Ministry of Higher Education of Sciences 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.

#### **Concepts and terminology:**

<u>Academic Program Description</u>: 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.

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

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

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

<u>Curriculum Structure</u>: 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.

<u>Teaching and learning strategies</u>: 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-Farahidi University

Faculty/Institute: ..... College of Technical Engineering

Scientific Department: ..... Department of Refrigeration and Air Conditioning Technologies

Academic or Professional Program Name: ..... Bachelor's degree in engineering, refrigeration and air conditioning technology

Final Certificate Name: ...... Bachelor's degree in engineering, refrigeration and air conditioning technology

Academic System:

**Description Preparation Date: 2024** 

File Completion Date: 2024

Signature
Head of Department Name
Dr. Samir Ali Amin
Date

Signature Scientific Associate Name

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

Architecture is considered both a logical science and an art with one of its most important foundations being the factors of time place, and people. Consequently, architectural outcomes are defined based on indicators rooted in the environment heritage and the characteristics of local and Islamic architecture. The mission of the Department of Architecture is to prepare graduates in architecture according to scientific and intellectual principles that enable them to analyze modern architectural trends. They should be capable of critically evaluating prevailing architecture, both locally and globally and revitalizing the concept of urban heritage in Iraq. The department emphasizes the uniqueness of Iraqi architecture by developing its curriculum in both practical and theoretical aspects while emphasizing the concepts of modernity and contemporaneity.

#### 2. Program mission

The Department of Architecture seeks to keep pace with the latest developments in the world in the field of architecture and building technology and tries hard to direct its students to apply the latest innovations in this field in order to advance the reality of Iraqi society and raise it to the ranks of developed countries in architecture. It also seeks to achieve integration between academic curricula and practical life, taking into account the requirements of the local environment in terms of the social, climatic and cultural environment and the exploitation of natural resources available in the Iraqi environment.

#### 3. Program Objectives

Establishing a base of scientific staffs that have the abilities of creativeness in which the mind is elevated to comprehend Iraq's new objectives.

Enabling the graduate to play his specialized and effective role in building his homeland by strengthening the moral and national concepts associated with the nation's heritage and its scientific and intellectual specificity.

Enhancing this heritage in the practical field, the ability to enhance the spirit of steadfastness and expansion in reconstruction and innovation.

4. Program Accreditation

Liverpool

5. Other external influences/group of universities (Eastern Europe) and the United States of America.

#### Ministry of Higher Education and Scientific Research

5. Other external influences

6 . Program structure									
Program	Number of	Credit hours	percentag	Reviews					
structure	Courses		е						
Enterprise									
requirements									
College									
requirements									
Department									
requirements									
summer	One-time			Students train after the					
training	training			end of the third stage					
				during the summer					
				vacation					
Other									

7. Program description													
Grad	Code	Subject	Semester Hours/Week										
2023-			theoretical	practical									
2024													
	First Year(course one)												
course	AFU14011	Mathematics	6	-									
course	AFU14012	Engineering Drawing	6	-									
course	AFU14013	Workshops	-	8									
course	AFU14014	Engineering Material	4	-									
course	AFU14015	English Language I	4	-									
First Year(course two)													
course	AFU14027	Electrical Engineering	4	4									
course	AFU14028	Engineering Mechanics	6										
course	AFU14029	Thermodynamics 1	4										
course	AFU140210	Humans Rights and Democracy	2	-									
course	AFU140211	Arabic	2	-									
course	AFU140212	Computer principles	2	4									
course	AFU14025	Matlab	2	4									
	I	Second year (course one)											
course	AFU14030	Advanced Mathematics	6	6									
course	AFU14031	Mechanical Drawing	2	4									
course	AFU14032	Fluid Mechanics	6	4									
course	AFU14033	Thermodynamics 2	6	6									
	Second year (course two)												
course	AFU14045	Fundamentals of Air	6	4									
		Conditioning and Refrigeration											
course	AFU14046	Strength of Materials	4	4									
course	AFU14047	<b>Computer Applications 1</b>	2	4									
course	AFU14048	English 2	4	-									
course	AFU14049	Summer Training 1	6	-									

Third year(course one)										
course	AFU14050	Engineering and Numerical	6	-						
	Analysis									
course	AFU14051	Computer Applications 2	2	4						
course	AFU14052	Theory of Machine and	4	4						
		Vibrations	Vibrations							
course	AFU14053	Heat Transfer	6	4						
course	AFU14054	Air Conditioning and	6	4						
		Refrigeration systems								
		Third year(second course)								
course	AFU14065	Mechanical Design	4	2						
course	AFU14067	Maintenance of Air Conditioning	2	8						
		systems								
course	AFU14068	English 3	2	-						
course	AFU14069	Air Conditioning systems	2	6						
		Drawing								
course	AFU140610	Electrical and Electronic	4	2						
		Engineering								
course	AFU140611	Summer Training 2	-	-						
		froth year(one course)								
course	AFU14070	Project	-	8						
course	AFU14071	Air Conditioning System Design	6	4						
course	AFU14072	Power Plants	6	4						
course	AFU14073	Computer Applications 3	2	4						
course	AFU14074	Industrial Engineering	3	-						
		Management								
	froth year(second course)									
course	AFU14086	Refrigeration Systems	6	4						
course	AFU14087	Renewable Energy	6	4						
course	AFU14088	Professional Ethics	2							
course	AFU14089	English 4	2							
course	AFU140810	Control and Measurements	4	4						

	8. Expected learning outcomes of the program
Knowledge	
Learning Outcomes	Design, administrative, and decision-making capabilities
Skills	
Learning Outcomes	Lectures, ceremonies, field tours on work sites (buildings
	containing refrigeration and central air conditioning),
	methodological teaching, and summer training.
Ethics	
Learning Outcomes	Respecting customs, traditions, architectural heritage,
	sustainability and the environment

### 9. Learning and teaching strategies

Learning and teaching methods: lecture, ceremony, field tours on work sites (architectural and civil), systematic teaching, summer training.

10. Evaluation methods												
Oral exams, written exams, semester exams, final exams, daily and continuous assessment.												
11 Eaculty												
Academic Rank		Specialization	Special	Number of the								
			requirements/skills	teaching staff								
	general	precise	If applicable	Staff	lecture							
					r							
DR. Adnan Naji	PH.D. in	Applied		V								
Jamil	Mechanical	mechanics										
	Engineering											
DR. Samir Ali	PH.D. in	Properties of		V								
Amin	Engineering	materials and										
	Metallurgy	manufacturin										
		g processes										
DR.Salem	PH.D. in	Applied		V								
Farman Salman	Mechanical	mechanics										
	Engineering											
DR. Abbas Ali	PH.D. in	Metallurgical		V								
Saleh	Engineering	engineering										
	Production											
	and											
	Metallurgy											
DR. Falah Hassan	PH.D. in	Engineering		V								
Abdel-Sada	Mechanical	industrial										
	Engineering	limbs and										
		supports										
DR. Riad Nizar Ali	PH.D. in	Mechatronics		V								
Bashir	Mechatronic	engineering										
	s											
DR. Huda	PH.D. in			V								
Muhammad	Engineering											
Sabar	Materials											
Walid Khaled	MSc in	mechanical		V								
Muhammad	Mechanical	wear										
Reda	Engineering											
Rawad Luay	MSc in	Thermal		V								
Abdul Jabbar	Mechanical	engineering										
	Engineering											
Ali Asaad Nazim	MSc in	Thermal		V								
	Mechanical	engineering										
	Engineering											

#### Professional Development

Mentoring new faculty members

Teaching methods courses and development of electronic teaching methods Educational sessions, seminars, and study on how to analyze information and reach decisions

Professional development of faculty members

Courses on teaching methods, developing electronic teaching methods, and courses introducing quality assurance and teaching and learning strategies

Follow the latest developments and developments

Review evidence and matters that need to be addressed

12. Acceptance Criterion

The desire of students to apply to join the Department of Refrigeration and air conditioning engineering is the standard in force at the Technical College of Engineering at Al-Farahidi University by applying on the Ministry's website. In addition, the applicant's average for joining the department is taken into consideration.

13. The most important sources of information about the program

#### 14. Program Development Plan

Self-evaluation is when an educational institution evaluates a particular academic program as part of a program review and within an internal quality management and assurance system.

Holding meetings and discussions including:

Meeting with relevant authorities (a sample of graduates, employers, and other partners( The effectiveness of quality assurance and management processes: a meeting with members of the educational community.

Review the evidence and any gaps or matters that need to be followed up

Review committee meeting: reviewing additional documents, including a sample of corrected student work

Meeting with a group of students

Review Oral feedback to the review coordinator and members of the educational staff

Program Skills Outline															
Required program learning outcomes															
Year	Course	Course name	Basic or	Knowledge			Skills Ethics				hics				
/leve I	code		optiona I	A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4