



Programme	B.Sc. IT Honours (Cyber Security)			Branch	Computer Applications				
Semester	VI			Version	1.0.0.0				
Effective from Academic Year	2026-27			Effective for the batch Admitted in	June 2024				
Subject code	U66B4ISC	Subject Name			INFORMATION SECURITY COMPLIANCE MANAGEMENT				
Teaching scheme					Examination scheme(Marks)				
(Per week)	Lecture (DT)		Practical (Lab.)		Total	CCE	SEE	Total	
	L	TU	P	TW					
Credit	4	-	-	-	4	Theory	50	50	100
Hours	4	-	-	-	4				

Objective:

To understand information security compliance, legal frameworks, intellectual property rights, and professional ethics in cybersecurity.

Pre-requisites:

Basic knowledge of computer networks, cybersecurity fundamentals, and legal awareness.

Learning Outcome:

Name of CO	Description
CO1	To describe key concepts and importance of Information Security and ISMS.
CO2	To analyze ISMS implementation and audit processes.
CO3	To explain ISO/IEC 27001 structure and risk-based approach.
CO4	To interpret major compliance standards and data protection laws.
CO5	To understand IPR types and apply cybersecurity ethics.

Mapping of CO and PO:

COS	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	2	1	2	2	2	1	2	3	1	1
CO2	3	3	3	2	3	2	2	2	2	3	1	1
CO3	3	3	3	2	3	2	2	2	2	3	2	1
CO4	3	3	3	2	3	3	2	2	2	3	1	2
CO5	2	2	2	1	2	3	3	2	3	3	2	2

Content:

Unit	Content	Hrs.
1	Introduction to Information Security and ISMS: Critical Role of Information Security, Overview of Information Security Management System (ISMS), Principles of ISMS (CIA triad, layered security, least privilege), Classification of information and security policy types, Security governance models and frameworks (COBIT, NIST, ITIL), Introduction to compliance drivers (legal, regulatory, organizational)	12
2	ISMS Implementation and Auditing: Establishing security roles and responsibilities, Asset identification and classification, Operational controls and access management, Internal audit planning and execution, Security incident handling and response, Continual improvement and metrics for ISMS maturity	12
3	ISO/IEC 27001 and Risk-Based Compliance: ISO/IEC 27001 overview and significance, PDCA Model (Plan-Do-Check-Act), Risk assessment and risk treatment methodology, ISMS scope definition and context establishment, Core Clauses and Security Control Objectives of ISO/IEC 27001, Certification process and benefits for organizations	12
4	Compliance Standards and Data Protection Regulations: Industry-specific compliance mapping, Objective of HIPAA, Security rules of HIPAA, Requirement of PCI DSS, PTS(PIN Transaction Security), PA-DSS(Payment Application Data Security Standard), GDPR, FISMA, SOX, Data breach notification laws and incident disclosure requirements.	12

5	Intellectual Property Rights and Professional Ethics: Introduction to Intellectual Property Rights (IPR), Types of Intellectual Property, IPR Framework in India and Abroad, Professional Ethics in Cybersecurity, Codes of Ethics for Information Security Professionals (ISC2, ISACA).	12
Practical Content:		
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Reference Books:		
1	Information Systems Security: Security Management, Metrics, Frameworks and Best Practices by Nina Godbole, 1st Edition, Published by Wiley, 2008.	
2	Information Security Governance: Guidance for Information Security Managers by W. Krag Brotby, 1st Edition, Published by ISACA, 2009	
3	Information Technology -Security Techniques-Information Security Management Systems — Overview and Vocabulary (ISO/IEC 27000), Published by International Organization for Standardization (ISO), 2018.	
4	ISO27001 / ISO27002: A Pocket Guide by Alan Calder, 4th Edition, Published by IT Governance Publishing, 2016.	
Web Reference:		
1	https://www.eccouncil.org/cybersecurity-exchange/executive-management/what-is-information-security-management/	
2	https://www.edx.org/learn/cybersecurity/curtin-university-cybersecurity-and-privacy-in-the-iot	
3	https://onlinecourses.swayam2.ac.in/cec22_cs15/preview	
MOOC/Certificate Course:		
1	https://onlinecourses.swayam2.ac.in/ntr25_ed134/preview	
2	https://www.coursera.org/learn/cybersecurity-compliance-framework-standards-regulations	
3	https://onlinecourses.nptel.ac.in/noc23_cs127/preview	
Question Paper Scheme:		
<p>End Semester Examination Duration: (2 Hours Theory Examination)</p> <p>Note for Examiner: - Q-1 Any Five out of Seven (25 Marks) Q-2 Any Two out of Three (06 Marks) Q-3 Mandatory question (05 Marks) Q-4 Any Two out of Three (08 Marks) Q-5 Any Two out of Three (06 Marks)</p> <p>*The question paper must comprehensively address all Course Outcomes (COs), align with Bloom's Taxonomy levels, and ensure complete syllabus coverage.</p>		