



CONTENT FOR ADVANCED COURSE



TABLE OF CONTENTS

I. BASIC NETWORKING

SESSION NO

<i>What is Networking & Internet?</i>	1
<i>OSI Reference Model</i>	2
<i>Layer 1 - Physical</i>	3
<i>Layer 2 - Data Link</i>	4
<i>Layer 3 - Network</i>	5
<i>NAT & Subnetting</i>	6
<i>Cisco Packet Tracer</i>	7
<i>Cisco Advanced</i>	8
<i>Layer 4 - Transport and TCP/UDP</i>	9

II. LINUX BASICS

<i>Linux and Unix</i>	10
<i>VM and Hypervisors</i>	11
<i>Kali Installation and AWS</i>	12
<i>Kali Commands - Basic</i>	13
<i>Kali Commands - Advanced</i>	14
<i>Linux Filesystem</i>	15
<i>Bandit Over The Wire</i>	16

III. INFORMATION GATHERING

<i>Types of Info Gathering Methods</i>	17
<i>Web Based Info Gathering</i>	18
<i>P2P Based Reconnaissance</i>	19

TABLE OF CONTENTS

<i>System Port Scanning</i>	20
<i>Packet Sniffing - Wireshark</i>	21
<i>Other Important Techniques</i>	22
IV. NETWORK SECURITY	
<i>HTTP and HTTPS</i>	23
<i>Requests and Responses</i>	24
V. SYSTEM HACKING	
<i>MetaSploit Introduction</i>	25
<i>MSF2 Practice Lab</i>	26
<i>Windows Hacking</i>	27
<i>Android Hacking</i>	28
<i>Privilege Escalation</i>	29
<i>Post Exploitation</i>	30
VI. CRYPTOGRAPHY	
<i>Basics of Cryptography & CIA Triad</i>	31
<i>Symmetric & Asymmetric</i>	32
<i>Deffie Hellman & ECDSA</i>	33
<i>Hashing, Salting and BCrypt</i>	34
<i>Cracking Passwords with Hashcat</i>	35
VII. STEGANOGRAPHY	
<i>Hiding Data inside Files</i>	36
<i>Practical Tools and Working</i>	37

TABLE OF CONTENTS

VIII. DIGITAL FORENSICS

<i>Digital Forensics Incidents</i>	38
<i>Disk Storage & Investigative Process</i>	39
<i>Analysis Tools, Digital Acquisition & Examination Protocols</i>	40

IX. REVERSE ENGINEERING

<i>C/C++ Based EXE Files Examination</i>	41
<i>Other Executable Files Inspection</i>	42
<i>Reversing Android Application</i>	43
<i>Tools and Practice Labs</i>	44

X. SOCIAL MEDIA ENGINEERING

<i>Phishing and types</i>	45
<i>Intro to SET and other Tools</i>	46
<i>Location Tracking & Camera Hacking</i>	47
<i>Fake Links & Homo-glyph Attack</i>	48
<i>Wifi Hacking using Phishing</i>	49

XI. WIRELESS HACKING

<i>Wireless Security Algorithms</i>	50
<i>Wifi Hacking and Password Cracking</i>	51

TABLE OF CONTENTS

XII. WEB APP PENTESTING

<i>Introduction to Web App Testing</i>	52
<i>Burp Suite Tutorial</i>	53
<i>Process of Bug Hunting</i>	54
<i>SQL Injection - Basic</i>	55
<i>SQL Injection - Advanced</i>	56
<i>XSS and Types</i>	57
<i>XSS - Bypassing Filters and CSP</i>	58
<i>CSRF and Token Bypass</i>	59
<i>SSRF and IDORS</i>	60
<i>IDOR Bugs Contd.</i>	61
<i>Business Logic Bugs</i>	62
<i>Broken Session and Cookie Jacking</i>	63
<i>OAuth 2.0 Based Vulnerabilities</i>	64
<i>Response Manipulation and OTP Bypass</i>	65
<i>XXE and SSTI Based Bugs</i>	67
<i>Open URL Redirects leading to Directory Traversals</i>	68
<i>API Testing and Sensitive Information Disclosure</i>	69

CONCLUSION: CAPSTONE PROJECT

The Project will cover majorly all the concepts of Security you learned and will help you apply the concepts practically.