**BARTON COMMUNITY COLLEGE**

**COURSE SYLLABUS**

# **GENERAL COURSE INFORMATION**

Course Number: NTWK 1034

Course Title: Networking I

Credit Hours: 3

Prerequisite: NTWK 1032 Introduction to Networking with a “C” or better

Division/Discipline: WTCE/Networking Specialist

Course Description: This course is designed to expand the student’s view of networking and prepare students to pass a vendor neutral networking certification exam. This course covers a wide range of material about networking, from local area networks to wide area networks, protocols, topologies, transmission media, and security. It discusses in-depth the most significant aspects of networking, such as the TCP/IP protocol suite. This course is the first course in a two course sequence which prepares the student for Network+ certification.

# **INSTRUCTOR INFORMATION**

# **COLLEGE POLICIES**

Students and faculty of Barton Community College constitute a special community engaged in the process of education. The College assumes that its students and faculty will demonstrate a code of personal honor that is based upon courtesy, integrity, common sense, and respect for others both within and outside the classroom.

Plagiarism on any academic endeavors at Barton Community College will not be tolerated. The student is responsible for learning the rules of, and avoiding instances of, intentional or unintentional plagiarism. Information about academic integrity is located in the Student Handbook.

The College reserves the right to suspend a student for conduct that is determined to be detrimental to the College educational endeavors as outlined in the College Catalog, Student Handbook, and College Policy & Procedure Manual. (Most up-to-date documents are available on the College webpage.)

Any student seeking an accommodation under the provisions of the Americans with Disability Act (ADA) is to notify Student Support Services via email at [disabilityservices@bartonccc.edu](mailto:disabilityservices@bartonccc.edu).

# **COURSE AS VIEWED IN THE TOTAL CURRICULUM**

This course covers networking technologies. It is the second course in a two course sequence which prepares the student for CompTIA’s broad-based, vendor–independent networking certification exam, Network +. It is required for both the Networking Special A.A.S. and certificate.

# **ASSESSMENT OF STUDENT LEARNING**

Barton Community College is committed to the assessment of student learning and to quality education. Assessment activities provide a means to develop an understanding of how students learn, what they know, and what they can do with their knowledge. Results from these various activities guide Barton, as a learning college, in finding ways to improve student learning.

1. Identify Networking Technologies
   1. Explain the function of common network protocols
   2. Identify commonly used TCP and UDP default ports
   3. Identify IPv4, IPv6, and MAC addressing
   4. Evaluate the proper use of addressing technologies and addressing scheme
   5. Identify common Ipv4 and IPv6 routing protocols
   6. Explain the purpose and properties of routing
   7. Compare the characteristics of wireless communications standards
2. Apply Network Media and Protocols
   1. Categorize standard cable types and their properties
   2. Identify common connector types
   3. Identify common physical network typologies
   4. Differentiate and implement appropriate wiring standards
   5. Categorize WAN technology types and properties
   6. Categorize LAN technology types and properties
   7. Explain common logical network topologies and their characteristics
   8. Install components of wiring distribution
3. Implement Network Devices
   1. Install, configure, and differentiate between common network devices
   2. Identify the functions of specialized network devices
   3. Explain the advanced features of a switch
   4. Implement a basic wireless network
4. Identify the OSI Model
   1. Explain the function of each layer of the OSI model
5. **INSTRUCTOR'S EXPECTATIONS OF STUDENTS IN CLASS**

# **TEXTBOOKS AND OTHER REQUIRED MATERIALS**

# **REFERENCES**

# **METHODS OF INSTRUCTION AND EVALUATION**

# **ATTENDANCE REQUIREMENTS**

1. **COURSE OUTLINE**