



**Faculty of Computer Studies (FoCS)
Sub Committee for Curriculum Development**

Format to submit syllabus

Course Name: Infrastructure Security

(UG/PG): PG

Number of Credits: 2

Level: 3

Learning Objective(s): The objective of this course is to enable the student to understand the concepts of Infrastructure Security and securing the respective Infrastructure by various means of attacks. At the end of the course, the student will be able to understand a variety of generic security threats, analyze particular security problems and thereby apply appropriate security techniques to solve.

Pedagogy:

Lectures
Discussion
Case studies
Hand-on Practical

Pre-learning:

The students must be aware of the basics of operating systems and networks.

Course Outline:

Sr.No.	Topic	Hours
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1	Building and Implementing a network Create Network by using Switches & Router Understand Each component Placement Understand VLAN concept Create VLAN on Layer 2 Switches Create VLAN on Layer 3 Switches Configure Router for routing Securing Network Devices (Telnet/SSH/Console/Passwords) VLAN/VPN & IPV6 Terminologies	6
2	Security Prepare a security policy, processes, procedures, and their implementation plan Implement the above policies and plans Maintain a standardized documentation of the entire IT infrastructure Periodically test and audit the entire network security (Internet, Intranet and Extranet), update it regularly, and maintain an audit trail of all changes	7
3	Perimeter Defence Understanding of Firewall/UTM Gateways Different types of Attacks ; IPS & IDS technique; DLP technique OS & Application Hardening	7
4	Host Protection Domain control Policy ; Authentication technique (LDAP/AD) End Point Security (Control on USB; Ports ;Wifi etc.)	5
5	Data/Information Protection Backup & Disaster Management Backup technique ; Backup Devices Cloud Backup & In Premise Backup	5
	Total	30

Books Recommended:

Critical Infrastructure Security: Assessment, Prevention, Detection, Response by F. Flammini
 Network Infrastructure Security by Angus Wong , Alan Yeung
 Data Center Fundamentals By Mauricio Arregoces, Maurizio Portolani

Suggested Evaluation Methods:

Lab based Evaluations
 Assignments
 Presentation

Parallel/Similar courses the existing curriculum:

S.No.	Name of the course	Institute where it was offered
<u>1</u>	=	=

Name of Member	Prof. Harshad Gune				
Designation	Dy. Director				
Org. / Inst.	SICSR				
Signature					

Name of the Expert:

Signature:

Date: