Academic Program Description Form

University Name: ...Al-Farabi University

Faculty/Institute: ....Engineering

Scientific Department: ..Civil engineering

Academic or Professional Program Name: .....

Final Certificate Name: .....

Academic System: .....

Description Preparation Date:

File Completion Date:

Signature:

Head of Department Name:

أ.م. وداد عبد الأمير حسين

Date: 24/2/2024

Signature:

Scientific Associate Name:

Dr. Adnan ALAzzawi

Date: 25.2.2024

The file is checked by:

Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance Department:

Date: 24/02/2024

Signature:

Approval of the Dean

prof. Dr. Ahmed Gailan

1.program vision

Civil Engineering of Al-Farabi University is one of the leading Civil Engineering Programs in Iraq and the region. The Civil Engineering Department aims to prepare efficient and professional engineer who is capable of creativity and innovation, and follow-up engineering aspects and scientific developments. It has seen over the years a major development in the scientific and professional capabilities horizontally and vertically, where he witnessed a significant expansion in the number of graduates and its sub-disciplines.

2. program mission

The department has given prime focus to its undergraduate program leading to the award of the four-year degree in Bachelor of the Science of Engineering specialized in Civil Engineering. The department provides educational programs in civil engineering disciplines for students, characterized by stimulating the student's scientific potential to link between the theoretical basis and the scientific a, which qualifies them to acquire the necessary skills and required for the labor market, according to internationally recognized standards. The department is committed to providing academic expertise in the field of civil engineering and providing services to the community directly through consultations and research, or by preparing highly experienced graduates who are capable of continuous giving.

3. program Objectives

1. Graduating graduates qualified for postgraduate studies as well as the preparation of professional engineers in civil-engineering disciplines in the field of structural engineering, foundation engineering, roads, water and project management as well as construction materials.
2. Developing specializations in the department and creating new specializations by linking the department's educational outputs and development requirements in the community.
3. Graduating highly qualified ethical engineers. Providing technical and scientific consultations to all governmental and private sectors of society.
4. Instilling in graduates the spirit and commitment for acquiring knowledge and community service.
5. Student counseling, guidance and strengthening of citizenship spirit.
Providing good working environment for students, faculty, and other

6. personnel with emphasis on high academic, professional and ethical standards within the university campus. Freedom of opinions and respect of others opinions and encouragement in exchanging knowledge

4. program Accreditation

Ministry of Higher Education & Scientific Research

5. Other External influences

Field and scientific visits

6. Program Structure

Level/Year	Course or Module Code	Course or Module Title	Credit rating
First year	**GE101**	**Mathematics**	**6**
First year	**CE102**	**Engineering Mechanics**	**6**
First year	**CE103**	**Engineering Drawing**	**6**
First year	**CE104**	**Engineering Geology**	**4**
First year	**CE105**	**Building Materials**	**4**
First year	**CE108**	**Engineering Statistics**	**2**
First year	**GE109**	**Computer Programming**	**6**
First year	**GE107**	**Workshop**	**2**
First year	**GE111**	**Technical English**	**2**
First year	**GE113**	**Arabic Language**	**2**
Second year	**GE201**	**Mathematics**	6
Second year	**CE201**	**Surveying**	**6**
Second year	**CE203**	**Mechanics of Materials**	**6**
Second year	**GE204**	**Computer Programming**	**6**
Second year	**CE205**	**Fluid Mechanics**	**6**
Second year	**CE206**	**Building Constructions**	**4**
Second year	**CE207**	**Concrete Technology**	**4**

Second year	**GE211**	**Technical English**	**2**
Second year	**GE206**	**Freedom & Democracy**	**2**
Third year	**CE301**	**Theory of Structures**	**6**
Third year	**CE302**	**Soil Mechanics**	**6**
Third year	**CE303**	**Reinforced Concrete**	**6**
Third year	**CE304**	**Water Resources**	**4**
Third year	**CE305**	**Engineering Analysis**	**4**
Third year	**CE306**	**Traffic Engineering**	**4**
Third year	**CE307**	**Eng. Management and Economy**	**4**
Third year	**CE308**	**Computer Applications**	**2**
Third year	**CE309**	**Numerical Methods**	**4**
Third year	**GE311**	**Technical English**	**2**
Forth year	**CE401**	**Steel Design**	**4**
Forth year	**CE402**	**Foundation Design**	**4**
Forth year	**CE403**	**Transportation Engineering**	**6**
Forth year	**CE404**	**Sanitary & Environmental Engineering**	**6**
Forth year	**CE405**	**Constructional Methods**	**2**
Forth year	**CE407**	**Quantity Surveying**	**2**
Forth year	**CE406**	**Reinforced Concrete Design**	**4**
Forth year	**CE409**	**Hydrology**	**4**
Forth year	**CE410**	**Selected Topics**	**4**
Forth year	**GE411**	**Technical English**	**2**
Forth year	**CE408**	**Engineering Project**	**4**

7. Program description

FIRST YEAR			1st Semester Hours/Week			2nd Semester Hours/Week		
Code	**Subject**	**Units**	**Theo.**	**Tuto.**	**Lab.**	**Theo.**	**Tuto.**	**Lab.**
GE 101	Mathematics I	6	3	1	-	3	1	-
CE 102	Engineering Mechanics	6	3	1	-	3	1	-
CE 105	Building Materials	4	1	1	1	1	1	1
GE 104	Computer Programming	6	2	-	2	2	-	2
CE 103	Engineering Drawing	6	1	-	4	1	-	4
CE 108	Engineering Statistics	2	1	1	-	1	1	-
CE 104	Engineering Geology	4	1	1	1	2	1	-
GE 107	Workshop	2	-	-	2	-	-	2
GE 110	English Language I	2	1	1	-	1	1	-
GE 111	Arabic Language	2	1	-	-	1	-	-
Total		**40**	**14**	**6**	**10**	**14**	**6**	**10**
Total hours per week			**30**			**30**		

SECOND YEAR			1st Semester Hours/Week			2nd Semester Hours/Week		
Code	**Subject**	**Units**	**Theo.**	**Tuto.**	**Lab.**	**Theo.**	**Tuto.**	**Lab.**
CE201	Surveying	6	2	1	2	2	1	2
GE201	Mathematics II	6	3	1	-	3	1	-
CE203	Mechanics of Materials	6	3	1	-	3	1	-
GE204	Computer Programming	6	2	-	2	2	-	2
CE205	Fluid Mechanics	6	2	1	1	2	1	1
CE206	Building Construction	4	1	1	1	1	1	1
CE207	Concrete Technology	4	1	1	2	1	1	2
GE210	Technical English II	2	1	.	-	1	.	-
GE212	Human Rights & Democracy	2	1	-	-	1	-	-
Total		**42**	**16**	**6**	**8**	**16**	**6**	**8**
Total hours per week			**30**			**30**		

THIRD YEAR			1st Semester Hours/Week			2nd Semester Hours/Week		
Code	**Subject**	**Units**	**Theo.**	**Tuto.**	**Lab.**	**Theo.**	**Tuto.**	**Lab.**
CE 301	Theory of Structures	6	3	1	-	3	1	-
CE 302	Soil Mechanics	6	2	1	2	2	1	2
CE 303	Reinforced Concrete	6	3	1	-	3	1	-
CE 304	Water Recourses	4	2	1	-	2	1	-
CE 305	Engineering Analysis	4	2	1	-	2	1	-
CE 306	Traffic Engineering	4	1	1	1	1	1	1
CE 307	Eng. Management and Economy	4	1	1	-	1	1	-
CE 308	Computer Applications	2	-	-	2	-	-	2
GE 309	Numerical Methods	4	1	1	1	1	1	1
GE311	Technical English III	2	1	.	-	1	.	-
Total		**42**	**16**	**8**	**6**	**16**	**8**	**6**
Total hours per week			**30**			**30**		

FOURTH YEAR			1st Semester Hours/Week			2nd Semester Hours/Week		
Code	**Subject**	**Units**	**Theo.**	**Tuto.**	**Lab.**	**Theo.**	**Tuto.**	**Lab.**
CE401	Steel Design	4	2	2	-	2	2	-
CE402	Foundation Engineering	4	2	2	-	2	2	-
CE403	Transportation Engineering	6	1	1	2	2	-	2
CE404	Sanitary and Environmental Engineering	6	2	1	1	2	1	2
CE405	Construction Methods	2	1	1	-	2	1	-
CE406	Reinforced Concrete Design	4	2	2	-	2	2	-
CE407	Quantity Surveying	2	1	1				
CE408	Engineering Project	4	1	-	1	1	-	2
CE409	Hydrology	4	1	1	-	2	1	-
CE410	Selected Topics	4	2	1		2	1	
GE411	Technical English IV	2	1	1	-	1	1	-
Summer training								
Total		**42**	**17**	**10**	**6**	**17**	**10**	**6**
Total hours per week			**33**			**31**		

8.Expect learning outcomes of the program

A.Cognitive goals

A1. Establishing a significant knowledge base regarding the mathematics concepts, numerical analysis and computer programming.
A2. Learning the basic analysis and design methods for different types of structures.
A3. Educating the modern adopted construction and management method for different types of projects.
A4. Studying the mechanical properties of different constitutive construction materials

B.The skills goals special to the program .

The program planning to build and modified the following skills:
B1. Construction materials test methods.
B2. Survey field applications.
B3. Analysis and design software.
B4. Site management's controls.

Teaching and Learning Methods

1(Lectures.
2(Tutorials.
3(Homework and Assignments.
4(Lab. Experiments.
5(Tests and Exams.
6(In-Class Questions and Discussions.
7(Connection between Theory and Application.
8(Field Trips.
9(Extracurricular Activities.
10 (Seminars.
11 (In- and Out-Class oral conservations.
12) Reports, Presentations, and Posters.

Assessment methods

1 .Examinations, Tests, and Quizzes.

2 .Extracurricular Activities.

3 .Student Engagement during Lectures.

4. Responses Obtained from Students, Questionnaire about Curriculum and Faculty Member (Instructor).

C. Affective and value goals

C1. Increasing student's self-confidence to perform his (homework, classwork and assessment) within the corresponding time.
C2. Encouraging the teamwork between the students.
C3. Cooperating the universal activities.
C4. Supporting the extra-curricular university activities and urging students to participate in them

Teaching and Learning Methods

1(Homework and Assignments.
2(In-Class Questions and Discussions.
3(Field Trips.
4(Extracurricular Activities.
5(Seminars.
6(In- and Out-Class oral conservations.
7(Reports, Presentations, and Posters

Assessment methods

Extracurricular Activities.
2 .Student Engagement during Lectures.
3. Responses Obtained from Students, Questionnaire about Curriculum and Faculty Member (Instructor).

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1. Increasing the ability to use the design and analysis software.
D2. Enhancing the skill to perform any significant lab test for different engineering purposes.
D3. Modifying the engineering drawing aptitude.
D4. Improving site investigation skill.

Teaching and learning strategies

The main adopted strategy in delivering this module, encourage students' participation in the exercises, refining and expanding their critical thinking skills comprised :

(١ Lectures.
(٢ Tutorials.
(٣ Homework and Assignments.
(٤ Lab. Experiments.
(٥ Tests and Exams.
(٦ In-Class Questions and Discussions.
(٧ Connection between Theory and Application.

(٨ Field Trips.
(٩ Extracurricular Activities.
(١٠ Seminars.
(١١ In- and Out-Class oral conservations.
(١٢ Reports, Presentations, and Posters

Assessment Methods

1. Examinations, Tests, and Quizzes.
٢. Extracurricular Activities.
٣. Student Engagement during Lectures.
٤. Responses Obtained from Students, Questionnaire about Curriculum

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10. Evaluation methods

•Commitment to the specified deadline for submitting the assignments and research required of the student.
•Active participation in the classroom is evidence of the student's commitment and responsibility.
• Semester and final tests express commitment and cognitive and skill achievement.

11. Faculty members

Faculty Member Name	specialization		Highest Degree Earned, Field and Year	Scientific Rank [1]	Type of Academic Appointment [2] PS or TS [2]	FT or PT [3]
	general	special				
Walid Mustafa Khamas	Civil Engineering	Project Management	PhD	P	PS	FT
Alaa Hussain Mehdi	Civil Engineering	Hydraulic	PHD	ASP	PS	FT
Osama Abdel Amir Eidan	Civil Engineering	Building Materials	PHD	ASP	PS	FT
Kanaan M. Abdalkareem	Building and construction engineering	Project Management	PhD	ASP	PS	FT
Husam Muslih Abdulla	Building and construction engineering	Transportation engineering	PhD	L	PS	FT
Raad Muneib Mohammed	Civil Engineering	Soil and foundations	PhD	L	PS	FT
Fatema Safaa Noori	Civil Engineering	Soil and foundations	PhD	L	PS	FT
Haider Maithem Hekmet	Civil Engineering	Construction	PhD	L	PS	FT
Asmaa Ghassan Sami	Civil Engineering	Construction	MSc	ASL	PS	FT
Rusul Salman Hussein	Civil Engineering	Soil and foundations	MSc	ASL	PS	FT
Reem Mudar Hussien	Sciences	mathematics	MSc	ASL	PS	FT
Raghda Hashim Abd	Civil Engineering	Construction	MSc	ASL	PS	FT
Musaab Munqith Nasser	Architectural Engineering	Urban planning	MSc	ASL	PS	FT
Mahmood Khalid Jumaah	Civil Engineering	Transportation engineering	MSc	L	PS	FT
Hussain Saadoon	Civil Engineering	Transportation engineering	MSc	ASL	PS	FT

Complete table for each member of the faculty in the program. Add additional rows or use additional sheets if necessary. Updated information is to be provided at the time of the visit.

1. Code: P = Professor, ASP = Assistant Professor, L = Lecturer, ASL = Assistant Lecturer and O = Other.
2. Code: PS = Permanent Staff, TS = Temporary Staff.
3. FT = Full Time Faculty or PT = Part Time Faculty, at the institution

Professional development

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The focus in the Civil Engineering Department in general is on continuous improvement. The department always seeks to improve the scientific and administrative process and overcome all the difficulties and obstacles that hinder the .educational program by developing human resources to develop personality

The following procedures explain the steps implemented or in the process of :implementation in this area

1 .Continuous improvement and development of faculty members through training programs and workshops inside and outside the department, university and country.

2 .Increasing extracurricular activities, such as holding conferences, scientific seminars, and personal and sports creativity, locally, regionally, and internationally.

3 .Encouraging faculty members to obtain the highest academic and administrative ranks through promotions.

4 .Providing modern scientific sources and books for the department's library to keep pace with the rapid progress in engineering sciences.

5. Providing specialized software in civil engineering, computers necessary for this, and Internet lines for all teachers

12 .Acceptance standard

The Department of Civil Engineering is subject to the work mechanism of the Ministry of Higher Education and Scientific Research - the central admission system for private education, whereby graduates of preparatory studies (scientific branch) are nominated for admission to the Department of Civil Engineering based on their graduation rates. In addition, some students who are graduates of technical institutes and others are accepted. From professional studies and some distinguished employees from state ministries.

١3 .The most important sources of information about the program

•The curriculum approved by the Ministry of Higher Education and Scientific Research and its guidelines.

•Decisions and recommendations of scientific committees.

•Courses in teaching methods.

•Self-evaluation report for previous years.

•Description of courses.

•Courses in civil society organizations.

•Conferences, seminars, workshops and panel discussions.

•Relevant state institutions.

•Graduates Unit

•Internet searches for similar experiences.

•Personal experiences.

Curriculum Skills Map

please tick in the relevant boxes where individual Program Learning Outcomes are being assessed

Program Learning Outcomes

Year / Level	Course Code	Course Title	Core (C) Title or Option (O	General and Transferable Skills (or) Other skills relevant to employability and personal development				Thinking Skills				Subject-specific skills				Knowledge and understanding			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4	D1	D2	D3	D4
First year	GE101	Mathematics	C	√								√	√	√	√				
	CE102	Engineering Mechanics	C		√							√	√	√	√				
	CE103	Engineering Drawing	C									√	√	√	√			√	
	CE104	Engineering Geology	C					√				√	√	√	√				√
	CE105	Building Materials	C				√	√				√	√	√	√		√		
	CE108	Engineering Statistics	C	√								√	√	√	√				
	GE109	Computer Programming	C	√								√	√	√	√	√			
	GE107	Workshop	C									√	√	√	√		√		
	GE111	Technical English	C									√	√	√	√				
	GE113	Arabic Language	C									√	√	√	√				

Curriculum Skills Map

please tick in the relevant boxes where individual Program Learning Outcomes are being assessed

Program Learning Outcomes

Year / Level	Course Code	Course Title	Core (C) Title or Option (O	General and Transferable Skills (or) Other skills relevant to employability and personal development				Thinking Skills				Subject-specific skills				Knowledge and understanding			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4	D1	D2	D3	D4
Second year	GE201	Mathematics	C	√								√	√	√	√				
	CE201	Surveying	C			√						√	√	√	√				√
	CE203	Mechanics of Materials	C				√		√			√	√	√	√				
	GE204	Computer Programming	C	√						√		√	√	√	√	√			
	CE205	Fluid Mechanics	C		√							√	√	√	√				
	CE206	Building Constructions	C			√					√	√	√	√	√				√
	CE207	Concrete Technology	C				√	√				√	√	√	√		√		
	GE211	Technical English	C									√	√	√	√				
	GE206	Freedom & Democracy	C									√	√	√	√				

Curriculum Skills Map

please tick in the relevant boxes where individual Program Learning Outcomes are being assessed

Program Learning Outcomes

Year / Level	Course Code	Course Title	Core (C) Title or Option (O	General and Transferable Skills (or) Other skills relevant to employability and personal development				Thinking Skills				Subject-specific skills				Knowledge and understanding			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4	D1	D2	D3	D4
Third year	CE301	Theory of Structures	C		√							√	√	√	√				
	CE302	Soil Mechanics	C		√			√				√	√	√	√		√		√
	CE303	Reinforced Concrete	C		√							√	√	√	√				
	CE304	Water Resources	C		√							√	√	√	√				
	CE305	Engineering Analysis	C	√						√		√	√	√	√				
	CE306	Traffic Engineering	C		√				√			√	√	√	√				√
	CE307	Eng. Management and Economy	C			√					√	√	√	√	√	√			√
	CE308	Computer Applications	C		√	√						√	√	√	√	√			
	CE309	Numerical Methods	C	√								√	√	√	√	√			
	GE311	Technical English	C									√	√	√	√				

Curriculum Skills Map

please tick in the relevant boxes where individual Program Learning Outcomes are being assessed

Program Learning Outcomes

Year / Level	Course Code	Course Title	Core (C) Title or Option (O	General and Transferable Skills (or) Other skills relevant to employability and personal development				Thinking Skills				Subject-specific skills				Knowledge and understanding			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4	D1	D2	D3	D4
Forth year	Steel Design	CE401	C		√							√	√	√	√		√		
	Foundation Design	CE402	C		√							√	√	√	√		√		
	Transportation Engineering	CE403	C		√			√				√	√	√	√				√
	Sanitary & Environmental Engineering	CE404	C		√			√				√	√	√	√				
	Constructional Methods	CE405	C			√					√	√	√	√	√				√
	Quantity Surveying	CE407	C			√					√	√	√	√	√				√
	Reinforced Concrete Design	CE406	C		√							√	√	√	√				
	Hydrology	CE409	C		√							√	√	√	√				
	Selected Topics	CE410	C									√	√	√	√		√		
	Technical English	GE411	C									√	√	√	√		√		
	Engineering Project	CE408			√	√	√									√	√	√	√