

GANESH INSTITUTE OF ENGINEERING AND TECHNOLOGY, POLYTECHNIC

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

NAME- RANJITA NAIK

LESSON PLAN CUM PROGRESS REPORT

SUBJECT: INFORMATION SECURITY

SEMESTER: 4TH

BRANCH: COMPUTER SC. & ENGINEERING

LECTURE NO.	CO	BTL	TOPIC TO BE COVERED	WEB REFERENCE IF ANY	PLAN DATE	ACTION DATE	REVIEW BY HOD
1	CO1	1	Introduction to Information Security: Definition of Information Security	https://www.youtube.com/watch?v=lrRzNqTrfiA	22.12.25		
2	CO1	1	Importance of Information Security in the digital age	https://www.youtube.com/watch?v=Hv4422c-x3U	23.12.25		
3	CO1	1	Key principles of Information Security: Confidentiality, Integrity, and Availability (CIA Triad)	https://www.youtube.com/watch?v=PR96L-gCQd8	24.12.25		
4	CO1	2	Types of security threats and attacks (e.g., malware, hacking, phishing, DoS),	https://www.youtube.com/watch?v=tjpW45fOxp8	29.12.25		
5	CO1	2	Security policies and best practices, Risk management and mitigation strategies, Overview of security standards (ISO/IEC 27001, NIST)	https://www.youtube.com/watch?v=0CrOeRh9DFU https://www.youtube.com/watch?v=x792wXSeAhA	30.12.25		
6	CO2	3	Cryptography: Introduction to Cryptography and its importance in information security	https://www.youtube.com/watch?v=trHox1bN5es	31.12.25		
7	CO2	3	Symmetric vs Asymmetric cryptography	https://www.youtube.com/watch?v=o_g-M7UBql8	05.01.26		
8	CO2	3	Common cryptographic algorithms: DES, AES, RSA, ECC,	https://www.youtube.com/watch?v=8B1rN1rnTiU	06.01.26		
9	CO2	2	Common cryptographic algorithms: DES, AES, RSA, ECC,	https://www.youtube.com/watch?v=o-MZgVJP-rl	07.01.26		
10	CO2	2	Hashing functions and digital signatures	https://www.youtube.com/watch?v=BuhWRY4hkpY	12.01.26		

11	C02	1	Public Key Infrastructure (PKI), Certificates and encryption protocols (SSL/TLS)	https://www.youtube.com/watch?v=y72Udn5uJZk https://www.youtube.com/watch?v=l43NnHTeACK	13.01.26		
12	C03	1	Network Security: Protecting data during transmission and network-based attacks	https://www.youtube.com/watch?v=7HrmOk8l4r0	19.01.26		
13	C03	1	Firewalls: Types and configuration, Intrusion Detection Systems (IDS) and Intrusion Prevention Systems (IPS),	https://www.youtube.com/watch?v=uL5UY8jGUcw	20.01.26		
14	C03	2	Firewalls: Types and configuration, Intrusion Detection Systems (IDS) and Intrusion Prevention Systems (IPS),	https://www.youtube.com/watch?v=4qnWA3-vOwc	21.01.26		
15	C03	1	Intrusion Prevention Systems (IPS), Virtual Private Networks (VPNs)	https://www.youtube.com/watch?v=JFXBjIT5cGU	27.01.26		
16	C03	2	Network Security Protocols: IPsec, SSL/TLS, HTTPS, Network vulnerabilities and defense techniques	https://www.youtube.com/watch?v=G9Px24hHIUA	28.01.26		
17	C03	1	Network Security Protocols: IPsec, SSL/TLS, HTTPS, Network vulnerabilities and defense techniques	https://www.youtube.com/watch?v=G9Px24hHIUA	02.02.26		
18	C03	2	Network Security Protocols: IPsec, SSL/TLS, HTTPS, Network vulnerabilities and defense techniques	https://www.youtube.com/watch?v=G9Px24hHIUA	03.02.26		
19	C04	1	Security in Operating Systems: User authentication and access control (e.g., passwords, biometrics),	https://www.youtube.com/watch?v=FCBININE10w	04.02.26		
20	C04	3	Security in Operating Systems: User authentication and access control (e.g., passwords, biometrics),	https://www.youtube.com/watch?v=FCBININE10w	09.02.26		
21	C04	1	File system security and encryption	https://www.youtube.com/watch?v=6fEfs4wxwBo	10.02.26		
22	C04	2	File system security and encryption	https://www.youtube.com/watch?v=DKb7KhfoZmU	11.02.26		
23	C04	1	File system security and encryption	https://www.youtube.com/watch?v=DKb7KhfoZmU	16.02.26		
24	C04	2	OS security hardening techniques	https://www.youtube.com/watch?v=vec9tvljeR8	17.02.26		
25	C04	1	OS security hardening techniques	https://www.youtube.com/watch?v=XuAdstdcEqc	18.02.26		

26	C04	2	Patch management and updates	https://www.youtube.com/watch?v=NvOwsO-GtiM	23.02.26		
27	C04	1	Security auditing and monitoring	https://www.youtube.com/watch?v=u6VNmWzunP4	24.02.26		
28	C05	2	Web Security: Common web security threats (SQL injection, XSS, CSRF, etc.),	https://www.youtube.com/watch?v=uzT7idSzOgl	25.02.26		
29	C05	2	Secure Web Application Development Practices	https://www.youtube.com/watch?v=XYoPn7-FSHs	02.03.26		
30	C05	1	Secure HTTP headers and cookies management,	https://www.youtube.com/watch?v=SBorl54Sr1w	09.03.26		
31	C05	3	Secure HTTP headers and cookies management,	https://www.youtube.com/watch?v=rdVPfIECed8	10.03.26		
32	C05	2	Web application firewalls (WAF), Website security tools and testing (e.g., OWASP, penetration testing)	https://www.youtube.com/watch?v=eoHqMAh30rA	11.03.26		
33	C05	3	Web application firewalls (WAF), Website security tools and testing (e.g., OWASP, penetration testing)	https://www.youtube.com/watch?v=SW6AE76Pi50	16.03.26		
34	C06	3	Security Policies and Incident Response: Designing security policies (access control, data protection),	https://www.youtube.com/watch?v=cMOWZkYVleg	17.03.26		
35	C06	3	Security Policies and Incident Response: Designing security policies (access control, data protection),	https://www.youtube.com/watch?v=mqwPa-fghp8&t=109s	18.03.26		
36	C06	3	Security Policies and Incident Response: Designing security policies (access control, data protection),	https://www.youtube.com/watch?v=mqwPa-fghp8&t=109s	23.03.26		
37	C06	1	Business Continuity Planning (BCP) and Disaster Recovery Planning (DRP)	https://www.youtube.com/watch?v=o0xj1JKjJOE	24.03.26		
38	C06	2	Business Continuity Planning (BCP) and Disaster Recovery Planning (DRP)	https://www.youtube.com/watch?v=o0xj1JKjJOE	25.03.26		

39	CO6	3	Business Continuity Planning (BCP) and Disaster Recovery Planning (DRP)	https://www.youtube.com/watch?v=o0xj1JKjjOE	30.03.26		
40	CO6	3	Incident response lifecycle (identification, containment, eradication, recovery)	https://www.youtube.com/watch?v=rxn3GVmOX9A	01.04.26		
41	CO6	1	Incident response lifecycle (identification, containment, eradication, recovery), Forensics and evidence gathering	https://www.youtube.com/watch?v=rxn3GVmOX9A	06.04.26		
42	CO6	1	Forensics and evidence gathering	https://www.youtube.com/watch?v=c1Z58SKwFzA	07.04.26		
43	CO6	1	Legal and ethical considerations in information security	https://www.youtube.com/watch?v=iaFNHHt17ss	08.04.26		
44	CO6	2	Legal and ethical considerations in information security	https://www.youtube.com/watch?v=iaFNHHt17ss	08.04.26		
45	CO6	1	Legal and ethical considerations in information security	https://www.youtube.com/watch?v=iaFNHHt17ss	09.04.26		

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