



Information Security (CSC-407)

Department of Software Engineering
Bahria University Karachi Campus

Fall 2024 (BSE-7A & 7B)

Course Information

- **Course title:** Information Security (IS)
- **Course code:** CSC-407
- **Credit hours:** 3 (*Theory*) + 0 (*Lab*)
- **Pre-requisites:** None
- **Course Link:** All materials will be uploaded on LMS, and (if required) the supporting website will be used:
<https://sites.google.com/site/osamamhr/>
- **Instructor:** Dr. Osama Rehman
osamahussain.bukc@bahria.edu.pk
Department of Software Engineering
Faculty Room 5, 1st Floor, Engineering Block

Course Information (Cont.)

- **Learning Objectives:** Goal of course is to teach students fundamentals of information security and their applications for achieving Confidentiality, Integrity and Availability of Information Systems.
- **Catalogue description:** The course is designed to provide concepts about types of security attack and learn methods to detect and prevent attack incidents. Several state-of-the-art cryptography techniques will also be covered along with their application as a central solution for securing information systems. The course would also touch several topics pertaining to several important security systems, such as Antiviruses, Firewalls, Intrusion detection/prevention systems and Honey Pots.

Course Information (Cont.)

• COURSE LEARNING OUTCOMES (CLOs):

CLO #	CLO Statement	Bloom's Taxonomy
CLO 1	Describe the fundamental concepts in information security, CIA triad, security attacks, security services, symmetric/asymmetric cryptography, security policies, security standards and their impact over modern software applications.	Knowledge (C1)
CLO 2	Explain the concepts and working mechanism of various methods available to protect existing systems, including modern operating and computing systems.	Comprehension (C2)
CLO 3	Solve a variety of numerical problems pertaining to modern information security mechanisms and techniques.	Application (C3)
CLO 4	Analyze security vulnerabilities, risks and security requirements.	Analysis (C4)
CLO 5	Investigate the application of information security solution in current and future technologies by evaluating recent literature.	Evaluation (C6)

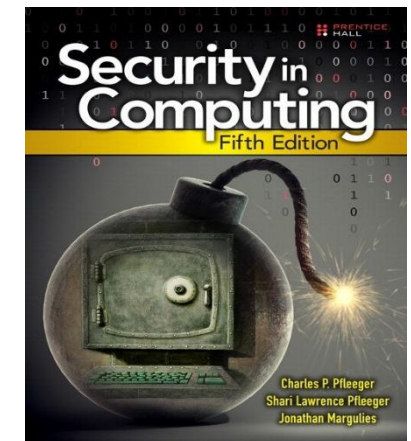
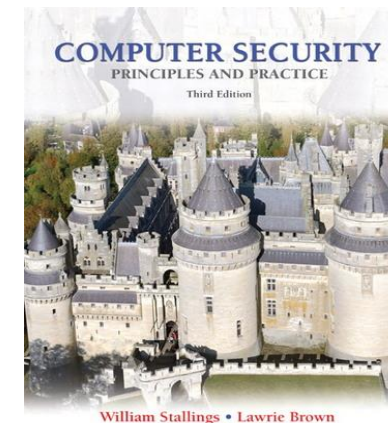
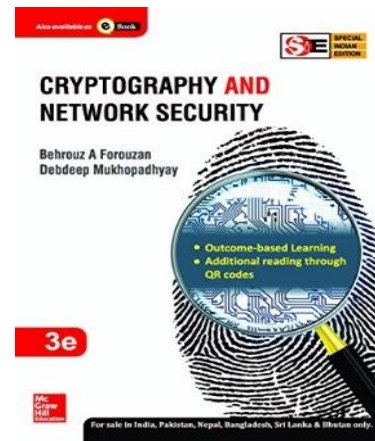
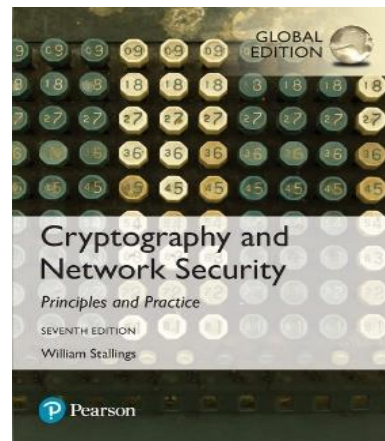
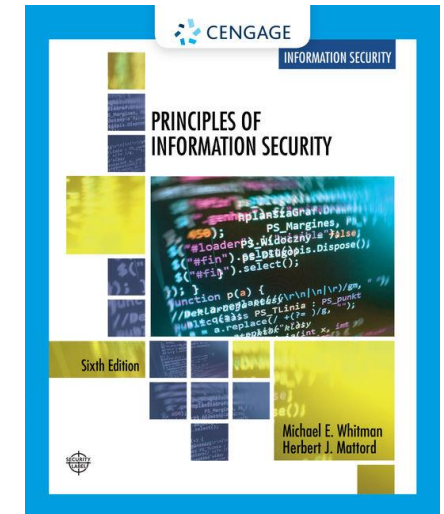
Course Information (Cont.)

• PROGRAM LEARNING OUTCOMES (PLOs):

PLO's	CLO's				
	CLO 1	CLO 2	CLO 3	CLO 4	CLO 5
PLO:1 (Engineering Knowledge)	✓	✓		✓	
PLO:2 (Engineering Problem Analysis)			✓		
PLO:3 (Designing and Development)					
PLO:4 (Investigation)					✓
PLO:5 (Modern tool usage)					
PLO:6 (Engineer and Society)					
PLO:7 (Environment and Sustainability)					
PLO:8 (Professionalism and Ethics)					
PLO:9 (Individual and Team Work)					
PLO:10 (Communication)					
PLO:11 (Project Management)					
PLO:12 (Lifelong Learning)					

Course Information (Cont.)

- **Textbook:** Principles of Information Security (6th Edition), Michael E. Whitman and Herbert J. Mattord, latest Edition, Cengage Learning.
- **Supplemental Materials:** Details are in Lesson Plan document.



Direct Evaluation Instruments

Theory	
Evaluation Instruments	Marks
Quizzes (3 Quizzes)	$(5 + 2.5 + 2.5) = 10$
Assignments (2 Written Assignments + 1 Special Task)	$5 + 5 + 10 = 20$
Mid-Term Exam	20
Final Exam	50
Total	100

Course Policies

- **Attendance**

1. Students should attend all classes and labs.
2. Attendance will be taken regularly.
3. Absence greater than the allowed threshold will result in students being barred from taking the Final Exam.
4. A total of **48** Hrs of theory lectures will be delivered in the semester.



Course Policies (Cont.)

- **Assignments**

1. Late assignments will not be accepted.
2. All assignments must be done independently, unless stated.
3. Plagiarism is strictly prohibited and students caught with plagiarism issue will be graded with **LOW or ZERO** marks.

Course Policies (Cont.)

- Lecture slides of the course will be provided to the students. However, the lecture slides provide limited information regarding the lectures.
- These outlines are not a substitute for class attendance and note taking. Therefore, **YOU SHOULD ATTEND CLASSES.**
- More importantly, these outlines are not a substitute for the textbook. Therefore, **YOU SHOULD STUDY FROM THE BOOK.**

Student Counseling

- Students are welcomed to approach the course instructor beyond the class hours and within the time slots defined for that.
- Students with special needs are entitled for extra attention and time beyond class timings. Such students are advised to approach the instructor personally for discussing their situations.
- Any kind of opportunity misuse will be investigated and dealt with according to BU regulations.
- **Note:** Information of this course is subject to revision as conditions may warrant.

Thank You!