

NVCC COLLEGE-WIDE COURSE CONTENT SUMMARY

ETR 159 - MICROCOMPUTER PERIPHERALS (4 CR.)

COURSE DESCRIPTION

The course is designed to provide the student with basic knowledge of the typical peripheral devices found in a microcomputer system. The devices covered are printer, disk drive, CRT monitor, and keyboard. Emphasis is placed on troubleshooting techniques. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

GENERAL COURSE PURPOSE

To provide a basic understanding of the operation of typical microcomputer peripheral devices.

ENTRY LEVEL COMPETENCIES

Prerequisite for this course is ETR 285 – “Fundamentals of Microcomputer Repair”.

COURSE OBJECTIVES

Upon completion of the course, the student should be able to troubleshoot typical peripheral devices found in a microcomputer system to its least repairable module.

MAJOR TOPICS TO BE INCLUDED

LECTURE

- A. Printers
- B. Centronics Interface
- C. RS-232 Interface
- D. CRT Monitors
- E. Video Waveform
- F. Monitor Interface
- G. CRT Controller Board
- H. Keyboards
- I. Disk Drives
- J. Disk Drive Interface
- K. Hard Disk Drives
- L. Hard Disk Devices Interface

LABORATORY

- A. Printer Switch Settings
- B. Printer Carriage Motor
- C. Printer Interface Signal Analysis
- D. Video Signal Measurement and Analysis
- E. Interface Signal Measurement and Analysis
- F. Video Character Generator
- G. Key Set
- H. Disk Alignment/Adjustment
- I. Disk Drive Test Points
- J. Hard Disk Drive Partitions