1. Course Name:	
Hydraulic Structures II	
2. Course Code:	
WCV-42-07	
3. Semester / Year:	
Second Semester 2024/-2025	
4. Description Preparation Date:	
20/Mar/2024	
5. Available Attendance Forms:	
In presence	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Number of hours: 45 hr (30 hr theoretical, 15 hr Tutorial) Number of units: 2 units	
7. Course administrator's name (mention all, if more than one name)	
Name: Safa'a Sabry Mohammed Email: safaa.sabry@uowa.edu.iq	
8. Course Objectives	
Course Objectives	• Identify and understand basic terms and concepts related to hydraulics and hydraulic installations, such as pressure, discharge etc... • Understand the design and construction process of hydraulic facilities, including selecting materials, dimensions, capacities, and determining appropriate locations for hydraulic projects. • Evaluate the performance of hydraulic installations and examine factors that may affect efficiency and sustainability. • Evaluate the cost and benefits of hydraulic projects, and examine the economic aspects of their implementation. • Develop the ability to think analytically and solve problems related to hydraulics and hydraulic installations. • Achieving these goals contributes to qualifying students or professionals to understand and apply hydraulics principles and techniques in practical projects.

9. Teaching and Learning Strategies

Strategy	• Presentations • Paper lectures and scientific sources • Practical lectures at work sites

10.Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
2-1	6	Hydraulic Jump	Hydraulic structures	Presence	Exams + participation + attendance
3	3	Vertical Drops & Chutes	Hydraulic structures	Presence	Exams + participation + attendance
5-4	6	Stilling Basins	Hydraulic structures	Presence	Exams + participation + attendance
7-6	6	Protection Of Approaches for Horizontal Floor	Hydraulic structures	Presence	Exams + participation + attendance
9-8	6	Box Culverts	Hydraulic structures	Presence	Exams + participation + attendance
11-10	6	Aqueduct Structures	Hydraulic structures	Presence	Exams + participation + attendance
13-12	6	Inverted Siphon	Hydraulic structures	Presence	Exams + participation + attendance
15-14	6	Design Of Gates	Hydraulic structures	Presence	Exams + participation + attendance

11.Course Evaluation

10 marks (daily preparation, daily and oral exams, homework, and classroom activities)
30 marks (monthly exams)
60 marks (final exam)

12.Learning and Teaching Resources

Required textbooks (curricular books, if any)	San Tosh, Kumar Garg,1998: Irrigation Engineering and Hydraulic Structures.
Main references (sources)	Chow.V.T.1960: Open Channel Hydraulic. Mcgraw-Hill, New York
Recommended books and references (scientific journals, reports...)	-
Electronic References, Websites	-