

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Operations Research by QSB		Module Delivery
Module Type	B		☒ Theory ☐ Lecture ☒ Lab ☐ Tutorial ☐ Practical ☐ Seminar
Module Code	BA2204		
ECTS Credits	5		
SWL (hr/sem)	125		
Module Level	UG2	Semester of Delivery	
Administering Department	Business Administration	College	College of Management and Economics University of Shatt Al-Arab
Module Leader	Dr. Mohammed Abood Tahir	e-mail	maboodtahir@sa-uc.edu.iq
Module Leader's Acad. Title	Professor	Module Leader's Qualification	PhD
Module Tutor	Dr. Mohammed Abood Tahir	e-mail	maboodtahir@sa-uc.edu.iq
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Scientific Committee Approval Date	2025/9/1	Version Number	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	None	Semester	
Co-requisites module	None	Semester	

Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

Module Objectives أهداف المادة الدراسية	1- This definition provides the definition of some basic principles in the operations research 2- Introducing them to the periods of application of these principles and to be applied by QSB 3- Introducing how to applied or for solving real life problems 4- Providing graduates with the skill of creative learning
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Understand the concept of operations research 2. Learn how to solve operations research problems by using QSB 3. Understand the concept and using linear programming in real life problems 4. Understand the concept and using integer programming 5. Understanding and application of transportation models for real life problems 6. Understand and applications of assignment models 7. Understand and Solving the application of queuing theory 8. Understand and application of network problems 9. Understanding and application of the inventory models for solving real life problems
Indicative Contents المحتويات الإرشادية	The contents of the guidance study include the outlines that aim to guide and plan the educational process. These contents generally include 1. Educational objectives 2. Main concepts 3. Curricula 4. Educational materials 5. Educational activities 6. Evaluation methods 7. Academic guidelines These contents are a roadmap that helps the teacher and student understand the progress of the study material and ensure the achievement of the intended educational objective. Total hours = 75 = Self-study hours - (Exam hours) = 75 - 3 = 72 hours (Timetable hours x 15 weeks)

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	Teaching and learning methods 1- Lectures inside the class room 2- Discussion . 3- Solving exercises inside the class room. 4- solving problems by using QSB software evaluation methods 1- Oral tests 2- Daily quizzes 3- Testing in computer labs 4- Monthly evaluations

Student Workload (SWL) الحمل الدراسي للطلاب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطلاب خلال الفصل	48	Structured SWL (h/w) الحمل الدراسي المنتظم للطلاب أسبوعيا	7
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطلاب خلال الفصل	77	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطلاب أسبوعيا	6
Total SWL (h/sem) الحمل الدراسي الكلي للطلاب خلال الفصل	125		

Delivery Plan (Weekly Syllabus)	
المنهاج الاسبوعي النظري	
Week	Material Covered
Week 1	operational research techniques and how to run QSB
Week 2	understanding commands and tools of the QSB
Week 3	graphical methods for solving linear programming
Week 4	simplex method for solving operational research by QSB
Week 5	solving integer programming by QSB
Week 6	solving goal programming by using QSB
Week 7	Mid- term Exam
Week 8	transportation model
Week 9	assignment models
Week 10	solving shortages path problems by using QSB
Week 11	queuing theory models
Week 12	queuing theory models
Week 13	network models
Week 14	inventory models
Week 15	general review
Week 16	Final Exam

Delivery Plan (Weekly Lab. Syllabus)	
المنهاج الاسبوعي للمختبر	
Week	Material Covered
Week 1	- Introduction to the QSB
Week 2	- Solving linear programming
Week 3	- Solving linear programming
Week 4	- Solving integer programming
Week 5	- Solving transportation problems
Week 6	-solving queuing problems
Week 7	-solving network problems

Module Evaluation					
تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	1	10% (10)	7	LO #1, #2 and #4
	Assignments	1	10% (10)	Continuous	LO #3, #4
	Seminars	1	10% (10)	Continuous	All
	Report	1	10% (10)	12	LO #5, #8 and #10
Summative assessment	Midterm Exam	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Learning and Teaching Resources		
مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	operations research by H. Taha operational research notes by M A Tahir QSB by M A Tahir	Yes
Recommended Texts		
Websites		

Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Decimals above or below 0.5 will be rounded to the highest or lowest full mark (e.g. a mark of 54.5 will be rounded to 55, while a mark of 54.4 will be rounded to 54). The University has a zero tolerance policy for 'near-pass failures', so the only adjustment to marks awarded by the original examiners will be the automatic rounding described above.

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رئيس قسم الاعمال

مدرس المادة
أ. د محمد عبود

**Director of the Quality Assurance and Performance Department of
the University: Wafa Saeed Hassan**

مسؤولية وحدة الجودة كلية
الادارة والاقتصاد
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