	School/ Department: Computer Science and Engineering
THE NORTHCAP UNIVERSITY	Class: B Tech CSE Jan-June 2025
	Subject Name: Cyber Security
	Subject Code: CSL422
	Faculty Name: Dr. Garima Sharma

DELIVERY PLAN:

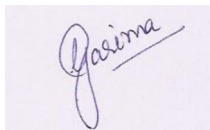| Unit	(Theory+Practical) Hours	Unit	Hours
1. Introduction to Cyber Security	4+2=6	4. Gaining and Maintaining Access	20+16=28
2. Information Gathering	6+4=8	5. Post Exploitation & Web application attacks	7+4= 19
3. Scanning & its Types	8+4=14		
Total Hrs.			45+30=75

Detailed Syllabus (Lesson Plan)

Sr. No.	Lecture/practical	Week No.	Topic	Source of Content	Type of content (Slides, Handwritten notes, Sample problems and practice problems, assignments, Quizzes, FAQs)
			UNIT-1		
1	L-1	1	Introduction to course (Flow of the course, evaluation process, LMS and Rubrics) and introduction to Cyber security	NCU	**SLIDES WITH VIDEO(NPTEL)**
2	L-2	1	Introduction to Information security	NCU	**SLIDES WITH VIDEO (NPTEL)**
3	L-3	1	Network Terminologies, Introduction to network, Network Protocols, IP address	NCU	**SLIDES WITH VIDEO (NPTEL)**

4	P-1	1	VMWare and Kali Installation.		
5	L-4	2	IP subnet, classes, NAT, DHCP Server, Types of networks, Ports, Proxy Servers	NCU	SLIDES WITH VIDEO (INFOSEC TRAIN)
	KNOWLEDGE CHECK/QUIZ			NCU	QUIZ
UNIT-2					
6	L-5	2	Information gathering Tools	NCU	SLIDES WITH VIDEO(NPTEL)
7	L-6	2	Information gathering Tools (Contd..)	NCU	SLIDES WITH VIDEO(NPTEL)
8	P-2	2	Perform reconnaissance to find all the relevant information on selected website using 10 network information gathering tools.		
9	L-7	3	Introduction to VAPT	NCU	SLIDES WITH VIDEO (INFOSEC TRAIN)
10	L-8	3	Information Gathering Methods (Kali)	NCU	SLIDES WITH VIDEO(NPTEL)
11	L-9	3	Information Gathering Methods (Kali)	NCU	SLIDES WITH VIDEO(NPTEL)
12	L-10	4	Google Dorks	NCU	SLIDES WITH VIDEO(SIMPLILEARN) + CHEATSHEET(SANS.ORG)
13	P-3	3	Gather information using Social Networking sites and google Dorks		
	KNOWLEDGE CHECK/QUIZ			NCU	QUIZ
UNIT-3					
14	L-11	4	Scanning	NCU	SLIDES
15	L-12	4	NMAP	NCU	SLIDES WITH VIDEO HACKERSPLOIT
16	L-13	5	NMAP	NCU	CHEATSHEET
17	L-14	5	Zenmap	NCU	SLIDES WITH VIDEO(QUIDSUP)

18	P-4	4	Perform active reconnaissance using AngryIPScanner, Softperfect Network Scanner, Cain&Able. Perform Network Scanning using NMAP in windows and ZENMAP in kali Linux		
19	L-15	5	Vulnerability Scanning	NCU	SLIDES WITH VIDEO (HACKERSPLOIT)
20	P-5	5	Use Nessus tool to find all the vulnerabilities with its level and generate a report for an organization		
21	L-16	6	NIKTO Vulnerability Scanning	NCU	SLIDES WITH VIDEO (HACKERSPLOIT)
22	L-17	6	Network Scanning	NCU	SLIDES
23	L-18	6	Wireshark_ Network Scanning	NCU	SLIDES WITH VIDEO (HACKERSPLOIT)
KNOWLEDGE CHECK/QUIZ				NCU	QUIZ
UNIT – 4					
24	L-19	7	Gaining Access	NCU	SLIDES
25	L-20	7	Gaining Access	NCU	SLIDES
26	P-6	6	Install Wireshark and apply filters to gather different information Find the link accessed by the victim using Wireshark		
27	L-21	7	Login Bypass Windows	NCU	Slides
28	L-22	8	John the Ripper	NCU	SLIDES WITH VIDEO (HACKERSPLOIT)
29	L-23	8	Login Bypass Linux	NCU	Slides
30	L-24	8	Login Bypass MAC	NCU	Slides WITH VIDEO (SAFE SECURITY.INC)
31	P-7	7	Perform Session hijacking/ find credentials of unsecure real time website using Wireshark		
32	L-25	9	HYDRA:PASSWORD CRACKING TOOL	NCU	Slides

33	L-26	9	Introduction to Malware &types	NCU	SLIDES WITH VIDEO (KASPERSKY)
34	L-27	9	Trojan Practical	NCU	SLIDES WITH VIDEO(KACKERSOFTCLUB)
35	P-8	8	Generate Word list from using wordlist generator ZAP		
	KNOWLEDGE CHECK/QUIZ			NCU	QUIZ
36	L-28	10	Keyloggers	NCU	SLIDES WITH VIDEOS
37	L-29	10	Linux Commands	NCU	SLIDES WITH VIDEO(TRAVIS MEDIA)
38	P-9	9	Create Trojan and Exploit victim's machine by taking its complete access		
39	L-30	10	Crunch Tool	NCU	SLIDES
40	P-10	10	Track keystrokes of victim machine using Ardamax Keylogger		
41	L-31	11	Metasploit	NCU	SLIDES
42	L-32	11	Exploit Metasploitable 2	NCU	SLIDES WITH VIDEO
43	L-33	11	Exploit Metasploitable 2	NCU	SLIDES WITH VIDEO
44	P-11	11	Execute basic commands of Linux Use CHMOD command to change the privileges and permissions		
45	L-34	12	Exploit Windows 7 using Metasploit	NCU	SLIDES
46	L-35	12	Internal Blue Exploit Using Metasploit	NCU	SLIDES

47	L-36	12	PDF Exploit Using Metasploit	NCU	SLIDES
48	P-12	12	Perform Kali Linux Login Bypass in virtual machine		
49	L-37	13	KIMI Exploit using Metasploit	NCU	SLIDES
50	L-38	13	Armitage Exploit using Metasploit	NCU	SLIDES
51	P-13	13	Exploit windows to gain access of victim's machine using Metasploit framework		
			UNIT-5		
52	L-39	13	Maintaining Access	NCU	SLIDES
53	L-40	14	Maintaining Access: Persistent Backdoor	NCU	SLIDES
54	L-41	14	Covering Tracks	NCU	SLIDES
55	L-42	14	CLASS TEST		
56	P-14	14	Perform steps to remove the tracks in windows and kali Linux		
57	L-43	15	Capture The Flag	NCU	SLIDES
58	L-44	15	Capture The Flag	NCU	SLIDES
59	L-45	15	Capture The Flag	NCU	SLIDES
60	P-15	15	Solve any one problem on any platform like tryhack.com/ End Term Viva		

Garima

Course Coordinator's Signature …………….