

IS 370: Data Communications and Computer Networks

- Credit Hours (lecture, lab, tutorial): **3** (3 + 0 + 1)
- Prerequisites: IS200.

Course content: Definition of computer networks and their objectives and applications, computer network type, computer network architecture: layering, protocols and standard models, physical layer of computer network: the transmission media; signal types, signal characteristics and impairments, modulation techniques and modems, digital signal encoding schemes, physical interface, data transmission basics: synchronous and asynchronous transmission, synchronization levels; bit, character and frame, transmission modes; full , half duplex, simplex , parallel and serial, data link layer: data link layer functions and standards, protocols, local area networks: topology and media access methods, local area networks, Ethernet networks, ...etc., wireless networks, wide area networks, and data transport networks; cellular networks, satellite networks, ATM & ISDN networks.