

## SYLLABUS

B.Tech. III Year II Sem

CY3201PC: ETHICAL HACKING

III-II:CSE(CS)								
Course Code	Category	Hours/Week			Credits	Max Marks		
CY3201PC	core	L	T	P	C	CIE	SEE	Total
		3	0	0		3	25	75
Contact Classes:45	Tutorial classes:15	Practical classes: Nill			Total Classes:60			
Prerequisites								

### Course Objectives:

- Explain the objectives of ethical hacking
- Understand various password attacks.
- Discuss the fundamental ideas of database attacks.

### Course Outcomes:

- Student will be able to understand basic ethical hacking terminology.
- Ability to identify type of attack.
- Ability to understand the ways to secure password and databases.

### UNIT-I

Ethical Hacking Overview, Hacking Life Cycle, Legal Issues in Ethical Hacking, Hacking Terminology, Gathering Facts, CP/IP Concepts Review, Network and Computer Attacks

### UNIT-II

Network Enumeration and Foot Printing- DNS Query, WHOIS Query, OS Finger Printing, Banner Grabbing, CERT-In Guidelines :CERT-In Guideline for Securing Wireless Access Points/Routers, Credit Card, Email, Web Server Security, Auditing and Logging, Securing Home Computers, SQL Server Security, Linux and Windows Server security, IDS - Intrusion Detection System, Anti Virus Policy

### UNIT-III

Programming For Security Professionals- Web Application Vulnerabilities, Buffer Overflow Attack, Session Hijacking, Code Injection Attacks-Cross Site Scripting (CSS) Attack, SQL injection Attack.

Required Lab goals: Basics of Ethical Hacking, Gathering Information Required in Order to Attack Target, Finding Critical Bugs in Servers.

#### **UNIT-IV**

Password Hacking, Windows Hacking, Logging by Pass, Network Hacking, and Anonymity and Email Hacking. Web Servers Hacking, Session Hijacking, Surveillance, Desktop, Server and OS Vulnerabilities, Required Lab. Goals: Methods of Password Encryption and Decryption learn to remain anonymous over the Internet.

#### **UNIT-V**

Database Attacks, Hacking Wireless Networks, Cryptography, Network Protection Systems, Trojan and Backdoor Applications, Legal Resources, Virtualization and Ethical Hacking. Required Lab Goals: ways to maintain access to a system using Trojan and backdoor, attacking database server and wireless networks

#### **REFERENCE BOOKS:**

1. Stuart McClure Joel Scambray, Solutions, George Kurtz -Hacking Exposed— Network Security Secrets & solutions.
2. Ethical Hacking and Network Defence, Michael T. Simpson, Kent Backman, James Corley