

Northern Technical University الجامعة التقنية الشمالية



First Cycle – Bachelor's Degree (B.Sc.) –

Information and Computer Networks Engineering Technology -
هندسة تقنيات المعلومات وشبكات الحاسوب

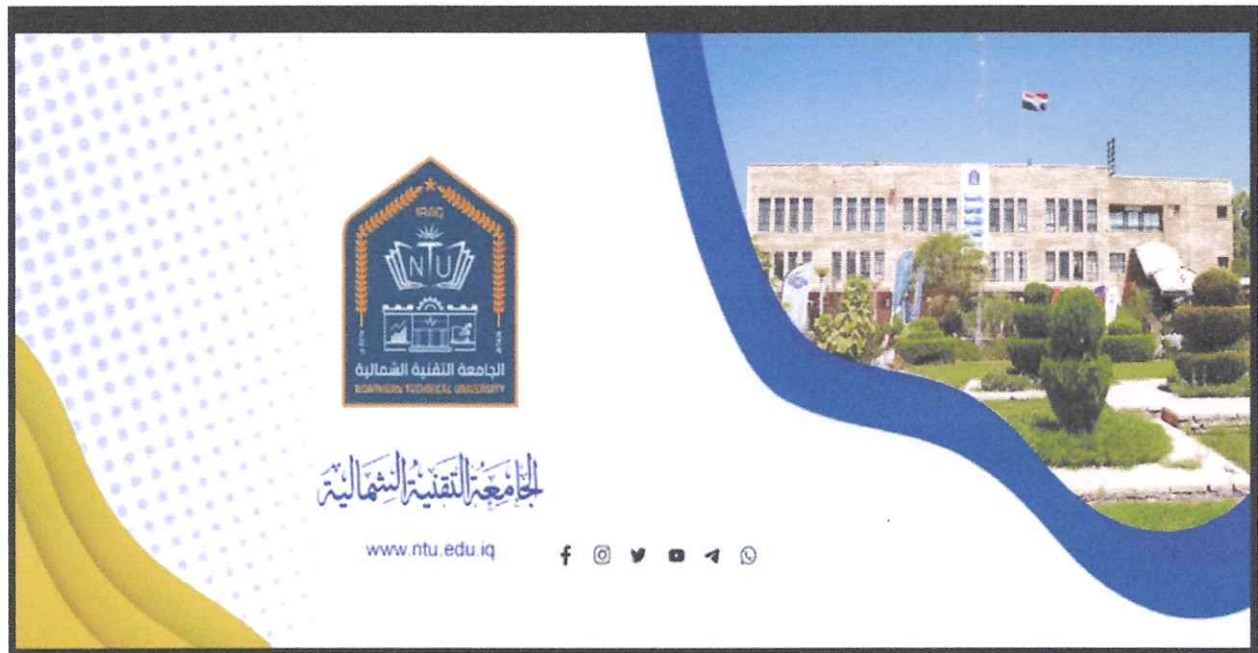




Table of Contents | جدول المحتويات

1. Mission & Vision Statement	بيان المهمة والرؤية
2. Program Specification	مواصفات البرنامج
3. Program (Objectives) Goals	أهداف البرنامج
4. Program Student learning outcomes	مخرجات تعلم الطالب
5. Academic Staff	الهيئة التدريسية
6. Credits, Grading and GPA	الاعتمادات والدرجات والمعدل التراكمي
7. Modules	المواد الدراسية
8. Contact	اتصال

1. Mission & Vision Statement

Vision Statement

The Information and Computer Networks Engineering Technology academic staff of the Technical engineering college at Northern Technical University believe that students come to understand the discipline of computer techniques through a combination of course work, laboratory experiences, and research. The combination of instructional methods leads students to a balanced understanding of the scientific methods used by computer specialists to make observations, develop insights and create theories about the living organisms that populate our planet.

Mission Statement

The Information and Computer Networks Engineering techniques academic staff pursues a multifaceted charge at Northern Technical University. The Program seeks to provide all computer engineering students with fundamental knowledge of computer, as well as a deeper understanding of a selected focus area within the field. The curriculum and advising have been designed to prepare graduates for their professional future, whether they choose to work in hardware or software to pursue advanced degrees in modern technologies of networks and electronics of computers. In addition, computer engineering techniques courses provide a key laboratory science experience for those students seeking to complete the general education requirements

2. Program Specification

Programme code:	BSc-COM	ECTS	240
Duration:	4 levels, 8 Semesters	Method of Attendance:	Full Time

This program specification provides a concise summary of the main features of the program and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It is supported by a specification for each course that contributes to the program.

The program aims to graduate students with a specialization in computer technology engineering who will be qualified to work in the fields of computer. He will be graduated by a department after completing four academic years in which he is qualified to obtain a bachelor's degree in computer technology engineering.

3. Program (Objectives) Goals

- Aims at knowing computer programs
- It aims to learn mathematics and engineering analysis.
- aims to learn the skill of designing programs and codes.
- aims to learn computer networks
- aim to learn digital communication and fundamentals
- aim to learn computer electronics and hardware.

4. Student Learning Outcomes

Outcome 1

Graduates will be able to illustrate the structure and function of computer device components and explain how they connected.

Outcome 2

Oral and Written Communication

Graduates will be able to formally communicate the results of computer programs using both oral and written communication skills.

Outcome 3

Scientific Knowledge

Graduates will be able to demonstrate a balanced concept of how scientific knowledge develops, including the historical development of foundational theories and laws and the nature of science.

Outcome 4

Data Analyses

Graduates will be able to demonstrate scientific quantitative skills, such as the ability to conduct simple data analyses.

Outcome 5

Critical Thinking

Graduates will be able to use critical-thinking and problem-solving skills to develop a research project and/or paper.

5. Academic Staff

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6. Credits, Grading and GPA

Credits

Northern Technical University is following the Bologna Process with the European Credit Transfer System (ECTS) credit system. The total degree program number of ECTS is 240, 30 ECTS per semester. 1 ECTS is equivalent to 25 hrs student workload, including structured and unstructured workload.

Grading

Before the evaluation, the results are divided into two subgroups: pass and fail. Therefore, the results are independent of the students who failed a course. The grading system is defined as follows:

GRADING SCHEME				
مخطط الدرجات				
Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 - 49)	FX – Fail	راسب - قيد المعالجة	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required
Note:				
Number Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.				

Calculation of the Cumulative Grade Point Average (CGPA)

1. The CGPA is calculated by the summation of each module score multiplied by its ECTS, all are divided by the program total ECTS.

CGPA of a 4-year B.Sc. degree:

$$\text{CGPA} = [(1^{\text{st}} \text{ module score} \times \text{ECTS}) + (2^{\text{nd}} \text{ module score} \times \text{ECTS}) + \dots] / 240$$

7. Curriculum/Modules

Semester 1 | 30 ECTS | 1 ECTS = 25 hrs

Code	Module	SSWL	USSWL	ECTS	Type	Pre-request
NTU-100	Human rights and democracy	33	17	2	B	5
ICNE-101	Introduction of Computing & Problem Solving	123	77	8	C	5
ICNE-102	Engineering Mathematics	63	37	4	B	5
ICNE-103	Engineering Drawing	63	37	4	C	5
ICNE-104	Digital Logic Design	63	37	4	C	6
ICNE-105	DC Circuit Analysis	78	77	6	B	5
NTU-101	English Language	33	17	2	B	2

Semester 2 | 30 ECTS | 1 ECTS = 25 hrs

Code	Module	SSWL	USSWL	ECTS	Type	Pre-request
ICNE-106	Programming Language	123	77	5	C	5
ICNE-107	AC Circuit Analysis	78	77	6	B	5
ICNE-108	Introduction to Computer Network	63	137	8	C	5
CAIK-100	Physics	33	17	2	B	5
NTU-102	Computer	63	37	4	C	3
NTU-103	Arabic Language	33	17	2	B	2

		Republic of Iraq - Ministry of Higher Education and Scientific Research Northern Technical University/Technical Engineering college for Computer & AI- Kirkuk Bachelor's degree in Information Technology and Computer Networks Engineering Four years (Eight semesters) - 240 ECTS credits - 1 ECTS = 25 hr Program Curriculum (2025 - 2026)					جمهورية العراق - وزارة التعليم العالي والبحث العلمي الجامعة التقنية الشمالية/ الكلية التقنية للحاسوب والذكاء الاصطناعي - كركوك بكالوريوس في هندسة تقنيات المعلومات وشبكات الحاسوب (الدورة الأولى) أربع سنوات (ثمانية فصول دراسية) - 240 وحدة لائمية - كل وحدة لائمية = 25 ساعة المنهج الدراسي للعام 2025-2026											
Level	Semester	No.	Module Code	Module Name in English	اسم المادة الدراسية	Language	SSWL (hr/w)			Exam	SSWL	USSWL	SWL	ECTS	Module Type	Prerequisite Module(s) Code		
							CL (hr/w)	Lab (hr/w)	Pr (hr/w)								Tut (hr/w)	
One	1	ICNE-101	Introduction to Computing & Problem Solving	التعريف بالحوسبة وحل المشكلات	English	4	4			8	3	123	77	200	8.00	C	5	
	2	ICNE-102	Engineering Mathematics	الرياضيات الهندسية	English	3			1	4	3	63	37	100	4.00	B	5	
	3	ICNE-103	Engineering Drawing	الرسم الهندسي	English	2	2			4	3	63	37	100	4.00	C	5	
	4	ICNE-104	Digital Logic Design	تصميم منطق رقمي	English	2	2			4	3	63	37	100	4.00	C	6	
	5	ICNE-105	DC Circuit Analysis	تحليل دوائر التيار المستمر	English	2	2			4	3	63	87	150	6.00	B	5	
	6	NTU-100	Democracy and Human Rights	الديمقراطية وحقوق الإنسان	Arabic	2				2	3	33	17	50	2.00	B	5	
	7	NTU-101	English Language	اللغة الإنجليزية	English	2				2	3	33	17	50	2.00	B	2	
Total						17	0	10	0	1	28	21	441	306	750	30.00	33	
UGI	Two	1	ICNE-106	Programming Language	لغة البرمجة	English	4	4			8	3	123	77	200	8.00	C	5
		2	ICNE-107	AC Circuit Analysis	تحليل دوائر التيار المتردد	English	2	2			4	3	63	87	150	6.00	B	5
		3	ICNE-108	Introduction to Computer Network	مقدمة في شبكات الحاسوب	English	2	2			4	3	63	137	200	8.00	C	5
		4	CAIK-100	Physics	الفيزياء	English	2				2	3	33	17	50	2.00	B	5
		5	NTU-102	Computer	الحاسوب	English	2	2			4	3	63	37	100	4.00	C	3
		6	NTU-103	Arabic Language	اللغة العربية	Arabic	2				2	3	33	17	50	2.00	B	2
		Total						14	0	10	0	0	18	18	378	372	750	30.00

