

Ministry of Higher Education and Scientific Research

Supervision and Scientific Evaluation Body

Quality Assurance and Academic Accreditation Office

Shatt Al Arab University

Course Description

Subject:

Advanced mathematics

1. Educational Institution	Shatt Al-Arab University
2. Department / Center	Accounting
3. Course Title /Code	
4. Lecturer Name	Mohammed Abdulridah
5. Type of Teaching	Attendance
6. Academic Year /Term	First
7. Total No. of Teaching Hours	30
8. Date f Preparing this Course Description	1-9-2024

9. Course Objectives

a. ntroducing the student to the general and specific objectives of advanced mathematics
b. ntroducing the student to the methods and techniques of most advanced mathematical problems
c. Introducing the student to the nature of mathematical treatments of scientific problems-

10. Course Output, Methodology and Evaluation

(A) Cognitive Objectives

a. knowledge and understanding
b. The learner should know the terms used in advanced mathematics
c. The learner should understand what is meant by advanced mathematics
d. The learner should know and understand the methods of advanced mathematics
e. The learner should know and understand the steps for solving mathematical problems

(B) Skill Objectives Related to the Program:

a. Scientific Skills
b. Leadership Skills
c. Skills Related to Administrative Work Challenges

Methods of Teaching and Learning

a. Using already- prepared lectures.
b. Using up-to-date data shows.
c. Homework
d. Adopting group discussions.

Methods of Evaluation

a. Oral tests
b. Monthly tests
c. Daily quizzes
d. Students' Regular Attendance

(C) Sentimental and Value Objectives

a. Realizing ethical objectives.
b. Commitment to university traditions.
c. Compliance with the University Instructions and the Ministry Regulations.
d. Promoting students' personal abilities in educational scopes and how to behave well with others.

Methods of Teaching and Learning

a. Lectures on university instructions.
b. Educational guidance lectures.
c. Continuous directing.
d. Visiting State and private institutions.
e. Showing practical cases.

Methods of Evaluation

a. Daily quizzes.
b. Classroom discussions and commitment to ethics and sublime values.
c. Special marks for class activities.
d. Monthly and quarterly evaluation.

D) General and Qualitative Skills (other skills related to the ability of employment and personal development)

a. Skills related to using scientific methods to solve problems
b. Skills related to transferring scientific knowledge to the surrounding community.
c. Skills for learning how to discuss, dialogue and persuade
d. Skills for training and personal development later

11. Course Structure

Week	No of Hours	Required Learning Output	Title of Subject	Teaching Method	Evaluation
1	2	understanding the material	Chapter One Integration, its concept and importance	- lectures - case study -discussions	- oral tests -questions
2	2	understanding the material	Examples and exercises for integration	- lectures - case study -discussions	- oral tests -questions
3	2	understanding the material	Chapter Two The Purpose Definition of the purpose and the purpose formulas for different functions for the sum and subtraction of a set of functions and for the product and division of two functions	- lectures - case study -discussions	- oral tests -questions
4	2	understanding the material	L'Hopital's rule, for unknown values, relation of ends to target points	- lectures - case study -discussions	- lectures - case study -discussions
5	2	understanding the material	Chapter Three: Differentiation Definition of differentiation using the end ratio of differences, the importance of differentiation in representing the slope of financial and economic curves of production functions and calculating interest	- lectures - case study -discussions	- lectures - case study -discussions
6	2	understanding the material	General examples and practical examples in the financial and accounting field	- lectures - case study -discussions	- lectures - case study -discussions
7	2	understanding the material	First month exam	- lectures - case study -discussions	- lectures - case study -discussions
8	2		Chapter Four: Derivatives Checking the existence of		


			the derivative for certain functions		
9	2	understanding the material	Relationship of derivative to critical points, inflection points, maximum profit points, minimum cost points and losses in bonds	- lectures - case study -discussions	- lectures - case study -discussions
10	2	understanding the material	Financial portfolios and their application in the financial field	- lectures - case study -discussions	- lectures - case study -discussions
11	2	understanding the material	Examples and practical exercises for the relationships of derivatives to other points	- lectures - case study -discussions	- lectures - case study -discussions
12	2	understanding the material	Examples in the financial and accounting field	- lectures - case study -discussions	- lectures - case study -discussions
13	2	understanding the material	Examples in the financial and accounting field	- lectures - case study -discussions	- lectures - case study -discussions
14	2	understanding the material	Examples in the financial and accounting field	- lectures - case study -discussions	- lectures - case study -discussions
15	2		final semester exam		

12.Infrastructure

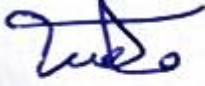
a. Textbooks	
b. References	
c. Recommended books and periodicals (journals, reports, etc.)	
d. Electronic references, internet websites, etc	springer

13. The Plan of Improving the Course

a. Studying labor market needs.
b. Reviewing the experiences of countries in the field of mathematics
c. Reviewing what is written in national and international scientific journals in the field of mathematics


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