BAKER COLLEGE
STUDENT LEARNING OUTCOMES

NET 1010 Network Essentials

3 Semester Hours

Student Learning Outcomes and Enabling Objectives

1. **Examine the characteristics of network architecture**
    a. Compare and contrast the use of various networking topologies, devices, applications and unified communication technologies
    b. Differentiate between various network infrastructure implementations and WAN technologies
    c. Explain the basics of routing concepts and protocols
    d. Install and configure basic network, services and applications
    e. Given a scenario, implement and configure the appropriate addressing schema
    f. Compare and contrast technologies that support cloud and virtualization
    g. Install and properly terminate various cable types and connectors using appropriate tools
    h. Given a scenario, troubleshoot and resolve common layer 2 and 3 issues

2. **Explore and be able to describe network operations**
    a. Explain the importance of implementing network segmentation
    b. Given a scenario use appropriate monitoring and tracking performance tools
    c. Given a scenario, configure a switch using proper features
    d. Given a scenario, install and apply patches and updates with appropriate configuration management
    e. Install and configure wireless LAN infrastructure and implement the appropriate technologies in support of wireless capable devices
    f. Describe SCADA and Industrial control systems

3. **Examine the characteristics of network security**
    a. Compare and contrast risk related concepts
    b. Compare and contrast common network vulnerabilities, threats and hardening.
    c. Compare and contrast physical security controls
    d. Explain the purpose of various network access control models
    e. Given a scenario, analyze and interpret the output of troubleshooting tools to resolve common network and security issues
    f. Install, configure and troubleshoot a basic firewall
    g. Summarize basic forensic concepts

4. **Implement networking standards, practices, and network theory**
    a. Understand the certification process and its importance to the technical professional.
    b. Describe the influence of technology on culture.
    c. Demonstrate responsible social networking usage.
    d. Explain the basics of network theory, network concepts and the OSI model.
    e. Given a scenario, configure and apply the appropriate ports and protocols
    f. Given a scenario, deploy the appropriate connectivity standard
    g. Explain the basics of change management procedures
    h. Explain common safety practices

These SLOs are not approved for experiential credit.
*This course meets the requirements to prepare for the CompTIA Network+ exam.
*Objectives taken from official CompTIA Exam objectives

Effective: Fall 2017