



Department of - *Business Administration*

College of - *Administration and Financial Sciences*

University of Cihan- Sulaimaniya

Subject: *Quantitative Methods*

Course Book – Year -*2023/2024*

Lecturer's name *Prof.Dr.Obaid Mahmmood Mohsin*

Academic Year: *2023/2024*

Course Book

1. Course name	Quantitative Methods
2. Lecturer in charge	Prof.Dr.Obaid Mahmood Mohsin
3. Department/ College	Business Administration- <i>Administration and Financial Sciences</i> College
4. Time (in hours) per week	3hours per week
5. Office hours	4 hours morning
6. Course code	ACC32116
7. Teacher's academic profile	
8. Keywords	
9. Course overview:	<p>Concepts covered in this course include Linear Programming, Artificial Variable Technique, Graphical method , Simplex Method, Transportation Problems, Assignment problem</p> <p>At the end of this course the student will:-</p> <ol style="list-style-type: none"> 1- understand what is meant of problem solving and decision making and quantitative methods. 2. understand what is meant by operations research and how to formulate the linear programming problems. 3. learn how to constructing a model to represent the systems. 4 learn how to deriving a solution from the model and put the solution to work. 5. learn how use a graphical method to solve two-variable L.P. Problems. 6. learn how use a simplex method to solve two-variable L.P. Problems and more than two-variable problems. 7. understand the artificial variable technique, Big-M, and setting up the dual problems.
10. Course objective:	<p>The main objective of this course is to give student a good theoretical and practical knowledge of operations methods. The student will take courses from a variety of technique that focus extensively on statistical methodology, mathematical modeling, and computer implementation issues.</p> <p>The student will be able to solve and interpret correctly the solutions of a problems and recognize the situations where QM techniques can be used as decision making tools and to interpret correctly the conclusions which can be derived using these techniques.</p>
11. Student's obligation	Mid examination 30% +10% for homework –final examination 60%
12. Forms of teaching	

Teaching and Learning Strategy Contact hours: 3 theoretical weekly hours with discussions +Assignments			
13. Assessment scheme			
Midterm Examination	30 %	Paper, Quiz, Project	10%
Lab exam	**%	Final Practical Examination	**%
Final theory exam	60%		
14. Student learning outcome: The main objective of this course is to give student a good theoretical and practical knowledge of operations methods. The student will take courses from a variety of technique that focus extensively on statistical methodology, mathematical modeling, and computer implementation issues. The student will be able to solve and interpret correctly the solutions of a problems and recognize the situations where QM techniques can be used as decision making tools and to interpret correctly the conclusions which can be derived using these techniques.			
15. Course Reading List and References:			
<u>Text Books and References—</u>			
<u>-Text books:</u> Hamdy, A.Taha; Operations Research an Introduction, 8 th Edition, Pearson Education Inc., 2007.			
<u>Reference books:</u> Gupta, P. K. & D. S. Hira; Operations Research, 2 nd Edition,S. Chand & Company (Pvt) Ltd, Ram Nagar, New Delhi, 1987			
16. The Topics:			
Lecture No	Topic		
Week/1+2 +3	Chapter 1: Basics of Quantitative Methods		
Week/ 4+5 +6+7	Chapter 2: Linear Programming:		
Week/ 8+11	Chapter 3 : Graphical Solution of Two-Variable L.P. Problems		
Week/9+10	Mid Examination		
Week/12+13+14	Chapter 4: Simplex Method:		
Week/ 15+16	Final Examination		
17. Peer review			
Main Lecturer incharged		Head of The Department	