**Business Mathematics (QM-110)**

**Spring 2024**

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

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**Office hours:** Monday, Wednesday 12:30 – 2:00 PM or by appointment

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

**Lecture:** 1022

**Tutorial Hours**

Instructor: Dr. Hana Al-Omar

**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% | Wednesday 27/3/2024 | 12:30 – 1:30 PM |
| Final Exam | 40% | Saturday 18/5/2024 | 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 Derivative  11.2 Rules of Differentiation  11.3 The Derivative as a Rate of Change  11.4 Product and Quotient Rule  11.5 The Chain Rule and the Power Rule | 17.6 Maxima and Minima for Functions  of Two Variables  17.7 Lagrange Multipliers |
| **Chapter 12**  12.1 Derivative of Logarithmic Functions  12.2 Derivative of Exponential Functions  12.4 Implicit Differentiation  12.5 Logarithmic Differentiation  12.7 Higher Order Derivatives | **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  14.9 Multiple Integrals |
| **Chapter 13**  13.1 Relative Extrema  13.4 Second Derivative Test  13.6 Applied Maxima and Minima | **Chapter 6**  6.1 Matrices  6.2 Matrix Addition and Scalar  Multiplication  6.3 Matrix Multiplication  6.4 Solving Systems by Reduction  6.6 Inverses |
| **Chapter 17**  17.1 Partial Derivatives  17.4 Higher Order Partial Derivatives |  |