COURSE TITLE   **:**   **COMPUTER NETWORK ENGINEERING LAB**
COURSE CODE   **:**   **5137**
COURSE CATEGORY **:**   **A**
PERIODS/WEEK   **:**   **5**
PERIODS/SEMESTER **:**   **65**
CREDITS   **:**   **5**

TIME SCHEDULE

MODULE	TOPICS	PERIODS
1	Installation and Configuration of Network Hardware Components	**17**
2	Installation and Configuration of TCP/IP Protocol	**17**
3	Network Operating System Administration	**17**
4	Network Security Administration	**14**

Course General Outcomes:

Sl.	G.O	Student will be able
1	1	Installation and Configuration of Network Hardware Components
2	1	Installation and Configuration of TCP/IP Protocol
3	1	Network Operating System Administration
4	1	Network Security Administration

Specific Outcomes:

Module I. Installation and Configuration of *Network Hardware* Components
     1.Study of Hardware Component used in Networking.
     2.Crimping of UTP Cable, Patch Panel Punching, Junction I/O Boxes.
     3.Installation of Network Interface Card (NIC).
     4.Peer-to-Peer Networking & Working in Peer-to-Peer Environment.
     5.Sharing Resources, Accessing Shares and Share Level Security.
     6.Troubleshooting (Cable Connectivity, Upgrading NIC Driver,Software).

Module II.   Installation and Configuration of TCP/IP Protocol
     1.Installation of Wireless Devices -LAN Card, Router, Access Point.
     2.Identifying valid IP Addresses, Defining Subnet Ids and Host Ids.
     3.Using TCP/IP Utilities& Commands (PING, IPCONFIG, HOSTNAME, ROUTE, TRACERT, ARP,
       FTP, Telnet).
     4.Study of TCP/IP

Module III. Network Operating System Administration
1. Installation of Operating Systems.
2. Configuring Hardware Profile.
3. Creating Users and Groups and setting their properties.
4. Configuring Roaming and Mandatory User Profiles.
5. Creating and Managing Shares.
6. Study of AGP Process.
7. Study of Permissions.
8. Study of Encrypted File System.
9. Study of File Compression.
10. Study of Event Viewer, Task Manager.
11. Study of System Monitor & Performance Log.
12. Installing Local and Network Printer and set priority.
13. Installation of Server

Module IV. Network Security Administration
1. Study of Disk Management & Implementing Disk Quotas.
2. Study of Backup, Restore and Automated System Recovery.
3. Installing and Configuring Terminal Services & RDP.