

College of Engineering

Department of Civil Engineering

جامعة
الملك سعود
King Saud University



CE 511 Construction Planning and Control

Credit and Contact hours	3/ 3 (Lectures), 0 (Tutorials), 0 (Laboratory)								
Required, or Elective	Required for a MSCE degree								
Course Description	This course provides the students an opportunity to study and apply a different planning and scheduling tools and techniques throughout a life cycle of a project.								
Prerequisites or Co-requisites	None								
Course Learning Outcomes	<table border="1"><thead><tr><th>Course Learning Outcomes</th><th>Related Program Outcomes</th></tr></thead><tbody><tr><td>CLO1: Recognize and identify the critical challenges in planning and scheduling of any construction project by using different planning tools and scheduling techniques.</td><td>K1</td></tr><tr><td>CLO2: Apply knowledge, skill, tools, software and techniques in planning and scheduling projects in the field of construction engineering and Management.</td><td>S1</td></tr><tr><td>CLO3: Evaluate the success of construction project in term of scope, time, cost, quality</td><td>C2</td></tr></tbody></table>	Course Learning Outcomes	Related Program Outcomes	CLO1: Recognize and identify the critical challenges in planning and scheduling of any construction project by using different planning tools and scheduling techniques.	K1	CLO2: Apply knowledge, skill, tools, software and techniques in planning and scheduling projects in the field of construction engineering and Management.	S1	CLO3: Evaluate the success of construction project in term of scope, time, cost, quality	C2
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Student Outcomes related to this Course	<p>K1. Recognize advanced engineering knowledge, concepts and techniques to identify, interpret and analyze complex and real-life engineering problems.</p> <p>S1. Provide solution for complex and real-life engineering problems through critical thinking and using modern engineering tools and identify its impact on social and ethical issues.</p>								

	C2. Design novel advanced Civil Engineering systems and evaluate its performance and effectiveness for engineering practice and its impact on society.	
Topics Covered	List of Topics	Related CLOs
	1. Review an introduction to Construction Management and a little brief about project Participants and Project Life cycle	CLO2
	2. Chosen and evaluation of a project	CLO3
	3. Recognize the definition of Project charter and Pre-Project planning (PPP) and also the Project the Project Definition Index illustration	CLO1
	4. Expose the determining Activity Durations and time in contract also Bar chart , activity on Node , activity on arrow , Precedence diagraming and time scaled diagram	CLO2
	5. Illustrate the Time-Cost Trade-Offs, Linear Scheduling (LOB) and short interval planning (SIP) and Program Evaluation & Review Technique (PERT)	CLO2
	6. Review the ideas of Resource Leveling and Allocation , Cash Flow Forecasting ,Time Control and Cost Control , Analyze of scheduling and Controlling of Delay	CLO2
	7. Selected Topics (Change Management , Risk Management)	CLO3
Textbook(s) and Other Required Material	<ul style="list-style-type: none"> • Construction Planning and Scheduling (4th Edition) by Jimmie W. Hinze, 2011. • Project Management with CPM, PERT, and Precedence Diagramming,3rd Edition, by Moder J., Phillips, C., and Davis, E. • International Project Management, Academic Press, 2003, Miner Media, Eng Mgt 461, International Case Studies, Bennet Lientz and Kathryn Rea, (ISBN-0-120449985-6). • Eldosouky, A.I., Principles of Construction Project Management, Tanta University, 2001. 	
Grading System	Assignments	5%
	Lecture Attendance	5%
	Project Work	30%
	Midterm Exam	20%
	Final Exam	40%
Instructors	Dr. Fahad Khshim Bin Welah, Assistant professor, office# 2 A 14, email: bfahad@ksu.edu.sa , Website: https://fac.ksu.edu.sa/bfahad/home	
Date of Review	February, 2021	