

JADAVPUR UNIVERSITY
COMPUTER AIDED DESIGN CENTRE
Faculty Council of Engineering and Technology
Kolkata - 700 032

**Certificate Course on
Ethical Hacking and Penetration Testing**

Scope

Ethical Hacking is also called Penetration Testing. It is an act of intruding/ penetrating into the system or network to discover threats and vulnerabilities which a hacker may find and exploit leading to loss of data, money, reputation, etc. The purpose of ethical hacking is to tighten the security in the system by solving the vulnerabilities found. Ethical hacker's modus operandi is the same as the criminal hackers but with the permission of the authorities. Students completing the course has the scope to find employment as penetration tester in IT dept. of MNC, Banks, police cyber cells, software development companies, etc.

The topics include vulnerability assessment and penetration testing using latest tools and techniques.

Course Duration: 32 hrs.

Eligibility: Higher Secondary with basic knowledge of computer hardware & network
Participants must have mobile devices running Android 4.0.3 or above;
laptop/desktop computer with Windows; and stable internet connectivity. Google Meet should be preinstalled the mobile device.

Course Content

Sl. No.	Topic	Theory hours	Practical hours	Total No. of hours
1	<ul style="list-style-type: none">• Introduction to Ethical Hacking• Legality and Ethics• Networking & Basics• Foot Printing• Google Hacking• Scanning• Enumeration• Sniffing	1	1	2
2	<ul style="list-style-type: none">• MiTM	1	1	2
3	<ul style="list-style-type: none">• System Hacking	1	1	2

4	<ul style="list-style-type: none"> Metasploit 	1	1	2
5	<ul style="list-style-type: none"> Privilege Escalation 	1	1	2
6	<ul style="list-style-type: none"> Steganography 	1	1	2
7	<ul style="list-style-type: none"> Denial of Service Attack IDS 	1	1	2
8	<ul style="list-style-type: none"> Malware and RAT 	1	1	2
9	<ul style="list-style-type: none"> WiFi Hacking 	1	1	2
10	<ul style="list-style-type: none"> Web Application Scanning 	1	1	2
11	<ul style="list-style-type: none"> SQL Injection / Database Hacking 	1	1	2
12	<ul style="list-style-type: none"> XSS / Cross Site Scripting 	1	1	2
13	<ul style="list-style-type: none"> CSRF File inclusion Session Hijacking 	1	1	2
14	<ul style="list-style-type: none"> Phishing Attack Social Engineering Tool kit for SE audit 	1	1	2
15	<ul style="list-style-type: none"> Cryptography 	1	1	2
16	<ul style="list-style-type: none"> Covering Tracks IP Spoofing Email Spoofing MAC spoofing 	1	1	2
	Total	16	16	32

Doubt Clearing Session: *One extra session for 2hours at the end of the course.*

Certificate: Completion certificate (in printed form) will be provided at the end of the course.