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

2024

Introduction:

The educational program 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.

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.

Academic Program Description Form

University Name: **Al-Rafidain University College**
Faculty/Institute: **Al-Rafidain University College**
Scientific Department: **Civil Engineering**
Academic or Professional Program Name: **Civil Engineering**
Final Certificate Name: **B. Sc. degree in Civil Engineering**
Academic System: yearly
Description Preparation Date: **1-6-2023**
File Completion Date: **1-10-2023**

Signature:
Head of Department Name: ASS.**Prof.DR.Wajeeh Kamal**

Date:

Signature:
Scientific Associate Name:**Adham Mohsen Saeed**

Date:

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

1. **Program Vision**
The department is looking forward to graduating groups of engineers interested in the practical aspects to qualify them to enter the workplace directly after

graduation, and to qualify them by raising the academic level of the graduate to complete his postgraduate studies in master's and doctoral degrees

2. Program Mission

The Department of Civil Engineering aspires to be an effective part of the solid scientific system of the College of Engineering by preparing a civil engineer with scientific and practical ability. The department also aspires to develop the scientific research side of the faculty member to advance the knowledge process and provide the capabilities required to complete engineering experiments of the highest quality for the purpose of consolidating the concepts of the academic program's vocabulary among students.

3. Program Objectives

1 - Preparing female engineers with scientific and professional excellence by increasing the duration of summer training in engineering projects under implementation and in cooperation with engineering agencies specialized in housing, construction of roads, dams, sanitation projects, filtration and treatment units and complexes, and the relevant ministries, and qualifying the graduate to work in research institutions and training in research work.

2 Preparing consultants and contributing to providing scientific and engineering consultations, through the consulting office at Al-Rafidain University College, in addition to direct consulting work with all state ministries and for a very large number of construction, service and investment projects in Iraq and its various institutions. This includes design, supervision and management work. As well as conducting laboratory and on-site tests of materials used in construction and various building products, and evaluating the suitability of these materials and the works carried out through thousands of laboratory tests.

3- Contributing to scientific progress through scientific research or participation in

local, Arab and international conferences.

4- Continuation of social contribution and research to ensure the highest levels of understanding for students in the summer training plan and their follow-up after graduation

4. Program Accreditation

5. Other external influences

Organizing additional lectures, training them, and informing them of presentations on advanced projects and technologies to prepare them for the practical reality and help them with a practical understanding of the theoretical lessons. The duration of study in the department is four years, during which the student obtains a bachelor's degree in civil engineering to be qualified to work in the local market in everything related to the construction aspects of buildings, bridges, and dams. Roads, airports, water filtration plants, etc. The department's staff consists of four doctoral holders, two master's holders, and five graduates. Bachelor's degree holders, in addition to selected external lecturers from the field's specializations from the Department of Workers in the Department of Toilers in the State and Brazilian universities. The engineering cultural level of the graduate of the Civil Engineering Department at Al-Rafidain University College. Laboratories with modern equipment and from reputable German and Italian companies were trained, and the teaching assistants were chosen from those with beginners' experience in mathematics at the scientific and practical level of our graduates.

6. Program Structure

Program Structure	Number of Courses	Credit hours	Percentage	Reviews*

Institution Requirements				
College Requirements				
Department Requirements	**26**	**178**	**100%**	
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	
Second year				
Second year	GE201	Mathematics	2	2
Second year	CE201	Surveying	3	
Second year	CE203	Mechanics of Materials	3	
Second year	GE204	Computer Programming	2	2
Second year	CE205	Fluid Mechanics	2	1
Second year	CE206	Building Constructions	1	1
Second year	CE207	Concrete Technology	1	2
Second year	GE206	Freedom & Democracy	1	
Third year	CE301	Theory of Structures	3	
Third year	CE302	Soil Mechanics	2	2
Third year	CE303	Reinforced Concrete	2	
Third year	CE304	Water Resources	3	
Third year	CE305	Engineering Analysis	2	
Third year	CE306	Traffic Engineering	2	-
Third year	CE307	Eng. Management and Economy	2	1
Third year	CE308	Computer Applications	1	1
Third year	CE309	Numerical Methods	2	1
Forth year				
Forth year	CE401	Steel Design	2	
Forth year	CE402	Foundation Design	2	
Forth year	CE403	Transportation Engineering	2	1
Forth year	CE404		2	
Forth year	CE405	Sanitary & Environmental Engineering	2	
Forth year	CE406	Quantity Surveying	2	1

Forth year	CE409	Reinforced Concrete Design	2	
Forth year	CE410	Hydrology	1	
Forth year	CE408	Selected Topics	2	

8. Expected learning outcomes of the program

Knowledge	
Enabling the student to recognize the concept of civil engineering and become familiar with its various branches, which include structural engineering, geotechnical engineering, road engineering, sanitary and environmental engineering, project management and building materials technology, in a way that qualifies him to enter the labor market and field work in the public and private sectors.	1 - The student's knowledge of the construction process and engineering project management. 2 - The student's ability to know the engineering problem and how to develop the correct solutions to it. 3 - Enabling students to analyze laboratory and on-site tests of materials, especially in the field of civil engineering 4- Introducing students into internationally accredited engineering courses by specialized international companies.
Skills	
The skill of thinking according to the student's ability (Let's Think about Thinking Ability). The goal of this skill is for the student to believe in what is tangible (the student's abilities) and to understand when, what and how he should think and work to improve the ability to think reasonably.	The skill of thinking according to the student's ability (Let's Think about Thinking Ability). The goal of this skill is for the student to believe in what is tangible (the student's abilities) and to understand when, what and how he should think and work to improve the ability to think reasonably.
Ethics	
Teaching to think well before making decisions that determine the student's life)	Critical thinking in learning (Critical Thanking) is a term that symbolizes the highest levels of thinking, which aims to pose a problem and then analyze it logically to reach the desired solution

9. Teaching and Learning Strategies

Strategies for managing the lecture in a way that feels the importance of time.

And the teaching and learning methods adopted in implementing the program in genera

10. Evaluation methods

1- Implementing it in all stages of the program in general.

2- Assigning the student to some group activities and duties

11. Faculty

Faculty Members

Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff	
	General	Special			Staff	Lecturer
Nisreen Nouri Ali	PhD / UMP / Malaysia Mechanical Engineering	Mechanical Engineering			staff	
Nour Abdul Sattar Abdul	PhD / University of	Project management			staff	

Jabbar	Baghdad / Iraq	engineering				
Ahmed Ibrahim Fadel Al-Adly	PhD / University of Baghdad / Iraq	Soil mechanics and foundation engineering			staff	
Mahdi Mohsen is stuck	Ph.D./Al-Mustansiriya University/Iraq	Counting			staff	
Adham Mohsen Saeed	Master's degree / Middle East University / Jordan	Computer since			staff	

Professional Development

Mentoring new faculty members

1- Preparing in-depth studies on the role of the professor and the role of the student in developing thought and personality.

2- Continuously developing curricula in line with the new situation and developments in the labor market.

3- Creating a spirit of teamwork to guide and motivate others to guide new, visiting, full-time and part-time faculty members at the institution and department levels.

Professional development of faculty members

1- Preparing in-depth studies on the role of the professor and the role of the student in developing thought and personality.

2- Continuously developing curricula in line with the new situation and developments in the labor market.

12. **Acceptance Criterion**
1- Approval of central admission, the conditions for which the averages required are determined by the Ministry of Higher Education and Scientific Research. **2- Adopting the student's geographical location and giving him preference in admission**

13. **The most important sources of information about the program**
1- The website of the college and university. 2- University guide. 3- The most important books and sources for the department.

14. Program Development Plan
1-The proportion of highly experienced and competent professors. 2-Success and graduation rates for students on time. 3- Rates of students' participation in academic and cultural activities. 4- The number of courses and workshops for the continuous development of the teaching staff

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
Second year		Mathematics	C	√			√				√	√	√	√	
		Surveying	C	√			√				√	√	√	√	
Second year		Mechanics of Materials	C												
		Computer Programming	C		√					√	√	√	√	√	
Second year		Fluid Mechanics	C	√							√	√	√	√	
		Building Constructions	C	√							√	√	√	√	
Second year		Concrete Technology	C								√	√	√	√	
		Mathematics	C												
Second year		Surveying	C	√	√	√					√	√	√	√	√
Second year		Mechanics of Materials	C	√			√				√	√	√	√	

				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
Third year		Theory of Structures	C	√			√				√	√	√	√	
		Soil Mechanics	C	√			√				√	√	√	√	
Third year		Reinforced Concrete	C												
		Water Resources	C		√					√	√	√	√	√	
Third year		Engineering Analysis	C	√							√	√	√	√	
		Traffic Engineering	C	√							√	√	√	√	
Third year		Eng. Management and Economy	C								√	√	√	√	
		Computer Applications	C	√	√	√					√	√	√	√	√
Third year		Numerical Methods	C	√	√	√					√	√	√	√	√

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
Fourth	Steel Design		C	√	√			√				√	√	√	√
	Foundation Design		C		√			√				√	√	√	√
Fourth	Transportation Engineering														
			C			√					√	√	√	√	√
Fourth	Sanitary & Environmental Engineering		C	√	√							√	√	√	√
	Engineering Project		C		√							√	√	√	√
Fourth	Quantity Surveying		C	√								√	√	√	√
	Reinforced Concrete Design		C	√		√					√	√	√	√	√