[A-3]COURSE SYLLABUS

1. Course Description (Approximately 100 words)

A Microprocessor is a multipurpose programmable logic device which reads the binary instructions from a storage device called 'Memory' accepts binary data as input and process data according to the instructions and gives the results as output. So, you can understand the Microprocessor as a programmable digital device, which can be used for both data processing and control applications. In view of a computer student, it is the CPU of a Computer or heart of the computer. A computer which is built around a microprocessor is called a microcomputer.

2. Course Goals and Objectives (Approximately 100 words)

By the end of the course, the student will have an understanding of:

- Microprocessor as a multipurpose programmable logic device
- The access of binary instructions from storage devices
- Processing of binary data as input and processing of data according to the instructions
- The microprocessor as a programmable digital device
- Understand the computer which is built around a microprocessor is called a microcomputer.

3. Textbook (Title, Author, Publisher, Year of Publication, etc.)

Microprocessors and Microcomputers: Hardware and Software (6th Edition) Mar 4, 2002
by Ronald J. Tocci and Frank J. Ambrosio

4. Reference

Microprocessors and Microcomputer-Based System Design May 25, 1995 by Mohamed Rafiquzzaman

5. Course Requirements and Grades

CAT 30%
EXAM 70%

6. Course Calendar

Week	Main Content
1	Microprocessors, Microcomputers and Assembly Language: Microprocessor
2	Interfacing I/O devices and Memory. Memory mapped I/O and I/O mapped I/
3	Register Organisation of 8086, Architecture, Signal Descriptions of 8086
4	Physical Memory Organisation, General Bus Operation,I/O Addressing Capa
5	Minimum Mode 8086 System and Timings,Maximum Mode 8086 System an
6	Machine Language Instruction Formats, Addressing Modes of 8086
7	Instruction Set of 8086, Assembler Directives and Operators, ALP
8	MID-TERM EXAM
9	Introduction to Stack, Stack structure of8086, Interrupts and Interrupt Servic
10	Interrupt Cycle of 8086, Non Maskable Interrupt, MaskableInterrupt (INTR), I
11	The 8255A Programmable Peripheral Interface
12	Illustration: Interfacing Keyboard and Seven-Segment Display, Illustration: B
13	The 8259A Programmable Interrupt Controller, Direct Memory Access(DMA)
14	FINAL EXAMINATION