Course Name	Computer Data Security & Privacy	Course Code	324 COMP - 3		

Credit Hours	3	Contact Hours	Theory	Lab	Total
			2	2	4

Offered as ☐ **University Requirement** ☐ **College Requirement** ☒ **Program Requirement** ☒ **Required** ☐ **Elective**

Offered in ☒ **BS - Computer Science** ☒ **BS – Information Systems** ☐ **BS - Computer & Network Engineering**

Level	7th Level	Prerequisite	NIL

Course Description:

This course provides an integrated, comprehensive and up-to-date coverage of topics in Computer Security. The list of topics covers the basics of Computer Security, Cryptographic Tools, User Authentication, Access Control, Malicious Software, Denial-of-Service Attacks, Intrusion Detection and Message authentication.

Course objectives:

- Discuss the basic concepts and goals of Information Security and explain their relevance in various contexts.
- Explain the fundamental principles of access control models and techniques, authentication and secure system design.
- Describe different cryptographic protocols and techniques, respective strengths, weaknesses, application and implementation techniques.
- Illustrate the methods and techniques to be applied for intrusion detection and prevention.
- Familiarize with various types of malicious software, attacks and their countermeasures for information security.

Grading	☒ **Exam 1**	10%	☒ **Exam 2**	10%	☒ **Assignment(s)**	20%
	☒ **Final Exam**	40%	☒ **Lab Exam**	20%	☐ **Mini Project**	-

Text Book:

W. Stallings, Computer Security: Principles and Practice, Pearson, 3rd Edition, 2014. ISBN-13: 978-0133773927

Reference Book:

- Security in Computing, Charles Pfleeger, Shari Lawrence Pfleeger & Jonathan Margulies, 2015, 5th edition, Prentice Hall, ISBN-13: 978-0134085043
- Elementary Information Security, Richard E. Smith, 2015, 2nd edition, Jones & Bartlet Learning, ISBN : 1284055930
- Computer Security: Art and Science, Matt Bishop, 2015, 1$_{st}$ edition, Addison-Wesley, ISBN-13: 978-013428951