الجامعة التقنية الشمالية

Northern Technical University

الكلية التقنية الهندسية الموصل

Technical Engineering College of Mosul

First Cycle – Bachelor's Degree (B.Tech.) in Electrical Engineering Technology

الدورة الاولى - بكالوريوس تقنيات الهندسة الكهربائية

Undergraduate Degree Course Catalogue

2025-2026

Modules Catalogue Form

University Name: Northern Technical University.....

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

Scientific Department: Electrical Engineering Technology

Academic or Professional Program Name: Bachelor of Electrical Engineering Technology

Final Certificate Name: Bachelor of Electrical Engineering Technology

Academic System: Bologna Process.....

Description Preparation Date: 2/9/2025

File Completion Date: 2/9/2025

Signature:

Head of Department Name:

Prof Dr. Mohammed Yahya Suliman

الجامعة التقنية الشمالية
الكلية التقنية الهندسية / الموصل
قسم تقنيات الهندسة الكهربائية

Date: 2/9/2025

Signature:

Scientific Associate Name:

Prof. Dr. Mohammed Sabah Jarjees

Date: 25/9/2025

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Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance

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الجامعة التقنية الشمالية
الكلية التقنية الهندسية الموصل
شعبة ضمان الجودة والاداء

Approval of the Dean

Table of Contents

1. Overview……...……3

2. Program Specification……...3

3. Undergraduate Courses/ Modules 2025-2026……...4

4. Contact Information ……8

1. Overview

This catalogue describes the courses (modules) offered by the Bachelor of Technology (B.Tech.) in Electrical Engineering Technology programme. The programme includes 47 modules with over 6,000 student workload hours and a total of 240 European Credit Transfer and Accumulation System (ECTS). The delivery of modules based on the Bologna Process.

1. نظره عامه

هذا الدليل يصف المواد الدراسية التي يقدمها برنامج هندسة تقنيات الهندسة الكهربائية للحصول على درجة بكالوريوس التقني في تقنيات الهندسة الكهربائية. يتضمن البرنامج 47 مادة دراسية والتي تتمثل باكثر من 6,000 ساعة حمل تكليفي على الطالب و إجمالي ٢٤٠ وحدات أوروبية. يعتمد البرنامج و المواد الدراسية على مسار بولونيا.

2. Program Specification

Program Code	Ele Eng Tech	ECTS	240
Duration	4 levels, 8 Semesters	Method of Attendance	Full Time

The specification of Electrical Engineering Technologies programme defines the knowledge and skills needed for a career installing, calibrating, and maintaining Electrical Engineering. This programme emphasises the development of technical expertise in the electric device sector, new electric techniques, power station administration, and electrical device maintenance. Typically, the programme consists of classroom lectures, practical training, and on-site work.

Additionally, the programme emphasises the development of technical skills such as electrical circuit design, computer-aided design, microcontroller programming, estimation, and electrical project management. The programme aims to provide graduates with the skills necessary to work as electrical engineers, team leaders of electrical engineering teams, electrical device inspectors, cost estimators, and other technical positions in the electrical engineering field.

Level 1 Semester 1

Level 1 – First semester							
CODE	TITLE	T	P	C	ECTS	Bologna Content	Electrical Engineering Techniques
EET100	DC ELECTRICAL CIRCUITS	4	2	6	8		
EET101	DIGITAL TECHNOLOGIES	4	2	4	6		
EET102	ENGINEERING DRAWING	0	4	0	6		
EET103	MATHEMATICS	6	0	6	6		
NTU100	HUMAN RIGHT AND DEMOCRACY	2	0	2	2		
NTU101	ARABIC LANGUAGE	2	0	2	2		
T: Theoretical, P:Practical, C:Credit		18	8	20	30		

Level 1 Semester 2

Level 1 – Second Semester							
CODE	TITLE	T	P	C	ECTS	Bologna Content	Electrical Engineering Techniques
EET104	ENGINEERING MECHANICS	4	0	4	6		
EET105	ENGINEERING WORKSHOP	0	4	2	6		
NTU103	ENGLISH LANGUAGE	2	0	2	2		
EET106	AC ELECTRICAL CIRCUITS	4	3	5	8		
EET107	PHYSICS	3	2	4	6		
NTU102	COMPUTER	2	2	3	2		
T:Theoritical, P:Practical, C:Credit		13	11	20	30		

Level 2 Semester 1

Level 2 – First semester							
CODE	TITLE	T	P	C	ECTS	Bologna Content	Electrical Engineering Techniques
EET200	DC Generators	3	2	4	6		
EET201	Electronic Essentials	3	2	4	5		
EET202	Electrical Circuit Analysis	2	2	3	5		
EET203	Sensors	2	2	3	5		
EET204	Applied Mathematics	6	0	6	5		
NTU201	English	2	0	2	2		
NTU200	Crimes of the baath regim in Iraq	2	0	2	2		
T:Theoritical, P:Practical, C:Credit		20	8	24	30		

Level 2 Semester 2

Level 2 – Second semester							
CODE	TITLE	T	P	C	ECTS	Bologna Content	Electrical Engineering Techniques
EET206	DC Motors	3	2	4	6		
EET207	COMMUNICATIONS	2	2	3	6		
EET208	POWER CIRCUITS AND TRANSFORMERS	4	2	3	7		
EET209	Instruments and Measurements	3	2	4	6		
NTU202	COMPUTER	2	2	3	3		
EET211	ARABIC LANGUAGE	2	0	2	2		
T:Theoritical, P:Practical, C:Credit		16	8	19	30		

Level 3 Semester 1

Level 3 – First semester							
CODE	TITLE	T	P	C	ECTS	Bologna Content	Electrical Engineering Techniques
EET300	PRINCIPLES OF POWER ENGINEERING	3	2	4	5		
EET301	DC POWER CONVERSIONS	3	2	4	5		
EET302	INDUCTION MACHINES	3	2	4	5		
EET303	ELECTROMAGNETIC FIELDS	3	2	4	5		
EET304	DIGITAL COMMUNICATION AND IOT	2	2	3	5		
EET305	ENGINEERING ANALYSIS	4	0	4	5		
T:Theoritical, P:Practical, C:Credit		18	11	23	30		

Level 3 Semester 2

Level 3 – Second semester							
CODE	TITLE	T	P	C	ECTS	Bologna Content	Electrical Engineering Techniques
EET306	CONTROL SYSTEM	3	2	4	5		
EET307	AC POWER CONVERSIONS	3	2	4	5		
EET308	SYNCHRONOUS AND SPECIAL MACHINES	3	2	4	5		
EET309	NUMERICAL ANALYSIS	3		3	5		
EET310	DIGITAL SIGNAL PROCESSING	3	2	4	5		
EET311	RENEWABLE ENERGY	2	2	3	5		
T:Theoritical, P:Practical, C:Credit		14	11	19	30		

Level 4 Semester 1

Level 4 – First semester							
CODE	TITLE	T	P	C	ECTS	Bologna Content	Electrical Engineering Techniques
EET400	TRANSMISSION AND DISTRIBUTION SYSTEMS	4	2	5	5		
EET401	ELECTRIC MACHINE DRIVES	4	2	5	5		
EET402	POWER SYSTEM ANALYSIS	4	2	5	5		
EET403	ELECTRIC POWER GENERATION STATIONS	3	2	4	5		
EET404	CONTROL SYSTEMs ANALYSIS	3	2	4	5		
EET405	PROJECT 1	-	2	3	5		
T:Theoritical, P:Practical, C:Credit		18	12	26	30		

Level 4 Semester 2

Level 4 – Second semester							
CODE	TITLE	T	P	C	ECTS	Bologna Content	Electrical Engineering Techniques
EET406	Power system operation and control	2	-	2	3		
EET407	POWER SYSTEM PROTECTION	2	2	3	6		
EET408	POWER SYSTEM STABILITY	2	2	3	6		
EET409	HIGH VOLTAGE TECHNIQUES	3	2	4	5		
EET410	PROJECT 2	-	2	1	5		
EET405	Professional safety	2	2	3	5		
T:Theoritical, P:Practical, C:Credit		11	10	16	30		

ELECTIVEs:

1. Power System operation and control
2. Smart grid
3.

3. Contact Information

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