

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Operations Resarch		
Module Type	Core		☒ Theory ☒ Lecture ☐ Lab ☒ Tutorial ☒ Practical ☐ Seminar
Module Code	MMOG2102		
ECTS Credits	7		
SWL (hr/sem)	175		
Module Level	2	Semester of Delivery	
Administering Department	Oil and Gas Management and Marketing	College	Shatt al-Arab University, College of Administration and Economics
Module Leader	alia majed dakhil	e-mail	alia.majed.dakhil@sa-uc.edu.iq
Module Leader's Acad. Title	Assistant Lecture	Module Leader's Qualification	Assistant Lecture
Module Tutor	Assistant Teacher	e-mail	alia.majed.dakhil@sa-uc.edu.iq
Peer Reviewer Name		e-mail	
Scientific Committee Approval Date	1/9/2025	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- Provide the student with the basic concepts related to Operations Research. 2- Develop the student's skills in analysis and problem-solving in the subject area. 3- Enable the student to use theories and techniques related to the subject in practical application.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	A. Cognitive Objectives A1. Enable the student to become familiar with the basic concepts of Operations Research and their role in .management A2. The student acquires knowledge about constructing a .mathematical model for administrative problems A3. Enable the student to explain linear programming .(methods (graphical method, simplex method B. Course-Specific Skills Objectives B1. Scientific Skills B2. Skills in teaching and training students to apply linear .programming solution methods to real-world problems B3. Using computer programs such as Excel and LINGO .to solve quantitative models
Indicative Contents المحتويات الإرشادية	Guidance processes in course description are a set of instructions or directions that explain how to design and prepare a course description clearly and appropriately, including objectives, learning outcomes, content, and assessment methods to ensure a clear educational path for students. These processes include the following elements: 1. Objectives: Setting clear and specific educational objectives that reflect what the student should achieve by the end of the course, whether at the level of theoretical knowledge, practical skills, or behavioral attitudes. 2. Learning Outcomes: Defining what the student is expected to know, perform, or demonstrate after completing the course, including: • Cognitive (knowledge and understanding)

	• Skills (application and analysis) • Behavioral (attitudes and values) 3. Course Content: Includes theoretical and practical topics to be taught, distributed over the weeks of the semester, with identification of core readings, case studies, and practical exercises. 4. General Course Description: The course aims to introduce students to the basic concepts of Operations Research, develop their analytical and practical application skills, enhance their academic and research capabilities, and prepare them to apply what they have learned in their field of specialization. 5. Teaching Methods: The strategies that the instructor will adopt to achieve the course objectives, such as: • Theoretical lectures • Classroom discussions • Presentations • E-learning • Problem-based learning 6. Educational Activities: A set of exercises, applications, and research tasks assigned to students to enhance their understanding, such as: • Preparing short reports • Participating in discussion groups • Delivering practical presentations • Solving problems 7. Assessment Methods: Methods used to measure the achievement of learning outcomes, such as: • Midterm and final exams • Quizzes • Practical assessment • Class participation • Research papers and reports 8. Core and Supplementary References: A list of books and electronic resources needed by the student to understand and grasp the course topics. 9. Time Distribution Plan: Includes the distribution of course topics over the semester weeks while considering the progression and integration between units. 10. General Student Guidelines: • Attend lectures regularly. • Actively participate in classroom activities. • Adhere to research ethics. • Follow supplementary sources to deepen understanding.
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Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	1- Theoretical study through delivering lectures. 2- Using the questioning method.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	113	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	6
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	62	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	7
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	175		

Module Evaluation تقييم المادة الدراسية					
As		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	1	10% (10)	4	
	Assignments	1	10% (10)	4	
	Projects / Lab.	1	10% (10)	4	
	Report	1	10% (10)	4	
Summative assessment	Midterm Exam	1hr	10% (10)	7	
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
Week	Material Covered
Week 1	Operations Research Concept and Methods
Week 2	Linear Programming and its Formulation
Week 3	Examples of Legal, Standard, and General Forms
Week 4	Graphic Solutions for Linear Programming Problems
Week 5	The Opposite or Dual Model of Linear Programming
Week 6	The Simplex Method for Solving Linear Programming Problems
Week 7	Midterm Exam
Week 8	Examples of the Simplex Method
Week 9	Transportation Models (Northwest Corner Method)
Week 10	Transportation Models (Least Cost Method)
Week 11	Transportation Models (Vogel Method)
Week 12	Profit Allocation
Week 13	Cost Allocation
Week 14	Game Theory (Using Graphs)
Week 15	Exam

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
Week	Material Covered
Week 1	
Week 2	
Week 3	
Week 4	
Week 5	
Week 6	
Week 7	

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	Marketing Management/Business and Administration/Dr. Thamer Al-Bakri.	Yes
Recommended Texts		Yes
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: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.				

رئيس القسم
م.د. رافد عيد الجليل حسن

مدرس المادة
م. م. علياء ماجد دجيل

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

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الإدارة والاقتصاد
م. م. وفاء سعيد حسن