



Ministry of Higher Education and Scientific Research

Warith Al-Anbiya University (peace be upon him)

Faculty of Administration and Economics

Course Description Form

1. Course Name			
Principles of Process Research and QSB Applications			
Course Code .2			
AC2105			
3. Semester/Year			
Annual			
Date of preparation of this description .4			
2025-2026			
5. Usual forms of attendance			
Presence			
Total (Total) Academic Hours / Number of Units (Total) .6			
160 \ 6			
7. Name of the course administrator			
Name: Eng. Dr. Iman Khalil Ibrahim		Email: iman.khalil@uowa.edu	
8. Course Objectives			
<ul style="list-style-type: none"> Introduce the student to the concepts and tools of operations research and their role in Solving administrative, accounting and economic problems. Enable the student to formulate mathematical models of problems Administrative , Accounting and Economic Train the student to use QSB in solving and analysis. Develop the skills of decision-making based on quantitative analysis. 		Course Objectives	
9. Teaching and Learning Strategies			
Learning strategies for students:		1- Class Discussions	Strategy
1- Active Participation			

2- Practice regularly Leveraging Resources		2- Practical Activities 3- Problem-Based Learning 4- Integrate Technology Evaluation and feedback	
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10. Course Structure

Evaluation Method	Learning method	Unit Name or Subject	Required Learning Outcomes	hours	The week
Oral Questions	Lecture + Discussion	Introduction	Understanding concepts	3	1
		Operations Research Definition, General Form, Legal Form, Standard	Linear Programming	3	2
Quiz	Lecture + Discussion	Building the Mathematical Model	Mathematical model Linear	3	3
		Linear Programming Solution Methods (Graphical Method, Um Al-Kabir Method, Two-Stage Method)	Programming Solution	3	4
		Exam	Exam	2	5
		Linear Programming Applications Using QSB with Results Analysis and Recommendations	Linear Programming Using QSB	3	6
	Oral Questions	Lecture + Discussion	General Definition, General Model, and Solution Methods (Northwest Corner, Lowest Cost, Vogel)	Transportation Matters	3

Quiz	Applications of Transport Issues with QSB Software	Transportation Issues Using QSB Software	3	8
	General Definition, General Model and Solution Methods	The issue of privatization	3	9
	Applications of the Customization Problem with QSB Software	Customization with QSB software	3	10
	Exam	Exam	3	11
	General definition, general model and methods of solution, Business Networking Applications Using QSB Software	Business Networking	3	12
	General Definition, General Model and Solution Methods	Match theory	3	13
	Applying the theory using QSB software	Match Theory Using QSB Software	3	14
	Final Exam	Final Exam	3	15

11. Course Evaluation

Distribution of the score out of 100 according to the tasks assigned to the student, such as daily preparation, daily, oral, monthly, written exams, and reports.....

12. Learning Resources and Teaching

	Required textbooks (methodology available)
1- Introduction to Process Research and Applications in the QSB First Edition, .Prof. Omar Mohamed Nasser et al2025, . 2.Introduction to Operations Research: Eighth Edition: Hillie Lieberman:2005	Main References (Sources)

Specialized Operations Research Journals.	Recommended Books and References (Scientific Journals, Reports...)
<ul style="list-style-type: none"> The OR Society INFORMS (Pubs Online) 	References, Websites

Assoc. Prof. Dr. Hebatullah Mustafa Al-Sayed	Head of Department Name
	His signature
2025/10/1	History

