

Course Specifications

Course Title:	Computer networks
Course Code:	CP24
Program:	Diploma in Programming and Computer Sciences
Department:	Department of Technology
College:	Applied College
Institution:	Taif University







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A. Course Identification

1.	Credit hours: 2 hours		
2.	Course type		
a.	University College Department 🗸 Others		
b.	Required ✓ Elective		
3.	3. Level/year at which this course is offered: 3 rd level/1 st year		
4.	4. Pre-requisites for this course (if any): None		
5.	5. Co-requisites for this course (if any): None		

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	6	100 %
2	Blended		
3	E-learning		
4	Distance learning		
5	Other (lab)		

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	60
2	Laboratory/Studio	
3	Tutorial	
4	Others (specify)	
	Total	60

B. Course Objectives and Learning Outcomes

1. Course Description

In this course students will realize the importance of computer networks, and will learn the fundamentals of computer networking. The topics in this course are going to cover basic networking concepts, routing technologies, security concepts, network deployment and optimization

2. Course Main Objective

This course aims to show the importance of computer networks in the development of knowledge society, and explain the basics of computer networking.

3. Course Learning Outcomes

CLOs		Aligned PLOs
1	Knowledge and Understanding	
1.1	Explain basic networking concepts	K 1
1.2	1.2 Understand routing technologies and networking devices K1	
1.3	1.3Explain security concepts and network attacksK1	
2	2 Skills :	
2.1	Deploy Ethernet solutions and configure wireless technologies.	S 2



	CLOs	
2.2	Troubleshoot common networking issues	S 2
3	Values:	
3.1	Monitor and optimize computer networks	V2

C. Course Content

No	List of Topics	Contact Hours
1	Networking Fundamentals	12
2	Network Implementations	12
3	Network Operations	12
4	Network Security	12
5	5 Network Troubleshooting 12	
	Total 6	

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods	
1.0	Knowledge and Understanding			
1.1	Explain basic networking concepts.			
1.2	Understand routing technologies and networking devices.Lectures DiscussionExams, Assignmen		Exams, Assignments	
1.3	Explain security concepts and network Brainstorming attacks.			
2.0	Skills			
2.1	Deploy Ethernet solutions and configure wireless technologies.	Lectures	Assignments	
2.2	Troubleshoot common networking issues.		Projects	
3.0	Values		•	
3.1	Monitor and optimize computer networks.	Lectures	Assignments Projects	

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Mid-Term exam	6	20 %
2	Assignments	10	20 %
3	Final Exam	12	60 %
8			

*Assessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice :

- Provide a guide for each group of students and distribute student lists electronically to faculty members.
- Staff members attach schedules to their office hours (at least 6 office hours) on the door of the room.
- There is an academic guide that defines the role of the faculty member in the academic guidance process.
- The program administrator is available throughout the year to answer student inquiries.
- Use the Black Board to communicate with students
- Availability of full information about the program and its members and ways to communicate with them.

https://drive.google.com/drive/folders/1WmIwcTdC5eJD3bms2QbqMQr2XZg_Uh9h?usp=sharing

F. Learning Resources and Facilities

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Required Textbooks	 Mike Meyers, Scott Jernigan, CompTIA Network+ Certification All-in-One Exam Guide, Edition (Exam N10-008), McGraw-Hill Education, 8th edition, April 2022, ISBN10: 1264269056, ISBN13: 9781264269051
Essential References Materials	 Fundamentals of Computer Networks, I. Chandra Mohan, Amazon An Introduction to Computer Networks, Release 1.9.17, Peter L Dordal, 2019
Electronic Materials	 Digital library <u>https://sdl.edu.sa/SDLPortal/Publishers.aspx</u> Digital Data warehouse <u>http://applications/eLibrary</u>
Other Learning Materials	Presentation slides for the course and submitted by the course coordinator.

1.Learning Resources

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	• classroom with a white board
Technology Resources (AV, data show, Smart Board, software, etc.)	Video projector / data showSmart board

Item	Resources
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	None

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Effectiveness of teaching	 Students Faculty members Coordinator Council Curriculum Committees Quality Committees 	 Course exit survey Feedback from Faculty members Feedback from Course Coordinator Feedback from council Feedback from Curriculum Committees Feedback from Quality Committees
Effectiveness of assessment	 Students Faculty members Coordinator Council Curriculum Committees Quality Committees 	 Course exit survey Feedback from Faculty members Feedback from Course Coordinator Feedback from council Feedback from Curriculum Committees Feedback from Quality Committees
Extent of course achievement	 Students Faculty members Coordinator Council Curriculum Committees Quality Committees 	 Course exit survey Feedback from Faculty members Feedback from Course Coordinator Feedback from council Feedback from Curriculum Committees Feedback from Quality Committees
Extent of course learning outcomes	 Students Faculty members Coordinator Council Curriculum Committees Quality Committees 	 Course exit survey Feedback from Faculty members Feedback from Course Coordinator Feedback from council

Quality oflearning resourcesStudents Faculty members Coordinator Council Council Curriculum CommitteesCourse exit sur Feedback from Coordinator Feedback from Corriculum Committees	Evaluation Areas/Issues	Evaluators	Evaluation Methods
Quality oflearning resources• Students • Faculty members • Coordinator • Council 			Curriculum CommitteesFeedback from Quality
Quality Committees Feedback from Committees	Quality oflearning resources	Faculty membersCoordinatorCouncil	 Feedback from Faculty members Feedback from Course Coordinator Feedback from council Feedback from Curriculum Committees Feedback from Quality

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)

Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify) Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	Department of Technology
Reference No.	
Date	