



**BAKER COLLEGE**  
**STUDENT LEARNING OUTCOMES**

**NET 1010 Network Essentials**  
**3 Semester Hours**

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**Student Learning Outcomes & 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
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These SLOs are approved for experiential credit.

\*This course meets the requirements to prepare for the CompTIA Network+ exam.

\*Objectives taken from official CompTIA Exam objectives

**Effective: Summer 2018**