

Course Title	Information Security		
Course Code	CC-312		
Credit Hours	3 (2,1)		
Category	Computing Core		
Prerequisite	None		
Co-Requisite	None		
Follow-up	None		
Course Introduction	This course provides a broad overview of the threats to the security of information systems, the responsibilities and basic tools for information security, and the levels of training and expertise needed in organizations to reach and maintain a state of acceptable security. It covers concepts and applications of system and data security. Areas of particular focus include secure network design, implementation and transition issues, and techniques for responding to security breaches.		
Course Learning Outcomes (CLOs)	At the end of the course, the students will be able to:	BT	PLO
	CLO1: Explain key concepts of information security such as design principles, cryptography, risk management, and ethics.	C2 (Explain)	1,2
	CLO2: Discuss legal, ethical, and professional issues in information security.	A2 (Discuss)	1,2
	CLO3: Apply various security and risk management tools for achieving information security and privacy.	C3 (Apply)	3,4,5
	CLO4: Identify appropriate techniques to tackle and solve problems in the discipline of information security.	C4 (Identify)	3,4,5
Course Description	Information security foundations, security design principles; security mechanisms, symmetric and asymmetric cryptography, encryption, hash functions, digital signatures, key management, authentication and access control; software security, vulnerabilities and protections, malware, database security; network security, firewalls, intrusion detection; security policies, policy formation and enforcement, risk assessment, cybercrime, law and ethics in information security, privacy and anonymity of data.		
Text Book(s)	1. M. Whitman and H. Mattord, Principles of Information Security, 6th edition.		
Reference Material	1. William Stallings, Computer Security: Principles and Practice, 3rd edition. 2. Dieter Gollmann, Computer Security, 3rd edition. 3. William Easttom, Computer Security Fundamentals, 3rd edition.		