derivatives | **Chapter 14**14.2 The Indefinite Integral14.3 Integration with Initial Conditions14.4 More Integration Formulas14.5 Techniques of Integration14.7 The Fundamental Theorem ofIntegral Calculus14.9 Multiple Integrals |
| **Chapter 13**13.1 Relative Extrema13.4 Second Derivative Test13.6 Applied Maxima and Minima | **Chapter 6**6.1 Matrices6.2 Matrix Addition and ScalarMultiplication6.3 Matrix Multiplication6.4 Solving Systems by Reduction6.6 Inverses |
| **Chapter 17**17.1 Partial Derivatives17.4 Higher Order Partial Derivatives |  |