Cybersecurity		
SOURCE: 01	Cyber Security	
01	Course Outline	
02	Requirement	
03	Getting Ready	
04	Effective Note Keeping	
05	Connect with Community	
06	What is Cyber Security	
07	History of Cyber Attacks	
08	<u>Inclusion Detection System</u>	
09	Careers in Cyber Security	
10	<u>Types of Hackers</u>	
11	<u>Cyber Threats, Malware</u>	
12	<u>Phishing</u>	
13	MITM Attacks	
14	DDOS Attacks	
15	Password Attacks	
16	Maladvertising	
17	Rouge Software	
18	What is Penetration Testing	
19	Types of Penetration Testing	
20	States of Penetration Testing	
21	Hashing and Digital Signatures	
22	<u>Cryptography</u>	
23	The CIA Traid	
24	Foot Printing	
25	<u>Linux Started</u>	
26	What is Linux	
27	What is Linux	
28	Installing Linux VM	
29	<u>Linux File System</u>	
30	<u>Linux Commands</u>	
31	Important and Sensitive Linux Files	
32	What is Network	
33	<u>IP Addresses</u>	
34	Switches and Routes	
35	Ports and Protocols	
36	<u>NMAP</u>	
37	TCP and UDP Protocols	
38	What is Website	
39	What is Database	
40	<u>Client and Server</u>	
41	<u>Domains and Sub-Domains</u>	
42	Request and Response	
43	Cookies and Tasty	
44	HTTP and HTTPs	
45	HTTP Methods	
46	Burp Suite	
47	HTTP Status Codes	
48	OWASP-1	
49	OWASP-2	
50	OWASP-3	
51	OWASP-4	
52	OWASP-5	
53	Weapon zing	
54	Bug Bounty	

Cybersecurity		
SOURCE: 02	Google Cybersecurity Certificate	
01	<u>Cybersecurity for Beginners</u>	
02	How to Manage Security Risks and Threats	
03	Internet Networks and Network Security	
04	The Basics of Computing Security: Linux and SQL	
05	Cybersecurity Assets, Network Threats and Vulnerabilities	
06	Cybersecurity IDR: Incident Detection and Response	
07	<u>Fundamentals of Python for Cybersecurity</u>	
08	How to Prepare for Your Cybersecurity Career	
09	What Does An Information Security Analyst Do	
10	Jobs You Can Qualify for By Completing Google Cybersecurity	
11	What is A Loop in Python	
12	What Are The 8 Cybersecurity Domains	
13	What are The 8 Security Domains	
14	How Do Operating Systems Work in Cybersecurity	
15	What Are Network Tools and Protocols in Cybersecurity	
16	What to Know Before Going Into Cybersecurity or Project Management	
17	How to Secure Networks in Cybersecurity	
18	How to Best Communicate as A Cybersecurity Analyst	

Information Security		
SOURCE: 03	Cyber and Information Security	
01	Information Security Basic Concepts	
02	Information Security Management and Governance	
03	Cryptography Hashing Ciphering	
04	Message Authentication, SSL, TSL and Digital Signature	
05	Risk Management and Business Continuity Management	
06	Computer Security, Platform, Virtualization and Hyper-V	
07	<u>Digital Forensics and Incident Response, Evidence</u>	
08	<u>User Authentication, Passwords, Tokens and Biometrics</u>	
09	Identity Management and Access Control, OpenId	
10	Communication Security, TSL, TCP/IP, HTTPS, SSL	
11	Network Perimeter Security, Firewalls, Proxies	
12	Malicious Software, Attacks and Application Security	
13	Review and Recap – Project	
14	OWASP Top 10, Injection, XSS, Authentication Attack	

	Cryptography
SOURCE: 01	Cryptography
01	Encryption Explained Simply What is Encryption Cryptography and Network Security
02	What is Cryptography Introduction to Cryptography
03	Symmetric Key Cryptography Stream Cipher and Block Cipher Explained Network Security
04	DES – Data Encryption Standard Data Encryption Standard In Cryptography DES Algorithm
05	AES – Advanced Encryption Standard Algorithm in Cryptography AES Explained
06	AES and DES Algorithm Explained Difference Between AES and DES Network Security
07	Asymmetric Key Cryptography RSA Encryption Algorithm Asymmetric Encryption
08	DSA Algorithm DSA Algorithm Explained Digital Signature Algorithm
09	RSA Encryption Algorithm Rivest – Shamir – Adleman RSA Algorithm Explained
10	RSA and DSA Encryption Algorithms Explained Cryptography and Network Security
11	What is Hashing What is Hashing with Example Hashing Explained
12	MD5 Algorithm What is MD5 Algorithm MD5 Algorithm Explained Network Security
13	SHA 256 SHA 256 Algorithm Explanation How SHA 256 Algorithm Works Cryptography
14	Top Hashing Algorithm in Cryptography MD5 and SHA 256 Algorithm Explained
15	Diffie Hellman Key Exchange Algorithm Cryptography and Network Security
16	SSL Handshake Explained What is SSL / TLS Handshake SSL/TSL Handshake Protocol
SOURCE: 02	Cryptography and System Security
01	Introduction to Cryptography and System Security
02	Security Goals CIA Triad
03	OSI Security Architecture
04	Security Services in Cryptography
05	Security Mechanism
06	Security Attacks
07	<u>Classical Encryption Techniques</u>
08	Affine Cipher
09	<u>Vigenere Cipher</u>
10	Hill Cipher
11	<u>Playfair Cipher</u>
12	Keyed Transposition Cipher
13	Rail Fence Cipher Keyless Transposition Cipher
14	Columnar Transposition Cipher
15	Symmetric Key Encryption Symmetric Key Cryptography
16	Asymmetric Key Cryptography Asymmetric Key Encryption
17	RSA Algorithm Stranger Girls and
18 19	Stream Cipher Block Cipher
20	Data Encryption Standard (DES)
21	Hash Functions
22	Properties of Has Functions
23	User and Entity Authentication
24	Kerberos Authentication Protocol
25	Network Security
26	Packet Sniffing
27	ARP Spoofing
28	IP Spoofing
29	Denial of Service Attack (DoS Attack)
30	Distributed Denial of Service Attack (DDOS Attack)

	Cryptography and Network Security
SOURCE: 01	Cryptography and Network Security
01	Introduction to Cryptography and Network
02	<u>CIA Triad</u>
03	The OSI Security Architecture
04	Security Attacks
05	Security Services
06	Security Mechanisms
07	Network Security Model
08	Cryptography
09	<u>Cryptography – Key Terms</u>
10	<u>Cryptanalysis</u>
11	Brute Force Attack
12	Classical Encryption Techniques
13	Caesar Cipher Part 3
14	Caesar Cipher Part-2
15	Mono-alphabetic Cipher Plant foir Cipher Port 1
16 17	Play-fair Cipher Part 3
17	Play-fair Cipher Part-2
18	Play-fair Cipher (Solved Question) Hill Cipher (Encryption)
20	Hill Cipher (Decryption)
21	Polyalphabetic Cipher (Vigenere Cipher)
22	Polyalphabetic Cipher (Vemam Cipher)
23	One Time Pad
24	Rail Fence Technique
25	Row Column Transposition Ciphering Technique
26	Steganography
27	LSB Steganography – Demo
28	Cryptograph (Solved Questions)
29	Abstract Algebra and Number Theory
30	Prime Numbers in Cryptography
31	Modular Arithmetic Part-1
32	Modular Arithmetic Part-2
33	Modular Exponentiation Part-1
34	Modular Exponentiation Part-2
35	GCD – Euclidean Algorithm Method – 1
36	GCD – Euclidean Algorithm Method – 2
37	Relatively Prime (Co-Prime) Numbers
38	Euler's Totient Function (Phi Function)
39	Euler's Totient Function (Solved Examples)
40	Fermal's Little Theorem
41	<u>Euler's Theorem</u>
42	<u>Primitive Roots</u>
43	Multiplicative Inverse
44	Extended Euclidean Algorithm (Solved Example 1)
45	Extended Euclidean Algorithm (Solved Example 2)
46	Extended Euclidean Algorithm (Solved Example 3)
47	The Chinese Remainder Theorem (Solved Example 1)
48	The Chinese Remainder Theorem (Solved Example 2)
49	The Discrete Logarithm Problem The Discrete Logarithm Problem (Salved Evernle)
50	The Discrete Logarithm Problem (Solved Example) Prime Factorization (Format's Factoring Method)
51	Prime Factorization (Fermat's Factoring Method) Testing for Primality (Format's Tost)
52 52	Testing for Primality (Miller Pakin Test)
53 54	Testing for Primality (Miller-Rabin Test) Group and Abelian Group
55	Group and Abelian Group Cyclic Group
56	Cyclic Group Rings, Fields and Finite Fields
57	Stream Cipher vs Block Cipher
58	Feistel Cipher Structure
59	Introduction to Data Encryption Standard (DES)
39	introduction to Data Encryption Standard (DES)

60	Single Round of DES Algorithm
61	The F Function of DES (Mangler Function)
62	Key Scheduling and Decryption in DES
63	Avalanche Effect and The Strength of DES
64	Data Encryption Standard (DES) – Solved Questions
65	Introduction to Advanced Encryption Standard (AES)
66	AES Encryption and Decryption
67	AES Round Transformation
68	AES Key Expansion
69	AES Security and Implementation Aspects
70	Multiple Encryption and Triple DES
71	Block Cipher Modes of Operation
72	Electronic Codebook (ECB)
73	Cipher Block Chaining (CBC)
74	Cipher Feedback (CFB)
75	Output Feedback (OFB)
76	Counter Mode (CTR)
77	Block Cipher Modes of Operation (Solved Question)
78	Pseudorandom Number Generator (PRNG)
79	Golomb's Randomness Postulates
80	Public Key Cryptography Cryptography and Network Security
81	Hash Function and Digital Signatures Cryptography and Network Security
82	System Practices and System Security Cryptography and Network Security