

Branch Name:	CYBER SECURITY
Program Code:	ET207
Course Title:	Cyber Security: Audit and Compliance Practical
Course Code:	2ET2070202P
Pre-requisite Course:	Cyber Security Fundamental.

Course Objectives:

Describe the process of IT auditing and assurance including ethical and reporting dimensions and assist established professionals in planning and executing such engagements.

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.	
1	-	-	2	2	-	-	-	-	10	25	10	25	50

Course Contents:

Unit	Details	Contact Hours
1	To audit the c/c++ or Python code using RATS code checking tool.	2
2	Implement Flawfinder stand-alone script to check for calls to know potentially vulnerable library function calls.	2
3	Implement FindBugs standalone GUI application, or Eclipse plugin for loading custom rules set.	2
4	Implement pychecker stand-alone script to find bugs in the code.	2
5	Installation of splunk and study basic working as to stores data in its index and therefore separate database required	2
6	Implement splunk to discovers useful information automatically without searching manually	2
7	Implement splunk to converts log data into Visual graphs and reports to simplify analysis, reporting and troubleshooting	2
8	Submit a report on cyber security risk assessment for SCADA and DCS networks.	4
9	Case Study: Audit Small company and prepare a report.	6
10	Refine a new framework for audit.	6

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 Outcomes:

At the end of the course, students will be able to:

Course Outcomes	Description	Bloom’s Taxonomy Level
CO1	Reduce the possibility of fraud and errors.	Understanding (2)
CO2	Improve efficiency in business operations.	Understanding (2)
CO3	Find out the loopholes in the system.	Applying (3)
CO4	Identify risky areas in the system security, so management can do their planning before any incident.	Applying (3)

Mapping of CLO with PO and PSO

Course Learning Outcomes	Program Outcomes (POs)												Program Specific Outcomes(PSOs)			
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2	PS O3	PS O4
CLO1	H	M	M		M											
CLO2	H	M			M							L				
CLO3	H	M	M		M											
CLO4	M	M	M		M							L				

H: High, M: Medium, L: Low