Department of EEE
Faculty of Engineering

Course Profile

Semester: Summer
Year: 2019
Level/Term: 4-1

I. Course Code:	EEE 324		
II. Course Title:	Microprocessor and Interfacing Laboratory		
III. Credit:	1	**IV. Pre-Requisite:**	EEE 323
V. Contact Hours:	Lecture- 2 hours/week		

VI. Course Objectives:

This is a sessional course where main objective is realizing the operation of power system protection modules along with theory.

The objectives of this course are:

- Understand the basics of assembly language
- Using assembly commands to implement basic algorithms
- Understanding the layout of an 8086 processor
- Learning to operate a basic 8086 kit

VII. Course Outcome (COs):

Sl. No.	COs (Upon successful completion of this course, students should be able to)	Corresponding POs	Bloom's taxonomy domain/level*			Delivery Methods & activities	Assessment tools
			C	A	P		
CO 451-1	**Interpret** the assembly language algorithms	d	2	-	4	Lectures, Demonstration	Lab performance, Report, Final quiz
CO 451-2	**Design** various approach to control a 8086 microprcessor	c	3	4	2	Lectures, Demonstration	Lab performance, Report, Final quiz
CO 451-3	**Realize** the possible fields where 8086 can be implemented.	a	2	3	1	Lectures, Demonstration	Lab performance, Report, Final quiz

* C: Cognitive, P: Psychomotor; A: Affective

VIII. Course Plan with Detail Description:

Session	Contents	CO
Week 1	INTRODUCTION TO EMULATOR8086 AND DATA ADDRESSING MODE	CO 451-1
Week 2	FAMILIARIZATION WITH THE STACK MEMORY ADDRESSING MODE	CO 451-1
Week 3	SINGLE CHARACTER, STRING AND NUMBER PRINTING TO DISPLAY USING ASSEMBLY LANGUAGE	CO 451-1,2
Week 4	USING LOOP AND CONDITIONAL JUMPS IN ASSEMBLY LANGUAGE	CO 451-1,2
Week 5	USE OF SUBROUTINE AND MACRO IN ASSEMBLY LANGUAGE.	CO 451-1,2
Week 6	INTRODUCTION OF MICROPROCESSOR KIT 8086 AND TO WRITE INSTRUCTION TO MEMORY AND EXECUTE.	CO 451-3
Week 7	WRITING A PROGRAM TO TURN ON/OFF THE LEDS PRESENT IN MDE-8086 KIT.	CO 451-1,3
Week 8	INTERFACING 8086 WITH SERIAL MONITOR AND WRITING LOGICAL INSTRUCTIONS USING 8086 AND SERIAL MONITOR.	CO 451-1,2,3
Week 9	TO WRITE A PROGRAM TO DEMONSTRATE I/O OPERATION, CREATING ABS FILE OF IT AND LOADING IT USING WINCOMM SOFTWARE.	CO 451-1,2,3
Week 10	WRITING A C LANGUAGE PROGRAM TO TURN ON/OFF 8X8 MATRIX LED PRESENT IN MICROPROCESSOR 8086 KIT AND LOAD IT TO MEMORY USING WINCOM SOFTWARE.	CO 451-1,2,3

IX. Evaluation Policy:

Marks Distribution:	Attendance	10%
	Report	25%
	Performance	25%

	Quiz	40%
	Total	**100%**
Grading System:	As per DIU rule	

X. Resources:

Textbooks:

1. **Microprocessor and Interfacing (2nd Edition)**
   - Douglas Hall

XI. Course Link in Moodle/Google Class Room:

Google Classroom code:

XII. Course Instructor(s):

- Name: Khandaker Reaz Mahmud
  Designation: Lecturer
  Email: khandaker.eee@diu.edu.bd
  Cell: 01521253140

XIII. Approval of the teacher along with sign:

I/We agree that you may excerpt some of my work to share with other teaching assistants and faculty. The purpose is to assess student learning and to improve teaching. I recognize that every effort will be made to keep this information confidential and that my name will not be associated with my comments.

Signature of the Instructors