

GANPAT UNIVERSITY										
FACULTY OF ENGINEERING & TECHNOLOGY										
Programme	Bachelor of Technology					Branch/Spe c.	Computer Science & Engineering (CS)			
Semester	VI					Version	1.0.0.0			
Effective from Academic Year			2022-23			Effective for the batch Admitted in			June 2021	
Subject code	2CSE60E26		Subject Name			ETHICAL HACKING				
Teaching scheme					Examination scheme (Marks)					
(Per week)	Lecture(DT)		Practical(Lab.)		Total		CE	SEE	Total	
	L	TU	P	TW						
Credit	0	0	2	0	2	Theory	00	00	00	
Hours	0	0	4	0	4	Practical	60	40	100	
Pre-requisites:										
Computer Network, Basic Linux Command										
Learning Outcome:										
After Successful completion of the course, students will be able to:										
<ul style="list-style-type: none"> • Understand the different ethical hacking techniques • Discover the vulnerabilities, loophole on web server and system • Apply the knowledge of ethical hacking to perform live attacks • Prepare VAPT report of the attacks 										
Practicals are defined based on the following topics										
Sr. No.	Content									
1	An Introduction to Ethical Hacking : Security Fundamental, Security testing, Hacker and Cracker, Test Plans-keeping It Legal, Ethical and Legality									
2	The Technical Foundations of Hacking: The Attacker's Process, The Ethical Hacker's Process, Security and the Stack									
3	Footprinting and Scanning : Information Gathering, Determining the Network Range, Identifying Active Machines, Finding Open Ports and Access Points, OS Fingerprinting Services, Mapping the Network Attack Surface									
4	Vulnerability Assessment and Penetration Testing: Need of vulnerability assessment, risk Prevention, Compliance requirement.									
5	Enumeration and System Hacking : Enumeration, System Hacking, Denial of Service and Distributed Denial of Service, Sniffers.									
6	Malware Threats : Viruses and Worms, Trojans, Covert Communication, Keystroke Logging and Spyware, Malware Counter measures									
7	Sniffers, Session Hijacking, and Denial of Service: Sniffers, Session Hijacking, Denial of Service, and Distributed Denial of Service									
8	Web Server Hacking, Web Applications, Database Attacks: Web Server Hacking, Web Application Hacking, Database Hacking , Session Hijacking,									
9	Wireless Technologies, Mobile Security and Attacks : Wireless Technologies, Mobile Device Operation and Security, Wireless LANs, vulnerability assessment and penetration testing									
10	IDS, Firewalls and Honeypots : Intrusion Detection Systems, Firewalls, Honeypots									

Suggested Practical List													
Practical contents will be based on following concepts: System based attacks, Web server and web page attacks, Malware Design, Mobile VAPT													
Text Books													
1	Certified Ethical Hacker Michael Gregg, Pearson IT Certification												
2	Hacking the Hacker, Roger Grimes, Wiley												
3	Learn Ethical Hacking from Scratch: Your stepping stone to penetration testing <u>Zaid Sabih</u> by Packt Publishing Ltd.												
4	Learning Nessus for Penetration Testing By Himanshu Kumar, PACKT publication												
Reference Books													
1	Ethical Hacking and Penetration Testing Guide <u>Rafay Baloch</u> by CRC Press												
Mooc Course													
https://nptel.ac.in/courses/106/105/106105217/													
Course Outcomes:													
Cos	Description												
CO1	Understand the different ethical hacking techniques												
CO2	Discover the vulnerabilities, loophole on web server and system												
CO3	Apply the knowledge of ethical hacking to perform live attacks												
CO4	Prepare VAPT report of the attacks												
Mapping of CO and PO:													
Cos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	
CO1	3	3	3	1	1	2	3	3	3	2	2	0	
CO2	3	3	3	1	1	2	3	3	2	2	2	0	
CO3	3	3	2	2	2	3	3	3	3	3	3	2	
CO4	3	2	2	2	3	2	2	2	3	3	3	1	