

Jadavpur University
Computer Aided Design Centre
Faculty Council of Engineering and Technology
Kolkata-700032

Certificate Course on
Ethical Hacking using Python

Scope: Python is the most frequently used programming language in information security. In this course we shall cover basics of Python programming towards application of various information security topics using Python programming (100% Hands-on practical coverage).

Course Duration: 42 hrs

Class Duration: Theory Sessions: 2 hrs each; Practical Sessions: 2 hrs each

Eligibility: Higher Secondary or Equivalent (H.S. appeared candidates can also apply)
 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:

SI. No	Topic	Theory	Practical	Total Class
1	Basic of Python Programming-I Installation to Python (Include Anaconda Distribution) Basic Data Types Variables Functions Boolean Operations File Concept	1	1	2
2	Basic of Python Programming-II String Operations Concept of Loop(While, if , If, For , Elif , else) Concept of Dictionary Concept of List Concept of Tuple Comparison Operator Lambda Expression Array in Depth Study	1	1	2
3	Numerical Python Numpy Essentials Numpy Essentials - II Arrays, Built - in Method Slicing, Broad Cast , Boolean Arithmetic Operations Universal Functions Exercise	1	1	2

4	Concept of Linux Terminal & Command	N/A	1	1
5	Writing a MAC Address Changer	N/A	1	1
6	MAC Changer Algorithm Design	N/A	1	1
7	Mini Project	N/A	1	1
8	Programming a Network Scanner	N/A	1	1
9	Writing ARP Spoofer	N/A	1	1
10	Write a Packet Sniffer	N/A	1	1
11	Write a DNS Spofer	N/A	1	1
12	Write File Interpreter	N/A	1	1
13	Write Code Injector	N/A	1	1
14	By Pass HTTPS	N/A	1	1
15	Write Malware	N/A	1	1
16	Malware Keylogger	N/A	1	1
17	Malware Backdoor	N/A	1	1
18	Vulnerability Scanner	N/A	1	1

Doubt Clearing Session: One Session for 1 hr at the end of the course

Final Project Submission: One-day demonstration of project work

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