Kurdistan Regional Government- Iraq
Ministry of Higher Education and Scientific Research
Soran University

Module Description

(Construction Management and Economics)

General Information			
Title	Construction Management and Economics	Type	Core Module
Code	SOU20170	ECTS Credits	6
Level	UGIV	Semester	Eighth
Department	Civil Engineering	Faculty	Engineering
Module Leader	Salar S. Ahmed	E-mail	salar.ahmed@visitors.soran.edu.iq
Academic Title	Assistant Lecturer	Qualification	MSc
Tutor		E-mail	
Peer Reviewer		E-mail	
Confirmation Date			

Relation with other Modules	
Pre-requisites	SOU20130 & SOU20141
Co-requisites	

Module Aims, Learning Outcomes and Indicative Contents	
Aims	1. Introduce the basic and principles of Engineering Management. 2. Introduce the basic and principles for methods of planning and scheduling of the projects. 3. Identify engineering economy principles. 4. Introducing the construction process and estimation of construction materials and projects. 5. Introducing the Construction Contract, types of contract, bidding and contract award and contract documents, and general Condition of Contracts
Learning Outcomes	At the end of the course, the students are expected to have the following learning outcomes: 1. Understand the engineering management principles and fundamentals. 2. Prepare and present the technical construction schedules and estimations effectively. 3. Having ability to be member of construction management.

Indicative Contents	Engineering management, engineering economy, scheduling, project management

Learning and Teaching Strategies

- Lectures using power point presentation will be used to present theoretical concepts and develop knowledge and understanding on the various topics.
- For subjects that need further clarification, classic teaching method such as using white board will be to deliver the subjects.
- Seminars will be used to introduce recent research developments in the field.
- A large range of practice questions covering all learning objectives will be available on LMS of Soran University. Students will be expected to attempt these before coming to formal tutorial sessions.

Delivery

Lecture (hr/w)	6				
Lab. (hr/w)		Practical (hr/w)	3	Tutorial (hr/w)	3
SSWL (hr/sem)	60				
USSWL (hr/sem)	84				
Total workload (hr/sem)	144				

Evaluation

Task	Weight (Marks)	Due Week	Relevant Learning Outcome
Term paper			
Quiz	10%		
Assignments	10%		
Project	10%		Individual project
Midterm Exam	20%		
Final Exam	50%		
Total	100%		

Resources

Materials	Text	How to access? / e-link
Required Texts	• Book of Project Management A Systems Approach to Planning, Scheduling, and Controlling. 10th EDITION HAROLD KERZNER, Ph.D. 2009	

	• Modern construction management / Frank Harris and Ronald McCaffer with Francis Edum-Fotwe.–7th ed. 2012 • Nunnally, S., 2007, Construction Methods and Management, 7ed, Pearson Education Inc.: New Jersey • Lecture Hand outs	
Recommended Texts	• Sullivan, W., Wicks, E., Koelliing, C., 2012, Engineering Economy, 5 ed, Pearson High Education, Inc: United States of America	
Websites	• Soran University LMS	

Weekly Syllabus		
Weeks	**Subject(s)**	**Short Description**
W1	Introduction to Project Management	General concepts of the project, Project management, cycle life of the project Construction management and organization for construction Roles of engineer, Project Manager and Contractor in construction,
W2	Construction Process (Methods) of Projects	Project Development and contract Procedures How Construction is Accomplished Owner management of construction Construction by a general contractor
W3	Planning and Scheduling of Project	Methods of planning and scheduling of projects.
W4	Introduction of Engineering Economy (Economic Environment)	Consumer and producer goods and services, price - demand relationships, applications and examples. The law of supply and demand, breakeven point applications and examples
W5	Selection of Materials in Present Economy	General concepts in present economy selection, selection among materials, selection of location, alternative machine speeds with application by examples.
W6	Interest Money-Time Relationship	General concepts on the return to capital, interest and profit, simple interest, compound interest, applications and examples.
W7	Estimation, Rate Analysis and Bill of Quantities (BOQ) Preparation	Project Estimation, Cost analysis in construction works with numerical examples and bill of quantities (BOQ).
W8	Estimation of Building and Road Projects	Estimation of Building Projects**,** Estimation of Road Projects, Types of Estimates
W9	Midterm	Exam
W10	Centre line Method	Estimating of Arches, Hexagonal and Circular Works
W11	Estimation of Construction Materials	Process of estimating quantities and costs of the materials, labor, and equipment for construction project.
W12	Construction Contract and Administration	Construction Contract definition, types of contract, bidding and contract award and contract documents, and payment, changes and delays, acceptance and final payment, claims and disputes
W13	Safety in Construction	Safety programs, safety procedures, and environment

		health in construction.
W14	Basic Methods for Making Economic Studies	Basic methods of rate of return: internal rate of return, external rate of return and explicit reinvestment rate of return. Examples and applications
W15	Review	General Review
W16	Final Exam	Exam