

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information				
معلومات المادة الدراسية				
Module Title	Engineering Management		Module Delivery	
Module Type	Basic		☒ Theory ☐ Lecture ☒ Lab ☒ Tutorial ☐ Practical ☐ Seminar	
Module Code	CET4104			
ECTS Credits	5			
SWL (hr/sem)	150			
Module Level	4	Semester of Delivery		7
Administering Department	CET	College	EETC	
Module Leader	Rawaa dawood Salim		e-mail	rawaadawood@mtu.edu.iq
Module Leader's Acad. Title	Asst. lecturer		Module Leader's Qualification	MSC.
Module Tutor	Husam Fahmy Agamy		e-mail	Husam.fahmy@mtu.edu.iq
Peer Reviewer Name	Asst. Prof. Alhamzah Taher Mohammed		e-mail	alhamza_tm@mtu.edu.iq
Scientific Committee Approval Date	13/06/2023		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 Aims أهداف المادة الدراسية	1. Knowledge of the main concepts and elements of project management. 2. Knowing the ways to draw network diagrams for projects 3. Knowledge and understanding of the linear programming process for engineering projects 4. Knowing the methods of calculating the cost per unit of production and finding the break-even point. 5. Knowing the Economics for the engineers. 6. To understand the Productivity.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. List the element of engineering management. 2. Define the Economics for the engineers 3. Drawing the Gantt Chart. 4. Knowing how to draw network diagrams for the project. 5. Knowledge of project critical path finding, project total tolerance, early and late start, the early and late end of the activities in the project. 6. Define Project Evaluation and Review Technique (PERT). 7. Identify standard deviation and variants. 8. Crashing of project network. 9. Knowing and understanding the Linear programming: graphical method 10. Knowing, understanding linear programming: simplex method. 11. Knowing, understanding and drawing the break-even point of the project. 12. Knowing the Productivity
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. Introduction of management, main elements of project management, steps/phases of project management, Economics for the engineers [10 hrs.] Gantt Chart, Networks, activity on arrow, activity on anode [10 hrs.] Critical path method, Cp, float, early start, early finish, late start, late finish(CPM) [10hrs] Pert technique(Time-Cost) Pert technique Expected time, slack, standard deviation and variants, the probability, crashing of project [16 hrs.] Linear programming: graphical method, Linear programming: simplex method [15 hrs.] The break-even point Productivity. [10 hrs.]

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Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Strategies	The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials and by considering type of simple experiments involving some sampling activities that are interesting to the students. Daily evaluations- quarterly evaluations- finally evaluations- practical evaluations- presentation evaluations- attend daily- weekly reports.
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Student Workload (SWL)

الحمل الدراسي للطالب

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	74	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعياً	5.2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	76	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعياً	5.4
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	150		

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5, 10	LO #1-4 , LO #5-9
	Assignments	2	10% (10)	2, 12	LO # 1-10
	Projects / Lab.	1	10% (10)	Continuous	
	Report	1	10% (10)	13	LO # 1-12
Summative assessment	Midterm Exam	2 hr	10% (10)	7	LO # 1-7
	Final Exam	4hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	Introduction of management
Week 2	Economics for the engineers
Week 3	Gantt Chart
Week 4	Networks
Week 5,6	Critical path method(CPM)
Week 7	Mid-term Exam
Week 8,9,10	Pert technique(Time-Cost)
Week 11	Linear programming: graphical method
Week 12,13	Linear programming: simplex method
Week 14	The break-even point
Week 15	Productivity
Week 16	Preparatory week before the final Exam

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

	Material Covered
Week 1	Introduction to Microsoft Project
Week 2	Setup a New project
Week 3	Creating a Calendar for the project
Week 4	Adding tasks to the project
Week 5	Set up resources
Week 6	Formatting and sharing a plan
Week 7	View and report project status

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	J.R. Meredith and S.J. Mantel "Project Management", J. Wiley & Sons, 1995.	No
Recommended Texts	Y. Bakouros and V. Kelessidis "Project management" INNOREGIO: dissemination of innovation and knowledge management techniques, January 2000	No
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.