

Program Specification

Academic Year

2025/2026

1. Basic Information

ProgramTitle :	Civil Engineering
Total number of credit hours/points of the program	180 hr.
Number of academic years/levels (expected program duration):	5 years
Department (s) Participating (if any) in teaching the program:	Civil Engineering
Program majors/divisions/tracks/specialties in the final year (if any):	Civil Engineering
Partnerships with other parties and the nature of each (if any):	--
Name of the program coordinator (attach the assignment decision):	Dr. Rania El-Sayed
Program Specification Approval Date:	9 /2025
Council responsible for Program Specification Approval (Attach the Decision / Minutes):	Council NO.(9)

2. Program Aims (Brief description of the overall purpose the program)

The civil engineering program graduates should possess a broad range of knowledge and skills, apply this knowledge in real-life situations, apply analytic and systemic thinking, be professional, lead diverse teams, promote the field, value the environment, use modern engineering tools, take responsibility for self-development, communicate effectively, and demonstrate leadership qualities, business administration, and entrepreneurial skills. They should also be able to engage in post-graduate and research studies.

3. Program Structure (Curriculum)

- Program Components

Requirement Category/Type		Number of Courses	Number of Credit Hours/Points	Percentage from the total number of hours/points
University Requirements		8	18	10%
Faculty/College Requirements (if applicable)basics		11	32	17.8 %
Program Requirements		44	130	72.2 %
Requirements of the majors/ divisions/ tracks/ specializations in the final year (if any)				
Other requirements	Field Training		8 weeks	
	Graduation Project			
	Mandatory training year			
	Other (to be mentioned)			
Total Compulsory Courses		59	168	93.3%
Elective Courses		4	12	6.7 %
Total		63	180	100%

• Program courses according to the expected study plan

Academic Level	Semester	Course Code	Course Title	Course Type (Compulsory / Elective)	Requirement Category/ Type	Number of Credit Hours/ Points	Number of Weekly Hours		
							Theoretical teaching	Practical training	Other
Level 1	1	PHM011	Mathematics (1)	Compulsory	معهد	3	2	-	2
Level 1	1	PHM021	Physics (1)	Compulsory	معهد	3	2	3	-
Level 1	1	PHM031	Mechanics (1)	Compulsory	معهد	3	2	-	2
Level 1	2	PHM012	Mathematics (2)	Compulsory	معهد	3	2	-	2
Level 1	2	PHM022	Physics (2)	Compulsory	معهد	3	2	3	-
Level 1	2	PHM032	Mechanics (2)	Compulsory	معهد	3	2	-	2
Level 1	2	PHM041	Chemistry	Compulsory	معهد	3	2	3	-
Level 2	1	PHM113	Mathematics (3)	Compulsory	معهد	3	2	-	2
Level 2	2	PHM114	Mathematics (4)	Compulsory	معهد	3	2	-	2
Level 1	1	MCE031	Engineering Drawings and Projection (1)	Compulsory	معهد	3	2	-	2
Level 1	2	MCE032	Engineering Drawings and Projection (2)	Compulsory	معهد	3	2	-	2
Level 1	1	HUM001	English Language	Compulsory	جامعة	2	2	-	-
Level 1	1	HUM002	History of Engineering and Technology	Compulsory	جامعة	2	2	-	1
Level 2	1	HUM103	Report Writing	Compulsory	جامعة	3	2	-	2
Level 2	2	HUM104	Engineering Economy	Compulsory	جامعة	2	2	-	1
Level 4	1	HUM305	Management and Marketing	Compulsory	جامعة	2	2	-	1

Academic Level	Semester	Course Code	Course Title	Course Type (Compulsory / Elective)	Requirement Category/ Type	Number of Credit Hours/ Points	Number of Weekly Hours		
							Theoretical teaching	Practical training	Other
Level 4	2	HUM306	Feasibility Studies and Project Management	Compulsory	جامعة	2	2	-	1
Level 5	1	HUM407	Legislations and Contracts	Compulsory	جامعة	3	2	-	2
Level 5	2	HUM408	Environmental Impacts of Projects	Compulsory	جامعة	2	2	-	1
Level 2	1	CVE 101	Analysis of Structures (1)	Compulsory	تخصص	3	2	-	2
Level 2	1	CVE 111	Properties and Testing of Materials	Compulsory	تخصص	3	2	3	-
Level 2	2	CVE102	Analysis of Structures (2)	Compulsory	تخصص	3	2	-	2
Level 2	2	CVE112	Properties and Testing of Materials (2)	Compulsory	تخصص	3	2	3	-
Level 2	2	CVE141	Fluid Mechanics	Compulsory	تخصص	3	2	-	2
Level 3	1	CVE203	Analysis of Structures (3)	Compulsory	تخصص	3	2	-	2
Level 3	1	CVE213	Properties and Testing of Materials (3)	Compulsory	تخصص	3	2	3	-

Academic Level	Semester	Course Code	Course Title	Course Type (Compulsory / Elective)	Requirement Category/ Type	Number of Credit Hours/ Points	Number of Weekly Hours		
							Theoretical teaching	Practical training	Other
Level3	1	CVE214	Geotechnical and Geological Engineering	Compulsory	تخصص	3	2	-	2
Level 3	1	CVE242	Hydraulics	Compulsory	تخصص	3	2	3	-
Level 3	2	CVE204	Analysis of Structures (4)	Compulsory	تخصص	3	2	-	2
Level 3	1	CVE214	Properties and Testing of Materials (4)	Compulsory	تخصص	3	2	3	-
Level 4	1	CVE305	Analysis of Structures (5)	Compulsory	تخصص	3	2	-	2
Level 4	1	CVE315	Geotechnical Engineering	Compulsory	تخصص	3	2	-	2
Level 5	2	CVE406	Analysis of Structures (6)	Compulsory	تخصص	3	2	-	2
Level 5	2	CVE459	Foundations Engineering	Compulsory	تخصص	3	2	-	2
Level 3	1	CVE251	Reinforced Concrete Design (1)	Compulsory	تخصص	3	2	-	2
Level 3	2	CVE252	Reinforced Concrete Design (2)	Compulsory	تخصص	3	2	-	2
Level 3	2	CVE243	Irrigation and Drainage	Compulsory	تخصص	3	2	-	2

Academic Level	Semester	Course Code	Course Title	Course Type (Compulsory / Elective)	Requirement Category/ Type	Number of Credit Hours/ Points	Number of Weekly Hours		
							Theoretical teaching	Practical training	Other
Level 4	1	CVE353	Reinforced Concrete Design (3)	Compulsory	تخصص	3	2	-	2
Level 4	1	CVE354	Steel Structures Design(1)	Compulsory	تخصص	3	2	-	2
Level 4	1	CVE361	Roads and Airports Engineering	Compulsory	تخصص	3	2	-	2
Level 4	2	CVE355	Reinforced Concrete Design (4)	Compulsory	تخصص	3	2	-	2
Level 4	2	CVE356	Steel Structures Design (2)	Compulsory	تخصص	3	2	-	2
Level 4	2	CVE344	Irrigation Design	Compulsory	تخصص	3	2	-	2
Level 4	2	CVE345	Sanitary Engineering (1)	Compulsory	تخصص	3	2	-	2
Level 4	2	CVE362	Transportation Planning & Traffic Engineering	Compulsory	تخصص	3	2	-	2

Academic Level	Semester	Course Code	Course Title	Course Type (Compulsory / Elective)	Requirement Category/ Type	Number of Credit Hours/ Points	Number of Weekly Hours		
							Theoretical teaching	Practical training	Other
Level 5	1	CVE457	Reinforced Concrete Design (5)	Compulsory	تخصص	3	2	-	2
Level 5	1	CVE458	Steel Structures Design (3)	Compulsory	تخصص	3	2	-	2
Level 2	2	ARE151	Architectural Engineering	Compulsory	تخصص	2	2	-	1
Level 1	2	MCE051	Production Technology	Compulsory	تخصص	3	2	3	-
Level 2	1	CVE 121	Plane Survey (1)	Compulsory	تخصص	3	2	3	-
Level 2	2	CVE122	Plane Survey (2)	Compulsory	تخصص	3	2	3	-
Level 3	1	CVE223	Topographical Survey (1)	Compulsory	تخصص	3	2	3	-
Level 1	1	CSE011	Computer Technology	Compulsory	تخصص	2	1	3	-
Level 2	1	CVE 131	Civil Drawings	Compulsory	تخصص	3	1	-	4
Level 3	2	CVE224	Topographical Survey (2)	Compulsory	تخصص	3	2	3	-
Level 3	2	EPE251	Mechanical and Electrical Engineering	Compulsory	تخصص	3	2	3	-
Level 4	1	CVE325	Engineering Survey	Compulsory	تخصص	3	2	3	-
Level 5	1	CVE491	Graduation Project (1)	Compulsory	تخصص	2	3	-	3

Academic Level	Semester	Course Code	Course Title	Course Type (Compulsory / Elective)	Requirement Category/ Type	Number of Credit Hours/ Points	Number of Weekly Hours		
							Theoretical teaching	Practical training	Other
Level 5	2	CVE499	Graduation Project (2)	Compulsory	تخصص	3	1	-	4
Elective (Discretionary)									
Level 5	1	CVE 411	Special Types of Concrete	Elective	تخصص	3	2	-	2
Level 5	1	CVE 412	Steel Structures Composed of Plates	Elective	تخصص	3	2	-	2
Level 5	1	CVE 413	Bearing Walls Structures	Elective	تخصص	3	2	-	2
Level 5	1	CVE 414	Sanitary Engineering (2)	Elective	تخصص	3	2	-	2
Level 5	1	CVE 415	Water Quality and Industrial Wastes	Elective	تخصص	3	2	-	2
Level 5	1	CVE 416	Water Used for Industrial Applications	Elective	تخصص	3	2	-	2
Level 5	1	CVE 421	New Building Materials	Elective	تخصص	3	2	-	2
Level 5	1	CVE 422	Advanced Analysis for Concrete Bridges	Elective	تخصص	3	2	-	2
Level 5	1	CVE 423	Repair and Maintenance of Structures	Elective	تخصص	3	2	-	2

Academic Level	Semester	Course Code	Course Title	Course Type (Compulsory / Elective)	Requirement Category/ Type	Number of Credit Hours/ Points	Number of Weekly Hours		
							Theoretical teaching	Practical training	Other
Level 5	1	CVE 424	Remote Sensing	Elective	تخصص	3	2	-	2
Level 5	1	CVE 425	Geographical Information Systems	Elective	تخصص	3	2	-	2
Level 5	1	CVE 426	Railway Engineering	Elective	تخصص	3	2	-	2
Level 5	2	CVE 431	Earthquake Engineering	Elective	تخصص	3	2	-	2
Level 5	2	CVE 432	Space Structures	Elective	تخصص	3	2	-	2
Level 5	2	CVE 433	Soil Improvement	Elective	تخصص	3	2	-	2
Level 5	2	CVE 434	Traffic Operation and Management	Elective	تخصص	3	2	-	2
Level 5	2	CVE 435	Environmental Engineering	Elective	تخصص	3	2	-	2
Level 5	2	CVE 436	Transportation Planning	Elective	تخصص	3	2	-	2
Level 5	2	CVE 441	Behavior of Steel Structures	Elective	تخصص	3	2	-	2
Level 5	2	CVE 442	Geotechnical Analysis by Computers	Elective	تخصص	3	2	-	2
Level 5	2	CVE 443	Erection of Concrete Structures	Elective	تخصص	3	2	-	2

Academic Level	Semester	Course Code	Course Title	Course Type (Compulsory / Elective)	Requirement Category/ Type	Number of Credit Hours/ Points	Number of Weekly Hours		
							Theoretical teaching	Practical training	Other
Level 5	2	CVE 444	Technology of Road Construction	Elective	تخصص	3	2	-	2
Level 5	2	CVE 445	Airport Engineering	Elective	تخصص	3	2	-	2
Level 5	2	CVE 446	Maintenance of Road and Airports	Elective	تخصص	3	2	-	2

4. Academic Standards

- **Adopted Academic Standards (NARS/ARS): NARS**
* When adopting ARS: The matrix of the academic reference standards (ARS) with the national academic reference standards (NARS) must be attached
- **Date of Adoption of Standards in the governing Council: 9/6/2025**
* Decision/Minutes of the governing Council to be attached

5. Matrix of Academic Standards (Program Outcomes POs) with Courses

NARS 2018				General Competencies										Civil Competencies			
				A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	B1	B2	B3	B4
LEVEL (1)	1	HUM001	English Language					√			√		√				
	2	HUM002	History of Engineering and Technology			√	√										
	3	PHM011	Mathematics (1)	√	√								√				
	4	PHM021	Physics (1)	√	√			√					√				
	5	PHM031	Mechanics (1)	√	√			√					√				
	6	PHM012	Mathematics (2)	√	√								√				
	7	PHM022	Physics (2)	√	√			√					√				
	8	PHM032	Mechanics (2)	√	√			√					√				
	9	PHM041	Chemistry	√	√								√				
	10	MCE051	Production Technology	√					√				√				
	11	MCE031	Engineering Drawings and Projection (1)	√			√				√						
	12	MCE032	Engineering Drawings and Projection (2)	√			√			√	√						
	13	CSE011	Computer Technology	√	√								√				
LEVEL (2)	14	HUM103	Report Writing														
	15	HUM104	Engineering Economy														
	16	CVE111	Properties and testing of materials (1)	√	√		√							√			
	17	PHM113	Mathematics (3)														
	18	CVE131	Civil Drawing						√		√		√		√		
	19	CVE121	Plane Survey (1)		√			√	√	√				√			
	20	CVE101	Structural Analysis (1)	√	√									√			
	21	CVE112	Properties and testing of materials (2)		√	√	√								√		
	22	ARE 151	Architectural Engineering														
	23	PHM 114	Mathematics (4)														
	24	CVE122	Plane Survey (2)		√			√	√	√				√			
	25	CVE102	Structural Analysis (2)	√	√									√			
	26	CVE141	Fluid Mechanics	√		√	√							√			
LEVEL (3)	27	EPE 251	Mechanical and Electrical Engineering														

	28	CVE251	Reinforced Concrete Design (1)			√	√								√			
	29	CVE242	Hydraulic	√	√	√									√			
	30	CVE203	Structural Analysis (3)	√		√									√			
	31	CVE223	Topographical Survey (1)		√			√	√	√					√			
	32	CVE 213	Properties and testing of materials (3)		√	√	√								√		√	
	33	CVE 261	Geotechnical and Geological Engineering	√	√										√			
	34	CVE204	Structural Analysis (4)	√	√										√	√		
	35	CVE252	Reinforced Concrete Design (2)			√	√									√		
	36	CVE224	Topographical Survey (2)		√			√	√	√					√			
	37	CVE243	Irrigation and Drainage Engineering			√									√	√		
	38	CVE214	Properties and testing of materials (4)	√			√						√		√		√	
LEVEL (4)	39	HUM305	Management and Marketing															
	40	HUM306	Feasibility Studies and Project Management		√				√	√		√						
	41	CVE305	Structural Analysis (5)			√	√						√		√			
	42	CVE353	Reinforced Concrete Design (3)			√	√									√		
	43	CVE325	Engineering Survey		√			√	√	√					√			
	44	CVE363	Roads and Airport Engineering	√		√	√									√		
	45	CVE354	Design of Steel Structures (1)			√	√						√			√		
	46	CVE 362	Geotechnical Engineering		√	√									√	√		
	47	CVE356	Design of Steel Structures (2)			√	√						√			√		
	48	CVE355	Reinforced Concrete Design (4)			√	√									√		
	49	CVE345	Sanitary Engineering			√	√								√			
	50	CVE344	Design of Irrigation Work			√	√						√			√		
	51	CVE364	Transportation Planning and Traffic Engineering	√		√	√								√			
LEVEL 5	52	HUM407	Legislations and Contracts															

53	HUM408	Environmental Impacts of Projects																		
54	CVE 458	Design of Steel Structures (3)			√	√						√			√					
55	CVE 457	Reinforced Concrete Design (5)			√	√									√					
56	CVE459	Foundation Engineering			√	√									√					
57	CVE406	Structural Analysis (6)			√	√	√					√			√					
58	CVE41X	Elective(1)			√	√									√					
59	CVE42X	Elective(2)				√			√	√					√			√		
60	CVE43X	Elective(3)			√	√				√						√				
61	CVE44X	Elective(4)				√			√	√		√						√		
62	CVE491	Graduation Project (1)					√		√	√	√	√						√	√	
63	CVE 499	Graduation Project (2)					√		√	√	√	√						√	√	
64		Field Training					√		√	√	√	√						√	√	

- Identification is done for each major/division/track/specialty in the final year (if any)
- Attach a separate matrix of elective courses (if any)

6. Teaching and Learning strategies/methods to achieve Program Outcomes:

1. Lectures
2. Practical
3. Projects
4. Brainstorming
5. Problem Solving
6. Co-operation Learning
7. Concept Map
8. Discussion
9. Self-learning

7. . Student Assessment strategies/methods to verify and ensure students' acquisition of Program Outcomes:

1. Semester work
2. Quizzes
3. Mid-term Exam
4. Written Exam

8. Program Key Performance Indicators (if any)

No.	Performance Indicator	Target Level	Method	Measurement
1.	Graduation rate within the standard study duration	>85	Academic record reports	Percentage of Graduates from total student number
2.	Stakeholders satisfaction	>50%	Questionnaire / Interviews	Percentage of satisfaction
3.	Number of employed graduates within one year after graduation	>70%	Questionnaire	Percentage of employed graduates from total Graduates number
4.	Number of student completing field training	90%	field training reports	Percentage of student completing field training from total student number
5.	Number of student Participating in competitions	>=10 students	Department Council	Count of the Students participating in competitions

Name & Signature
Program Coordinator
Dr. Rania El-Sayed

Name & Signature
Vice Dean for Education and Student Affairs

Program Specification

Academic Year

2025/2026

1. Basic Information

ProgramTitle :	Civil Engineering
Total number of credit hours/points of the program	165 hr.
Number of academic years/levels (expected program duration):	5 years
Department (s) Participating (if any) in teaching the program:	Civil Engineering
Program majors/divisions/tracks/specialties in the final year (if any):	Civil Engineering
Partnerships with other parties and the nature of each (if any):	--
Name of the program coordinator (attach the assignment decision):	Dr. Rania El-Sayed
Program Specification Approval Date:	9 /2025
Council responsible for Program Specification Approval (Attach the Decision / Minutes):	Council NO.(9)

2. Program Aims (Brief description of the overall purpose the program)

The civil engineering program graduates should possess a broad range of knowledge and skills, apply this knowledge in real-life situations, apply analytic and systemic thinking, be professional, lead diverse teams, promote the field, value the environment, use modern engineering tools, take responsibility for self-development, communicate effectively, and demonstrate leadership qualities, business administration, and entrepreneurial skills. They should also be able to engage in post-graduate and research studies.

3. Program Structure (Curriculum)

- Program Components

Requirement Category/Type		Number of Courses	Number of Credit Hours/Points	Percentage from the total number of hours/points
المتطلبات الإنسانية والثقافية		6	13	%8.0
متطلبات أساسية عامة		13	35	%21.2
	المتطلبات الهندسية للبرنامج	40	117	70.8 %
Other requirements	Field Training		12 weeks	
	Graduation Project			
	Mandatory training year			
	Other (to be mentioned)			
Total Compulsory Courses		55	153	90%
Elective Courses		4	12	10 %
Total		59	165	100%

• Program courses according to the expected study plan

Academic Level	Semester	Course Code	Course Title	Course Type (Compulsory / Elective)	Requirement Category / Type	Number of Credit Hours/ Points	Number of Weekly Hours		
							Theoretical teaching	Practical training	Other
Level 0	1	BAS011	رياضيات (1)	Compulsory	معهد	3	2	-	2
Level 0	1	BAS021	فيزياء (1)	Compulsory	معهد	3	2	3	-
Level 0	1	BAS031	ميكانيكا (1)	Compulsory	معهد	3	2	-	2
Level 0	1	BAS041	الرسم والإسقاط الهندسي	Compulsory	معهد	3	2	-	2
Level 0	1	HUM001	لغة إنجليزية	Compulsory	جامعة	3	2	-	1
Level 0	1	HUM011	تاريخ الهندسة و التكنولوجيا	Compulsory	جامعة	2	2	-	-
Level 0	2	BAS012	رياضيات (2)	Compulsory	معهد	3	2	-	2
Level 0	2	BAS022	فيزياء (2)	Compulsory	معهد	3	2	3	-
Level 0	2	BAS032	ميكانيكا (2)	Compulsory	معهد	3	2	-	2
Level 0	2	BAS051	كيمياء هندسية	Compulsory	معهد	3	2	3	-
Level 0	2	BAS062	مبادئ هندسة التصنيع	Compulsory	معهد	3	1	3	-
Level 0	2	HUM022	مهارات الحاسب الالى	Compulsory	جامعة	2	2	3	-
Level 1	1	CVE101	تحليل منشآت (1)	Compulsory	تخصص	3	2	-	2
Level 1	1	CVE111	خواص واختبارات المواد (1)	Compulsory	تخصص	3	2	1	2
Level 1	1	CVE121	مساحة مستوية	Compulsory	تخصص	3	2	1	2
Level 1	1	CVE161	رسم مدني	Compulsory	تخصص	3	2	-	4
Level 1	1	CVE163	ميكانيكا الموائع	Compulsory	تخصص	3	2	1	2
Level 1	1	HUM131	قوانين و أخلاقيات المهن الهندسية	Compulsory	جامعة	2	2	-	-
Level 1	2	CVE102	تحليل منشآت (2)	Compulsory	تخصص	3	2	-	2
Level 1	2	CVE112	خواص واختبارات المواد (2)	Compulsory	تخصص	3	2	1	2
Level 1	2	CVE122	مساحة طوبوغرافية	Compulsory	تخصص	3	2	1	2
Level 1	2	CVE164	هيدروليكا	Compulsory	تخصص	3	2	1	2
Level 1	2	CVE182	تشريعات وعقود	Compulsory	تخصص	2	2		1
Level 1	2	BAS112	إحصاء ونظرية	Compulsory	معهد	2	2	-	2

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							Theoretical teaching	Practical training	Other
			الاحتمالات						
Level 2	1	CVE203	تحليل منشآت (3)	Compulsory	تخصص	3	2	-	2
Level 2	1	CVE211	ضبط الجودة وترميم الخرسانة	Compulsory	تخصص	3	2	1	2
Level 2	1	CVE221	مساحة هندسية	Compulsory	تخصص	3	2	1	2
Level 2	1	CVE231	تصميم منشآت خرسانية (1)	Compulsory	تخصص	3	2	-	2
Level 2	1	CVE251	هندسة جيوتقنية وجيولوجية	Compulsory	تخصص	3	2	1	2
Level 2	1	HUM243	مهارات البحث والتحليل	Compulsory	جامعة	2	2	-	1
Level 2	2	CVE204	تحليل منشآت (4)	Compulsory	تخصص	3	2	-	2
Level 2	2	CVE262	هندسة الري والصرف	Compulsory	تخصص	3	2	-	2
Level 2	2	CVE232	تصميم منشآت خرسانية (2)	Compulsory	تخصص	3	2	-	2
Level 2	2	CVE252	هندسة جيوتقنية	Compulsory	تخصص	3	2	1	2
Level 2	2	BAS252	إعداد التقارير الفنية	Compulsory	معهد	3	2	-	1
Level 2	2	BAS262	الأثر البيئي للمشروعات	Compulsory	معهد	2	2	-	1
Level 3	1	CVE341	تصميم منشآت معدنية (1)	Compulsory	تخصص	3	2	-	2
Level 3	1	CVE331	تصميم منشآت خرسانية (3)	Compulsory	تخصص	3	2	-	2
Level 3	1	CVE351	هندسة الأساسات	Compulsory	تخصص	3	2	-	2
Level 3	1	CVE361	تصميم منشآت الري	Compulsory	تخصص	3	2	-	2
Level 3	1	CVE301	تحليل منشآت (5)	Compulsory	تخصص	3	2	-	2
Level 3	1	HUM361	قضايا الطاقة و المياه و تغير المناخ	Compulsory	جامعة	2	2	-	-
Level 3	2	CVE342	تصميم منشآت معدنية (2)	Compulsory	تخصص	3	2	-	2
Level 3	2	CVE332	تصميم منشآت خرسانية (4)	Compulsory	تخصص	3	2	-	2
Level 3	2	CVE382	إدارة المشروعات	Compulsory	تخصص	3	2	-	2
Level 3	2	CVE322	هندسة الطرق و المطارات	Compulsory	تخصص	3	2	-	2
Level 3	2	CVE372	هندسة صحية (1)	Compulsory	تخصص	3	2	-	2
Level 3	2	BAS372	الاقتصاد الهندسي	Compulsory	معهد	2	2	-	1

Academic Level	Semester	Course Code	Course Title	Course Type (Compulsory / Elective)	Requirement Category / Type	Number of Credit Hours/ Points	Number of Weekly Hours		
							Theoretical teaching	Practical training	Other
Level 4	1	CVE481	كميات و مواصفات	Compulsory	تخصص	2	2	-	1
Level 4	1	CVE441	تصميم منشآت معدنية (3)	Compulsory	تخصص	3	2	-	2
Level 4	1	CVE421	تخطيط النقل وهندسة المرور	Compulsory	تخصص	3	2	-	2
Level 4	1	CVE461	هندسة الموائى و الشواطئ	Compulsory	تخصص	3	2	-	2
Level 4	1	CVE491	مشروع التخرج (1)	Compulsory	تخصص	2	2	-	2
Level 4	1	CVE41X	اختياري تخصصي (1)	Elective	تخصص	3	2	-	2
Level 4	2	CVE 42X	اختيار تخصصي (2)	Elective	تخصص	3	2	-	2
Level 4	2	CVE 43X	اختيار تخصصي (3)	Elective	تخصص	3	2	-	2
Level 4	2	CVE 44X	اختيار تخصصي (4)	Elective	تخصص	3	2	-	2
Level 4	2	CVE492	مشروع التخرج (2)	Compulsory	تخصص	4	2	-	4
Level 4	2	ARE452	هندسة معمارية	Compulsory	تخصص	2	2	-	1

4. Academic Standards

- **Adopted Academic Standards (NARS/ARS): NARS**
* When adopting ARS: The matrix of the academic reference standards (ARS) with the national academic reference standards (NARS) must be attached
- **Date of Adoption of Standards in the governing Council: 9/6/2025**
* Decision/Minutes of the governing Council to be attached

5. Matrix of Academic Standards (Program Outcomes POs) with Courses

NARS				General Competencies (Level A)										Civil Competencies (Level B)			
				A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	B1	B2	B3	B4
LEVEL (0)	1	BAS011	Mathematics (1)	√	√								√				
	2	BAS021	Physics (1)	√	√			√					√				
	3	BAS031	Mechanics (1)	√	√												
	4	BAS041	Engineering Drawings and Projection	√	√			√					√				
	5	HUM001	English Language					√			√						
	6	HUM011	History of Engineering and Technology			√	√			√							
	7	BAS012	Mathematics (2)	√	√								√				
	8	BAS022	Physics (2)	√	√			√					√				
	9	BAS032	Mechanics (2)		√			√			√						
	10	BAS051	Engineering Chemistry	√	√								√				
	11	BAS061	Principles of Manufacturing Engineering	√					√				√				
	12	HUM021	Computer Technology	√	√		√										
LEVEL (1)	13	CVE101	Structural Analysis (1)	√				√					√	√			
	14	CVE111	Properties and Testing of materials (1)		√				√					√			
	15	CVE121	Plane Survey	√		√		√							√	√	
	16	CVE161	Civil Drawing						√		√		√			√	
	17	CVE163	Fluid Mechanics	√		√	√							√		√	
	18	HUM131	Laws and Engineering Professional ethics	√								√					
	19	CVE102	Structural Analysis (2)		√			√								√	
	20	CVE112	Properties and Testing of materials (2)		√	√				√							
	21	CVE122	Topographical Survey			√		√							√	√	
	22	CVE164	Hydraulics		√	√								√			
	23	CVE182	Legislations and Contracts	√								√					√
	24	BAS112	Probability Theory and Statistics	√	√												
		CVE191	Field Training I					√	√	√	√	√	√			√	√

NARS				General Competencies (Level A)										Civil Competencies (Level B)			
				A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	B1	B2	B3	B4
LEVEL (2)	25	CVE203	Structural Analysis (3)					√					√	√			
	26	CVE211	Quality Control and Concrete Repair						√	√	√					√	
	27	CVE221	Engineering Survey								√				√	√	
	28	CVE231	Reinforced Concrete Design (1)			√									√	√	
	29	CVE251	Geological and Geotechnical Engineering			√	√								√	√	
	30	HUM243	Research and Analysis Skills					√		√	√	√	√				
	31	CVE204	Structural Analysis (4)					√					√	√			
	32	CVE262	Irrigation and Drainage Engineering			√								√	√		
	33	CVE232	Reinforced Concrete Design (2)			√									√	√	
	34	CVE252	Geotechnical Engineering		√	√								√			
	35	BAS252	Technical Reports Preparation					√		√	√		√				
	36	BAS262	Environmental Impacts of Projects		√	√		√		√							
		CVE291	Field Training II					√	√	√	√	√	√			√	√
LEVEL (3)	37	CVE341	Design of Steel Structures (1)	√		√									√		
	38	CVE331	Reinforced Concrete Design (3)			√									√	√	
	39	CVE351	Foundation Engineering										√	√	√	√	
	40	CVE361	Design of Irrigation Structures								√		√		√		
	41	CVE301	Structural Analysis (5)		√				√		√						
	42	HUM361	Energy and Water Issues and Climate Change				√			√	√	√					
	43	CVE342	Design of Steel Structures (2)	√		√									√		
	44	CVE332	Reinforced Concrete Design (4)			√									√	√	
	45	CVE382	Project Management						√				√			√	√
	46	CVE322	Roads and Airport Engineering			√	√								√		
	47	CVE372	Sanitary Engineering (1)								√		√	√	√		
	48	BAS372	Engineering Economics			√						√	√				

NARS				General Competencies (Level A)								Civil Competencies (Level B)			
				A1	A2	A1	A2	A1	A2	A1	A2	A1	A2	A1	A2
LEVEL (4)	49	CVE481	Quantities and Specifications				√		√	√					√
	50	CVE441	Design of Steel Structures (3)			√					√		√		√
	51	CVE421	Transportation Planning and Traffic Engineering			√	√					√			
	52	CVE461	Coastal and Port Engineering				√		√	√			√		
	53	CVE491	Graduation Project (1)						√	√		√	√		√
	54	CVE41X	Elective(1)				√				√			√	√
	55	CVE 42X	Elective(2)				√				√			√	√
	56	CVE 43X	Elective(3)				√				√	√			√
	57	CVE 44X	Elective(4)				√				√	√			√
	58	CVE492	Graduation Project (2)						√	√		√	√		√
	59	ARE451	Architectural Engineering					√	√					√	√
Total				17	17	20	13	17	13	13	13	14	21	15	19

6. Teaching and Learning strategies/methods to achieve Program Outcomes:

1. Lectures
2. Practical
3. Projects
4. Brainstorming
5. Problem Solving
6. Co-operation Learning
7. Concept Map
8. Discussion
9. Self-learning

7. Student Assessment strategies/methods to verify and ensure students' acquisition of Program Outcomes:

1. Semester work
2. Quizzes
3. Mid-term Exam
4. Written Exam

8. Program Key Performance Indicators (if any)

No.	Performance Indicator	Target Level	Method	Measurement
1.	Graduation rate within the standard study duration	>85	Academic record reports	Percentage of Graduates from total student number
2.	Stakeholders satisfaction	>50%	Questionnaire / Interviews	Percentage of satisfaction
3.	Number of employed graduates within one year after graduation	>70%	Questionnaire	Percentage of employed graduates from total Graduates number
4.	Number of student completing field training	90%	field training reports	Percentage of student completing field training from total student number
5.	Number of student Participating in competitions	>=10 students	Department Council	Count of the Students participating in competitions

Name & Signature
Program Coordinator
Dr. Rania El-Sayed

Name & Signature
Vice Dean for Education and Student Affairs