SYLLABUS
PART I
EDISON STATE COMMUNITY COLLEGE
CIS 215S MICROCOMPUTER HARDWARE
3 CREDIT HOURS

COURSE DESCRIPTION
Exploration of microcomputer hardware, components and peripherals. Emphasis on the importance of the microcomputer specialist's ability to recognize, install, change, and modify computer systems and components. Configuration and connection of peripheral equipment is explored, as is the installation of network hardware and cabling. Prerequisite: CIS 110S and CIS 211S. Lab fee.

COURSE GOALS
The student will:

| Bloom's Level | | | Program Outcomes |
|---|---|---|---|
| 3 | 1. | Build, configure, upgrade, and maintain a personal computer system. | 4, 7, 8 |
| 4 | 2. | Diagnose and resolve problems of a personal computer system. | 3, 7, 8 |
| 3 | 3. | Install and configure various computer peripheral devices. | 4, 5 |
| 4 | 4. | Install and configure printers as well as diagnose and resolve problems related to printers and printing. | 3, 4, 5, 8 |
| 3 | 5. | Set up, configure, and maintain a local-area network. | 6, 8 |
| 4 | 6. | Resolve network connectivity problems on a local-area network using a systematic troubleshooting approach. | 3, 6, 8 |
| 3 | 7. | Install, configure, upgrade, and maintain Microsoft® Windows® operating systems. | 4, 7 |
| 4 | 8. | Diagnose and resolve problems using Microsoft® Windows® system tools. | 3, 8 |
| 2 | 9. | Recognize the specialized functions of the network server and the conditions required for a secure network server room. | 3, 8 |
| 3 | 10. | Use relevant workplace safety and environmental standards during computer maintenance. | 5, 8 |
| 3 | 11. | Effectively use a customer-oriented approach to resolve user problems. | 6, 8 |
| 3 | 12. | Demonstrate the ability to provide computer hardware and software support based on a set of standards and systematic diagnostic principles. | 6, 8 |

CORE VALUES
The Core Values are a set of principles that guide Edison State Community College in creating its educational programs and environment. They will be reflected in every aspect of the College. Students' educational experiences will incorporate the Core Values at all levels, so that a student who completes a degree program at Edison State Community College will not only have been introduced to each value, but will have had them reinforced and refined at every opportunity.

TOPIC OUTLINE
1. Binary signals and alternate numbering systems
2. Microprocessor architecture
3. Microcomputer bus structure
4. Power supplies and connections
5. Primary storage
6. Secondary storage devices
7. Microcomputer monitors and resolution standards

8. Output devices, cabling, and configuration
9. Pointing and input devices
10. Communications devices, network cards, network protocols, and cabling
11. Computer assembly and troubleshooting
12. Diagnostics software and routines
13. Operating system basics and installation
14. Comparisons of different microcomputer families and configurations
15. Trends in microcomputer hardware