# Course Description Form

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| 1. Course Name: | |
| Hydraulic Structures II | |
| 2. Course Code: | |
| | |
| 3. Semester / Year: | |
| Second Semester | |
| 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)<br>Number of units: 2 units | |
| 7. Course administrator's name (mention all, if more than one name) | |
| Name: Safa'a Sabry Mohammed<br>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...<br>• Understand the design and construction process of hydraulic facilities, including selecting materials, dimensions, capacities, and determining appropriate locations for hydraulic projects.<br>• Evaluate the performance of hydraulic installations and examine factors that may affect efficiency and sustainability.<br>• Evaluate the cost and benefits of hydraulic projects, and examine the economic aspects of their implementation.<br>• Develop the ability to think analytically and solve problems related to hydraulics and hydraulic installations.<br>• Achieving these goals contributes to qualifying students or professionals to understand and apply hydraulics principles and techniques in practical projects. |

# Course Description Form

| 9. Teaching and Learning Strategies | |
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| Strategy | • Presentations<br>• Paper lectures and scientific sources<br>• 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

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| 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 | - |