

**Republic of Iraq**  
**Ministry of Higher Education**  
**and Scientific Research**  
**Scientific supervision and**  
**evaluation device**



# **Academic program and course**

**2025**

### Introduction:

The educational program is a coordinated and organized package of courses that include procedures and experiences organized in the form of study vocabulary, the main purpose of which is to build and refine the skills of graduates, making them qualified to meet the requirements of the labor market. It is reviewed and evaluated annually through internal or external audit procedures and programs, such as the external examiner program

**Academic Program Description:** A brief summary of the main features of the program and its courses, indicating the skills that students are working to acquire based on the objectives of the academic program. The importance of this description is evident because it represents the cornerstone in obtaining program accreditation, and the teaching staff participates in writing it under the supervision of the scientific committees in the scientific departments.

This guide, in its second version, includes a description of the academic program after updating the vocabulary and paragraphs of the previous guide in light of the developments and changes in the educational system in Iraq, which included a description of the academic program in its traditional form (annual, semester) system, in addition to adopting the description of the academic program circulated pursuant to the letter of the Department of Studies TM3/2906 dated 5/3/2023 regarding programs that adopt the Bologna process as the basis for their work.

In this regard, we cannot but emphasize the importance of writing a description of academic programs and courses to ensure the smooth running of the educational process.

## Concepts and terminology:

**Academic Program Description:** The academic program description provides a concise 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 concise summary of the most important characteristics of the course and the learning outcomes expected from the student, demonstrating whether he has made the most of the available learning opportunities. It is derived from the program description.

**Program Vision:** An ambitious picture of the future of the academic program to be an advanced, inspiring, motivating, realistic and applicable program.

**Program Mission:** It briefly explains the goals and activities required to achieve them, and it also identifies the paths and directions of the program's development.

**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/subjects included in the academic program according to the approved learning system (semester, yearly, Bologna track) whether required (ministry, university, college and scientific department) with the number of credit hours.

**Learning Outcomes:** A compatible set of knowledge, skills and values acquired by the student after successfully completing the academic program. The learning outcomes for each course must be determined in a way that achieves the program objectives.

**Teaching and Learning Strategies:** The strategies used by the faculty member to develop the student's teaching and learning. They are plans that are followed to achieve the learning objectives. That is, they describe all classroom and extracurricular activities to achieve the learning outcomes of the program.

## Academic Program Description Form

University Name: Northern Technical University

College/Institute: Al- Hawija Technical Institute

Scientific Department: Electrical Technology Department

Academic or Professional Program Name: Technical Diploma

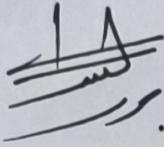
Final Certificate Name: Technical Diploma in Electrical Technology

Study System: Courses

Description Preparation Date: 13/2/2025

File Filling Date: 13/2/2025

Signature:

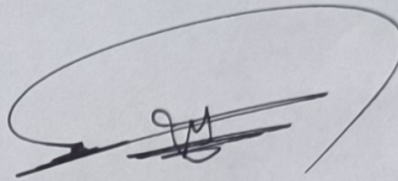


Department Head:

Parween Raheem Kareem

13 /2/2025

Signature:



Scientific Assistant Dean

Dr. Mohammed Jiad Ligy

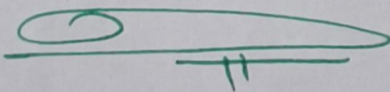
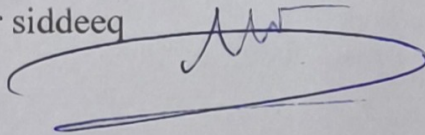
13 /2/2025

Check the file before

Quality Assurance and University Performance Division:

Hamza Omar siddeeq

Signature:



The Dean

Professor: Omar Khalil Ahmed



<b>1. Program Vision</b>
To equip students with both theoretical and practical knowledge in the field of electrical technologies, meeting the demands of the job market and expanding the horizons of technical education by developing the curriculum
<b>2. Program Mission</b>
<ul style="list-style-type: none"> <li>-Prepare technical electrical personnel capable of managing the operation of electrical machinery, power generation methods, electrical networks, and transmission and distribution lines while being equipped with academic knowledge and practical skills.</li> <li>-Train students both theoretically and practically to meet job market requirements through a modern curriculum and advanced laboratory equipment.</li> <li>-Stay abreast of scientific advancements in global institutes and universities.</li> <li>-Adhere to the ethics of the profession, ensuring compliance with applicable standards and regulations.</li> <li>- Strive for excellence in service delivery that meets quality standards.</li> </ul>
<b>3. Program objectives</b>
<ul style="list-style-type: none"> <li>-Prepare intermediate-level personnel with advanced technical skills in the field by manufacturing and maintaining electrical equipment.</li> <li>-Train students in scientific research through graduation project studies.</li> <li>-Offer practical courses in the specialization for all segments of society.</li> <li>-Manufacture laboratory equipment and electrical devices that support the educational process.</li> <li>-Operate and maintain electrical units for power generation stations.</li> </ul>
<b>4. Program accreditation</b>
Under study
<b>5. 1. Other external influences</b>
nothing

<b>6. .Program structure for the first and second levels</b>				
<b>Program Structure</b>	<b>Number of courses</b>	<b>Study unit</b>	<b>Percentage</b>	<b>Notes *</b>
University Requirements	11	22	26.8%	9 Basic, 2 Optional
Institute Requirements	4	9	9.8%	3 Basic, 1 Optional
Department Requirements	26	72	63.4%	88 Basic, 4 Optional
Summer Training	Completed	-----	-----	
Other	nothing			

\*Notes may include whether the course is basic or optional.

<b>7. Expected learning outcomes of the program</b>
<b>Knowledge</b>
<p>1-Learn the principles and foundations of electrical circuits.</p> <p>2-Knowledge of the work of electrical installations of all kinds.</p> <p>3-Knowledge of winding of various electrical motors and machines.</p> <p>4-Knowledge of examining and measuring electrical systems.</p>
<b>Skills</b>
<p>1 -Teamwork skills.</p> <p>2-Computer and Internet skills.</p> <p>3-Communication skills such as English.</p> <p>4-Leadership skills and taking responsibility.</p> <p>-5 Qualifies the student to pass the appointment interviews.</p>
<b>Values</b>
<p>1-The student acquires the concepts and basics of electrical circuits.</p> <p>2-Analyze the problems facing workers in it and how to develop the necessary solutions.</p> <p>3-Evaluate the proposed solutions and choose the best of them.</p>

8. Teaching and learning methods						
Theoretical explanation of the subject, the use of a data viewer to illustrate the practical aspect, and playing the educational video for students, as well as the weekly reports assigned to the student for each experiment, along with scientific trips to electrical power stations and various state laboratories						
9. Evaluation methods						
Daily, semester and final tests, weekly reports						
10. Faculty						
Faculty members						
Academic Rank	Specialization		Special requirements/skills (if any)		Faculty preparation	
	Year	Special			permanent	lecturer
Assistant Professor	Electrical Engineering	Electric Power			permanent	
Assistant Lecturer	Electrical Engineering	Power & Machinery			permanent	
Assistant Lecturer	Civil Engineering	Roads & Transport			permanent	

<b>11. Acceptance Criteria</b>
The student's acceptance criteria are determined according to the central acceptance within the ministry's plan, the student's branch in the preparatory school, his average and his desire, and this is after the student has been interviewed in a special interview at the institute.

<b>Evaluation methods</b>
Daily, semester and final tests, weekly reports
<b>Professional development</b>
Orientation of new faculty members through seminars, symposia and conference attendance.
<b>Professional development for faculty members</b>
Through conferences, seminars, discussion groups and the attendance of faculty members at postgraduate discussions

<b>12. The most important sources of information about the program</b>
1. Methodological books prescribed by the Northern Technical University. 2. Resources available in the Technical Institute's library. 3. Resources available on the Internet

<b>13. Program Development Plan</b>
1- Adding information on all topics related to the principles and foundations of electricity. 2- Identifying modern scientific developments. 3- Participating in international and local conferences. 4- Participating in scientific workshops inside and outside Iraq. 5- Hosting scientific competencies in the field of specialization



The first level					
	Course Name	theoretical	practical	number of units	code
University compulsory	Rights and Human Democracy	2	0	2	NTU100
	English Language	2	0	2	NTU101
	Computer	1	1	2	NTU102
	Arabic Language	2	0	2	NTU104
Optional university	Sport	1	1	2	NTU105
	Language Franch	2	0	2	NTU106
Compulsory institute	1 Mathematic	2	0	2	TIHA100
	2 Mathematic	2	0	2	TIHA101
	Mechanical Workshop	0	3	3	TIHA102
Optional university	Vocational Safety	2	0	2	TIHA103
department Compulsory	Electrical Cicuit1	2	2	4	ELTP100
	Cicuit2 Electrical	2	2	4	ELTP101
	1 Electronic	2	2	4	ELTP102
	2 Electronic	2	2	4	ELTP103
	Electrical Installation	2	2	4	ELTP104
	Electronic Digital	2	2	4	ELTP105
	Engineering Drawing	0	3	3	ELTP106

	Electrical Workshop	0	3	3	ELTP107
Optional Department	Energy Renewable	2	0	2	ELTP108
	Circuits Electric Simulation	1	2	3	ELTP109
	Total	31	25	56	

The second level

	Course Name	theoretical	practical	number of units	code
University compulsory	English Language	2	0	2	NTU200
	Professional Ethics	2	0	2	NTU204
	crimes of the The Baath regime	2	0	2	NTU203
	Arabic Language	2	0	2	NTU202
	Computer	1	1	2	
department Compulsory	D.C Machines	2	3	5	ELTP204
	Electrical networks 1	2	2	4	ELTP205
	Power electronics 1	2	3	5	ELTP206
	Maintenance 1 Workshop	0	3	3	ELTP207
	Industrial Installation1	2	2	4	ELTP208
	Electrical Drawing	0	3	3	ELTP209
	Project1	0	2	2	ELTP210

	A.C Machines	2	3	5	ELTP21 1
	Electrical networks 2	2	2	4	ELTP21 2
	Power electronics 2	2	3	5	ELTP21 3
	Maintenance Workshop 2	0	3	3	ELTP21 4
	Electrical Installation 2	2	2	4	ELTP21 5
	Programmable Logic Controller (PLC)	1	2	3	ELTP21 6
	Project 2	0	2	2	ETP217
Optional Deparment	Protection system	1	1	2	ETP218
	Microcontroller	1	2	3	ETP219
Total		28	39	67	

مخطط مهارات المنهج

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

Learning outcomes required from the programme																			
general and qualifications skills				emotional and value goals				Skill goals				Cognitive goals				Mandatory/ optional	Course	Code	Stage
D1	D2	D3	D4	C1	C2	C3	C4	B1	B2	B3	B4	A1	A2	A3	A4				
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Mandatory	Human Rights	NTU100	first
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Mandatory	English Language 1	NTU101	
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Mandatory	1 Mathematic	TIHA100	
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Mandatory		NTU103	



				emotional and value goals				Skill goals				Cognitive goals				Mandatory Optional	Course	code	stage
D1	D2	D3	D4	C1	C2	C3	C4	B1	B2	B3	B4	A1	A2	A3	A4				
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Mandatory	English Language 1	NTU200	Second
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Mandatory	Professional Ethics	NTU204	
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Mandatory	D.C Machines	ELTP204	