



Module (Course Syllabus) Catalogue 2022-2023

College/ Institute	Erbil Technology College	
Department	Construction & materials technology Engineering	
Module Name	Construction Regulations & Standards	
Module Code	CRS353	
Degree	Technical Diploma <input type="checkbox"/> Bachelor <input checked="" type="checkbox"/> High Diploma <input type="checkbox"/> Master <input type="checkbox"/> PhD <input type="checkbox"/>	
Semester	6	
Qualification	Master-Structures Engineering	
Scientific Title	Lecturer	
ECTS (Credits)	5	
Module type	Prerequisite <input type="checkbox"/> Core <input checked="" type="checkbox"/> Assist. <input type="checkbox"/>	
Weekly hours	4	
Weekly hours (Theory)	(4)hr Class	(135)Total hrs Workload
Weekly hours (Practical)	()hr Class	()Total hrs Workload
Number of Weeks	16	
Lecturer (Theory)	Arsalan H. Hasan	
E-Mail & Mobile NO.	arsalan.hasan@epu.edu.iq	
Lecturer (Practical)		
E-Mail & Mobile NO.		
Websites		

Course Book

Course Description	<p>1- Understanding the construction materials types which used in construction projects ,so there is old construction materials they are have been used but they are in permanent development throughout their specifications and uses ,and there is a new construction materials used now .</p> <p>2- The sound knowledge of this subject is necessary for every student , because without this knowledge the student or an engineer cannot predict the properties and behavior of the materials , he is going to use in the project . All the materials existing in the universe are useful in one field or more.</p>
Course objectives	<p>Upon completion of this course, the student will:</p> <ul style="list-style-type: none">• Describe commonly used building codes• Describe construction documents• Identify the various codes used in construction• Identify tables, charts, and guidelines contained in codes• Describe construction classifications and occupancy categories
Student's obligation	<ol style="list-style-type: none">1- Attendance to lecture.2- preparation and discussion.3- Completion of four quiz at least.4- Completion of reports, homework, seminar and project.5- Completion of exams. For middy-term also final exam.
Required Learning Materials	<ol style="list-style-type: none">1- Printing lectures.2- Presentation by using data show and smart board.3- Use of white board.

Evaluation	Task		Weight (Marks)	Due Week	Relevant Learning Outcome
	Paper Review				
	Assignments	Homework	10	2-4-6	
		Class Activity	2	3-5-7	
		Report	8	3-4	
		Seminar	8	5-6	
		Essay			
		Project			
	Quiz		8	2-6-12	
	Lab.				
	Midterm Exam		24	10-11	
	Final Exam		40	15-16	
Total		100			
Specific learning outcome:	Identify various construction classifications and occupancy categories; cross-reference the guidelines, tables, charts, and specifications as presented in the building codes; and assess and determine if construction meets building code standards for site, foundation, rough, and final building structure inspection.				
Course References:	1- Basic Engineering for builders by max Schwartz,2002 2- Building materials, THIRD REVISED EDITION, S. K. Duggal, 2008. 3- Materials of construction, Lecture notes,Dr.O.EREN,2015 4-IRAQI specifications for civil works.				
Course topics (Theory)			Week	Learning Outcome	
1- Introduction: definition of regulations, standards and specification.			1	Describe commonly used building codes	
2- USE AND OCCUPANCY CLASSIFICATION			2	Identify the various codes used in construction	
3- GENERAL BUILDING REQUIREMENTS			3	Describe BUILDING REQUIREMENTS	
4- TYPES OF CONSTRUCTION			4	Identify TYPES OF CONSTRUCTION	
5- EXTERIOR WALLS			5	Describe EXTERIOR WALLS	

6- STRUCTURAL SAFETY AND SERVICES	6	Important of STRUCTURAL SAFETY AND SERVICES
7- ROOF ASSEMBLIES AND ROOFTOP STRUCTURES	7	Describe construction classifications and occupancy categories
8- GYPSUM BOARD AND PLASTER	8	Identify GYPSUM BOARD AND PLASTER
9- SAFEGUARDS DURING CONSTRUCTION	9	SAFEGUARDS DURING CONSTRUCTION
10- ROOF ASSEMBLIES AND ROOFTOP STRUCTURES	10	How the ROOF ASSEMBLIES AND ROOFTOP STRUCTURES
11- LOADS	11	How to calculate the loads
12- SEISMIC LOAD	12	Identify tables, charts, and guidelines contained in codes for seismic load

Practical Topics	Week	Learning Outcome

Questions Example Design

Notes for Scoring: The correct answer is highlighted in yellow. The source for the answer is listed in red.

1. What is a job hazard analysis?

- a. A tallying of all the hazards found on the job**
- b. A technique that focuses on job tasks as a way to identify and correct hazards**
- c. A technique for analyzing job hazards and assigning them to appropriate categories**
- d. A technique for evaluating employees on the job to make sure they are working safely**

SOURCE: Participant Manual Page 11

2. When considering controls that protect a worker from on-the-job hazards, which type of control is the most important?

- a. Engineering controls**
- b. Administrative controls**
- c. Training controls**
- d. Personal protective equipment**

SOURCE: Participant Manual Page 12

3. Employees who work on scaffolds must be protected from falling if the level of the scaffold is feet above the level below it.

- a. 5**
- b. 10**
- c. 15**
- d. 20**

SOURCE: OSHA 29CFR 1926.451(g)(1)

4. In a personal fall arrest system, lanyards and vertical lifelines must have a minimum breaking strength of:

- a. 2,000 pounds
- b. 3,500 pounds
- c. 5,000 pounds
- d. 6,500 pounds

SOURCE: OSHA 29CFR 1926.502(d)(9)

5. Personal fall arrest systems, when stopping a fall, must be rigged so that no employee can free fall more than feet, nor contact any lower level.

- a. 6
- b. 8
- c. 10
- d. 12

SOURCE: OSHA 29CFR 1926.502(d)(16)(iii)

6. When fall arrest equipment is used, employers must assure that:

- a. Users have calculated total fall distance.
- b. All equipment is properly inspected before each use.
- c. A rescue plan is in place to rescue a fallen employee.
- d. All of the above.

SOURCE: OSHA 29CFR 1926.502(d)(16)

7. When is it necessary to use lockout/tagout procedures to prevent electrical injuries?

- a. When anyone is working around electrical equipment
- b. When anyone is working on equipment that has multiple energy sources
- c. When two or more employees are performing maintenance on the same electrical equipment
- d. When there is potential for an unexpected energization of equipment that could cause injury to an employee

SOURCE: OSHA 29CFR 1910.147(a)(1)(i)

8. Ground Fault Circuit Interrupters (GFCI) are required by the National Electrical Code:

- a. When there are wet conditions.**
- b. On all temporary power circuits.**
- c. On portable generators over 5,000 watts.**
- d. All of the above.**

SOURCE: OSHA 29CFR 1926.404(b)(1)

Extra notes:

External Evaluator

The course book prepared by my colleague is properly arranged and covers the main requirements of the lesson. The lecturing procedures are identified properly. The assessment scheme and forms of teaching are arranged in a way that the student could understand clearly. It can be said that student will be satisfied with this course book and it promises a good outcome.

**Assistant Professor
Nyazi R. Maroof
20/12 /2022**