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