



Course Specifications

Course Title:	Computer System Security
Course Code:	CP52
Program:	Diploma in Programming and Computer Sciences
Department:	Department of Technology
College:	Applied College
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	6
H. Specification Approval Data	7

A. Course Identification

1. Credit hours: 4 hours
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: 4 th level/ 2 st year
4. Pre-requisites for this course (if any): None
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		

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		
This course aims to introduce to the students the fundamental concepts about security threats, attacks, and vulnerabilities.		
2. Course Main Objective		
The main objective of this course is:		
<ul style="list-style-type: none"> • Compare and contrast different types of social engineering techniques. • Given a scenario, analyze potential indicators to determine the type of attack. • Analyze potential indicators associated with application and network attacks. • Explain different threat actors, vectors, and intelligence sources. • Explain the security concerns associated with various types of vulnerabilities. • Explain the techniques used in penetration testing. 		
3. Course Learning Outcomes		
	CLOs	Aligned PLOs
1	Knowledge and Understanding	
1.1	Explain different threat actors, vectors, and intelligence sources	K1
1.2	Understand the techniques used in penetration testing	K1
1.3	Explain the security concerns associated with various types of	K1

CLOs		Aligned PLOs
	vulnerabilities	
2	Skills :	
2.1	Analyze potential indicators associated with application and network attacks	S2
3	Values:	
3.1		

C. Course Content

No	List of Topics	Contact Hours
1	Security Policy	4
2	Threat Actors	4
3	Social Engineering	4
4	Phishing & Types of Malware	4
5	Trojans and Spyware	4
6	Security Control Types	4
7	Defense in Depth	4
8	Frameworks and Compliance	4
9	Vulnerability Scanning and Pen Tests	4
10	Security Assessment Techniques	4
11	Pen Testing Concepts	6
12	Vulnerability Scanning Concepts	6
13	Exploitation Frameworks	8
Total		60

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 different threat actors, vectors, and intelligence sources	Lectures Discussion Brainstorming	Exams, Assignments
1.2	Understand the techniques used in penetration testing		
1.3	Explain the security concerns associated with various types of vulnerabilities		
2.0	Skills		
2.1	Analyze common threats and the access control mechanism used for user authentication and authorization	Lectures	Assignments
3.0	Values		
3.1			

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
---	------------------	----------	--------------------------------------

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Mid-Term exam	4	20 %
2	Assignments	6	20 %
3	Final Exam	10	60 %

*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

1. Learning Resources

Required Textbooks	<ul style="list-style-type: none"> • Wm. Arthur Conklin , Greg White, CompTIA Security+ All-in-One Exam Guide (Exam SY0-601), McGraw-Hill Education, 6th edition, May 2021, ISBN10: 1260464008, ISBN13: 9781260464009
Essential References Materials	<ul style="list-style-type: none"> • Charles P. Pfleeger and Shari Lawrence Pfleeger , Security in Computing 4th Edition, 2006, Prentice Hall, ISBN 978-0132390774.
Electronic Materials	<ul style="list-style-type: none"> • Digital library https://sdl.edu.sa/SDLPortal/Publishers.aspx • Digital Data warehouse http://applications/eLibrary
Other Learning Materials	Presentation slides for the course and submitted by the course coordinator.

2. Facilities Required

Item	Resources
------	-----------

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	<ul style="list-style-type: none"> classroom with a white board
Technology Resources (AV, data show, Smart Board, software, etc.)	<ul style="list-style-type: none"> Video projector / data show Smart board
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	<ul style="list-style-type: none"> Students Faculty members Coordinator Council Curriculum Committees Quality Committees 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Students Faculty members Coordinator Council Curriculum Committees Quality Committees 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Students Faculty members Coordinator Council Curriculum Committees Quality Committees 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Students Faculty members 	<ul style="list-style-type: none"> Course exit survey Feedback from Faculty

Evaluation Areas/Issues	Evaluators	Evaluation Methods
	<ul style="list-style-type: none"> • Coordinator • Council • Curriculum Committees • Quality Committees 	members <ul style="list-style-type: none"> • Feedback from Course Coordinator • Feedback from council • Feedback from Curriculum Committees • Feedback from Quality Committees
Quality of learning resources	<ul style="list-style-type: none"> • Students • Faculty members • Coordinator • Council • Curriculum Committees • Quality Committees 	<ul style="list-style-type: none"> • Course exit survey • Feedback from Faculty members • Feedback from Course Coordinator • Feedback from council • Feedback from Curriculum Committees • Feedback from Quality Committees

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	