

**Ministry of Higher Education and Scientific Research
Scientific Supervision and Scientific Evaluation Apparatus
Directorate of Quality Assurance and Academic Accreditation
Accreditation Department**



Academic Program and Course Description Guide Four Year (Semester Base) B.Sc Civil Engineering

2025

Introduction:

The educational program of Bachelor of Science Civil Engineering at the College of Engineering at the University of Misan is a well-planned set of courses that include procedures and experiences arranged in the form of an academic syllabus. Its main goal is to improve and build graduates' skills so they are ready for the job market. The program is reviewed and evaluated every year through internal or external audit procedures and programs like the External Examiner Program.

The academic program description is a short summary of the main features of the program and its courses. It shows what skills students are working to develop based on the program's goals. This description is very important because it is the main part of getting the program accredited, and it is written by the teaching staff together under the supervision of scientific committees in the scientific departments.

This guide, in its second version, includes a description of the academic program after updating the subjects and paragraphs of the previous guide in light of the updates and developments of the educational system in Iraq, which included the description of the academic program in its traditional form (annual, quarterly), as well as the adoption of the academic program description circulated according to the letter of the Department of Studies T 3/2906 on 3/5/2023 regarding the programs that adopt the Bologna Process as the basis for their work. This guide describes the fourth year only (Semester Base courses)

In this regard, we can only emphasize the importance of writing an academic programs and course description to ensure the proper functioning of the educational process.

Concepts and terminology:

Academic Program Description: The academic program description provides a brief summary of its vision, mission and objectives, including an accurate description of the targeted learning outcomes according to specific learning strategies.

Course Description: Provides a brief summary of the most important characteristics of the course and the learning outcomes expected of the students to achieve, proving whether they have made the most of the available learning opportunities. It is derived from the program description.

Program Vision: An ambitious picture for the future of the academic program to be sophisticated, inspiring, stimulating, realistic and applicable.

Program Mission: Briefly outlines the objectives and activities necessary to achieve them and defines the program's development paths and directions.

Program Objectives: They are statements that describe what the academic program intends to achieve within a specific period of time and are measurable and observable.

Curriculum Structure: All courses / subjects included in the academic program according to the approved learning system (quarterly, annual, Bologna Process) whether it is a requirement (ministry, university, college and scientific department) with the number of credit hours.

Learning Outcomes: A compatible set of knowledge, skills and values acquired by students after the successful completion of the academic program and must determine the learning outcomes of each course in a way that achieves the objectives of the program.

Teaching and learning strategies: They are the strategies used by the faculty members to develop students' teaching and learning, and they are plans that are followed to reach the learning goals. They describe all classroom and extra-curricular activities to achieve the learning outcomes of the program.

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Teaching and learning strategies: They are the strategies used by the faculty members to develop students' teaching and learning, and they are plans that are followed to reach the learning goals. They describe all classroom and extra-curricular activities to achieve the learning outcomes of the program.

Academic Program Description Form

University Name: University of Misan

Faculty/Institute: Engineering

Scientific Department: Civil

Academic or Professional Program Name: Bachelor of Science in Civil Engineering

Final Certificate Name: Bachelor of Science in Civil Engineering

Academic System: Semester Based

Description Preparation Date: Feb 2025

File Completion Date: July 2025

Signature:

Head of Department Name:

Murtada Abass Abed Ali

Date: July 15, 2025

Signature:

Scientific Associate Name:

HASANAIN ABBAS HASAN

Date: 24/7/2025

The file is checked by:

Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance Department:

Date:

Signature:

28/7/2025

Approval of the Dean

28/7/2025

Abbas (J. Dawood

Prof. of Structural Engineering

1. Program Vision

The Department of Civil Engineering seeks to achieve excellence locally, regionally and globally as a leading department that provides software

Academic Program Description Form

University Name: University of Misan

Faculty/Institute: Engineering

Scientific Department: Civil

Academic or Professional Program Name: Bachelor of Science in Civil Engineering

Final Certificate Name: Bachelor of Science in Civil Engineering

Academic System: Semester Based

Description Preparation Date: Feb 2026

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Signature:



Head of Department Name:

Murtada Abass Abed Ali

Signature:

Scientific Associate Name:

Date:

Date: July 02, 2026

The file is checked by:

Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance Department:

Date:

Signature:

Approval of the Dean

Latest Program Vision, Mission and Program Objectives that Align with Accreditation Requirements

1. Program Vision

To be a regional inspiration in education, innovation and engineering excellence, concerned with the development of sustainable infrastructures and superstructures that support the oil economy of Maysan Governorate and contribute to serving the community by providing civil engineering solutions to the Maysan community.

2. Program Mission

The Department of Civil Engineering at Missan is dedicated to developing engineers who are technically competent and have the ethical foundations of the profession that enable them to:

Addressing the ever-changing infrastructure and environmental challenges associated with the petroleum industry in Maysan Governorate.

Design and implement sustainable solutions tailored to regional and national development goals

. Engage in cutting-edge research, education, and continuous improvement to advance engineering practices

. Collaborate with the public and private sector to ensure resilience, safety, and sustainability in civilian infrastructure

3. Program Educational Objectives (PEOs)

1. . Apply engineering principles to solve complex civil engineering problems in diverse professional environments
2. Demonstrate leadership, initiative, and professional responsibility skills, while adhering to recognized ethical values and engineering standards.
3. Lifelong learning through advanced education, vocational training, or engineering certifications and licenses, ensuring professional development in the face of changing technical and environmental challenges.
4. Designing sustainable and resilient infrastructure that takes into account global, environmental, societal and economic factors
5. . Communicate effectively with diverse stakeholders, including customers, government agencies, and the local community, and provide technical solutions in a clear and professional manner that serves the public interest.

Required Program Outcomes and Methods of Teaching, Learning and Assessment

A - Cognitive objectives

A1- Ability to apply knowledge in mathematics, science and engineering.

A2- Ability to identify, formulate and solve engineering problems.

A3- The ability to use modern engineering techniques, skills and tools necessary for engineering practice.

A4- The ability to understand the applied codes of the profession and professional specifications.

B – The skills objectives of the program.

B1 – The ability to supervise or implement various civil engineering works.
 B2 – The ability to think about addressing the problems that arise during the implementation of work.
 B3 – The ability to write scientific reports and read engineering plans.
 B 4 – The ability to keep pace with the development in engineering materials and methods of implementation.

4. Program Accreditation

Not Yet.

5. Other external influences

N/A

6. Program Structure (year four only) semester base

Program Structure	Number of Courses	Credit hours	Percentage	Reviews*
Institution Requirements	17	62	100	2nd
College Requirements	1	4	6	
Department Requirements	-	58	94	
Summer Training	-	-		
Other				

* This can include notes whether the course is basic or optional.

7. Program Description

Year/Level	Course Code	Course Name	Credit Hours	
			theoretical	practical
2025\2026Fourth	CE412	Reinforced Concrete Designs III	4	
2025\2026Fourth	CE422	Topics in concrete designs	4	

2025\2026Fourth	CE413	Foundations Engineering I	4	
2025\2026Fourth	CE423	Foundation Engineering II	4	
2025\2026Fourth	CE414	Steel Structures Designs I	4	
2025\2026Fourth	CE424	Steel Structures Designs II	4	
2025\2026Fourth	CE415	Hydraulic Structures	3	
2025\2026Fourth	CE425	Engineering Hydrology	2	
2025\2026Fourth	CE416	Highway Engineering	4	
2025\2026Fourth	CE426	Highway Design and Analysis	3	2
2025\2026Fourth	CE417	Water treatment Engineering	3	2
2025\2026Fourth	CE427	Sanitation and Environmental Engineering	3	2
2025\2026Fourth	CE418	Construction methods	3	
2025\2026Fourth	CE428	Estimation and method of construction	3	
2025\2026Fourth	CE419	Methods of repairing of sustainable buildings	2	
2025\2026Fourth	CE429	Special Topics	2	
2025\2026Fourth	E421	Engineering Project	4	

8. Expected learning outcomes of the program In accordance with ICAEE for accreditation

Knowledge

ABET/ICAEE Student Outcomes Reference

SO1

Identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.

SO2

Apply engineering design to produce solutions meeting specified needs with consideration of public health, safety, welfare, and global/societal/environmental/economic factors.

SO3	Communicate effectively with a range of audiences.
SO4	Recognize ethical and professional responsibilities; make informed judgments considering global, economic, environmental, and societal contexts.
SO5	Function effectively on a team; provide leadership, create collaborative environments, establish goals, plan tasks, and meet objectives.
SO6	Develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
SO7	Acquire and apply new knowledge as needed, using appropriate learning strategies.

1- Ability to apply knowledge in mathematics, science and engineering.	Learning Outcomes Statement 1 and 2 (Student Outcome 1 and 2) SO1, SO2
2- The ability to identify, formulate and solve engineering problems.	
3- The ability to use modern engineering techniques, skills and tools necessary for engineering practice.	
4- The ability to understand the applied codes of the profession and professional specifications.	
Skills	
1 – The ability to supervise or implement various civil engineering works.	SO3, SO4
2 – The ability to think about addressing the problems that arise during the implementation of work.	

3 – The ability to write scientific reports and read engineering plans	
4 – The ability to keep pace with the development in engineering materials and implementation methods.	SO5
Ethics	
1. Attention: Arouse the attention of students through questions during the lecture.	Learning Outcomes Statement 4
2. Response: Follow up on the student's interaction with the material displayed on the screen.	
3. Attention: Follow up on the interest of the student who interacted more with the presented material.	SO7
4. Formation of direction: in the sense that the student is sympathetic to the presentation and may have an opinion towards the topic presented and defend it.	SO7

9. Teaching and Learning Strategies

1. Explanation and clarification through lectures. 2. How to display scientific materials with projectors: data show, smart boards, plasma screens. 3. Self-learning through homework and mini-projects within lectures. 4. Laboratories. 5. Graduation Projects. 6. 7. Scientific visits. Seminars held in the department. 8. Summer training.

10. Evaluation methods

1. Short exams (Quiz).
2. Homework.
3. Mid-term and final exams for theoretical and practical subjects.
4. Small projects within the lesson.
5. Interaction within the lecture.
6. Reports.
7. Panel discussions.
8. Presentations.
9. Graduation Projects

11. Faculty

Faculty Members

Name	Specialization		Photo	Specialty	Number of the teaching staff	
	Academic Rank	Place			Staff	Lecturer
Faten Ibrahim Mousa	Assistant Professor	Faculty of Engineering		Structural	staff	
Jawad Kazem Tahir	Assistant Lecturer	Faculty of Engineering		Geotechnic	staff	
Abbas Odeh Dawood	Professor	Faculty of Engineering		Structural	staff	
Dr. Riad Tohme Hazem	teacher	Faculty of Engineering		Management	staff	

Nasser Hakim Tohme	Assistant Professor	Faculty of Engineering		Structural	staff	
Haidar Abd Radi	Professor	Faculty of Engineering		Material	staff	
Firas Jawad Kazem	Assistant Professor	Faculty of Engineering		Geotechnic	staff	
Muammar Hazem Altai	Assistant Professor	Faculty of Engineering		Water resources	staff	
Messenger inside optimizer	Assistant Lecturer	Faculty of Engineering		Material	staff	
Abdul khaliq Abdul Yama Jaafar	Professor	Faculty of Engineering		Structural	staff	
Murtaza Abbas Abd Ali	Assistant Professor	Faculty of Engineering		Structural	staff	
Muhammad Jassim Rahim	teacher	Faculty of Engineering		Management	staff	
Salam Adel Mutlak	teacher	Faculty of Engineering		Highway and transportation	staff	
Haidar Hassan Haidar	teacher	Faculty of Engineering		Structural	staff	
Samer Muhammad Jaseb	Professor	Faculty of Engineering		Structural	staff	
Bayda Abdul karim Abdul zahra	Assistant Lecturer	Faculty of Engineering		Water resources	staff	

Zahra Mohsen Agdayib	teacher	Faculty of Engineering	NA	Computer	staff	
Zahraa Hussein Judah	Lecturer	Faculty of Engineering		Material	staff	
Mustafa Jasib Jassim	Assistant Professor	Faculty of Engineering		Structural	staff	
Fadel Mezher Shneior	Assistant Lecturer	Faculty of Engineering		Survey	staff	
Saba Jassim Rahim	Dr. Lecturer	Faculty of Engineering		Management	staff	
Ammar Khalaf Jabbar	Assistant Lecturer	Faculty of Engineering		Highway and transportation	staff	
Ahmed Obeid phone	Lecturer	Faculty of Engineering		Structural	staff	
Saad Fahad Rasan	Professor	Faculty of Engineering		Structural	staff	
Sajid Kamel Zamam	Dr. Lecturer	Faculty of Engineering		Material	staff	
Muammar Hazem Altai	Assistant Professor	Faculty of Engineering		Water Resources	staff	
Khitam Salim Hussain	Assistant Lecturer	Faculty of Engineering	NA	Structural	staff	
Duha Kareem Hasan	Assistant Lecturer	Faculty of Engineering	NA	Structural	staff	
Duha Diya ulDeen Nadhum	Assistant Lecturer	Faculty of Engineering	NA	Architectural	staff	

Professional Development

Mentoring new faculty members

Passing the courses of teaching methods towards blended learning

Professional development of faculty members

Through performance evaluation of the axis of scientific publishing and the establishment of seminars and workshops.

12. Acceptance Criterion

Central Admission From the Ministry.

13. The most important sources of information about the program

College Official Website

<https://uomisan.edu.iq/eng/ar/>

14. Program Development Plan

1. Strategic goals (3–5 year horizon)

- **Accreditation readiness:** Achieve national and ICAEE/ABET alignment and prepare documentation for external review within 24 months.
- **Graduate employability:** Increase graduate placement in regional industry (especially oil-related infrastructure) by **25%** within 3 years.
- **Curriculum modernization:** Update syllabi, embed software and lab work (SAP2000, SAFE, GeoStudio, HEC tools), and introduce at least two new elective modules on sustainability and digital construction (BIM) within 18 months.
- **Research & industry linkage:** Establish 3 formal industry partnerships and 2 applied research projects per year that address local infrastructure needs.
- **Quality culture:** Institutionalize continuous improvement cycles (annual program review, external examiner feedback, student surveys) and faculty professional development.

2. Key initiatives and actions (prioritized)

1. Accreditation & QA package

- Complete mapping of Program Educational Objectives (PEOs) → Program Learning Outcomes (PLOs) → Course Learning Outcomes (CLOs).
- Compile evidence: course syllabi, assessment rubrics, sample student work, lab logs, graduate destination data.
- Schedule mock external review and gap remediation six months before formal submission.

2. Curriculum & teaching enhancement

- Standardize weekly module templates (one-row weekly topics, clear learning outcomes, assessment mapping).
- Integrate software labs and at least 20% active learning per core course (projects, computer assignments).
- Add two elective modules: *Sustainable Materials & Repair* and *Digital Construction / BIM*.

3. Faculty development

- Annual training plan: pedagogy for blended learning, assessment design, supervision of capstone projects.
- Mentoring program for junior faculty; target 30 CPD hours per faculty per year.

4. Industry engagement & student experience

- Formalize summer training placements and co-op agreements with local oil and infrastructure firms.
- Launch an Industry Advisory Board to review curriculum and sponsor final-year projects.

5. Laboratory & resource upgrades

- Prioritize procurement: structural testing rigs, geotechnical centrifuge access or partnerships, HEC/GeoStudio licenses, SAP2000/STAAD.Pro.
- Create a small budget for software licenses and cloud access for student projects.

6. Monitoring, assessment & data systems

- Implement a simple program dashboard tracking KPIs (enrolment, retention, graduate employment, PLO attainment, course pass rates).
- Run annual student exit surveys and employer feedback cycles.

3. Timeline (high level)

- **Months 0–3:** Establish Program Development Committee (PDC); perform gap analysis vs. accreditation criteria; begin mapping PLOs→CLOs.
- **Months 4–9:** Revise syllabi; adopt standardized weekly templates; pilot software labs in 3 core courses; start faculty CPD.
- **Months 10–18:** Implement electives; upgrade key lab equipment and software; formalize industry MOUs; run mock accreditation review.
- **Months 19–24:** Finalize documentation; submit for accreditation; expand industry placements; publish first annual program report.
- **Years 3–5:** Consolidate improvements, scale research partnerships, monitor KPIs and continuous improvement cycles.

4. KPIs and targets

- **Accreditation submission:** complete by month 24.
- **PLO attainment:** $\geq 75\%$ of students meet target levels on core PLOs within two years.
- **Graduate employment:** +25% placement in relevant industry roles within 3 years.
- **Faculty development:** 100% faculty complete at least 20 CPD hours/year.
- **Industry partnerships:** 3 formal MOUs within 18 months.
- **Student satisfaction:** average course satisfaction $\geq 4/5$ within 2 years.

5. Roles, responsibilities and budget outline

- **Program Chair / Head of Department:** overall leadership, accreditation liaison, resource prioritization.
- **Program Development Committee (PDC):** curriculum mapping, assessment design, documentation.
- **Course Coordinators:** update syllabi, weekly topics, assessment rubrics, and evidence collection.
- **Quality Assurance Office:** run internal audits, coordinate mock reviews, collect KPI data.
- **Industry Liaison Officer:** secure placements, MOUs, and project sponsors.
- **Estimated budget categories (high level):** software licenses; lab equipment; faculty CPD; accreditation fees; small fund for student project support. (Provide detailed costing after approval of priorities.)

6. Risks, mitigation and monitoring

- **Risk:** Delays in procurement or funding. **Mitigation:** Phase purchases; prioritize software and essential lab upgrades; seek industry sponsorship.

- **Risk:** Faculty workload prevents timely syllabus updates. **Mitigation:** Provide course release time or hire adjuncts; use mentoring to speed revisions.
- **Risk:** Low industry engagement. **Mitigation:** Offer short consultancy projects, guest lectures, and visible student project showcases to attract partners.
- **Monitoring cadence:** PDC meets monthly; QA runs quarterly data reviews; annual public program report and stakeholder meeting.

Program Skills Outline															
				Required program Learning outcomes											
Year/Level	Course Code	Course Name	Basic or optional	Knowledge				Skills				Ethics			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
2025\2026Fourth	CE412	Reinforced Concrete Designs III	fundamental	•	•	•	•	•	•	•	•	•	•	•	•
2025\2026Fourth	CE422	Topics in concrete designs	fundamental	•	•	•	•	•	•	•	•	•	•	•	•
2025\2026Fourth	CE413	Foundations Engineering I	fundamental	•	•	•	•	•	•	•	•	•	•	•	•
2025\2026Fourth	CE423	Foundation Engineering II	fundamental	•	•	•	•	•	•	•	•	•	•	•	•
2025\2026Fourth	CE414	Steel Structures Designs I	fundamental	•	•	•	•	•	•	•	•	•	•	•	•

2025\2026Fourth	CE424	Steel Structures Designs II	fundamental	•	•	•	•	•	•	•	•	•	•	•	•
2025\2026Fourth	CE415	Hydraulic Structures	fundamental	•	•	•	•	•	•	•	•	•	•	•	•
2025\2026Fourth	CE425	Engineering Hydrology	fundamental	•	•	•	•	•	•	•	•	•	•	•	•
2025\2026Fourth	CE416	Highway Engineering	fundamental	•	•	•	•	•	•	•	•	•	•	•	•
2025\2026Fourth	CE426	Highway Design and Analysis	fundamental	•	•	•	•	•	•	•	•	•	•	•	•
2025\2026Fourth	CE417	Liquefaction Engineering	fundamental	•	•	•	•	•	•	•	•	•	•	•	•
2025\2026Fourth	CE427	Sanitation and Environmental Engineering	fundamental	•	•	•	•	•	•	•	•	•	•	•	•

2025\2026Fourth	CE418	Construction methods	fundamental	•	•	•	•	•	•	•	•	•	•	•	•
2025\2026Fourth	CE428	Guessing and specifications	fundamental	•	•	•	•	•	•	•	•	•	•	•	•
2025\2026Fourth	CE419	Methods of repairing sustainable buildings	fundamental	•	•	•	•	•	•	•	•	•	•	•	•
2025\2026Fourth	CE429	Special Topics	fundamental	•	•	•	•	•	•	•	•	•	•	•	•
2025\2026Fourth	E421	Engineering Project	fundamental	•	•	•	•	•	•	•	•	•	•	•	•

- Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

Course Description Form (Year Four Semester Base)

1. Course Name :					
Reinforced Concrete Designs III					
2. Course Code :					
CE412					
3. Semester/Year :					
First semester\Fourth stage					
4. Description Preparation Date :					
7/1/2026					
5. Available Attendance Forms :					
In Class					
6. Number of Credit Hours (Total) / Number of Units (Total)					
4					
7. Course administrator's name (mention all, if more than one name)					
Name: Asst. Prof. Dr. Nasser Hakim Taama Email:					
8. Course Objectives					
			• • •		
9. Teaching and learning strategies					
Strategy					
10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
Week 1		All of them	Introduction and Specifications	Classroom	Structured work load (quiz, Hw,, inclass)
Week 2			Overview		
Week 2					
Week 3			Two-Way Slabs		
Week 4					

Week 5			Direct Design		
Week 6			Method		
Week 7			Direct Design		
Week 8			Method		
Week 9			Direct Design		
Week 10			Method		
Week 11			Equivalent Fran		
Week 12			Method		
Week 13			Equivalent Fran		
Week 14			Method		
Week 15			Equivalent Fran		
			Method		
			Equivalent Fran		
			Method		
			Flat Slabs and f		
			Plates		
			Flat Slabs and f		
			Plates		
			Flat Slabs and f		
			Plates		
			Deflection of		
			Two-way Slabs		
			Deflection of		
			Two-way Slabs		
			Applications		
			Solved by		
			Computer		
11. Course Evaluation					
12. Learning and Teaching Resources					

13. Course Name :					
Topics in Concrete Design					
14. Course Code :					
CE422					
15. Semester/Year :					
Second semester\Fourth stage					
16. Description Preparation Date :					
7/1/2026					
17. Available Attendance Forms :					
In Class					
18. Number of Credit Hours (Total) / Number of Units (Total)					
4					
19. Course administrator's name (mention all, if more than one name)					
Name: Asst. Prof. Dr. Nasser Hakim Taama Email:					
20. Course Objectives					
			• • •		
21. Teaching and learning strategies					
Strategy					
22. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
Week 1		All of the	Introduction and Specifications Overview	Classroom	Structured work load (quiz, Hw, inclass)
Week 2			Design of Corbe		
Week 2			and Brackets		
Week 3			Design of Corbe		
Week 4			and Brackets		
Week 5			Design of Corbe		
Week 6			and Brackets		
Week 7			Yield Line theor		

Week 8			Yield Line theory		
Week 9			Yield Line theory		
Week 10			Yield Line theory		
Week 11			Prestressed		
Week 12			concrete		
Week 13			Prestressed		
Week 14			concrete		
Week 15			Prestressed		
			concrete		
			Prestressed		
			concrete		
			Prestressed		
			concrete		
			Prestressed		
			concrete		
			Applications		
			Solved by		
			Computer		
23. Course Evaluation					
24. Learning and Teaching Resources					

25. Course Name :					
Foundation Engineering I					
26. Course Code :					
CE413					
27. Semester/Year :					
First semester\Fourth stage					
28. Description Preparation Date :					
7/1/2026					
29. Available Attendance Forms :					
In Class					
30. Number of Credit Hours (Total) / Number of Units (Total)					
4					
31. Course administrator's name (mention all, if more than one name)					
Name: Asst. Prof. Dr. Firas Jawad Kazim Email:					
32. Course Objectives					
				•	
				•	
				•	
33. Teaching and learning strategies					
Strategy					
34. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
Week 1		All of them	Introduction and Specifications	Classroom	Structured work load (quiz, Hw,, inclass)
Week 2			Overview		
Week 2			Site Investigation		
Week 3			Site Investigation		
Week 4			Lateral Earth		
Week 5			Pressure		
Week 6					
Week 7					

Week 8			Lateral Earth		
Week 9			Pressure		
Week 10			Lateral Earth		
Week 11			Pressure		
Week 12			Slope stability		
Week 13			Slope stability		
Week 14			Stability of		
Week 15			Retaining Wall		
			Sheet Piles		
			Bearing capacity		
			of soil		
			Bearing capacity		
			of soil		
			Bearing capacity		
			of soil		
			Bearing capacity		
			of soil		
			Applications		
			Solved by		
			Computer		
35. Course Evaluation					
36. Learning and Teaching Resources					

37. Course Name :					
Foundation Engineering II					
38. Course Code :					
CE423					
39. Semester/Year :					
Second semester\Fourth stage					
40. Description Preparation Date :					
7/1/2026					
41. Available Attendance Forms :					
In Class					
42. Number of Credit Hours (Total) / Number of Units (Total)					
4					
43. Course administrator's name (mention all, if more than one name)					
Name: Asst. Prof. Dr. Firas Jawad Kazim					
Email:					
44. Course Objectives					
			• • •		
45. Teaching and learning strategies					
Strategy					
46. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
Week 1		All of them	Introduction and Specification	Classroom	Structure work load (quiz, Homework, inclass)
Week 2			Overview		
Week 3			Settlement		
Week 4			Settlement		
Week 5			Settlement		
Week 6			Settlement		
Week 7			Settlement		
Week 8			Settlement		

Week			Foundation		
Week			Design		
Week			Foundation		
10			Design		
Week			Foundation		
11			Design		
Week			Foundation		
12			Design		
Week			Foundation		
13			Design		
Week			Piles		
14			Piles		
Week			Piles		
15			Piles		
			Applications		
			Solved by		
			Computer		
47. Course Evaluation					
48. Learning and Teaching Resources					

49. Course Name :					
Steel Structure Designs I					
50. Course Code :					
CE414					
51. Semester/Year :					
First semester\Fourth stage					
52. Description Preparation Date :					
7/1/2026					
53. Available Attendance Forms :					
In Class					
54. Number of Credit Hours (Total) / Number of Units (Total)					
4					
55. Course administrator's name (mention all, if more than one name)					
Name: Prof. DR. Samer Mohammad Jassib Email:					
56. Course Objectives					
				•	
				•	
				•	
57. Teaching and learning strategies					
Strategy					
58. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
Week		All of them	Flexural Members	Classroom	Structure work load (quiz, Hw inclass)
Week			Flexural Members		
Week			Flexural Members		
Week			Flexural Members		
Week			Flexural Members		
Week			Flexural Members		
Week			Flexural Members		
Week			Flexural Members		

Week			Under Biaxial		
Week			Bending		
Week			Design of		
10			Bearing Pla		
Week			of Beams		
11			Design and		
Week			Analysis of		
12			Plate Girder		
Week			and Box		
13			Girders		
Week			Design and		
14			Analysis of		
Week			Plate Girder		
15			and Box		
			Girders		
			Design and		
			Analysis of		
			Plate Girder		
			and Box		
			Girders		
			Beam-		
			Column		
			Members		
			Beam-		
			Column		
			Members		
			Beam-		
			Column		
			Members		
			Simple		
			Connections		
			(Bolted and		
			welded)		
			Simple		
			Connections		
			(Bolted and		
			welded)		

			Simple Connections (Bolted and welded) Application Solved by Computer		
59. Course Evaluation					
60. Learning and Teaching Resources					

61. Course Name :					
Steel Structure Designs II					
62. Course Code :					
CE424					
63. Semester/Year :					
Second semester\Fourth stage					
64. Description Preparation Date :					
7/1/2026					
65. Available Attendance Forms :					
In Class					
66. Number of Credit Hours (Total) / Number of Units (Total)					
4					
67. Course administrator's name (mention all, if more than one name)					
Name: Prof. DR. Samer Mohammad Jassib Email:					
68. Course Objectives					
				•	
				•	
				•	
69. Teaching and learning strategies					
Strategy					
70. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
Week		All of them	Introduction	Classroom	Structure work load (quiz, Hw inclass)
Week			Eccentric		
Week			Connections		
Week			Welded and		
Week			Bolted		
Week			Connection-		
Week			Shear Only		
Week					

Week			Eccentric		
Week			Connections		
Week			Welded and		
10			Bolted		
Week			Connection-		
11			Shear Only		
Week			Eccentric		
12			Connections		
Week			Welded and		
13			Bolted		
Week			Connection-		
14			Shear and		
Week			Tension		
15			Eccentric		
			Connections		
			Welded and		
			Bolted		
			Connection-		
			Shear and		
			Tension		
			Eccentric		
			Connections		
			Welded and		
			Bolted		
			Connection-		
			Shear and		
			Tension		
			Calculation		
			wind forces		
			warehouse		
			One-Story		
			Building		
			Design of		
			warehouse		
			One-Story		
			Buildings		

			Design of warehouse One-Story Buildings Design of warehouse One-Story Buildings Design of Composite Roofs Design of Composite Roofs Design of Composite Roofs Design of Composite Roofs Applications Solved by Computer		
71. Course Evaluation					
72. Learning and Teaching Resources					

73. Course Name :					
hydraulic structures					
74. Course Code :					
CE415					
75. Semester/Year :					
First semester\Fourth stage					
76. Description Preparation Date :					
7/1/2026					
77. Available Attendance Forms :					
In Class					
78. Number of Credit Hours (Total) / Number of Units (Total)					
3					
79. Course administrator's name (mention all, if more than one name)					
Name: M.M. Ahmed Hatem Obaid Email:					
80. Course Objectives					
				•	
				•	
				•	
81. Teaching and learning strategies					
Strategy					
82. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
Week 1		All of them	Introduction and Specification	Classroom	Structure work load (quiz, Homework, inclass)
Week 2			Overview		
Week 3			Dam structure		
Week 4			Dam structure		
Week 5			Dam structure		
Week 6			Dam structure		
Week 7			Dam structure		
Week 8			Dam structure		

Week			Rectangular		
Week			Reinforces		
Week			Concrete tan		
10			Rectangular		
Week			Reinforces		
11			Concrete tan		
Week			Rectangular		
12			Reinforces		
Week			Concrete tan		
13			Circular		
Week			Reinforces		
14			Concrete tan		
Week			Circular		
15			Reinforces		
			Concrete tan		
			Circular		
			Reinforces		
			Concrete tan		
			Hydraulic		
			Structures		
			Hydraulic		
			Structures		
			Hydraulic		
			Structures		
			Applications		
			Solved by		
			Computer		
83. Course Evaluation					
84. Learning and Teaching Resources					

85. Course Name :					
Engineering Hydrology					
86. Course Code :					
CE425					
87. Semester/Year :					
Second semester\Fourth stage					
88. Description Preparation Date :					
7/1/2026					
89. Available Attendance Forms :					
In Class					
90. Number of Credit Hours (Total) / Number of Units (Total)					
2					
91. Course administrator's name (mention all, if more than one name)					
Name: M.M. Baidaa Abdul Karim Abdul Zahra Email:					
92. Course Objectives					
				•	
				•	
				•	
93. Teaching and learning strategies					
Strategy					
94. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
Week 1		All of them	Introduction	Classroom	Structure work load (quiz, Homework, inclass)
Week 2			Hydraulic		
Week 3			Cycle		
Week 4			Weather and		
Week 5			Hydrology		
Week 6			Precipitation		
Week 7			Precipitation		
Week 8			Evaporation		

Week			Evaporation		
Week			Groundwater		
Week			Wells		
10			Groundwater		
Week			Wells		
11			Stream Flow		
Week			Measurement		
12			+ Discharge		
Week			Determination		
13			Infiltration		
Week			Flood Waves		
14			Flood Waves		
Week			Hydrograph		
15			Applications		
			Solved by		
			Computer		
95. Course Evaluation					
96. Learning and Teaching Resources					

97. Course Name :					
Highway Engineering					
98. Course Code :					
CE416					
99. Semester/Year :					
First semester\Fourth stage					
100. Description Preparation Date :					
7/1/2026					
101. Available Attendance Forms :					
In Class					
102. Number of Credit Hours (Total) / Number of Units (Total)					
4					
103. Course administrator's name (mention all, if more than one name)					
Name: Dr. Salam Adel Mutlaq Email:					
104. Course Objectives					
				•	
				•	
				•	
105. Teaching and learning strategies					
Strategy					
106. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
Week 1		All of them	Introduction and Specifications Overview	Classroom	Structured workload (quiz, Hw, inclass)
Week 2			Functional Classification of Highways		
Week 3			Principle of Highway Location and Survey		
Week 4			Principle of Highway Location and Survey		
Week 5			Principle of Highway Location and Survey		
Week 6			Principle of Highway Location and Survey		
Week 7			Principle of Highway Location and Survey		

Week 8			Earthwork, Mass-Haul		
Week 9			Diagram		
Week 10			Earthwork, Mass-Haul		
Week 11			Diagram		
Week 12			Design Control and		
Week 13			Criteria		
Week 14			Geometric Design of		
Week 15			Highway Facilities		
			Cross-Section Element		
			Interchanges		
			Horizontal Alignment		
			Horizontal Alignment		
			Vertical Alignment		
			Vertical Alignment		
			Applications Solved by		
			Computer		
107. Course Evaluation					
108. Learning and Teaching Resources					

109. Course Name :					
Highway Designs and Analysis					
110. Course Code :					
CE426					
111. Semester/Year :					
Second semester\Fourth stage					
112. Description Preparation Date :					
7/1/2026					
113. Available Attendance Forms :					
In Class					
114. Number of Credit Hours (Total) / Number of Units (Total)					
5					
115. Course administrator's name (mention all, if more than one name)					
Name: Dr. Salam Adel Mutlaq Email:					
116. Course Objectives					
			• • •		
117. Teaching and learning strategies					
Strategy					
118. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
Week 1		All of them	Introduction and Specifications	Classroom	Structured work load (quiz, Hw,, inclass)
Week 2			Overview		
Week 2			Highway Paving		
Week 3			Materials		
Week 4			Bituminous Material		
Week 5			Stress Distribution		
Week 6			Through Pavement		
Week 7					

Week 8			Stress Distribution		
Week 9			Through Pavement		
Week 10			Pavement		
Week 11			Management		
Week 12			Highway Pavement		
Week 13			Materials		
Week 14			Design of Flexible		
Week 15			Pavement		
			Design of Flexible		
			Pavement		
			Design of Flexible		
			Pavement		
			Design of Rigid		
			Pavement		
			Design of Rigid		
			Pavement		
			Design of Rigid		
			Pavement		
			Highway Drainage		
			Structures		
			Applications Solve		
			by Computer		
119. Course Evaluation					
120. Learning and Teaching Resources					

121. Course Name :					
Water Treatment engineering					
122. Course Code :					
CE417					
123. Semester/Year :					
First semester\Fourth stage					
124. Description Preparation Date :					
7/1/2026					
125. Available Attendance Forms :					
In Class					
126. Number of Credit Hours (Total) / Number of Units (Total)					
4					
127. Course administrator's name (mention all, if more than one name)					
Name: Asst. Prof. Dr. Moamer Hazem Ali					
Email:					
128. Course Objectives					
				•	
				•	
				•	
129. Teaching and learning strategies					
Strategy					
130. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
Week 1		All of them	Introduction and Specifications	Classroom	Structured work load (quiz, Hw,, inclass)
Week 2			Overview		
Week 2			Water Treatment		
Week 3			(Sedimentation,		
Week 4			Coagulation		
Week 5			Flocculation,		
Week 6			Filtration		
Week 7					

Week 8			Disinfection		
Week 9			Treatment		
Week 10			Special Treatment		
Week 11			Pipes		
Week 12			Pipes		
Week 13			Distribution		
Week 14			Systems		
Week 15			Distribution		
			Systems		
			Distribution		
			Systems		
			Applications		
			Solved by		
			Computer		
131. Course Evaluation					
132. Learning and Teaching Resources					

133. Course Name :					
Sanitary and Environmental Engineering					
134. Course Code :					
CE427					
135. Semester/Year :					
Second semester\Fourth stage					
136. Description Preparation Date :					
7/1/2026					
137. Available Attendance Forms :					
In Class					
138. Number of Credit Hours (Total) / Number of Units (Total)					
4					
139. Course administrator's name (mention all, if more than one name)					
Name: Asst. Prof. Dr. Moamer Hazem Ali					
Email:					
140. Course Objectives					
				•	
				•	
				•	
141. Teaching and learning strategies					
Strategy					
142. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
Week 1		All of them	Introduction and Specifications	Classroom	Structured work load (quiz, Hw,, inclass)
Week 2			Overview		
Week 2			Runoff Discharge		
Week 3			Runoff Discharge		
Week 4			Sewer Pipes		
Week 5			Sewer Pipes		
Week 6			Sewer System		
Week 7					

Week 8			Sewer System		
Week 9			Waste Water		
Week 10			Characteristics		
Week 11			Waste Water		
Week 12			Treatment		
Week 13			Waste Water		
Week 14			Treatment		
Week 15			River Pollution		
			River Pollution		
			Solid Waste		
			Management		
			Solid Waste		
			Management		
			Applications Solved		
			by Computer		
143. Course Evaluation					
144. Learning and Teaching Resources					

145. Course Name :					
Construction methods					
146. Course Code :					
CE418					
147. Semester/Year :					
First semester\Fourth stage					
148. Description Preparation Date :					
7/1/2026					
149. Available Attendance Forms :					
In Class					
150. Number of Credit Hours (Total) / Number of Units (Total)					
3					
151. Course administrator's name (mention all, if more than one name)					
Name: M.M. Wameed Issa Breidy					
Email:					
152. Course Objectives					
			•		
			•		
			•		
153. Teaching and learning strategies					
Strategy					
154. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
Week 1		All of them	Introduction and Specifications Overview	Classroom	Structured work load (quiz, Hw,, inclass)
Week 2			Construction Process		
Week 2			Project Realization		
Week 3			Construction Process		
Week 4			Parties and construction		
Week 5			contracts		
Week 6					

Week 7			Project management		
Week 8			Role of Engineer and		
Week 9			Contract		
Week 10			Planning		
Week 11			Techniques(Networks,		
Week 12			Line of Balance)		
Week 13			Resource Allocation		
Week 14			Types of Equipments,		
Week 15			Selection criteria,		
			productivity, equipment		
			economics		
			Types of Equipments,		
			Selection criteria,		
			productivity, equipment		
			economics		
			Plant Management		
			Earthworks		
			Concrete Industry		
			Precast Construction		
			Applications Solved by		
			Computer		
155. Course Evaluation					
156. Learning and Teaching Resources					

157. Course Name :					
Guessing and specifications					
158. Course Code :					
CE428					
159. Semester/Year :					
Second semester\Fourth stage					
160. Description Preparation Date :					
7/1/2026					
161. Available Attendance Forms :					
In Class					
162. Number of Credit Hours (Total) / Number of Units (Total)					
3					
163. Course administrator's name (mention all, if more than one name)					
Name: M.M. Wameed Issa Breidy					
Email:					
164. Course Objectives					
				•	
				•	
				•	
165. Teaching and learning strategies					
Strategy					
166. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
Week 1		All of them	Introduction and Specifications	Classroom	Structured work load (quiz, Hw,, inclass)
Week 2			Overview		
Week 2			Approximate		
Week 3			Estimation		
Week 4			Detailed		
Week 5			estimation		
Week 6					
Week 7					

Week 8			Detailed		
Week 9			estimation		
Week 10			Quantity Surve		
Week 11			Pricing		
Week 12			Quantity Surve		
Week 13			Pricing		
Week 14			Technical		
Week 15			Specifications		
			Standard Bill o		
			Quantity		
			Term Project		
			Term Project		
			Concrete Form		
			Concrete Form		
			Contract		
			Documents,		
			Bidding and		
			Tendering		
			Contract		
			Documents,		
			Bidding and		
			Tendering		
			Applications		
			Solved by		
			Computer		
167. Course Evaluation					
168. Learning and Teaching Resources					

169. Course Name :					
Sustainable building treatment methods					
170. Course Code :					
CE419					
171. Semester/Year :					
First semester\Fourth stage					
172. Description Preparation Date :					
7/1/2026					
173. Available Attendance Forms :					
In Class					
174. Number of Credit Hours (Total) / Number of Units (Total)					
2					
175. Course administrator's name (mention all, if more than one name)					
Name: Dr. Hussein Rahim Lazem					
Email:					
176. Course Objectives					
			•		
			•		
			•		
177. Teaching and learning strategies					
Strategy					
178. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
Week 1		All of them	Introduction an	Classroom	Structured work load (quiz, Hw,, inclass)
Week 2			Specifications		
Week 2			Overview		
Week 3			Deterioration		
Week 4			causes of		
Week 5			structures		
Week 6					
Week 7					

Week 8			Deterioration		
Week 9			causes of		
Week 10			structures		
Week 11			Aspects and		
Week 12			Mechanism of		
Week 13			Deterioration		
Week 14			Aspects and		
Week 15			Mechanism of		
			Deterioration		
			Assessment and		
			examination of		
			structures		
			Assessment and		
			examination of		
			structures		
			Selection of		
			Remedy		
			(Materials and		
			Methods)		
			Selection of		
			Remedy		
			(Materials and		
			Methods)		
			Rehabilitation		
			and strengthening		
			of Different		
			Structural		
			elements		
			Rehabilitation		
			and strengthening		
			of Different		
			Structural		
			elements		
			Protection of		
			structures		
			Protection of		
			structures		

			Protection of structures Protection of structures		
179. Course Evaluation					
180. Learning and Teaching Resources					

181. Course Name :					
Special Topics					
182. Course Code :					
CE429					
183. Semester/Year :					
Second semester\Fourth stage					
184. Description Preparation Date :					
7/1/2026					
185. Available Attendance Forms :					
In Class					
186. Number of Credit Hours (Total) / Number of Units (Total)					
2					
187. Course administrator's name (mention all, if more than one name)					
Name: Dr. Hussein Rahim Lazem Email:					
188. Course Objectives					
			• • •		
189. Teaching and learning strategies					
Strategy					
190. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
Week 1		All of them	Introduction and Specifications	Classroom	Structured work load (quiz, Hw,, inclass)
Week 2			Overview		
Week 2			Beam on Elastic		
Week 3			Foundation		
Week 4			Beam on Elastic		
Week 5			Foundation		
Week 6					

Week 7			Beam on Elastic		
Week 8			Foundation		
Week 9			Beam on Elastic		
Week 10			Foundation		
Week 11			Analysis and		
Week 12			Design of Bridge		
Week 13			Analysis and		
Week 14			Design of Bridge		
Week 15			Analysis and		
			Design of Bridge		
			Analysis and		
			Design of Bridge		
			Analysis and		
			Design of Bridge		
			Analysis and		
			Design of Bridge		
			Design of other		
			parts and		
			components of		
			Bridges		
			Design of other		
			parts and		
			components of		
			Bridges		
			Applications		
			Solved by		
			Computer		
191. Course Evaluation					
192. Learning and Teaching Resources					

193. Course Name :					
Engineering project					
194. Course Code :					
E421					
195. Semester/Year :					
First semester, second semester, fourth stage					
196. Description Preparation Date :					
7/1/2026					
197. Available Attendance Forms :					
In Class					
198. Number of Credit Hours (Total) / Number of Units (Total)					
4					
199. Course administrator's name (mention all, if more than one name)					
Name: TBA Email:					
200. Course Objectives					
OH,,			• • •		
201. Teaching and learning strategies					
Strategy		OH,,			
202. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
OH,,	OH,,	OH,,	OH,,		

203. Course Evaluation	
204. Learning and Teaching Resources	