



Course Specifications

Course Title:	Network Security
Course Code:	502551-3
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 type="checkbox"/> Elective <input checked="" type="checkbox"/>
3. Level/year at which this course is offered: 13/5
4. Pre-requisites for this course (if any): Computer System security 502459-3
5. Co-requisites for this course (if any):

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	7	100%
2	Blended		
3	E-learning		
4	Distance learning		
5	Other		

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	40
2	Laboratory/Studio	30
3	Tutorial	
4	Others (specify)	
	Total	70

B. Course Objectives and Learning Outcomes

1. Course Description

This course focuses on basic concepts in network security. It aims to introduce students to the fundamental techniques used in implementing secure network communications, and to give them an understanding of common threats and attacks. The student will have some practical experience in attacking and defending networked systems.

2. Course Main Objective

The main objective of this course is to provide an in-depth understanding of important issues related to network security. The students will learn how to use publicly available tools for detecting, responding and recovering from security incidents.



3. Course Learning Outcomes

CLOs		Aligned PLOs
1	Knowledge and Understanding	
1.1	Understand the network security concepts and most related attacks.	K1
2	Skills :	
2.1	Identify security holes and weaknesses in main network protocols.	S1, S2
2.2	Apply some security services and techniques to protect a Network against network attacks.	S1, S2
3	Values:	

C. Course Content

No	List of Topics	Contact Hours
1	Introduction: basic concepts in network security	7
2	Secure Network Devices	7
3	Securing network Infrastructure and protocols.	7
4	IPSec Framework	7
5	Secure Socket Layer (SSL) & Public key certificate Management	7
6	Pretty Good Privacy (PGP)	7
7	Virtual Private Network (VPN)	7
8	Advanced Firewalls and Proxy	7
9	Advanced Intrusion Detection Systems (IDS)	7
10	Advanced Network Security Architectures	7
Total		70

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	Understand the network security concepts and most related attacks.	Lecture Discussion	Written Exams Assignments
2.0	Skills		
2.1	Identify security holes and weaknesses in some network protocols.	Lecture Discussion Lab work	Written Exams Assignments Practical Exam
2.2	Apply some services and techniques to protect a Network against attacks.	Lecture Discussion Lab work	Written Exams Assignments Practical Exam
3.0	Values		



2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Assignments	3, 6, 10	10%
2	Attendance	Distributed for lectures	5%
3	Mid Exam	5	20%
4	Minor project	10	5%
5	Labs	11	20%
6	Final Exam	12	40%

*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: NETWORK SECURITY ESSENTIALS Author: William Stallings Publisher: Prentice Hall ISBN10 0133370437 Edition Latest Publication Year 2013
Essential References Materials	Title: CCNA Security Study Guide Author: Tim Poyles Publisher: Wiley ISBN: 9780470527672 Edition: latest Publication Year 2010



Electronic Materials	Presentations
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.)	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 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

Handwritten signature/initials

