

Branch Name:	CYBER SECURITY
Program Code:	ET207
Course Title:	Cyber Security: Audit and Compliance
Course Code:	2ET2070202T
Pre-requisite Course:	Fundamentals Of Cyber Security

Course Objectives: After successful completion of the course, student will be able to

1. Cyber security risk management guides a growing number of IT decisions.
2. Cyber securities risks continue to have critical impacts on overall IT risk modeling, assessment and mitigation.
3. The goal of this course is to teach students the risk management framework with both qualitative and quantitative assessment methods that concentrate on the information security (IS) aspect of IT risks.
4. The relationship between the IT risk and business value will be discussed through several industry case studies.
5. Provides an in-depth study of the rapidly changing and fascinating field of Audit

Teaching and Examination Scheme:

Credit	Teaching Scheme Hours per week				Evaluation Scheme (Marks)									Total (Marks)
					Theory (Marks)				Practical (Marks)					
	L	T	P	Total	SEE		CCA		SEE		CCA			
					Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.		
3	3	-	-	3	24	60	16	40	-	-	-	-	100	

Course Contents:

Unit No	Topics	Total Hours	Weight age (%)
1	IT Audit and Assurance Standards, Guidelines and Tools and Techniques, Code of Professional Ethics and other applicable standards. Risk assessment concepts and tools & techniques used in planning, examination, reporting and follow-up.	09	20
2	Fundamentals of business processes: Purchasing, Payroll, Accounts payable, accounts receivable, Role of IS in these processes. Control Principles related to controls in information systems	09	20
3	Risk-based audit planning and audit project management techniques. Applicable laws and regulations that affect the scope, evidence collection and preservation, and frequency of audits.	05	10

4	Evidence Collection Techniques: Observation, Inquiry, Inspection, Interview, Data Analysis, Forensic Investigation Techniques, Computer-assisted audit techniques [CAATs] used to gather, protect and preserve audit evidence. Sampling methodologies and substantive/data analytical procedures. Reporting and Communication techniques: Facilitation, Negotiation, Conflict Resolution, Audit report structure, issue writing, management summary, result verification. Audit Quality assurance (QA) systems and frameworks. Various types of audits: Internal, External, Financial, and methods for assessing and placing reliance on the work of other auditors and control entities.	15	35
5	Introduction to information auditing standards, ISO 27000, ISO 27001 implementation, GDPR, HIPPA, PCIDSS, process of auditing information systems, information security program development and incident management, Risk management and compliance, Introduction to Data privacy bill India PDPA. Audit WRT Forensics: investigating website hacking, Data Breach Investigation.	08	15

Text Books:

1. “Auditor’s Guide to IT Auditing” by Richard E. Cascarino.
2. “IT Audit, Control, and Security” by Robert R. Moeller

Reference Books:

1. IT Auditing Using Controls to Protect Information Assets, Third Edition by Mike Kegerreis, Mike Schiller, Chris Davis.
2. Auditing IT Infrastructures for Compliance (Information Systems Security & Assurance) by Martin Weiss, Michael G. Solomon
3. “The Information Audit: A Practical Guide”, Susan Henczel, Information Services Management Series.
4. IT Security Risk Control Management – An Audit Preparation Plan by Raymond Pompon – Apress

Course Learning Outcomes (CLO):

Course Outcomes	Description	Bloom’s Taxonomy Level
COL1	Design information security risk management framework.	Understanding (2) Applying (3)
COL2	Design information security risk management methodologies	Applying (3)
COL3	Identify and modeling information security risks	Applying (3)
COL4	Judge the difference between qualitative and quantitative risk assessment methods	Applying (3)
COL5	Articulate information security risks as business consequences	Applying (3)

Mapping of CLO with PO and PSO

Course Learning Outcomes	Program Outcomes (POs)												Program Specific Outcomes(PSOs)			
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
CLO1	H	M	M		M											
CLO2	H	M			M							L				

CLO3	H	M	M		M										
CLO4	M	M	M		M							L			
CLO5	M	M										L			

H: High, M: Medium, L: Low