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 Curriculum Description Guide

2024

Academic Program Description Form

University Name: Northern Technical University

Faculty/Institute: . Al-dour Technical Institute.

Scientific Department: Electronic Techniques

Academic or Professional Program Name: Technical Diploma in Electronic Techniques

Final Certificate Name: . Technical Diploma in Electronic Techniques

Academic System: Curriculum system

Description Preparation Date: 8-9-2024

File Completion Date: 8-9-2024

Signature:
Head of Department
Name: Lec. Dr. Falah Muhammad Abd
Date:

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Scientific Associate
Name: Proff. Dr.Hanan Shihab Ahmad
Date:

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Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance Department

Date:

Signature:

Dean's endorsement
Assist. Prof. Dr. Maha Elttayef Jasim

1. Program Vision

Providing knowledge of electronic technologies, acquiring technical skills in operating and maintaining electronic devices, and developing innovative technical solutions that promote sustainable development and meet the changing needs of the labor market.

2. Program Mission

Preparing intermediate technical cadres with specialized technical knowledge and skills in the field of electronics to meet the needs of the labor market, with a focus on developing technical competencies through quality applied education, practical training, and innovation to serve the local and regional community.

3. Program Objectives

1. Implementing quality standards in education and training to ensure distinguished educational outcomes.

٢. Developing curricula and academic programs in line with scientific and technological developments in the field of electronic technologies.

٣. Supporting and encouraging scientific research that contributes to finding innovative technical solutions to industrial and societal problems.

٤. Building sustainable cooperative relationships with the industrial sector and local institutions to provide training and employment opportunities and support the professional development of graduates.

٥. Encouraging students to implement innovative technology projects that contribute to improving the quality of life and developing local industries.

٦. Providing technical and technological consultations to various institutions and contributing to enhancing technical awareness in society.

4. Program Accreditation

No accreditation program

5. Other external influences

No external influences

6. Program Structure

Program Structure	Number of Curriculums	Credit hours	Percentage	Reviews*
Institution Requirements	١٠	٢٠	١٩%	9 basic, 1 optional
College Requirements	٣	٦	٥.٧%	3 basic
Department Requirements	٢٤	٧٩	٧٥.٢%	78 basic, 1 optional
Summer Training	Completed	_____	____	9 basic, 1 optional
Other	None			3 basic

* This can include notes whether the Curriculum is basic or optional.

7- Program Description				
Year / Level	Code of the Curriculum	Name of the Curriculum	Approved hours	
			Theoretical	Practical
First Level	EOTO100	Principles of Electronics	2	2
	EOTO101	DC Circuits	2	2
	EOTO102	Principles of Digital Circuits	2	2
	EOTO103	Electronic Workshop	-	2
	EOTO104	Engineering Drawing	-	2
	EOTO105	Electronics	2	2
	EOTO106	AC Circuits	2	2
	EOTO107	Applications of Digital Circuits	2	2
	EOTO108	Electrical Drawing	-	2
	EOTO109	Electrical Workshop	-	2
	TIDO100	Mathematical Foundations	2	-
	TIDO101	Differential and Integral Calculus	2	-
	TIDO102	Mechanics Labs	-	2
	NTU100	Democracy and Human Rights	2	-
	NTU101	English Language	2	-
	NTU 102	Computer	1	1
	NTU 103	Arabic Language	2	-
	NTU104	Sports	1	1

Year / Level	Code of the Curriculum	Name of the Curriculum	Code of the Curriculum	
			Theoretical	Practical
Second Level	EOTO210	Electronic circuits (1)	2	2
	EOTO211	Microcomputers (1)	2	2
	EOTO212	Measuring devices (1)	2	2
	EOTO213	Communications (1)	2	2
	EOTO214	Electronic devices maintenance workshop (1)	-	2
	EOTO216	Electronic circuits (2)	2	2
	EOTO217	Microcomputers (2)	2	2
	EOTO218	Measuring devices (2)	2	2
	EOTO219	Communications (2)	2	2
	EOTO220	Electronic devices maintenance workshop (2)	-	2
	EOTO221	The project	-	2
	EOTO222	Control systems	1	2
	EOTO223	Programmable logic controller circuits	1	2
	EOTO224	Renewable energy systems	1	2
	EOTO225	English language	2	-
	NTU 201	Computer	1	1
	NTU 202	Arabic language	2	-
	NTU 203	Crimes of the Baath regime in Iraq	2	-
	NTU204	Professional ethics	2	-

8- Expected learning outcomes of the program
Knowledge
A1- Technical Knowledge: Understanding the basic principles of electronic circuits, devices, and electronic systems. A2- Practical Skills: The ability to design, test, and maintain electronic systems. A3- Analytical and Design Skills: Analyzing and solving electronic problems using modern tools and techniques. A4- Teamwork and Communication Skills: Working within teams and presenting technical reports and presentations. A5- Sustainability and Professional Development: Keeping abreast of technological developments and adhering to professional ethics. A6- Use of Information Technology: Programming and analysis using computing tools.
Skills
B1 - Teamwork skills. B2 - Ability to interact with information technology. B3 - Leadership skills and responsibility. B4 - Qualifies the student to pass recruitment interviews.
Ethics
A-1. Students acquire the concepts and basics of electronic technologies. A-2. Analyze the problems facing employees and how to develop necessary solutions. A-3. Evaluate the proposed solutions and select the best ones. A-4. Adopt a culture of self-learning to keep pace with technological developments.

9.Teaching and Learning Strategies

((Theoretical lectures / discussion and dialogue / practical lectures / field visits / discussion circles / laboratories / office activities / solving examples / graduation project / summer training))

10.Evaluation methods

((Oral and written exams/observation and cumulative record))

11. Faculty

Faculty Members

Academic Rank	Specialization		Special Requirements/ Skills (if applicable)		Number of the teaching staff	
	General	Special			Staff	Lecturer
Assistant Professor	Engineering	Computers			١	
Lecturer Dr.	Philosophy of Physics	Solid State Physics			١	
Assistant Professor	History	Islamic History			١	
Assistant Lecturer	Mechanical Engineering	Production and Minerals			٢	
Assistant Lecturer	Civil Engineering	Project Management			١	
Assistant Lecturer	Mechanical Engineering	General Mechanics			٢	
Assistant Lecturer	Computer Science	Computer Science			١	

Professional Development
Mentoring new faculty members
Directing new faculty members to follow up on annual updates to the study plan and the necessity of updating the curricula in line with the plan announced by the academic department.
Professional development of faculty members
Conducting field visits to the public and private sectors and universities within the specialization to review field developments in the field of specialization.

12.Acceptance Criterion

The admission criteria for morning studies are within the central admission plan, which is approved by the Ministry of Higher Education and Scientific Research.

13.The most important sources of information about the program

The programmers and resources are approved by the university's sectoral committees and are updated periodically through the annual meetings of the relevant committees.

14.Program Development Plan

1.Providing information on all topics related to electronic technologies.

2. Learning about recent scientific developments.

3. Participating in international and local conferences.

4. Participating in scientific workshops inside and outside Iraq.

5. Hosting scientific experts in the field of specialization.

Program Skills Outline															
				Required program Learning outcomes											
Year/Level	Curriculum Code	Curriculum Name	Basic or optional	Knowledge				Skills				Ethics			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
First level	EOTO100	Principles of Electronics	Basic	X	X	X		X	X	X	X	X	X	X	
	EOTO101	DC Electrical circuits	Basic	X	X	X	X	X	X			X	X		
	EOTO102	Principles of digital circuits	Basic	X	X	X			X	X	X	X	X		
	EOTO103	Electronic workshop	Basic		X	X	X	X	X	X	X	X	X		X
	EOTO104	Engineering Drawing	Basic		X			X	X	X	X	X	X		
	EOTO105	Electronics	Basic	X	X		X	X	X		X	X	X		
	EOTO106	AC electrical circuits	Basic	X	X			X	X		X	X	X		
	EOTO107	Digital circuits applications	Basic	X	X	X			X	X	X	X	X		X
	EOTO108	Electrical Drawing	Basic	X	X	X	X	X	X	X	X	X	X	X	X
	EOTO109	Electrical workshop	Basic	X	X		X	X	X	X	X	X	X		X
	TIDO100	Mathematics Foundation	Basic	X	X	X	X	X	X	X		X	X	X	X
	TIDO101	Differentiation and Integration	Basic	X	X	X		X	X	X		X	X	X	X
	TIDO102	Mechanical Workshop	Basic	X	X	X	X	X	X	X		X	X	X	
	NTU100	Human Rights and Democracy	Basic	X	X	X		X		X	X	X	X	X	X
	NTU101	English Language	Basic	X	X	X	X	X	X	X	X	X	X	X	

	NTU 102	Computer	Basic	X	X	X		X	X	X	X	X	X	X	
	NTU 103	Arabic Language	Basic	X	X	X		X	X	X	X	X	X	X	
	NTU104	Sport	optional	X	X	X		X	X	X		X	X		
Second Level	EOTO210	Electronic Circuits 1	Basic	X	X	X		X	X	X		X	X	X	X
	EOTO211	Microcomputers 1	Basic	X	X	X		X	X	X		X	X	X	X
	EOTO212	Measurements Devices 1	Basic		X	X		X	X	X	X	X	X		X
	EOTO213	Communications 1	Basic		X			X	X	X		X	X	X	
	EOTO214	Electronic Device Maintenance Workshop 1	Basic		X	X	X		X	X	X	X	X		X
	EOTO216	Electronic Circuits 2	Basic	X	X	X	X	X	X	X		X	X	X	
	EOTO217	Microcomputers 2	Basic	X	X	X		X	X	X		X	X	X	
	EOTO218	Measurements Devices 2	Basic	X	X	X		X	X	X		X	X	X	
	EOTO219	Communications 2	Basic	X	X	X		X	X	X		X	X	X	
	EOTO220	Electronic Device Maintenance Workshop 2	Basic	X	X	X		X	X	X		X	X	X	
	EOTO221	Project	Basic	X	X	X	X	X	X	X	X	X	X	X	
	EOTO222	Control Systems	Basic	X	X	X	X	X	X	X		X	X	X	
	EOTO223	Programmable Logic Controllers (PLC)	Basic	X	X	X		X	X	X		X	X	X	X
	EOTO224	Renewable Energy Systems	optional	X	X	X		X	X	X		X	X	X	X
	NTU 200	English Language	Basic	X	X	X		X	X	X		X	X	X	X

	NTU 201	**Computers**	**Basic**	X	X	X		X	X	X	X	X	X	X	X
	NTU 202	**Arabic Language**	**Basic**	X	X	X		X	X	X	X	X	X	X	
	NTU 203	**Crimes of the Ba'ath Regime in Iraq**	**Basic**	X	X	X		X	X	X	X	X	X	X	
	NTU204	**Professional Ethics**	**Basic**	X	X	X		X	X	X		X	X	X	