

Module (Course Syllabus) Catalogue 2022-2023

College	Erbil Technical Engineering		
Department	Civil Engineering		
Module Name	Engineering Management & Economy		
Module Code	EME804		
Semester	8		
Credits	4		
Module type	Prerequisite <input type="checkbox"/>	Core <input checked="" type="checkbox"/>	Assist. <input checked="" type="checkbox"/>
Weekly hours	2		
Weekly hours (Theory)	(2)hr Class	(108)hr Workload	
Weekly hours (Practical)			
Lecturer (Theory)	Aksana Jihad Mohammed		
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Lecturer (Practical)			
E-Mail & Mobile NO.			

Course Book

<p>Course Description</p>	<p>In this course students will learn the principles of construction management, how to become a successful project manager explaining the main and secondary objectives, explaining the main tasks of construction manager, also the main responsibilities. Planning methods and organizing basis to organize work properly supervising methods and levels with explaining the objective of supervising. Also controlling work by choosing the most appropriate method for controlling. In this course there is a detailed process of managing projects starting from planning till handing over, with methods of financing a project with explanation of both capitalism and socialism systems, also full details of engineering economy rules such as supply and demand law that controls the market of construction.</p> <p>The student will be familiar how to use critical path method for planning with explanation of some other methods used in planning, also the calculations for profit and interest in selecting among alternatives in order to minimize the cost of a project.</p> <p>This course teach students all managing and controlling process with engineering economy rules</p> <p>The student will learn how to manage the work in the office and be familiar with the cost evaluation and financing principals</p>
<p>Course objectives</p>	<p>Course objectives:</p> <ol style="list-style-type: none"> 1-Learning the scientific concept of management 2-Learning administration law and administration system 3- Learning planning, directing and controlling system and the methods of planning 4- Learning engineering evaluation 5- Learning resource allocation method 6-Learning how to finance a project and methods of financing projects 7-Learning economy environment and Supply and demand law 8- Learning capital revenue and capital productivity and interest and money time relationships 9- Learning selection among alternatives 10-Learning depreciation law and equations
<p>Student's obligation</p>	<ol style="list-style-type: none"> 1-Attendance. 2- Exams. 3- Reports. 4- Quizzes. 5- Seminar. 6- Project

Specific learning outcome:	<p>Students will learn the following:</p> <ol style="list-style-type: none"> 1- The administrative process and administration system. 2-How to prepare evaluation study and how choose the construction team. 3-The resource allocation method and how to make the feedback. 4-Teaching students the engineering economy objectives and methods of financing any project and measurement of economic values. 5-The supply and demand law and the equations used for that. 6-The capital productivity and revenue, teaching students the interest and money time relationship. How to select among alternatives and analyses. 7- Teaching student methods of calculating depreciation. 8-The student will learn the typical objectives of all construction benefiteres. 				
Required Learning Materials	<p>. Handbook is given to students which contain all the detailed lectures. Also, data show is used during the lesson and examples are solved on the magi board during the lecture. Every week quiz is made to evaluate the understanding of students for the pervious lecture.</p>				
Evaluation	Task		Weight (Marks)	Due Week	Relevant Learning Outcome
	Paper Review				All
	Assignments	Homework	10%		
		Class Activity	2%		
		Report			
		Seminar	8%		
		Essay			
		Project	8%		
	Quiz		8%		
	Lab.				
	Midterm Exam		24%		
Final Exam		40%			
Total		100%			
Course References :	<p>Key references:</p> <ol style="list-style-type: none"> 1-Barry Frayer, The practice of construction management 2-C..M..Chang, Engineering management 3-Clifford J. Schexnayder . Richard E. Mayo, Engineering economy 				

	<p>4-William G.Sullivan , Elin M. Wicks , James T. Luxhoy, Engineering economy</p> <p>5-Blank Tarquin, Engineering economy</p> <p>6-جمال صبيحات العبادي الاقتصاد الهندسي-</p> <ul style="list-style-type: none"> ▪ Useful references: ▪ Magazines and review (internet): 	
Practical Topics	Week	Learning Outcome
N/A		
Course topics (Theory)	Week	Learning Outcome
<i>Introduction for Management The scientific concepts of Administration and administration Construction management, the main & secondary objectives for the construction manager, management responsibilities, and typical objectives of benefiter</i>	1	1
<i>Management conditions, The relationship between the state administration and the administrative law, and planned activity</i>	2	2,
<i>Organizing and organizing bases, supervision and directing, monitoring, construction system, and factors affecting the volume of construction team</i>	3	2,3
<i>Methods of Planning, bar-chart method, critical path method, and grid diagram method Critical path method with details and definitions Solving Math. Examples& Problems</i>	4	3
<i>Engineer and construction economy, cost of any project, and recommendation engineer may follow to minimize cost of a project Engineering Evaluation, project supervision, and using wireless communications</i>	5	3,4
<i>Preparing engineering evaluation, objections on engineering evaluation, and Planning & Management Observations could be taken into account to reduce cost of a project, and Resource allocation Project Financing & Feedback, and controlling system</i>	6	4,5
<i>Introduction for Economy and engineering economy objectives Financial efficiency of a project, Methods of financing a project& Economy environment</i>	7	6
<i>Economy environment, Law of supply and demand, and Minimum cost equations in engineering industry</i>	8	7,8

<i>The productivity of capital, capital revenue, fixed and variable cost of a project Interest and money-time relations, and types of interest</i>		
<i>Solving Math. Examples& Problems Interest formulas relating uniform (arithmetic) gradient series to its present worth and annual worth</i>	9	8
<i>Solving Math. Examples& Problems Selection among alternatives& Present worth analyses of equal- life alternative, the union of companies</i>	10	8,9
<i>Solving Math. Examples& Problems Depreciations & types of depreciation. types of economic values, and fixed origins, and methods of calculating depreciation</i>	11	9,10
<i>Solving Math. Examples& Problems</i>	12	10

Extra notes:

External Evaluator

As a lecturer i have reviewed the Course Book related to the subject of Engineering management and economy for eight semester, Department of Civil Engineering, College of Technology, I found that the course Book is very good describing the aim and objectives of the subject. Moreover, it is covering all the required syllabus and contents of the course and describes satisfactorily the aspects related to the course.



Dr. Bahman Omar Taha
Lecture
Ph.D. in Structural Engineering.