



Course Specifications

Course Title:	Network Server and Infrastructure
Course Code:	502583-3
Program:	Bachelor in Information Technology
Department:	Department of Information Technology
College:	College of Computers and Information Technology
Institution:	Taif University

Table of Contents

A. Course Identification	3	
6. Mode of Instruction (mark all that apply)		3
B. Course Objectives and Learning Outcomes	3	
1. Course Description		3
2. Course Main Objective		3
3. Course Learning Outcomes		3
C. Course Content	4	
D. Teaching and Assessment	4	
1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods		4
2. Assessment Tasks for Students		4
E. Student Academic Counseling and Support	5	
F. Learning Resources and Facilities	5	
1. Learning Resources		5
2. Facilities Required		5
G. Course Quality Evaluation	5	
H. Specification Approval Data	6	



A. Course Identification

1. Credit hours: 3
2. Course type a. University <input type="checkbox"/> College <input type="checkbox"/> Department <input checked="" type="checkbox"/> Others <input type="checkbox"/> b. Required <input checked="" type="checkbox"/> Elective <input type="checkbox"/>
3. Level/year at which this course is offered: 13/5
4. Pre-requisites for this course (if any): Fundamentals of Networks (502482-3)
5. Co-requisites for this course (if any): NoN

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	8	100%
2	Blended	0	0
3	E-learning	0	0
4	Distance learning	0	0
5	Other	0	0

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	50
2	Laboratory/Studio	30
3	Tutorial	
4	Others (specify)	
	Total	80

B. Course Objectives and Learning Outcomes

1. Course Description

This course focuses on describing and designing the LAN/WAN technologies and devices. The course provides comprehensive details of network server protocols and routing algorithms required for connectivity procedures. It aims to introduce students to the fundamental techniques used in implementing network communications. The students will have some practical experience in applying these protocols in within a given design of a networked systems.

2. Course Main Objective

The main objective of this course is to provide an understanding of network technologies. By the end of the course, students will be able to design and implement a network and configuring some necessary protocols such as DHCP, DNS for providing services to end users. The students will learn how to use a tool for demonstrating a network design, implementation and service configurations.



3. Course Learning Outcomes

CLOs		Aligned PLOs
1	Knowledge and Understanding	
1.1	Describe the LAN/WAN technologies and devices.	K1
2	Skills :	
2.1	Design a LAN/WAN network	S1
2.2	Manage network Routing Algorithms	S2
2.3	Use network server protocols	S1
3	Values:	
3.1		
3.2		
3.3		
3...		

C. Course Content

No	List of Topics	Contact Hours
1	Introduction: overview of the network classification and technologies, connected devices and OSI/TCP models. Introduction and review	5
2	LAN technologies (Ethernet)	5
3	WLAN technologies (Wi-Fi)	5
4	Virtual LAN technologies (VLAN)	5
5	Concepts of the Internet Protocol (IP) IP subnetting and NAT	10
6	Routing Algorithms	10
7	SNMP	10
8	DHCP	10
9	DNS	10
10	Active Directory	10
Total		80



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	Describe the LAN/WAN technologies and devices.	Lecture Discussion	Written Exams Assignments
2.0	Skills		
2.1	Design a LAN/WAN network	Lecture Discussion Lab work	Written Exams Assignments Practical Exam
2.2	Manage network Routing Algorithms	Lecture Discussion Lab work	Written Exams Assignments Practical Exam
2.3	Use network server protocols	Lecture Discussion Lab work	Written Exams Assignments Practical Exam
3.0	Values		
3.1			
3.2			
...			

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Assignments	10	5%
2	Mid Exam	6	20%
3	Minor project	8	10%
4	Final presentation	9	5%
5	Labs	11	10%
6	Final Exam	12	50%

*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 :

Academic advising and counseling of students is an important component of teaching; student academic advising is a mandatory requirement of College of Computers and Information Technology (CCIT). Appropriate student advising provides support needed for the student during times of difficulty. In addition, it helps the student to build a close relationship with his/her advisor and to provide student motivation and involvement with the institution.

In addition, since faculty are usually the first to recognize that a student is having difficulty, faculty members play a key role in developing solutions for the students or referring them to appropriate services. Faculty members also participate in the formal student-mentoring program.



Additional counseling is provided by course directors, who provide students with academic reinforcement and assistance and refer “at risk” students to the Vice Dean for Academic Affairs and the Vice Dean for female section.

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	Title: Data Communications and Networking Author: Behrouz Forouzan Publisher: , the McGraw-Hill Companies, Inc
Essential References Materials	
Electronic Materials	Presentations and recorded lectures
Other Learning Materials	

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	<ul style="list-style-type: none"> • A Lecture room appropriate for maximum 25 students with a personal computer, a data show and a smart board. • A Lab room appropriate for maximum 15 students with a personal computer, a data show and a smart board.
Technology Resources (AV, data show, Smart Board, software, etc.)	<ul style="list-style-type: none"> • Lab materials and required software
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Effectiveness of Teaching	Students	Students surveys and Students course evaluation
Improvement of Teaching	Course Coordinator	Deficiencies based on the student Evaluation, faculty input, course file, and program assessment
Verifying Standards of Student Achievement	Curriculum Committee	<ul style="list-style-type: none"> • Review CAF (Course assessment file) • Alumni surveys. Periodic exchange and remarking of tests or a sample



Evaluation Areas/Issues	Evaluators	Evaluation Methods
		of assignments with staff at another

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	IT Department Council/ Executive program committee
Reference No.	11
Date	23/10/21443



 قسم تقنية المعلومات
 Information Technology Department
 جامعة الطائف
 TAF UNIVERSITY
 كلية الحاسب وتقنية المعلومات
 College of Computer and Information Technology
 جامعة الطائف
 TAF UNIVERSITY