

College of Engineering

Department of Civil Engineering

جامعة
الملك سعود
King Saud University



CE 515 Cost Analysis and Control

Credit and Contact hours	3/ 3 (Lectures), 0 (Tutorials), 0 (Laboratory)										
Required, or Elective	Required for a MSCE degree										
Course Description	Basic principles of cost accounting, financial analysis, and cost control. Integration of scheduling and cost control. Systematic cost control as related to job production and historical data.										
Prerequisites or Co-requisites	None										
Course Learning Outcomes	<p>Students completing this course successfully will be able to</p> <table border="1"><thead><tr><th>Course Learning Outcomes</th><th>Related Program Outcomes</th></tr></thead><tbody><tr><td>CLO1: Identify advanced cost estimation concepts, advanced techniques, tools, and suitability.</td><td>K1</td></tr><tr><td>CLO2: Apply advanced knowledge to tackle a real-life issue or aspect of construction estimating in Saudi Arabia.</td><td>S1</td></tr><tr><td>CLO3: Analyze the conceptual and detailed construction cost estimating process.</td><td>S1</td></tr><tr><td>CLO4: Develop the detailed estimate of civil engineering works.</td><td>S1</td></tr></tbody></table>	Course Learning Outcomes	Related Program Outcomes	CLO1: Identify advanced cost estimation concepts, advanced techniques, tools, and suitability.	K1	CLO2: Apply advanced knowledge to tackle a real-life issue or aspect of construction estimating in Saudi Arabia.	S1	CLO3: Analyze the conceptual and detailed construction cost estimating process.	S1	CLO4: Develop the detailed estimate of civil engineering works.	S1
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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>										

Topics Covered	List of Topics		Related CLOs
	1. Introduction		CLO1
	2. Overview of the Construction Estimating Process		CLO1
	3. Types of Estimates, Risks, and Conceptual Estimating		CLO3
	4. Computers and Estimating		CLO1
	5. Overview of the Detailed Estimate		CLO2
	6. How To Determine Costs for the Project		CLO2
	7. Intensive Construction Related Applications: Site work and Excavation, Earthwork, Concrete, etc.		CLO4
	8. Construction Cost Accounting Methods and System		CLO3
	9. Job Cost Control System		CLO3
	10. Managing Costs And Setting Profit Margins for Bidding		CLO4
	11. Term Project Presentations		CLO2
Textbook(s) and Other Required Material	<ol style="list-style-type: none"> 1. Schuette, Stephen D. and Liska Roger W. Building Construction Estimating. McGraw-Hill Higher Education, Inc. USA. 2. Robert L. Peurifoy and Garold D. Oberlender. Estimating Construction Costs. McGraw-Hill Higher Education, Inc. USA. 3. James J. Adrian. Construction Estimating: An Accounting and Productivity Approach. Prentice-Hall Inc., Upper Saddle River, NJ, USA. 4. Steven J. Peterson. Construction Accounting and Financial Management, Pearson Higher Education, Inc. Upper Saddle River, NJ, USA. 		
Grading System	Participation	10%	
	Project Work	20%	
	Midterm Exam	30%	
	Final Exam	40%	
Instructors	Dr. Naief Ibn-Homaid, Associate Professor Office: 2A20, e-mail: bnhomaid@ksu.edu.sa Website: https://fac.ksu.edu.sa/bnhomaid/home		
Date of Review	February, 2021		