Republic of Iraq

Ministry of higher education & scientific research

Supervision and scientific evaluation directorate

Quality assurance and academic accreditation

Academic Program Specification Form

For The Academic

University: Northern Technical University

College or Institute: Kirkuk Technical Institute

Department: Computer Systems Techniques

Date of form completion: 1/7/2025

Prof. Dr. : Ashty Mahdi	Dr. Sawash shaheen Ibrahim	Asist.prof. Hassan kareem abdulrahman
Dean's Name	Dean's Assistant for Scientific Affairs	Head of Department
Date: 1/7/2025	Date: 1/7/2025	Date: 1/7/2025
Signature	Signature	Signature

Asist. lecture. Alaa abdullwahab Aziz

Quality Assurance and University performance manager

Date: 1/7/2025

Signature

Academic Program Description

Academic Program Description

This academic program description provides a brief summary of the most important characteristics of the program and the learning outcomes expected of the student to achieve, proving whether he has made the most of the available opportunities. It is

1. Name of university	Northern Technical University/ Technical Institute /Kirkuk	
2. Name of Department	Computer Systems techniques	
3. Programme Title	Academic description program	
4. Title of Final Award	Technical Diploma for Two Calendar Years	
5. Study system	Courses /semester	
6. Accredited Academic Program	AACSB	
7. Other external influences	There is a close relationship between the department's outputs and the stakeholders who benefit from the department's curriculum and the labor market, depending on the graduates' follow-up form.	
8. Description creation date	8/1/2024	

9. Aims of the Program: The aims of the department :-

1- Preparing intermediate technical cadres with skills in the field of work on computer programs, systems and applications.
2- Enhancing the values of job affiliation and loyalty in the institution.
3- Bridging between traditional and modern scientific and training curricula in a way that helps the current reality.
4- Enhancing the concepts of qualitative and quantitative excellence in order to achieve standards of quality and scientific efficiency.
5- Creating a scientific, research and applied environment.
6- Evaluating the effectiveness of the annual educational and training programs to reach the best development.
7- Taking care of students and putting them on the right path in a way that expresses their personal and professional goals and aspirations.
8- Taking advantage of technical progress in the design, implementation and use of electronic and blended education To serve the educational and scientific side of the department.

10. Learning Outcomes, Teaching, Learning and Assessment Methods

A. Knowledge and Understanding
(First Class)
A1. The student's knowledge of problem analysis method, design of algorithms and systems, and application of specialized programs using programming languages(C++), Java, Python, SQL SPSSMATLAB, HTML .
A2. The student's knowledge of office, math and statically applications .
A3. Introducing the student to the types of computers and their physical components and the representation of data inside the computer in addition to the methods of installing and maintaining them and diagnosing faults.
(Second Class)
A1. The student's knowledge of the importance of computer operating systems and their types, in addition to the definition of the method of installing programs and applications.
A2. The student's knowledge of advanced programming languages (Visual Basic, FoxPro databases, C++ data structures, HITML/PHP/Java website design).
A3. The student's knowledge of the types of computer networks and methods of connecting networks ،add to that the definition of the importance of network and information security.

B. Subject-specific skills
B1. Skills in writing programs in different languages and identifying and correcting errors.
B2. Skills in using ready-made applications such as Word, Excel, and PowerPoint.
B3. Skills in installing systems and software applications and optimal use of memory .
B4. Skills of working on computer networks, the method of addressing and partitioning in networks, in addition to the skill of providing protection for computers and information in the network .

Teaching and Learning Methods
Adopt the style of multi-directional lecture (board data show ،workshops ،scientific films،summer training ،Scientific trips ،working within groups in the lab ،Courses and seminars).
D. General and Transferable Skills (other skills relevant to employability and personal development)   D1. Skills in preparing scientific courses and lecture in the specialized fields.   D2.Skills in communicating with Staff in international universities.   D3. Leadership skills and Bearing responsibility.   D4. Self-education skills and self-reliance.

11-program structure

Credit hours		Course or Module Title	department	Level/Year
Practice	Theoretic			
0	2	Democracy & Human Rights	Computer Systems	First level
0	2	English Language 1		
1	1	Computer		
0	2	Arabic Language		
1	1	Sport		
0	2	French Language		
2	1	Statistic Principles		
2	1	Administration Principles		
2	2	Programming in C++		
2	1	Digital Logic		
0	2	Algorithms		
2	2	Mathematics		
2	2	Programming in Java		
2	2	Fundamentals of Database in SQL		
2	1	Fundamentals in Web Design		
0	2	System Analysis		
2	1	Computer Maintenace		
2	**1**	Programming in Python		Second level
0	**2**	English Language 2		
0	2	Professional Ethics		
2	1	Electronics Business Administration		
2	1	Data Structure		
2	2	Advenced Database in SQL		
2	1	Computer Networks		

2	2	Visual Programming Language in VB.NET			
2	1	Advanced in Web Design			
2	1	Computer Architecture			
2	1	Operating System			
2	1	Cryptography and Computer Security			
2	1	Mobile Application Development			
2	1	Multimedia Software			
2	1	Research Project			
2	1	Fundamentals of Computer Drawing			
0	2	Numerical Analusis			
0	2	Computer Ethics			
0	2	Internet of Things			
0	2	Mobile Application Development			

12. Personal Development Planning
1. Courses within the Institute.   2. Courses within institutions of higher education and scientific research .   3. Single or common scientific research (applied or theoretical).   4. Episodes and scientific seminars.
13 -Acceptance standard (setting regulations related to college or institute enrollment)   1. The total degree that the student obtained after passing the general exams for the sixth.   2. To be a graduate of the scientific.   3. The results of the medical examination that the student is healthy and fit to study in the department.   4. Desire
14. Key sources of information about the program   1. Textbooks References.   2. Help references (Secondary books).   3. The Internet, self-education sites, international universities sites, and Iraqi universities sites.

<table>
<tr><td colspan="20" align="center">Curriculum Skills Map</td></tr>
<tr><td colspan="20" align="center">Please tick relevant boxes where individual programme Learning Outcomes are being assessed</td></tr>
<tr><td colspan="4">Programme Learning Outcomes</td><td colspan="16"></td></tr>
<tr>
<td rowspan="2">Year/ Level</td>
<td rowspan="2">Course code</td>
<td rowspan="2">Course title</td>
<td rowspan="2">Core (c) title or option (O)</td>
<td colspan="4">Knowledge and understanding</td>
<td colspan="4">Subject-specific Skills</td>
<td colspan="4">Thinking Skills</td>
<td colspan="4">General and Transferable Skills (or) Other Skills relevant to employability and personal development</td>
</tr>
<tr>
<td>A1</td><td>A2</td><td>A3</td><td>A4</td>
<td>B1</td><td>B2</td><td>B3</td><td>B4</td>
<td>C1</td><td>C2</td><td>C3</td><td>C4</td>
<td>D1</td><td>D2</td><td>D3</td><td>D4</td>
</tr>
<tr>
<td rowspan="5">First academic level / Second semester</td>
<td>CST100</td><td>Programming in C++</td><td>basic</td>
<td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td>
</tr>
<tr>
<td>CST101</td><td>Digital Logic</td><td>basic</td>
<td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td>
</tr>
<tr>
<td>CST102</td><td>Algorithms</td><td>basic</td>
<td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td>
</tr>
<tr>
<td>CST103</td><td>Mathematics</td><td>basic</td>
<td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td>
</tr>
<tr>
<td>NTU102</td><td>Computer principles 1</td><td>Optional</td>
<td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td><td>√</td>
</tr>
</table>

Level / Semester	Code	Course name	Type																
	NTU101	English Language	**Optional**	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	NTU100	Human Rirhts and democracy	**Optional**	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	NTU105	Sports	**Optional**	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
First academic level / Second semester	CST104	Programming in Java	**basic**	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	CST105	Fundamentals Of databases in SQL	**basic**	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	CST110	Programming in Python	**Optional**	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	CST106	Fundamentals in Web Design	**Optional**	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	CST107	Systems Analysis	**Optional**	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	CST108	Computer Maintenance	**basic**	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	NTU103	Computer principles 2	**Optional**	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	NTU104	Arabic Language	**basic**	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	TIK100	statics	**Optional**	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
First academic level / 3th semester		Summer Training	**Basic**	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√

Second class		V- basic	basic	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
		Data structure	basic	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
		Data base	basic	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
		Web-designing	Auxiliary	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
		Networking	Auxiliary	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
		Operating system	basic	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
		System analyses	basic	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
		Project	basic	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√