



## Sub Committee for Curriculum Development

**Course Name: Network Essentials**

**Course Code: T3224**

**(UG/PG): UG**

**Number of Credits: 2**

**Level: 1**

**Learning Objective(s):**

This course teaches the basic concepts and terminology of networking. After completion of the course the student will be able to define network and familiar with the network topologies, protocols.

**Pedagogy:**

1. Lecture
2. Case Study

**Pre-requisites: NA**

**Course Outline**

<b>Sr. No.</b>	<b>Topics</b>	<b>Hrs</b>
1	Introduction	5
	Uses of the computer network, LAN, WAN, MAN, wireless network. Network Topology, Network Architecture, Data and Signals	
2	Internetworking devices: Repeater, Bridge, Hub, Switch, Router, Gateways	4
3	Layered Architecture, Design issues of the layers, OSI reference model. The Physical Model: Transmission Media	3
4	TCP/IP Suite Layers of TCP/IP models, Protocols, IP Addressing, subnetting, Domain Name System (DNS)	12
5	Troubleshooting with TCP/IP Utilities Ping, Tracert, Netstat, ARP, Ipconfig, Nslookup	3
6	Network Security	3
	Virus and Anti Virus, Firewall (types and functionality)	
	<b>Total</b>	<b>30</b>

**Book Recommended:**

1. Computer Networks by Andrew Tanenbaum
2. Data Communications and Networking, Behrouz A. Forouzan

**Research Papers/Articles recommended for reading:****Suggested Evaluation Methods:**

Written Test

Online quiz

Viva

**Parallel/Similar courses the existing curriculum:**

S.No.	Name of the course	Institute where it was offered

Name of Member					
Designation					
Org. / Inst.	SICSR				
Signature					

Name of the Expert:

Signature:

Date:





