**BARTON COMMUNITY COLLEGE**

**COURSE SYLLABUS**

# **GENERAL COURSE INFORMATION**

Course Number: NTWK 1052

Course Title: Computer Repair and Upgrade I

Credit Hours: 3

Prerequisite: Basic computer proficiency

Division/Discipline: WTCE/Computer Networking Specialist

Course Description: Students learn routine maintenance and preventative care for PCs, laptops and mobile devices including hardware and software troubleshooting, upgrading and replacing system components, SOHO network connectivity, and security. Part one of a two course sequence which prepares students for A+ 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**

Computer Repair and Upgrade I is part one of a two course sequence which prepares students for A+ certification. A+ certification is a vendor certification that demonstrates competency as a computer technician. The course is required for both the Computer Networking Specialist Certificate and A.A.S. The two classes also serve as stand-alone classes for those who seek greater expertise in selecting and maintaining personal & SOHO computer equipment. As computer maintenance and troubleshooting is beneficial in all areas of Networking, this course will ideally be completed early in the program.

# **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. Install and maintain PC Hardware
   1. Configure and apply BIOS settings.
   2. Differentiate between motherboard components, their purposes, and properties
   3. Compare and contrast RAM types and features
   4. Install and configure expansion cards.
   5. Install and configure storage devices and use appropriate media
   6. Differentiate among various CPU types and features and select the appropriate cooling method.
   7. Compare and contrast various connection interfaces and explain their purpose
   8. Install an appropriate power supply based on a given scenario
   9. Evaluate and select appropriate components for a custom configuration, to meet customer specifications or needs.
   10. Evaluate types and features of display devices
   11. Identify connector types and associated cables
   12. Install and configure various peripheral devices
2. Configure and manage network capabilities
   1. Identify types of network cables and connectors
   2. Categorize characteristics of connectors and cabling
   3. Explain properties and characteristics of TCP/IP
   4. Explain common TCP and UDP ports, protocols, and their purpose
   5. Compare and contrast wireless networking standards and encryption types
   6. Install, configure, and deploy a SOHO wireless/wired router using appropriate settings
   7. Compare and contrast Internet connection types and features
   8. Identify various types of networks
   9. Compare and contrast network devices, their functions, and features
   10. Given a scenario, use appropriate networking tools
3. Select and Maintain Laptops
   1. Install and configure laptop hardware and components
   2. Compare and contrast the components within the display of a laptop
   3. Compare and contrast laptop features
4. Install and maintain printers
   1. Explain the differences between the various printer types and summarize the associated imaging process.
   2. Install and configure printers
   3. perform printer maintenance
5. Recognize and employ operational procedures
   1. Use appropriate safety procedures
   2. Explain environmental impacts and the purpose of environmental controls
   3. Demonstrate proper communication and professionalism
   4. Explain the fundamentals of dealing with prohibited content/activity
6. **INSTRUCTOR'S EXPECTATIONS OF STUDENTS IN CLASS**

# **TEXTBOOKS AND OTHER REQUIRED MATERIALS**

# **REFERENCES**

# **METHODS OF INSTRUCTION AND EVALUATION**

# **ATTENDANCE REQUIREMENTS**

1. **COURSE OUTLINE**