

Course Description Template Course Description

This course description provides a concise summary of the main features of the course and the expected learning outcomes for the student to achieve, demonstrating whether they have made the most of the available learning opportunities. It is essential to link this description with the program description.

1. Educational Institution	Shatt Al-Arab University
2. Scientific Department	Computer Science
3. Module Code	Computer Network 2
4. The available attendance types	Mandatory
5. Year	2024 - 2025
6. SWL (hr/sem)	150
7. Date	2024

8. Module Aims:

- Teaching students the basic concepts of networking, which qualify them to take the Cisco CCNA exam and obtain a Network Technician certificate.
- Introducing students to various networking devices such as Routers, Switches, Hubs, and connecting cables.
- Enabling students to set up a network individually, whether wired or wireless.
- Teaching students how to perform the duties of a Network Administrator and implement different network divisions.
- Smooth handling of different IP addresses, regardless of the class type of each IP.

9. Module Learning Outcomes

- Enabling students to obtain the Cisco CCNA Network Technician certificate.
- Enabling students to practice home networking and work in the job market through hands-on experience with networking devices.
- Exposing students to the latest developments in the world of networking at the global level.
- Developing students' ability to transfer data and utilize all available resources within a single network in different work environments, ensuring optimal use of these resources.

Learning and Teaching Strategies

- Using lectures and discussions to explain lessons and exchange ideas between the instructor and students.
- Providing theoretical and practical explanations about subnetting and infrastructure design using the Packet Tracer simulator.
- Using connection kits to link different hardware devices.
- Presenting explanatory videos to demonstrate different methods of performing the same tasks related to subnetting and connecting network devices.

Module Evaluation

Quizzes

10%

Report

10%

Midterm Exam

30%

Final Exam

35%

Final Exam LAB

15%

10. Course Structure

Weeks	Study Hours	Subject	Intended Learning Outcomes	
Week1		Introduction to Routing & Router		
Week2		Types of Routing & Router programming in lab		
Week3		General concepts of SWITCH, HUB & ACCESS POINT, lab connection methods		
Week4		Understanding differences between SWITCH, HUB & ACCESS POINT		
Week5		Basic concepts of Subnetting and assigning addresses in lab		
Week6		More subnetting practice, assigning addresses in lab		
Week7		VLSM calculation methods with network lab exercises		
Week8		Ethernet cables, types, and lab connections		
Week9		Servers, types, and lab connections		

11. Recommended Books and References		
1. Required Textbooks	-Behrouz A. Forouzan, Data Communications and	
	Networking, Fourth Edition, 2007.	
	-Tanenbaum A., Computer Networks, 2000.	
Main References (Sources)	-Cisco Networking Academy Website	
Electronic References	-Mikrotik Official Website	
	https://mikrotik.com	

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