

College: Engineering Department: Civil Engineering

Course Title: Specifications and Contracts

Course No: 0901502

Credit Hours: 3 C.H.

Semester: 2020/2021

About The Course

Course Title: Specifications and Contracts Class:1

Course No: 0901502 Credit Hours: 3 C.H.

Lecture Room: 204

Obligatory/ Optional: Obligatory

Text Book: Sandra Lee, William Trench & Andrew Willis and FEDIC: Conditions of

contract for works of civil engineering construction (the red book).

The Instructor

Name: Dr. Dr. Hesham Al Sharie Title: Assistant Professor

Office Tel: 330

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9:30-12:30 MON&WED

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Course Description

The specifications module covers the types of specifications: standard and special specifications; open, closed, and restricted specifications; prescription and performance specifications; writing specifications; and key specifications of major civil works including those of concrete, reinforced steel, lumber, masonry, tiles, plastering, and paint.

The contracts module covers contracting process, elements of contracts, tendering and methods of contract awards, bid preparation and bid evaluation. Types of contracts: lump sum, unit price, and costplus contracts. Engineering service contracts, design build contracts, and construction contracts. The **FIDIC** conditions of contracts: Engineer, Employer, and Contracts role and responsibilities; interim and final payments certification; testing and inspection; variation orders; force majeure and employer risks; termination of contracts; claims and arbitration.

Course Objectives

To provide an understanding of the behavior of Introductions: building Code and specifications; Specification (quantitative) and Drawings (qualitative); the content (dimensions, quality, finish); international standard references.

Contract administration:- Representatives on site, Progress reports, Changes and delays, Acceptance and final payments, Claims and disputes, Contract termination..

Learning Outcome

After successfully completing this course, the students should be able to:

1- To develop firm basic understanding of Contract administration and building

Course Outline and Time schedule

Week	Topic	Chapter Reading
		Assignments
1/16	Introductions: building Code and specifications; Specification (quantitative)	Chapter 1
	and Drawings (qualitative	
2/16	The content (dimensions, quality, finish); international standard references.	Chapter 2
3/16	Standard specifications.	Chapter 3
4/16	Types of specifications: - Performance and design; closed and open; all	Chapter 4
	inclusive, reference,	
5/16	Specification problems for contractors.	Chapter 5
6/16	Classification of trades; specifications of trades.	Chapter 6
7/16	Classification of trades; specifications of trades.	Chapter 7
8/16	Exam I Take off procedure, take off sheet.	Chapter 8
9/16	Construction contracts:	Chapter 9
10/16	Contract documents	Chapter 10
11/16	Contract elements	Chapter 11
12/16	Contract types: competitive; negotiated; build – design; joint venture.	Chapter 12
13/16	Exam II	Chapter 13

14/16	General and special (supplementary) conditions, Subcontracts.	Chapter 14
15/16	Contract administration:- Representatives on site, Progress reports, Changes and delays, Acceptance and final payments, Claims and disputes, Contract termination.	Chapter 15
16/16	Final Exam	

Presentation methods and techniques

Methods of teaching varied according to the type of text, student and situation. The following techniques are usually used:

- 1- Lecturing with active participations.
 - Involve the civil engineering students in asking some questions related to the target topic of the course.
- 2- Problem solving.
 - Encourage the students to solve the given assignments and submit them at the definite time,
- 3- Cooperative learning.
 - By enhancing the students studying in groups.
- 4- Discussion.
 - To discuss the results and the answers of the target problems.
- 5- Learning by activities.
 - To encourage the students to some group activity.
- 6- Connecting students with different sources of information.

Sources of information and Instructional Aids

- Computer software ... power point
- Using weight board.
- Library sources

Assessment Strategy and its tools

The assigned syllabus is assessed and evaluated

Through: feedback and the skills that are acquired by the students

The tools:

1- Formal (stage) evaluation

a) Class Participation 10% b) Ist Exam 20%

- c) 2nd Exam 20%
- d) Group activity and Quizzes 10%

Tool & Evaluation

Tests and quizzes are permanent tools & assessment, in addition to the activity file which contains curricular and the co-curricular activities, research, report papers and the active participation of the student in the lecture.

The following table clarifies the organization of the assessment schedule:

Test	Date	Grade
Midterm		20
	Students should be notified about their marks	40
	Activities & Participation	
Final Exam		40

Activities and Instructional Assignment

- 1- Practical assignments to achieve the syllabus objectives.
- 2- Group Activity.

Regulations to maintain the teaching-Learning Process in the Lecture:

- 1- Regular attendance.
- 2- Respect of commencement and ending of the lecture time.
- 3- Positive relationship between student and teacher.
- 4- Commitment to present assignments on time.
- 5- High commitment during the lecture to avoid any kind of disturbance and distortion.
- 6- High seuse of trust and sincerity when referring to any piece of information and to mention the source.
- 7- The student who absents himself should submit an accepted excuse.
- 8- University relevant regulations should be applied in case the student's behavior is not accepted.
- 9- Allowed Absence percentages is (20%).

References:

- 1. Jordan building law and regulations. MPWH, Jordan .
- $2. The \ contract \ agreement \ Book: \ General \ and \ Special \ conditions; \ MPWH, \ Jordan \ .$
- 3. FEDIC: Conditions of contract for works of civil engineering construction (the red book).

Syllabus Classification

Objectives	Learning outcome	Assessment tools
1-	Students are able to apply knowledge of engineering	By using solved problems. Power point and weight board
2-	Students are able to design and conduct experiments	By using solved problems. Power point and weight board
3-	Students are able to analyze and interpret data	By using solved problems. Power point and weight board
4-	Students are able to work cooperatively and Students are able to apply knowledge of engineering	By using solved problems. Power point and weight board