

Module (Course Syllabus) Catalogue 2022-2023

College/ Institute	Erbil Technical Engineering College	
Department	Mechanical and Energy Engineering	
Module Name	Industrial Management	
Module Code	INM706	
Degree	Technical Diploma <input type="checkbox"/> Bachelor High Diploma <input type="checkbox"/> * Master <input type="checkbox"/> PhD <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
Semester	First semester	
Qualification	PhD	
Scientific Title	Assistant Professor	
ECTS (Credits)	4	
Module type	Prerequisite <input type="checkbox"/> * Core <input type="checkbox"/> Assist. <input type="checkbox"/>	
Weekly hours	2	
Weekly hours (Theory)	(2) hours class	(27) Total hours workload
Weekly hours (Practical)	() hr Class	() Total hrs workload
Number of Weeks	12	
Lecturer (Theory)	Assist. Prof. Dr. Abdulkhalek	
E-Mail & Mobile NO.	abdulkhalek.kadir@epu.edu.iq	
Lecturer (Practical)	-	
E-Mail & Mobile NO.		
Websites		

Course Book

<p>Course Description</p>	<p>This course consists of two main parts study in a one year of two courses at the technical engineering college.</p> <p>The first part contains the subjects which are related to management topic in general, the concerned definitions with understanding of the principles and basic actions of management are to be taken, the industrial management and industrial engineering with explanation of departments of the industrial factories and processes of productions and services are to be taken as well. Also, the subjects of production planning and control types of manufacturing costs, even-break analyses, and forecasting of selling produced goods by the factory are to be studied. The time and motion study of raw materials and products in the factory are to be taken, the subjects of how to draw the building and halls of industrial factory with the raw materials drawing plan are to be studied. Finally, in this part, the subjects of maintenance, renovation of machines and tools, and how to manage them are to be studied as well.</p> <p>Note: The subjects will be given by details of examples of operations and related procedures, then solved examples will be given for some subjects of the study material</p>
<p>Course objectives</p>	<p>نهم کورسه بیان نهم وانه یه نهم په یامه گرنګانه * خواره وه ده یه خشیت:</p> <p>یه کهم: فیبر بوونی قونابی خویندکار به بنه ما و پرئسیپه کانی به ریوه بردن به گشتی و وه به ریوه بردنی پیشه سازی به تاییه تی.</p> <p>دووم: فیبر بوون * قونابی خویندکار به بنه ما و پرئسیپه کانی نه ندازه ی پیشه سازی و دروست کردن. هه روه ها فیبر کردن قونابی خویندکار نه سهر پیناسه و پلان دارشتنی به ره مهینان و خزمه تگوزاری و نه خشه ریژی دهر باره ی به شه کانی کارگه و شیکردنه وه و پیشیینی کردن به ره هم و تیچوووه کان.</p> <p>سییه م: فیبر کردن قونابی خویندکار نه سهر چوئیه تی به ریوه بردن * کارگه و کوپانیا، نه گه ل چوئیه تی دامه زرانندی کارگه و کوپانیا هه تا ده گاته راده ی به ره مهینان و خزمه تگوزاری ته واو. نه گه ل فیبر بوونی قونابی نه سهر بابیه تی چاککردنه وه ی ماشین و نامیره کان.</p>
<p>Student's obligation</p>	<p>During this semester, the student must fulfil the following obligations:</p> <p>First: Attending lectures in the hall.</p> <p>Second: Share discussions about lecture topics in the class.</p> <p>Third: The student must do the following:</p> <ul style="list-style-type: none"> ✓ Respect for the teaching staff, students and other employees. ✓ Implementation of health, safety, and environmental protection instructions ✓ Maintaining college property. ✓ Respect the instructions issued by the scientific department and the college. ✓ Conducting monthly and final examinations according to the instructions. <p>Fourth: Accomplishment of the following components during this semester:</p> <ul style="list-style-type: none"> • Homework / 2 • Report / 1 • Seminar / 1 • Quiz/ 2 • Attending a scientific visit to the manufacturing or services firms.

Required Learning Materials	Required learning materials are consist of the lectures, discussions, quizzes, examinations, visiting to industrial and services firms, presenting video films about manufacturing and services firms, operations, control, and facilities, then, accomplishment of six components of the study.				
Evaluation	Task	Weight (Marks)	Due Week	Relevant Learning Outcome	
	Paper Review				
	Assignments	Homework	10%	6 & 9	
		Class Activity	2%		
		Report	8%	4	
		Seminar	8%	10	
		Essay			
		Project			
	Quiz	8%	5& 9		
	Lab.				
	Midterm Exam	24%			
	Final Exam	40%			
Total	100%				
Specific learning outcome:	<p>ناما نجه سهرهكيبهكاني نهم كورسه يان نهم وانهيه بريتيه له فير كردني قوتابي خوينكار بو نهوهي بتوانيت كارگه و كومپانياي پيشهسازي و بهرههم هيئان و خزمهنگوزاريبهكان به شيوازيكي زانستيانه بهريوه بيات. يان پروژه بهريوه بيات . ههروهها فير دهبيت كه چون پلان دادهريزييت و فير دهبيت كه چون كونترولتي كه لوپهل و بهرههم دهكات . فيري نههيشتنى كهه و كوريبهكان دهبيت. تواناي قوتابي خويندكار بهرز دهكاتوهه كه لايه ني تهكنيكي و نهاندازهي له كارکردن بهره بيادات. تواناي سهرپهرشتي كردني كارمهند و فهرمانبهرائي دهبيت.</p>				
Course References:	<p>1. T. Ramasamy, (<i>Principles of Management</i>), Himalaya Publishing House, Mumbai, India, 2008 2. R. B. Gupta; Anita Kathal, (<i>Engineering Management</i>), Tech India Pub. Series, ISBN 81-7684-496-9, 2009 3. S. A. Rizvi; D. K. Singh, (<i>Quality Control</i>),Galgotia Pub. Pvt. Ltd., New Delhi, ISBN 78-7515-362-8, 2004 4. R. S. Naagarazan; A. A. Arivalagar. (<i>Total Quality Management</i>), New Age International, New Delhi, ISBN 978-81-224-2478-2, 2009 5. The web pages that are related to the subjects within this course, such as researches, articles in magazines, special studies, case studies, and theoretical or practical papers.</p>				
Course topics (Theory)	Week	Learning Outcome			
Industrial management Industrial engineering	1				
Principles of management Functions of management	2				
Departments of an industry factory	3				
Presenting video films about manufacturing and services firms	4				
Costs of manufacturing	5				

Scientific visit to factory + report	6	
Break-even analysis + Examples	7	
Production planning and control PPC	8	
Maintenance + Examples	9	
Forecasting + Examples	10	
Factory layout + Examples	11	
Factory layout + Examples	12	
Practical Topics	Week	Learning Outcome

Questions Example Design:

Question 1 (Industrial management), (5 + 5 degrees):

- A- Complete the definition: The management is the art
- B- Bring 5 examples of services.

Question 2 (Departments of an industry factory), (10 + 10 degrees):

- A- Name 10 examples of industrial factories.
- B- Materials department has specified duties connected with materials moving inside the factory, write those duties.

Question 3 (Maintenance), (10 + 10 degrees):

- A- There are five types of the maintenance, state them only.
- B- Preventive maintenance (PM) is subdivided into five types according to the nature of its activity, write these five types.

Q4: (Maintenance).

- A- Define maintenance according to (British Standard Glossary). (5 degrees)
- B- Write five types of maintenance. (5 degrees)
- C- The type of (Run of Failure Maintenance) is divided into two types. Write them with their definitions. (6 degrees)

Q5: (Forecasting).

Solve the following example:(24 degrees)

Calculate the trend of sales by using 3- and 4-years moving average, the sales data for corresponding years are given as follows:

Years	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Sales	12	15	14	16	18	17	19	20	22	25	24

Forecast the demand for the year 1996.

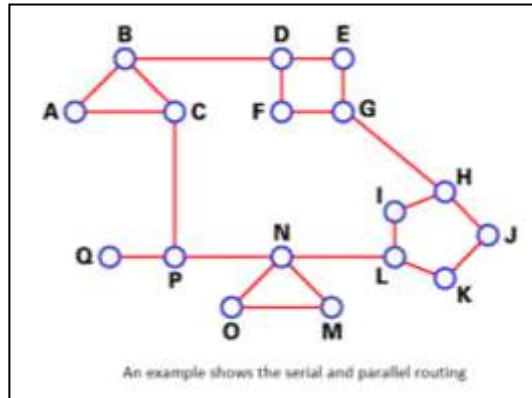
Q6: (Break- even analysis). (23 degrees)

Solve the following example:

At an industrial factory of air-conditioning devices, it produces 5000 devices per year, for this year, the selling price of one device is 100 dollars, the fixed costs are 10,000 dollars, the variable costs is 50 dollars. Assume that all products are sold and with the same price. Determine after what number of products, the profits will begin, (or determine the Break-even point).

Question 7: (PPC), (10 degrees):

A- The following is an example shows the serial and parallel routing. Explain it.



Extra notes:

External Evaluator:

After reading this Module (Course syllabus) catalogue 2022-2023, it is suitable and perfect for teaching in mechanical engineering colleges.
Best regards



Salim A. Kako
Lecturer
College of Technology- EPU