NVCC COLLEGE-WIDE COURSE CONTENT SUMMARY

ETR 261 - MICROPROCESSOR APPLICATION I (4 CR.)

COURSE DESCRIPTION

Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

GENERAL COURSE PURPOSE

ETR 261 is designed as a one semester, lecture and laboratory concerned with the basic principles of microprocessors and microcomputers.

ENTRY LEVEL COMPETENCIES

Prerequisite: ETR 167 - "Logic Circuits and Systems I"

COURSE OBJECTIVES

As a result of the learning experiences provided in this course, the student should:

        A.   know the principles of counters and registers
        B.   know the fundamentals of microprocessors and microcomputer systems

MAJOR TOPICS TO BE INCLUDED

    LECTURE

        A.   The computer bus system
        B.   Introduction to I/O and memory
        C.   Timing/multiplexing
        D.   Introductory Assembly language programming
        E.   Basic I/O & interfacing techniques
        F.   Introduction to 16 bit microprocessors

    LABORATORY

        A.   MMD-1 Familiarization
        B.   Bit comparison
        C.   Port selection
        D.   MMD-1 key board
        E.   Memory expansion
        F.   Machine cycles
        G.   D/A conversion
        H.   A/D conversion