



MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Engineering and Industrial Management		Module Delivery
Module Type	Support		<input checked="" type="checkbox"/> Theory <input type="checkbox"/> Lecture <input type="checkbox"/> Lab <input checked="" type="checkbox"/> Tutorial <input type="checkbox"/> Practical <input type="checkbox"/> Seminar
Module Code	TEMO 400		
ECTS Credits	6		
SWL (hr/sem)	150		
Module Level	four	Semester of Deliver	
Administering Department	PM	College	TEMO
Module Leader	Omar Abdulhadi Mustafa	e-mail	Omerahayaly1@ntu.edu.iq
Module Leader's Acad. Title	Lecture	Module Leader's Qualification	Ph.D.
Module Tutor	available	e-mail	E-mail
Peer Reviewer Name	Name	e-mail	E-mail
Scientific Committee Approval Date	01/6/2023	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

<p>Module Objectives أهداف المادة الدراسية</p>	<ol style="list-style-type: none"> 1. Introduce the student to the methods of management and the appropriation each of them in different fields work. 2. Introduce the student to exercise the different methods of the management on the mini groups to elevate his ability in management. 3. Enhance the student skills in management by giving the typical solution on the assumed problem. 4. Introducing students to different types of feasibility study and how can do assessment each of them. 5. Introducing students to make the network planning for the different engineering processes. 6. Introducing the student to the administrative and production organization of industrial enterprises. 7. Introducing the student to Break-Even Analysis.
<p>Module Learning Outcomes مخرجات التعلم للمادة الدراسية</p>	<ol style="list-style-type: none"> 1. Enable the student to use knowledge to manage the different purposes organizations. 2. Enable engineers to use modern programs to solve the technical problems in organizations where they managed. 3. Enable engineers to layout the administrative and production organization of industrial enterprises. 4. Enable engineers to layout the network planning for the different engineering processes and finding the typical path of the minimum duration that offers the best quality of the production. 5. Enable engineers to study the feasibility of the industrial processes which leads to successful of the production. 6. Enable engineers to calculate the Break-Even of any production or trading process and calculating the duration of that case. 7. Enhance the student skills in management by giving the typical solution on the assumed problem.
<p>Indicative Contents المحتويات الإرشادية</p>	<p>Indicative content includes the following.</p> <ul style="list-style-type: none"> ● BUILDING SURVEY <p>Introduction to the management [10 hrs] Modern methods of the management [15 hrs] Feasibility study [15 hrs]</p> <ul style="list-style-type: none"> ● BREAK-EVEN ESTIMATION <p>The necessity of calculations of the break-even point and its duration. [15 hrs]</p> <ul style="list-style-type: none"> ● FEASIBILITY STUDY <p>The necessity of the different field feasibility study [15 hrs]</p>

	<ul style="list-style-type: none"> Administrative and production organization of industrial enterprises <p>The meaning of the administrative and production organization of industrial enterprises and how can make the most appropriate administrative layout [15 hrs]</p>
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Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	<p>The main strategy that will be adopted in delivering this module is to encourage students' participation in the management exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials and by considering types of simple experiments involving some sampling activities that are interesting to the students.</p>

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	3
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطلاب خلال الفصل	102	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطلاب أسبوعيا	7
Total SWL (h/sem) الحمل الدراسي الكلي للطلاب خلال الفصل	150		

Module Evaluation تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	3	20% (20)	3, 5 and 10	LO #1, #2 and #5
	Assignments	3	20% (20)	4, 8 and 12	LO #3, #4, #6 and #7
	Report				
Summative assessment	Midterm Exam	2 hr	10% (10)	7	LO #1 - #7
	Final Exam	3 hr	50% (50)	16	All
Total assessment			100% (100 Marks)		



Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	Introduction – definition and examples related to the industrial engineering management - Functions of management
Week 2	Establish Goals and Objectives.
Week 3	Feasibility Study, Technical feasibility, Economic feasibility
Week 4	Feasibility Study, Schedule feasibility, Operational feasibility.
Week 5	Analyzing Costs vs. Benefits, Calculating Present Value, Net Present Value (NPV), Internal Rate of Return (IRR).
Week 6	Break-Even Analysis, Break-point calculations.
Week 7	Administrative and production organization of industrial enterprises, Linear structure, Consulting structure, Functional structure.
Week 8	Introduction in Network planning.
Week 9	Network planning, calculation of the critical path, float time, meaning of the early start, early finish, late start and late finish.
Week 10	Network planning, Program Evaluation and Review Technique (PERT).
Week 11	Quality Control and production inspection method
Week 12	Industrial costs and controllable cost techniques
Week 13	Maintenance
Week 14	Replacement
Week 15	Self-assessment control

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	د. عادل عبد المالك " الهندسة الصناعية " - دار الكتب للطباعة والنشر - جامعة البصرة - الطبعة الأولى 200	Yes
Recommended Texts	د. خليل العاني ، د. إسماعيل إبراهيم القزاز ، د. عادل عبد المالك أوربال " إدارة الجودة الشاملة ومتطلبات الأيزو 2000:9001 " الطبعة الأولى 2001 ، مطبعة الأشقر - بغداد	No
Websites	1. https://www.workamajig.com/blog/critical-path-method 2. https://www.editorialmanager.com/cherd/default2.aspx?pg=AuthorshipVerification.aspx&docid=50317&authorID=%7b0854344E-1B2D-43DE-9697-4095BA17131E%7d&msid=%7bC7C1D8B5-7EF8-4FDD-B449-5CE3CD0A947A%7d 3. https://www.investopedia.com/terms/q/quality-control.asp	

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.

Code	Course/Module Title	ECTS	Semester
TEMO 400	Engineering and Industrial Management	6	8
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	1	48	102
Description			
<p>The subject aims to encourage students' participation in the management exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials and by considering types of simple assumptions involving some sampling activities that are interesting to the students.</p> <p>The results of this module study will leads to:</p> <ol style="list-style-type: none"> 1. Enable the student to use knowledge to manage the different purposes organizations. 2. Enable engineers to layout the administrative and production organization of industrial enterprises. 3. Enable engineers to layout the network planning for the different engineering processes and finding the typical path of the minimum duration that offers the best quality of the production. 4. Enable engineers to study the feasibility of the industrial processes which leads to successful of the production. 5. Enhance the student skills in management by giving the typical solution on the assumed problem. 			