



SYNERGY SCHOOL OF ENGINEERING, DHENKANAL
DEPARTMENT OF COMPUTER SCIENCE ENGINEERING

LESSON PLAN

Discipline: Computer Science & Engineering	Semester: 4 th Session:	Name of the Teaching Faculty : AUROBINDAGOOCHHAYAT
		Subject Code: Th5
Subject: Information Security	No. Of Days/Week Class Allotted: 3	Semester From Date: 22/12/25 To Date: 18/04/26
		No. Of Weeks: 15
Week	Class Day	Theory/Practical Topics
1st	1st	Introduction to Information Security
	2nd	Importance of Information Security
	3rd	CIA Triad (Confidentiality, Integrity, Availability)
2nd	1st	Types of Security Threats
	2nd	Malware, Hacking, Phishing
	3rd	DoS and DDoS Attacks
3rd	1st	Security Attacks Classification
	2nd	Security Policies & Best Practices
	3rd	Risk Management Basics
4th	1st	Risk Assessment & Mitigation
	2nd	Security Standards (ISO/IEC 27001)
	3rd	NIST Security Framework
5th	1st	Revision – Unit I
	2nd	Introduction to Cryptography
	3rd	Symmetric Cryptography
6th	1st	DES Algorithm
	2nd	AES Algorithm
	3rd	Asymmetric Cryptography
7th	1st	RSA Algorithm
	2nd	Elliptic Curve Cryptography (ECC)
	3rd	Hash Functions

8th	1st	Digital Signatures
	2nd	Public Key Infrastructure (PKI)
	3rd	SSL/TLS Protocol
9th	1st	Revision – Unit II
	2nd	Introduction to Network Security
	3rd	Firewalls – Types & Configuration
10th	1st	Intrusion Detection System (IDS)
	2nd	Intrusion Prevention System (IPS)
	3rd	Virtual Private Network (VPN)
11th	1st	Network Security Protocols (IPsec, HTTPS)
	2nd	Network Vulnerabilities & Defense
	3rd	Revision – Unit III
12th	1st	OS Security: Authentication
	2nd	Access Control Models
	3rd	File System Security
13th	1st	OS Security Hardening
	2nd	Patch Management
	3rd	Security Auditing & Monitoring
14th	1st	Web Security: SQL Injection
	2nd	XSS & CSRF Attacks
	3rd	Secure Web Development Practices
15th	1st	WAF, OWASP & Penetration Testing
	2nd	Security Policies, BCP & DRP
	3rd	Incident Response, Legal & Ethical Issues + Revision

Prepared By: *Aurabind Gochhayat*
20/12/25

How:
Comp. Science & Engg. Dept.
SSE, Dhankar
Verified By: *Suresh*
20/12/25