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 Specification Form for The Academic Year 2024 -2025

University: North Technical University

College/Institute: Technical Institute/Hawija

Department: Network and Computer Software Technologies

Data of Form Completion: 2025/1/27

Signature

Department Head Name: Assis. Prof. Dr. Suhail Najm Shahab

Signature

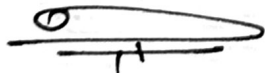Dean's Assistant for scientific Affairs Name : Dr. Mohammed ohyad liejy

Signature

Check the file before

Quality Assurance and University Performance Division:

Assistant Letcher Hamza Omer Sadiq

Signature

Deans Name: Omer K. Ahmed

1. Program vision

Achieving excellence and leadership in information technology related to computer networks, providing society with effective intermediate staff in computer network systems, developing their capabilities in computer software, and developing their skills in interacting and communicating with others to reach a digital society under an electronic government.

2. Program message

We seek to provide an outstanding education in computer networks and software according to international standards, produce creative research that serves higher education, and provide technical consultations to raise the level of community performance.

3. Program objectives

- Preparing scientifically and educationally qualified staff compatible with the market and the needs of digital development fields.

- Encouraging scientific research in theoretical and applied sciences, as well as supporting future research and continuous development of curricula by contemporary cognitive, methodological and technical innovations.

- Participating in community service through direct and continuous interaction with governmental and non-governmental institutions, providing scientific consultations, and promoting continuing education programs.

4.	Programmatic accreditation

The department is newly established for the academic year 2024-2025.

5.	Other external influences

Nothing

6- Structure The program

Required ratios	ratios% = Total units for the)/ the total requirement (Total for graduation× 100	The total	Optional	Compulsory	Requirement type
% (15 – 10)	(22 ÷ 112) × 100 = 19	22	4	18	University
% (22 – 16)	(19 ÷ 112) × 100 = 17	19	0	19	Institute
% (74 – 63)	(75 ÷ 112) × 100 = 70	75	0	75	Department
% 100		116	Total Graduation		

Course schedule / Level 1

Requirements	Course name in language		Number of hours		number Units	code The decision
			Theory	The process		
University Requirements (10-15) %	Arabic	Democracy and human rights	2	0	2	NTU100
	English language		2	0	2	NTU101
	Computer		1	1	2	NTU102
	Arabic		2	0	2	NTU103
	Sports (optional)		1	1	2	NTU104
	French (optional)		2	0	2	NTU106
	Total university requirements units				8	
Requirements The (Institute or college (16-22) %	mathematics	Mathematics	2	0	2	HTI100
	Mechanical Factor	Mechanical Workshop	0	3	3	HTI101
	Engineering drawing	Engineering Drawing	0	3	3	HTI102
	Differential and integral calculus	Calculus	2	0	2	HTI103
	Total units of formation requirements (institute)				10	
Department Requirements (63-74) %	Programming language C++	Programming in C++	2	3	5	CPN100
	Python programming	Python Programming	2	3	5	CPN101
	Computer architecture	Computer Architecture	2	3	5	CPN102

Calculator installation	Computer Organization	2	3	5	CPN103
Principles of Electronics	Principles of Electronics	2	3	5	CPN 104
Computer Networking Basics	Computer Networks	2	3	5	CPN 105
Principles Electronic Engineering	Principles of Electrical Engineering	2	3	5	CPN 106
Internet of Things	Internet of Things	2	3	5	CPN 107
Total units of department requirements				40	
Total units				58	

Course schedule / Level 2

Requirement Type	: Course name in language	Number of hours		number Units	code The decision
		Theory	The process		
	Arabic				
	English language	2	0	2	NTU200
Requirements University (10-15) %	Computer	1	1	2	NTU201
	Arabic	2	0	2	NTU202
	Crimes of the Baath regime in Iraq	2	0	2	NTU203
	Professional ethics	2	0	2	NTU204
	Total university requirements units			10	
requirements	Research project	Research Project	0	2	2	HTI200

Group	Course (Arabic/short)	Course				Code
The Institute (16-22) %	Specialized workshop	Specialized Workshop	0	3	3	HTI201
	Application project	Application Project	0	2	2	HTI202
	Occupational Safety	Vocational safety	2	0	2	HTI203
		Total units requirements			9	
Department Requirements (63-74) %	Databases SQL	Databases in SQL	2	3	5	CPN 200
	Encryption and computer security	Cryptography and Computer Security	2	3	5	CPN 201
	Network Management	Networks Management	2	3	5	CPN 202
	Website design	Electronic Web Design	2	3	5	CPN 203
	Website programming Web	Web Site Programming	2	3	5	CPN 204
	Programming language VB	Visual Basic Programming	2	3	5	CPN 205
	Operating systems	Operating System	2	3	5	CPN 206
Total units of department requirements					35	
Total units					54	

Program Specification

This academic program description provides a requisite summary of the most important characteristics of the program and the learning outcomes expected of the student to achieve, proving whether he has made maximum use of the available opportunities. It is accompanied by a description of each course within the program

1. Teaching Institution	Northern Technical University/ Hawija Technical Institute
2.University Department/Centre	Network and Computer Software Technologies
3.Program Title	Technical Sciences
4.Title of Final Award	Technical Diploma
5. The school system: Annual / Courses / Other Annual	Curriculum
6. Accreditation	practical& Theoretical
7. Other external influences	There is a close relationship between the labor market and the department's graduates.
8. Date of production/revision of this specification	10-16-2024

9. Aims of the Program

Aims to prepare the technical staff that will be a link between the specialist and the skilled worker. The department prepares and provides the graduate with theoretical, applied and practical information to be able to carry out the work entrusted to him.

10. Learning Outcomes, Teaching, Learning and Assessment Methods

Knowledge and Understanding

1- .Knows computers and computer networks
2- . computers and computer networks have gone through
3- . the various applications of computer software and computer networks
4- .Defines the components of the computer
5- .Distinguish between different types of computer networks
6- .Mention the tools used in connecting networks
7- Learn about the types of network cables
8- knows the internet
9- .Learn about the different uses of the Internet
10- Determines how to benefit from the Internet in the educational process
11- Distinguish between different ways to connect to the Internet
12- Distinguish between browsing and internet browsing programs
13- .Classifies the different types of email programs
14- Determines how to benefit from the e-mail service in the educational process
15- Mention the importance of Internet searchengines
16- Learn the most important terms in the field of computer networks
17- Learn about the most important modern trends in computer networks
18- .Fixes some network related faults
19- .Suggests solutions to some network related faults
20- Learn about educational website design standard

Subject-specific skills

.1 Use of computer and Internet technologies in education and training.
.2 Activating the relationship with the private sector in the areas of training.
.3 Follow up the development of training plans curricula and then update the curricula.
.4 Interacting with the labor market and community needs for rehabilitation and training.

Teaching and Learning Methods
Through the presentation of a theoretical explanation with the aid of white board and 'Data Show', to illustrate syllabus (examples and exercises) and using text books

Assessment methods
1- Written examination :To assess knowledge , understanding and skills (First half of the academic year , Mid-year exam, Second half of the academic year, final exam the academic year) .
2- Oral examination: To assess knowledge, skills and intellectual functions, and attitude.
3- Assignments & other activities.
4- Quizzes (Shock exams).
5- homwork.

Thinking Skills
C1. Reading, Writing, Speaking and Listening for English language
C2. Apply mathematics to everyday life problems.
C3. Recognize the uses of commands in programs
C4. Distinguishes between design – code – run parts and use different objects in creating the programs and understand algorithms, language abilities and reasons to use

Teaching and Learning Methods
1- Lectures using white board and data show
2- Experimental part
3- Discussion about the practical application

Assessment methods
1 -written examination
2- oral examination
3- quizzes
4 – homework
5- report

			Curriculum Skills Outline																
Please check the boxes corresponding to the individual learning outcomes from the program being evaluated																			
			Learning outcomes required from the program																
year/level	**Course Name**	**basic or optional**	**Cognitive goals**				**Program specific objectives**				**Emotional and value goals**				**Transferred general and qualification skills (other skills related to employability and personal development)**			
			A 1	A 2	A 3	A 4	B 1	B 2	B 3	B 4	C 1	C 2	C 3	C 4	D 1	D 2	D 3	D 4
FIRST	Computer	primary	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Programming language C++	primary	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Computer Assembly	primary	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Computer Networking Basics	primary	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓