

# IT 107 : Introduction to Networking

**Credits** 5

**Quarter Offered** Fall

This course is an introduction to technologies, terminology, and skills used in the world of data networking. Emphasis is on practical applications of networking and computer technology to real-world problems, including home and small-business network setup. You will perform a variety of hands-on and case project activities combined with your reading activities that will reinforce each of the course objectives. This course maps to CTCITC 115: Introduction to Networking. This class may include students from multiple sections.

## **Course Outcomes**

- Describe the basic hardware, software and services components used in network systems.
- Compare and contrast the alternatives in LAN media, topologies, access methods, and media.
- Demonstrate a layered approach to networking. (For example the open connection (OSI) reference model).
- Identify and evaluate appropriate media for networks (such as cabling, wireless, fiber, etc.).
- Evaluate appropriate network media topologies.
- Describe the major network layer protocols with an emphasis on IPv4 and/or IPv6, including addressing, subnetting, network address translation and IP configuration.
- Given a scenario, perform subnetting.
- Describe the major functions of network operating systems and directory services.
- Troubleshoot networks using standard troubleshooting tools.
- Describe the advantages/disadvantages of various network protocols.
- Select or determine appropriate network security process or approach for given situations.
- Build a (simple) network using routers and switches.