

Prepared by the Department of Business

Date of Departmental Approval: January 19, 2017

Date Approved by Curriculum and Programs: February 15, 2017

Effective: Fall 2017

1. **Course Number:** BIT113
Course Title: Microcomputer Hardware
2. **Description:** Students learn the anatomy of a microcomputer by disassembling, assembling, upgrading, and customizing a PC. Students evaluate purchasing vs. building a PC. The role of the BIOS and CMOS in the POST and BOOT processes is explored. System boards, processors, memory, and peripherals, including input, output, multimedia, network and data devices are studied. Students learn troubleshooting, safety, basic operating systems procedures, and security and preventive maintenance techniques. Customer service is stressed. This course covers the hardware material for the CompTIA A+ certification exam.
3. **Student Learning Outcomes** (instructional objectives, intellectual skills):
Upon successful completion of this course, students are able to do the following.
 - Demonstrate the ability to properly install, configure, upgrade, troubleshoot and repair microcomputer hardware including desktop and portable systems, basic networks, and printers.
 - Demonstrate basic operating system procedures including installation and troubleshooting.
 - Identify, install, and troubleshoot printers and scanners.
 - Describe the fundamental principles of security and troubleshoot security issues.
 - Use safety and common preventive maintenance procedures.
 - Demonstrate effective behaviors that contribute to customer satisfaction.
4. **Credits:** 3 credits
5. **Satisfies General Education Requirement:** No
6. **Prerequisites:** ENL108 (Critical Reading & Thinking) or satisfactory basic skills assessment scores.
7. **Semesters Offered:** Fall, Spring
8. **Suggested General Guidelines for Evaluation:** The course grade is based on an evaluation of assignments, examinations, projects, and a final exam.
9. **General Topical Outline** (Optional): Personal computer components; Laptops and portable devices; Tools, diagnostic procedures, and troubleshooting techniques; Preventive maintenance; Printers and scanners; Security; Safety and environmental issues; and Communication and professionalism.