



**Jordan University of Science and Technology**  
**Faculty of Engineering**  
**Civil Engineering Department**

CE472 Contracts, Specifications And Quantity Surveying - JNQF Level: 7

First Semester 2023-2024

**Course Catalog**

3 Credit Hours. Elements of contracts, contract award, bid preparation and evaluation. Types of contracts: lump sum, unit price, and cost-plus contracts. The FIDIC conditions of contracts: Engineer, Employer, and Contracts role and responsibilities; payment certificates; testing and inspection; variation orders; force majeure and employer risks; termination of contracts; claims and arbitration. Standard and special specifications; open, closed, and restricted specifications; prescription and performance specifications; writing specifications; and key specifications of concrete, steel, lumber, masonry, tiles, plastering, and paint. Understanding plans and specifications; quantity takeoff using standard forms; takeoffs of excavations, concrete, reinforced steel, lumber, masonry, tiles, plastering, sanitary, and painting works.

**Text Book**

<b>Title</b>	Estimating, costing, and specification
<b>Author(s)</b>	M. Chakraborti
<b>Edition</b>	8th Edition
<b>Short Name</b>	Ref #1
<b>Other Information</b>	

**Course References**

Short name	Book name	Author(s)	Edition	Other Information
Ref #2	The FIDIC conditions of contract	Ministry of public works and housing.	2nd Edition	

**Instructor**

Name	Miss Nisrein Al-Daod
Office Location	C1 L3
Office Hours	
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<b>Class Schedule &amp; Room</b>
Section 1: Lecture Time: Sun, Tue : 09:30 - 10:30 Room: A3132  Section 2: Lecture Time: Mon, Wed : 11:30 - 12:30 Room: C2010

<b>Prerequisites</b>		
<b>Line Number</b>	<b>Course Name</b>	<b>Prerequisite Type</b>
233411	CE341 Surveying	Prerequisite / Study
234321	CE432 Reinforced Concrete (1)	Pre./Con.

<b>Tentative List of Topics Covered</b>		
<b>Weeks</b>	<b>Topic</b>	<b>References</b>
Week 1	Introduction of Quantity Surveying	
Weeks 2, 3	Quantity Surveying of plain and reinforced concrete (takeoff tables)	
Weeks 4, 5	Quantity Surveying of steel reinforcement (Steel Schedule)	
Week 6	Quantity Surveying of water tanks (Concrete and steel)	
Week 6	Quantity Surveying of Stair case (Concrete and steel)	
Week 7	Quantity Surveying of finishes (takeoff tables)	
Week 8	Bid preparation and evaluation.	
Week 9	Introduction to the types of specifications.	
Week 9	Specifications of earthworks, concrete, steel.	
Week 10	Specifications of finishes (Stone, Hollow block, Plastering and wooden doors)	
Week 11	Types of structural contracts	
Weeks 13, 14, 15, 16	The FIDIC conditions of contracts: General and Special Conditions.	

<b>Mapping of Course Outcomes to Program Outcomes and NQF Outcomes</b>	<b>Course Outcome Weight (Out of 100%)</b>	<b>Assessment method</b>
Be able to understand the contracting process: elements of contract, contract documents, main and subcontractors, tendering, and contract award [1SO1] [1L7K1]	10%	
Be able to understand the different types of contracts: design, construction, engineering services, construction management, construction, design-build, and turnkey contracts. [1SO1] [1L7K1]	10%	

Be able to understand the FIDIC conditions of contract: duties and responsibilities of contracting parties; testing and inspection; payments and certificates of completion; employer risks; and variation orders. [1SO1][1L7K1]	10%	
Be able to understand the process of resolution of claims and disputes. [1SO4][1L7K1]	10%	
Be able to understand the specifications of major civil works. [1SO1][1L7K1]	10%	
Be able to prepare quantity take off for civil works. [1SO1][1L7S3]	20%	
The student will be able to prepare BOQ and bids for construction projects [1SO1, 1SO4][1L7S1]	10%	
The student will be able to write performance and detailed specifications. [1SO4][1L7S2]	10%	
The student will be able to prepare quantity take off for civil works and BBQ for construction projects. [1SO7][1L7C2]	10%	

Relationship to Program Student Outcomes (Out of 100%)						
SO1	SO2	SO3	SO4	SO5	SO6	SO7
65			25			10

Relationship to NQF Outcomes (Out of 100%)				
L7K1	L7S1	L7S2	L7S3	L7C2
50	10	10	20	10

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