MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**Engineering and Industrial Management**			**Module Delivery**	
Module Type	**Support**			☒ **Theory** ☐ **Lecture** ☐ **Lab** ☒ **Tutorial** ☐ **Practical** ☒ **Seminar**	
Module Code	**TEMO 400**				
ECTS Credits	**6**				
SWL (hr/sem)	**150**				
Module Level	3		**Semester of Deliver**	5	
Administering Department	PM		**College**	TEMO	
Module Leader	Omar Abdulhadi Mustafa		**e-mail**	Omeralhayaly1@ntu.edu.iq	
Module Leader's Acad. Title	Lecture		**Module Leader's Qualification**	Ph.D.	
Module Tutor			**e-mail**		
Peer Reviewer Name			**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

Module Objectives أهداف المادة الدراسية	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.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	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.
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. ● BUILDING SURVEY Introduction to the management [10 hrs] Modern methods of the management [15 hrs] Feasibility study [15 hrs] ● BREAK-EVEN ESTIMATION The necessity of calculations of the break-even point and its duration. [15 hrs] ● FEASIBILITY STUDY The necessity of the different field feasibility study [15 hrs] ● Administrative and production organization of industrial enterprises The meaning of the administrative and production organization of industrial enterprises and how can make the most appropriate administrative layout [15 hrs]

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 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.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	48	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	3
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	102	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	7
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**	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 آوريال " 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.

Undergraduate Courses 2023-2024

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

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.
The results of this module study will leads to:

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.