**BARTON COMMUNITY COLLEGE**

**COURSE SYLLABUS**

# **GENERAL COURSE INFORMATION**

Course Number: NTWK 1053

Course Title: Computer Repair and Upgrade II

Credit Hours: 3

Prerequisite: NTWK 1052 Computer Repair and Upgrade I with a “C” or better

Division/Discipline: WTCE/Computer Network 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, Small-Office-Home-Office (SOHO) network connectivity, and security. This course is the second in 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 II is the second course in a two part 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.

Course Outcomes, Competencies, and Supplemental Competencies:

1. Install and utilize an operating systems
   1. Compare and contrast the features and requirements of various Microsoft Operating Systems.
   2. Given a scenario, install and configure the operating system using the most appropriate method.
   3. Use command line tools
   4. Use operating system features and tools
   5. Use Control Panel utilities
   6. Setup and configure Windows networking on a client/desktop
   7. Perform preventive maintenance procedures using appropriate tools
   8. Explain the differences among basic OS security settings
2. Configure and monitor security
   1. Apply and use common prevention methods.
   2. Compare and contrast common security threats
   3. Implement security best practices to secure a workstation
   4. Use data destruction/disposal methods
   5. Secure a SOHO wireless network
   6. Secure a SOHO wired network
3. Select and maintain mobile devices
   1. Explain the basic features of mobile operating systems
   2. Establish basic network connectivity and configure email
   3. Compare and contrast methods for securing mobile devices
   4. Compare and contrast hardware differences in regards to tablets and laptops
   5. Execute and configure mobile device synchronization
4. Troubleshoot computer problems given a scenario
   1. Explain troubleshooting theories
   2. Troubleshoot common problems related to motherboards, RAM, CPU and power with appropriate tools
   3. Troubleshoot hard drives and RAID arrays with appropriate tools
   4. Troubleshoot common video and display issues
   5. Troubleshoot wired and wireless networks with appropriate tools
   6. Troubleshoot operating system problems with appropriate tools.
   7. Troubleshoot common security issues with appropriate tools and best practices.
   8. Troubleshoot and repair common laptop issues while adhering to the appropriate procedures.
   9. Troubleshoot printers with appropriate tools
5. **INSTRUCTOR'S EXPECTATIONS OF STUDENTS IN CLASS**

# **TEXTBOOKS AND OTHER REQUIRED MATERIALS**

# **REFERENCES**

# **METHODS OF INSTRUCTION AND EVALUATION**

# **ATTENDANCE REQUIREMENTS**

1. **COURSE OUTLINE**