Appendix - C

GOPALAN COLLEGE OF ENGINEERING AND MANAGEMENT

Department of Computer Science and Engineering

Academic Year: **2016-17** Semester**: EVEN**

COURSE PLAN

Semester: **VIII** Subject Code& Name: **10CS835 & INFORMATION AND NETWORK SECURITY**

Name of Subject Teacher: **V.N. MANJU**

Name of Subject Expert (Reviewer): **SUPARNA K**

For the Period: From: 1-08-16 to 19-11-16

Details of Book to be referred:

Text Books	1. Michael E. Whitman and Herbert J. Mattord: Principles of Information Security, 2nd Edition, Cengage Learning, 2005. (Chapters 5, 6, 7, 8; Exclude the topics not mentioned in the syllabus) 2. William Stallings: Network Security Essentials: Applications and Standards, 3rd Edition, Pearson Education, 2007. (Chapters: 1, 4, 5, 6, 7, 8)
Reference Books	1. Behrouz A. Forouzan: Cryptography and its principles (Chapters: 1, 4, 5, 6, 7, 8) Reference Book: 1. Behrouz A. Forouzan: Cryptography and its principles

Lecture No.	Topic Planned	Practical Applications & Brief objectives	Book referred with Pg No.	Planned Date	Executed Date	Deviation Reasons thereof	How Made Good / Reciprocate arrangement	Remarks by HOD
1.	**Introduction**			13-2-17				
2.	**UNIT-1 Planning for Security** Introduction	**Objective:** This unit aims at introducing the various	T1:143-155	13-2-17				

3.	Information Security Policy, Standards and Practices	security standards, policies, blueprint and other models used. **Application:** This unit helps us to formulated a well-defined standard architecture for security **Outcome:** Student will be able to understand the different standards used in security	T1:143-155	14-2-17				
4.	Information Security Policy, Standards and Practices		T1:143-155	15-2-17				
5.	The Information Security Blue Print		T1:155-173	16-2-17				
6.	The Information Security Blue Print		T1:155-173	20-2-17				
7.	Contingency Plan and a model for contingency		T1:173-198	21-2-17				
8.	Contingency Plan and a model for contingency		T1:173-198	22-2-17				
9.	**Revision / Unit Test**			23-2-17				
10.	**UNIT-2 Security Technology - 1** Introduction	**Objective:** This unit aims at introducing the Security technologies like, Fire walls, Remote protection etc… **Application:** This is used to apply security in the management using firewalls and Remote protection system **Outcome:** Student will be able to understand the security measures taken by firewalls and other remote protection system	T1:199-200	27-2-17				
11.	Physical Design		T1:	27-2-17				
12.	Firewalls		T1:200-225	28-2-17				
13.	Firewalls		T1:200-225	1-3-17				
14.	Firewalls		T1:200-225	2-3-17				
15.	Firewalls		T1:200-225	6-3-17				
16.	Protecting Remote Connections		T1:225-231	6-3-17				
17.	Protecting Remote Connections		T1:225-231	7-3-17				
18.	**Revision / Unit Test**			8-3-17				

19.	**UNIT 3 Security Technology - II** Introduction Intrusion Detection System(IDS)	**Objective:** This unit aims at introducing the Intrusion Detection System and the various analysis tools used in the Security technology **Application:** **IDS** concentrates on protecting the hosts Operating System and application **Outcome:** Students will be able apply how IDS is used in security systems	T1:233-261	13-3-17				
20.	Intrusion Detection System(IDS)		T1:233-261	13-3-17				
21.	Intrusion Detection System(IDS)		T1:233-261	14-3-17				
22.	Honey Pots, Honey Nets and Padded Cell Systems		T1:261-263	15-3-17				
23.	Scanning and Analysis Tools		T1:263-280	16-3-17				
24.	**Revision / Unit Test**			20-3-17				
25.	**UNIT 4** **Cryptography** Introduction A short History of Cryptography	**Objective:** To gain new understanding of cryptographic models and techniques, in order to face current and future security challenges. **Application:** It is used to assure that intentional or accidental modification of transmitted information does not cause erroneous actions to take place. **Outcome:** Students will be able to implement the cryptosystems using the various cryptography algorithms	T1:281-285	20-3-17				
26.	Principles of cryptography		T1:283-293	21-3-17				
27.	Principles of cryptography		T1:283-293	22-3-17				
28.	Principles of cryptography		T1:283-293	23-3-17				
29.	Cryptography Tools		T1:293-312	27-3-17				
30.	Cryptography Tools		T1:293-312	27-3-17				
31.	Cryptography Tools		T1:293-312	28-3-17				
32.	Attacks on Cryptosystems		T1:312-314	30-3-17				
33.	**Revision / Unit Test**			3-4-17				

34.	**UNIT 5** **Introduction to Network Security, Authentication Applications** Attacks, Services and Mechanisms	**Objective:** This unit aims at introducing the various Network security and authentication systems **Application:** It applies the network security and standards in the very systematic form **Outcome:** Students will be able to understand the various network security and authentication in a standard Internet model	T2: 1-7	3-4-17				
35.	Security Attacks		T2:7-11	4-4-17				
36.	Security Services		T2:11-17	5-4-17				
37.	A model for Internet Security		T2:17-19	6-4-17				
38.	A model for Internet Security		T2:94-95	7-4-17				
39.	A model for Internet Security		T2: 95 -122	10-4-17				
40.	**Revision / Unit Test**			10-4-17				
41.	**UNIT 6** **Electronic Mail Security**	**Objective:** This unit aims at providing security to individuals in e-mail etc.. **Application:** It allows an individual or organization to protect the overall access to one or more email addresses/accounts. **Outcome:** Students will be able to understand security in e-mail and S/MIME	T2: 130–132	11-4-17				
42.	Pretty Good Privacy (PGP)		T2: 132-151	12-4-17				
43.	Pretty Good Privacy (PGP)		T2: 132-151	13-4-17				
44.	S/MIME		T2:151-168	20-4-17				
45.	S/MIME		T2:151-168	24-4-17				
46.	**Revision / Unit Test**			24-4-17				
47.	**UNIT 7** IP Security: IP Security Overview	**Objective:** This unit aims at introducing the IPSec architecture and concept, authentication header & encapsulating security payload **Application:** It helps in IP	T2: 177-181	25-4-17				
48.	IP Security Architecture		T2:181-187	26-4-17				
49.	Authentication Header		T2:187-192	27-4-17				

50.	Encapsulating Security Payload	communications that works by authenticating and encrypting each IP Packet of a communication session **Outcome:** Student will be able to understand the various Architecture and models of IP sec	T2:192-197	2-5-17				
51.	Combining Security Associations		T2:197-200	3-5-17				
52.	Key Management.		T2:200-210	4-5-17				
53.	**Revision / Unit Test**			8-5-17				
54.	**UNIT 8** Web Security: Web security requirements	**Objective:** This unit aims at introducing SSL and TLS and SET **Application:** It is used in security of websites **Outcome:** Students will be able to understand how security is implemented in websites	T2:221-225	8-5-17				
55.	Web security requirements		T2:221-225	9-5-17				
56.	Secure Socket layer (SSL) and Transport layer Security (TLS)		T2:225-242	10-5-17				
57.	Secure Socket layer (SSL) and Transport layer Security (TLS)		T2:225-242	11-5-17				
58.	Secure Electronic Transaction (SET)		T2:243-254	18-5-17				
59.	Secure Electronic Transaction (SET)		T2:243-254	22-5-17				
60.	**Revision / Unit Test**			22-5-17				
61.	Revision	Solving VTU Question Paper		23-5-17				
62.	Revision			24-5-17				
63.	Revision			25-5-17				

64.	Revision			29-5-17				
65.	Revision			29-5-17				
66.	Revision			30-5-17				
67.	Revision			31-5-17				
68.	Revision			1-6-17				

Prepared By: **V.N.MANJU** Reviewed by: **SUPARNA K** Approved by: **N.S.SARADHA DEVI** Approved by: **Dr. A.POWLY THOMAS**

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