Course Description Form

1. Course Name:
Design of Reinforced Concrete Structures II
2. Course Code:
3. Semester / Year:
Second /2024
4. Description Preparation Date:
22/3/2024
5. Available Attendance Forms:
6. Number of Credit Hours (Total) / Number of Units (Total)
60/4
7. Course administrator's name (mention all, if more than one name)
Name: Dr.Mustafa Salah Shaker Email: mustafa.sa@uowa.edu.iq

8. Course Objectives	
Course Objectives	● Introducing students to the basic principles of reinforced concrete design and methods for calculating the resistance of materials included in structural members. ● Identify the types of roofs, as well as design and analyze each type in detail. ● Study of concrete columns and methods of designing and analyzing them ● Identify the installation length of the rebar

9. Teaching and Learning Strategies	
Strategy	1- Explain a comprehensive introduction to each study topic and link the current topic to previous topics. 2- Giving theoretical lectures. 3- Showing short scientific films. 4- Give and explain sufficient examples. 5- Using brainstorming to communicate the material.

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	4	Introducing the student to structural members and their function, in addition to the properties of the materials from which these members are composed	Introduction	theoretical + applied + Show movies	1. Short exams. 2. Semester exams. 3.Extracurricular assignments 4. Reports + accounts of various projects
2-3	8	Make the student able to analyze and design various types of roofs and use the appropriate ones according to existing requirements	Analysis and design of one-way solid slab		
4-7	16		design of two-way solid slab		
8	4		one-way ribbed slabs		
9-13	20	Design and analyze columns and choose the appropriate dimensions, appropriate shape, and appropriate amount of reinforcement	columns		
14-15	8	Identify the possibility of cutting or bending rebar and knowing the appropriate length of steel inside concrete	Bond development		

11. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports .... etc

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	1. Jack "Design of reinforced concrete"10th edition. 2. Singer "Strength of Materials" 4th edition, 1980. 3-Hibbeler, R. C., & Fan, S. C. (2004). Statics and mechanics of materials (Vol. 2). Singapore: Prentice Hall.
Main references (sources)	ACI-318-14

Recommended books and references (scientific journals, reports…)	All engineering journals related to structural engineering
Electronic References, Websites	YouTube channels for reinforced concrete. Engineering offices