هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

اعتماد
NCAAA

2024
TP-153

Course Specification

(Bachelor)

Course Title:	Information Security
Course Code:	190 CIS – 2
Program:	Technical support
Department:	Design and management of databases and networks
College:	Applied College
Institution:	Najran University
Version:	
Last Revision Date:	2-9-2024

Table of Contents

A. General information about the course:

1. Course Identification

1. Credit hours: (2)

2. Course type

A.	☐University	☐College	☒ Department	☐Track	☐Others
B.	☐Required			☐Elective	

3. Level/year at which this course is offered: (2)

4. Course General Description:

This course is to familiarize students with the basic concepts of information systems security. The course aims to determine the security goals, functions, and mechanisms. The content is an introduction to information security, information security and risk management, access control, security architecture and design, physical environmental security, telecommunications and network security, Business Continuity and disaster recovery, application security, and operation security. The choice of appropriate encryption/decryption is the key to the development of an efficient secure information system.

5. Pre-requirements for this course (if any)**:**

None

6. Co-requisites for this course (if any)**:**

None

7. Course Main Objective(s):

By the end of this course students should be able to:

- **Explain the objectives of information security.**
- **Discuss the importance and applications of each of confidentiality, integrity, and availability.**
- **Analyze issues for creating security policy for a large organization.**
- **Evaluate vulnerability of an information system and establish a plan for risk management.**
- **Present issues and solutions in Information System security backgrounds.**

- **Apply contemporary theories, processes, and tools in the development of information security.**

Analyze the local and global impact of information security on individuals, organizations, and society

2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	30	100%
2	E-learning		
3	Hybrid • Traditional classroom • E-learning		
4	Distance learning		

3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	15
2.	Laboratory/Studio	30
3.	Field	
4.	Tutorial	
5.	Others (specify)	
Total		45

B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Code of PLOs aligned with the program	Teaching Strategies	Assessment Methods
1.0	Knowledge and understanding			
1.1	Define major components of Information Security.	Define major components of Information Security.	• Lecture Individual and group discussions	• Exams • Assignment

Code	Course Learning Outcomes	Code of PLOs aligned with the program	Teaching Strategies	Assessment Methods
1.2	Memorize the key Information Security terms.	Memorize the key Information Security terms.	• Lecture Individual and group discussions	• Exams • Assignment
…				
2.0	**Skills**			
2.1	Analyze different kinds of threats.	Explain the Security Systems Development Life Cycle.	• Lecture • Brainstorming • Lecture • Small group work	• Exams • Group reports • Exams Assignment
2.2	Explain the Security Systems Development Life Cycle.	Analyze different kinds of threats.	• Lecture • Brainstorming • Lecture • Small group work	• Exams • Group reports • Exams Assignment
…				
3.0	**Values, autonomy, and responsibility**			
3.1	Demonstrate projects and assignments in teamwork for designing and implementing system security concepts and protecting information system	Demonstrate projects and assignments in teamwork for designing and implementing system security concepts and protecting information system	• Small group work • Group Presentation Projects	Group report
3.2				
…				

C. Course Content

No	List of Topics	Contact Hours
1.	Basic concepts of information systems security, security goals, security functions, and security mechanisms	4
2.	Information security and risk management, access control	4
3. 4. 5. 6.	Security architecture and design, physical environmental security Lab: Implementing an Information Systems Security Policy	4
7	Telecommunications and network security	5
	Business continuity and disaster recovery, application security and operation security Lab: Implementing a Business Continuity Plan	4
	Encryption/decryption, Cryptographic Tools, Examples. Lab: Cryptool	6
	Information Security Models. Lab: Use OpenSSL to make programs	6
	Security Evaluation Use OpenSSL to make programs	6
	Web Security Use OpenSSL to make programs	6
Total		45

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	**Monthly Exam**	**6**	**20%**
2.	**Home works**	**From 2 to 10**	**10%**
3.	**practical exam**	**12**	**20%**
4.	**Final exam**		**50%**

*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.).

E. Learning Resources and Facilities

1. References and Learning Resources

Essential References	**Michael E. Whitman, Herbert J. Mattord, Principles of information security, Cengage Learning, 2013.**

	W. Stallings, Cryptography and Network Security: Principles and Practice, Prentice Hall, Six Edition. 2013.
Supportive References	
Electronic Materials	Blackboard
Other Learning Materials	http://lms.nu.edu.sa/webapps/portal/frameset.jsp

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	**Lecture rooms should be large enough to accommodate the number of registered students**
Technology equipment (projector, smart board, software)	**Data Show**
Other equipment (depending on the nature of the specialty)	

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Student	Questioners
Effectiveness of Students assessment	Exam paper, course results	Cross-checking
Quality of learning resources		
The extent to which CLOs have been achieved		
Other		

Assessors (Students, Faculty, Program Leaders, Peer Reviewers, Others (specify)

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	
REFERENCE NO.	
DATE	