Republic of Iraq
Ministry of Higher Education & Scientific Research
Supervision and Scientific Evaluation Directorate
Quality Assurance and Academic Accreditation
International Accreditation Dept.

Academic Program Specification Form for the Academic Year 2020-2021

University: University of Technology
College : Computer Sciences Department – Network Management
Number Of Departments in The College : 6
Date of Form Completion: 9-6-2021

Programme Mager's Name :
Assit. Prof.Dr. Shaimaa Hameed Shaker
Date: June 2021
Signature

Quality Assurance and Evaluation Correction director: Nada Najeel Kamal
Date: June 2021
Signature:

Dean's Name: Dr. Aliaa Karim Abdul Hassan
Date: June 2021
Signature

Deans Assistant for Scientific Affairs: Nuha Jamil Ibrahim
Date: June 2021
Signatur

TEMPLATE FOR PROGRAMME SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

PROGRAMME SPECIFICATION

This Programme Specification provides a concise summary of the main features of the programme 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 programme.

1. Teaching Institution	University of technology
2. University Department/Centre	Department of computer sciences
3. Programme Title	Network Management
4. Title of Final Award	B.SC. in computer sciences
5. Modes of Attendance offered	courses
6. Accreditation	ABET
7. Other external influences	no
8. Date of production/revision of this specification	9-6-2021
9. Aims of the Programme	

Within the tremendous development of computer networks and in response to the society's need for communications, the need for this branch arose. The graduates of the branch work in the field of programming applications for networks and the Internet, designing and programming websites, in addition to learning the basics of designing and connecting networks. He also possesses expertise in the field of safe data transfer through networks with both types of networks. wired and wireless communication

10. Learning Outcomes, Teaching, Learning and Assessment Methods

A. Knowledge and understanding

A1- Knowledge and understanding to demonstrate basic facts, concepts, principles and theories related to information technology.

A2- Learn computer networking protocols

A3 - Familiarity with the advanced operating system, mobile identification and distributed computing system.

B. Subject-specific skills

B 1 - Teamwork and the acquisition of administrative personality and social skills.
B 2 - Writing programs that deal with computer networks and programming sites
B3 - Writing protection programs for computer networks

Teaching and Learning Methods

Theoretical books
science laboratories
small projects
Electronic references

Assessment methods
1. Quarterly exams 2. Sudden daily tests 3. Classroom posts and discussions 4. Homework 5. Making small projects
C. Thinking Skills C1- Questioning: Searching for new information by creating and raising questions. C2 - Conclusion: Thinking beyond the available information to fill the gaps in it. C 3- Comparing: Noting the similarities and differences between two or more things. C4- Classification: Putting things into groups according to common characteristics.
Teaching and Learning Methods
1. theoretical lectures 2. Practical lectures (laboratory) 3. Specialized workshops
Assessment methods
Theoretical and practical tests Reports on computer networks and website languages small projects
D- General and transferable skills (or) other skills related to employability and personal development D 1- The student has the ability to design and implement small projects

D 2- The student has the ability to work in a team
D 3- The student has the ability to establish and manage networks
D4 - The student has the ability to deal with computer networks and design websites while maintaining the security of networks

Learning Methods

1. Theoretical lectures in class
2. Practical lectures in the laboratory
3. Adoption of electronic data show and Power point means
4. Adoption of modern books that are appropriate for the stage

Assessment methods

1. Quarterly exams
2. Sudden daily tests
3. Classroom posts and discussions
4. Homework
5. Making small projects

13. Personal Development Planning

Training courses - Workshops - Research and street - Specialized seminars - Conferences - Graduate studies
See the most important Arab and foreign sources
Study case studies and generalize the results
Solve self-test questions in sources and references
Simulation of complex systems

14. Admission criteria.
Central Admission
15. Key sources of information about the programme
1. Labor market requirements 2. Keeping pace with scientific development

Network Management Curriculum

First Year – First Semester					
Code	**Title**	**Hours/ Week**			
		Lect.	**Lab.**	**Disc.**	**Units**
CSCL1101	Structured Programming I	3	2	1	4
CSCL1103	Mathematics I	2	-	1	2
CSCL1105	Discrete Structure I	2	-	-	2
CSCL1107	Computer Organization	2	-	1	2
CSCL1109	Introduction to Statistics	2	-	1	2
CSCL1111	English Language I	2	-	-	1
CSCN1101	Information Theory	2	-	-	2
Totals		15	2	4	15

First Year – Second Semester					
Code	**Title**	**Hours/ Week**			
		Lect.	**Lab.**	**Disc.**	**Units**
CSCL1202	Structured Programming II	3	2	1	4
CSCL1204	Mathematics II	2	-	1	2
CSCL1206	Discrete Structure II	2	-	-	2
CSCL1208	Logic Design	2	2	1	3
CSCL1210	Probability Theory	2	-	1	2
20CSCN12	Coding Techniques	2	-	-	2
30CSCN12	Principles of Network	2	-	-	2
Totals		15	4	4	17

Second Year – First Semester					
Code	Title	Hours/ Week			
		Lect.	Lab.	Disc.	Units
CSCL2112	Object Oriented Programming I	2	2	1	3
CSCL2114	Data Structures	2	2	1	3
CSCL2116	Mathematics III	2	-	1	2
CSCL2118	Database Foundation	2	2	1	3
CSCL2120	Human Rights	2	-	-	1
CSCL2122	English Language II	2	-	-	1
CSCN2104	Digital Signal Processing	2	-	1	2
Totals		14	6	5	15

Second Year – Second Semester					
Code	Title	Hours/ Week			
		Lect.	Lab.	Disc.	Units
CSCL2213	Object oriented programming II	2	2	1	3
CSCL2215	Sorting and Searching Algorithms	2	2	1	3
CSCL2217	Numerical Analysis	2	2	1	3
CSCL2219	DataBase Design	2	2	1	3
CSCL2221	Democracy	2	-	-	1
CSCN2205	Communications	2	-	-	2
CSCN2206	Network Protocols	2	-	-	2
Totals		14	8	4	17

Third Year – First Semester

Subject Code	Subject in English	Number of Hours/ Week			
		Theory	Lab	Tutorial	Units
CSCL3123	Microprocessor	2	2		3
CSCL3224	Computation Theory	2	-		2
CSCL3127	Operations Researches	2	-		2
CSCL3129	Knowledge Representation	2	2		3
CSCN3111	Data Security	2	2		3
CSCN3109	Network Switching and Routing I	2	2		3
CSCN3107	Networks Programming I	2	2		3
CSCL3133	English Language III	2	-	-	1
		14	10		20

Third Year – Second Semester					
Subject Code	Subject in English	Number of Hours / Week			
		Theory	Lab	Tutorial	Units
CSCL3224	Computer Architecture	2	2		3
CSCL3226	Compiler Design	2	2		3
CSCL3228	Optimization	2	-		2
CSCL3230	Intelligent Searching Techniques	2	2		3
CSCN3212	Distributed Database	2	2		3
CSCN3210	Network Switching and Routing II	2	2		3
CSCN3208	Networks Programming II	2	2		3
		14	12		20

Fourth Year – First Semester					
Code	Title	Hours/ Week			
		Lect.	Lab.	Disc.	Units

CSCL4134	Static Web Programming	2	2	-	3
CSCN4113	Multimedia1	2	2	-	3
CSCN4115	Operating system I	2	2	-	3
CSCN4117	Network Management I	2	-	-	2
CSCN4119	Network Security I	2	2	-	3
CSCN4121	Wireless Foundations	2	2	-	3
CSCL444	Project	2	2	-	3
Totals		14	12		20

Fourth Year – Second Semester					
Code	Title	Hours/ Week			
		Lect.	Lab.	Disc.	Units
CSCL4235	Dynamic Web Programming	2	2	-	3
CSCN4214	Multimedia II	2	2	-	3
CSCN4216	Operating systemII	2	2	-	3
CSCN4218	Network Management II	2	-	-	2
CSCN4220	Network Security II	2	2	-	3
CSCN4222	Wireless Techniques	2	2	-	3
CSCL4142	English Language IIII	2	-	-	2
CSCL444	Project	2	2	-	3
Totals		16	12		22

Curriculum Skills Map

please tick in the relevant boxes where individual Programme Learning Outcomes are being assessed

				Programme Learning Outcomes															
Year / Level	Course Code	Course Title	Core (C) Option (O)	General and Transferable Skills (or) Other skills relevant to employability and personal development				Thinking Skills				Subject-specific skills				Knowledge and understanding			
				D4	**D2**	**D2**	**D1**	**C4**	**C3**	**C2**	**C1**		**B3**	**B2**	**B1**		**A3**	**A2**	**A1**
First Year/ First Course	CSCL1101	Structured Programming I	**C**	√	√	√	√	√	√	√	√		√	√	√		√	√	√
	CSCL1103	Mathematics I	**C**						√	√	√		√	√	√		√	√	√
	CSCL1105	Discrete Structure I	**C**	√	√	√	√		√	√	√			√	√		√	√	√
	CSCL1107	Computer Organization	**C**				√				√			√	√		√	√	√
	CSCL1109	Introduction to Statistics	**C**	√	√	√	√			√	√		√	√	√			√	√
	UT100	Workshp			√	√	√								√		√	√	√
	CSCL1111	English Language I	**C**	√	√	√	√			√	√		√	√	√			√	√
	CSCN1101	Information Theory	**C**			√	√			√	√		√	√	√		√	√	√
First Year/ Second Course	CSCL1202	Structured Programming II	**C**	√	√	√	√	√	√	√	√		√	√	√		√	√	√
	CSCL1204	Mathematics II	**C**						√	√	√		√	√	√		√	√	√
	CSCL1206	Discrete Structure II	**C**						√	√	√		√	√	√		√	√	√
	CSCL1208	Logic Design	**C**	√	√	√	√		√	√	√			√	√		√	√	√
	CSCL1210	Probability Theory	**C**			√	√			√	√		√	√	√		√	√	√
	CSCN1202	Coding Techniques	**C**			√	√			√	√		√	√	√		√	√	√
	CSCN1203	Principles of Network	**C**	√	√	√	√			√	√		√	√	√		√	√	√

Second Year/ First Course	CSCL2112	Object Oriented Programming I	**c**			√	√	√	√	√	√		√	√	√		√	√	√
	CSCL2114	Data Structures	**c**	√	√	√	√	√	√	√	√		√	√	√		√	√	√
	CSCL2116	Mathematics III	**c**						√	√	√		√	√	√		√	√	√
	CSCL2118	Database Foundation	**c**			√	√			√	√		√	√	√		√	√	√
	CSCL2120	Human Rights	**c**				√				√				√				√
	CSCL2122	English Language II	**c**	√		√	√	√							√		√	√	√
	CSCN2104	Digital Signal Processing		√	√	√	√	√	√	√	√		√	√	√		√	√	√
Second Year/ Second Course	CSCL2213	Object oriented programming II	**c**			√	√	√	√	√	√		√	√	√		√	√	√
	CSCL2215	Sorting and Searching Algorithms	**c**	√	√	√	√	√	√	√	√		√	√	√		√	√	√
	CSCL2217	Numerical Analysis	**c**			√	√		√	√	√		√	√	√		√	√	√
	CSCL2219	DataBase Design	**c**	√	√	√	√		√	√	√		√	√	√		√	√	√
	CSCL2221	Democracy	**c**				√				√				√				√
	CSCN2205	Communications	**c**	√	√	√	√	√	√	√	√		√	√	√		√	√	√
	CSCN2206	Network Protocols	**c**	√	√	√	√	√	√	√	√		√	√	√		√	√	√
Third	CSCL3123	Microprocessor	**c**	√	√	√	√		√	√	√		√	√	√		√	√	√

Year/ First Course	CSCL3224	Computation Theory	**C**	√	√	√	√	√	√	√	√		√	√	√		√	√	√
	CSCL3127	Operations Researches	**C**	√	√	√	√	√	√	√	√		√	√	√		√	√	√
	CSCL3129	Knowledge Representation	**C**			√	√			√	√		√	√	√		√	√	√
	CSCN3111	Data Security	**C**	√	√	√	√		√	√	√		√	√	√		√	√	√
	CSCN3109	Network Switching and Routing I	**C**	√	√	√	√	√	√	√	√		√	√	√		√	√	√
	CSCN3107	Networks Programming I	**C**	√	√	√	√		√	√	√		√	√	√		√	√	√
	CSCL3133	English Lauguage 3	**C**			√	√	√							√		√	√	√
Third Year/ Second Course	CSCL3224	Computer Architecture	**C**	√	√	√	√		√	√	√		√	√	√		√	√	√
	CSCL3226	Compiler Design	**C**	√	√	√	√			√	√		√	√	√		√	√	√
	CSCL3228	Optimization	**C**	√	√	√	√		√	√	√				√			√	√
	CSCL3230	Intelligent Searching Techniques	**C**	√	√	√	√		√	√	√				√			√	√
	CSCN3212	Distributed Database	**C**	√	√	√	√	√	√	√	√		√	√	√		√	√	√
	CSCN3210	Network Switching and Routing II	**C**	√	√	√	√		√	√	√		√	√	√		√	√	√
	CSCN3208	Networks Programming II	**C**	√	√	√	√		√	√	√		√	√	√		√	√	√
Fourth year/ First Course	CSCL4134	Static Web Programming	**C**	√	√	√	√		√	√	√		√	√	√		√	√	√
	CSCN4113	Multimedia1	**C**	√	√	√	√	√	√	√	√		√	√	√		√	√	√
	CSCN4115	Operating system I	**C**	√	√	√	√	√	√	√	√		√	√	√		√	√	√
	CSCN4117	Network Management I	**C**			√	√			√	√		√	√	√		√	√	√
	CSCN4119	Network Security I	**C**	√	√	√	√		√	√	√				√			√	√
	CSCN4121	Wireless Foundations	**C**	√	√	√	√		√	√	√		√	√	√		√	√	√
	CSCL444	Project	**C**	√	√	√	√		√	√	√		√	√	√		√	√	√

Fourth year/ Second Course	CSCL4235	Dynamic Web Programming	**C**	√	√	√	√		√	√	√		√	√	√		√	√	√
	CSCN4214	Multimedia II	**C**	√	√	√	√	√	√	√	√		√	√	√		√	√	√
	CSCN4216	Operating systemII	**C**	√	√	√	√		√	√	√		√	√	√		√	√	√
	CSCN4218	Network Management II	**C**	√	√	√	√	√	√	√	√		√	√	√		√	√	√
	CSCN4220	Network Security II	**C**	√	√	√	√		√	√	√				√			√	√
	CSCN4222	Wireless Techniques	**C**	√	√	√	√	√	√	√	√		√	√	√		√	√	√
	CSCL4142	English Language IIII	**C**	√	√	√	√	√	√	√	√		√	√	√		√	√	√
	CSCL444	Project	**C**	√	√	√	√		√	√	√		√	√	√		√	√	√