B.S. in Network Technologies
Learning Outcomes

Students will be able to:

- Describe each local area network and wide area network technology commonly used in the marketplace and describe advantages and disadvantages to each and choose appropriate technologies in a case study based on business objectives.

- Write clear definitions of ARP, ICMP, DNS, RIP, OSPF and BGP and illustrate their use in protocol diagrams.

- Walk through a working example of a network system and show how all devices are used to provide data services.

- Cable together a set of devices (servers, cables, switches and routers), test connections, configure IP addressing and packet forwarding using appropriate commands in Windows, MacOS, Linux and Cisco IOS operating systems.

- Describe 802.11 CSMA/CA access methods, addressing, operational modes and encryption methods.

- Discuss the worldwide transition from IPv4 to IPv6 technologies and key aspects of the IPv6 protocol, including address format, neighbor discovery, basic routing and security.