

**Ministry of Higher Education and Scientific Research Scientific  
Supervision and evaluation device  
Department of Quality Assurance and Academic Accreditation  
Department Accreditation**



# **Academic Program and Course Description Guide**

**2024-2025**

## Academic Program Description Form

University Name: Al-Furat Al-Awsat Technical University

Faculty/Institute: Musaib Technical College

Scientific Department: Soill and Water techniques

Academic or Professional Program Name: Bachelor of Soill and Water techniques

Final Certificate Name: Bachelor of Soill and Water techniques

Academic System: course

Description Preparation Date: 15/3/2024

File Completion Date: 20/9/2024

Signature:

Head of Department Name:

Assist. prof. Mohammad Tarkhan Abo Almeekh

Date:

Signature:

Scientific Associate Name:

Dr. Nabil hamad Abdel Majeed

أ. د. نبيل حماد عبد المجيد  
معاون العميد للشؤون العلمية  
والتدريس العليا

Date:

20/9/2024

The file is checked by:

Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance Department:

Dr. Haider Rahman Dawood

Date:

Signature:



Approval of the Dean  
Prof. Dr. Ali Hassan Wadi

## **Introduction:**

Certainly! The educational program serves as a coordinated package of academic courses containing procedures and experiences designed to build and refine graduates' skills, making them qualified to meet the demands of the job market. It is reviewed and evaluated annually through internal or external auditing procedures and programs such as the external examiner program.

The program description provides a brief summary of the key features of the program and its courses, outlining the skills that students will acquire based on the academic program objectives. This description is crucial as it represents the cornerstone for program accreditation, and it is collaboratively written by the teaching staff under the supervision of scientific committees in the academic departments.

This guide, in its second edition, includes a description of the academic program after updating the contents of the previous guide in light of the developments in the Iraqi educational system. It covers the academic program description in its traditional system (annual, semester) as well as the adoption of the generalized academic program description as per Circular No. 3/2906 issued by the Studies Department on 5/3/2023 regarding programs primarily following the Bologna process.

In this context, it is essential to emphasize the importance of writing academic program descriptions and course outlines to ensure the smooth running of the educational process.

## **Concepts and terminology:**

**Description of the academic program:** The description of the academic program 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 necessary summary of the most important characteristics of the course and the learning outcomes that the student is expected to achieve, demonstrating whether he or she has 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 a developed, inspiring, motivating, realistic and applicable program.

**The program's mission:** It briefly explains the goals and activities necessary to achieve them, and also defines the program's development paths and directions.

**Program objectives:** These 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/study subjects included in the academic program according to the approved learning system (semester, annual, Bologna track), whether it is a requirement (ministry, university, college, or scientific department), along with the number of study units.

**Learning outcomes:** A consistent set of knowledge, skills, and values that the student has acquired after the successful completion of the academic program. The learning outcomes for each course must be determined in a way that achieves the program objectives.

**Teaching and learning strategies:** They are the strategies used by the faculty member to develop the student's teaching and learning, and they are plans that are followed to reach the learning goals. That is, it describes all curricular and extracurricular activities to achieve the learning outcomes of the programme.

### 1- Program vision

Al-Musayyib Technical College seeks to prepare graduates in the field of engineering and agricultural technologies to work in government departments and benefit from specialization in the practical and applied field.

### 2- Program message

Working to prepare and graduate leading scientific and leadership competencies in the field of agricultural sciences and to develop the balance of knowledge in the field of scientific research in the field of agriculture to serve the local, regional and international community, as well as training and refining the minds of students scientifically and cognitively, emphasizing social and cultural values and providing the requirements of the local market.

### 3- Program Goals

The student will be able to identify the chemical properties of soil through the use of chemical concepts and conduct chemical analyzes to estimate elements and minerals.

### 4- Programmatic accreditation

No found

### 5- Other external influences

No found

### 6- Program structure

Program structure	No. of courses	Study units	Percentage	Notes
Enterprise requireme	90	90		Basic course

nts				
College requirements	yes			
Department requirement	yes			
Summer training	found			
Others				

It may include a subject whether it is basic or optional.\*

7- Program description				
Credit hours		course name	Course or course code	Year/level
	theoretical	Economic mathematics		2023-2024 /2nd
		code Course or		

8- Expected learning outcomes of the program	
<b>Knowledge</b>	
<p>1- Identifying soil chemistry and its importance - its relationship with other sciences - the chemical composition of the soil - the minerals that make up it.</p> <p>2- Identifying the chemistry of organic matter - its definition - its proportions - its decomposition - its chemical properties - its components - its importance.</p> <p>3- Get to know. Colloidal system in soil.</p> <p>4-Identify soil solution and soil CEC, the role of cations in plant nutrition.</p> <p>5- Getting to know. The phenomenon of ion exchange and the degree of soil interaction.</p>	
<b>Skills</b>	
1 - Preparing paint solutions, learning about laboratory equipment, laboratory tools, and	

laboratory manuals. 2-. Estimating positive and negative ions and determining organic matter in soil 3-. Modifying the soil CEC and temperature reaction, measuring the percentage of moisture in the reaction degree	
<b>Ethics</b>	
1- Benefiting from scientific materials in understanding the course of events. 2-The ability to deal with tourism projects. 3- Choose the best solution from among the available solutions and options. 4-The ability to lead and confront challenges. 5- Developing students' abilities to analyze the content of social sectors, thinking skills and problem-solving skills.	

<b>9-Teaching and learning strategies</b>
Lectures, identifying and diagnosing problems through explanations, exercises, and classroom exercises, and practical applications to enable students to understand how to benefit from the specifications used and understand their application.

<b>10- Evaluation methods</b>
Direct questions and daily exams stimulate students and encourage them to participate actively, discuss lectures, additional activities, semester exams, and actually attend.

<b>11-The teaching staff</b>
Faculty members

No. of teaching staff		Special Requirements/Skills (if any)	Specialization		Academic Rank
Lecturer	Staff		Private	General	
	Staff				Prof.

Professional development
Orienting new faculty members
Professional development for faculty members

12. Acceptance criterion
Students are accepted through central admission at the Ministry of Higher Education and Scientific Research in two stages, as follows:
1. The first grade includes graduates of preparatory school in the scientific stream, as well as the top graduates of vocational education in the specializations that can be accepted into the specialization.
2. The second grade is accepted:
The top ten graduates of the technical institutes specified in the specialization entries are also accepted.

1- The most important sources of information about the program
<p>the college's official website</p> <p><a href="http://www.tcm.edu.iq">www.tcm.edu.iq</a></p> <p>Al-Mussiaib Technical College / Babylon / Al-Mashrooa</p>





## 2- Program development

1- Using new concepts in engineering and agricultural techniques and using electronic devices to display information and modern innovations.

**Program skills chart**

Learning outcomes required from the program												Basic or Optional	Course name	Course code	Year/ Level
Value				Skills				Knowledge							
C4	C3	C2	C1	B4	B3	B2	B1	A4	A3	A2	A1				
		√					√				√	Basic	Human Rights and Democracy	SOWA 100	2023-2024
		√	√					√	√			basic	English language 1	SOWA 101	
						√	√				√	basic	English language 2	SOWA 200	
						√	√				√	basic	English language 3	SOWA 300	
		√	√	√					√	√	√	basic	English language 4	SOWA 400	
		√	√	√					√	√	√	basic	Computer Principles	SOWA 102	

√			√			√	√				√	basic	Human Rights and Democracy	SOWA 100		
√			√			√	√				√	√	basic	English language 1	SOWA 101	
√			√			√	√				√	√	basic	Mathematics	<b>SOWA 103</b>	
√			√			√	√				√	√	basic	Engineering Drawing	SOWA 201	
√			√			√	√				√	√	basic	Organic Chemistry	SOWA 202	
√			√			√	√				√	√	basic	Agriculture Statistics	SOWA 301	
√			√			√	√				√	√	basic	Computer Applications 3	SOWA 302	

✓	✓				✓				✓			basic	Biochemistry	SOWA 401	
✓	✓				✓				✓			basic	Experimental Design and Analysis	SOWA 402	
✓				✓	✓				✓			basic	Computer Applications 4	SOWA 402	

- Please check the boxes corresponding to the individual learning outcomes from the program subject to evaluation.

## Course Description Form

<b>1. Course Name:</b>					
General physics					
<b>2. Course Code:</b>					
(GENP108)					
<b>3. Semester / Year:</b>					
The first semester/ first stage					
<b>4. Description Preparation Date:</b>					
2024/4/7					
<b>5. Available Attendance Forms:</b>					
Full-time (theoretical lecture and practical lecture)					
<b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>					
Number of hours = 5 (2 theoretical hours + 3 practical hours), number of units = 3.5					
<b>7. Course administrator's name (mention all, if more than one name)</b>					
Name:					
Email:					
<b>8. Course Objectives</b>					
Course Objectives			Course Objectives		
<b>1. Course Name:</b>					
General physics					
<b>2. Course Code:</b>					
<b>(GENP108)</b>	<b>(GENP108)</b>	<b>(GENP108)</b>	<b>(GENP108)</b>	<b>(GENP108)</b>	<b>(GENP108)</b>
3. Semester / Year:	3. Semester / Year :	3. Semester / Year:	3. Semester / Year:	3. Semester / Year:	3. Semester / Year:
The first semester/ first stage					
<b>4. Description Preparation Date:</b>					
2024/4/7					
<b>5. Available Attendance Forms:</b>			<b>5. Available Attendance Forms:</b>		
Full-time (theoretical lecture and practical lecture)			Full-time (theoretical lecture and practical lecture)		
<b>6. Number of Credit Hours (Total) /</b>			<b>6. Number of Credit Hours (Total) /</b>		

Number of Units (Total)	Number of Units (Total)
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