CSE231+CSE232 **Microprocessor and Assembly language with Lab** **Credit Hours: 3+1** **Department of CSE**	**Md. Riazur Rahman** **Dept. of CSE, CIS & CS** **Faculty of SIT** **Daffodil International University** **Email:** **riazur_rahman@daffodilvarsity.edu.bd** **Contact: +8801982076848**

COURSE OUTLINE

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Week	Topics
1	Introduction, Historical background, The Electrical Age, Microprocessor, The Pentium Microprocessor
2	Internal architecture of 8086, Segment address of 8086, Registers of 8086, Flag Registers, 8086 Addressing Modes
3	Basic features of 8086/8088, Pin diagram of 8086/8088, Description of pins, 8086 memory addressing, Direct Memory Access (DMA) operation
4	Assembly Language Preliminaries, Instruction & assembler directive, Data type, variables, constant, arrays, Basic Instructions (MOV, XCHG, ADD, SUB NEG etc.), Conversion of HLL to AL instruction, Memory models, INT instruction, Function 1, 2, 9, 4CH., First Assembly Program
6	FLAGS Register, Status & Control Flags, Signed Overflow, Unsigned Overflow, Effects on Flags
7	Conditional & Unconditional Jump, Branching Structure, IF, IF-ELSE, CASE, WHILE, REPEAT...UNTIL, FOR
8	Midterm Exam
9	Logic Instruction: AND, OR, XOR, NOT, Shift Instruction: SHL, SAL, SHR, SAR, Rotate Instruction: ROL, RCL, ROR, RCR
10	STACK, PUSH, POP, PUSHF & POPF instruction, Procedure: NEAR, FAR, CALL & RET
11	Multiplication, Division in Assembly Language
12	String Processing
13	Review Classes
14	Final Exam

Reference Books:

1. Microprocessor and Interfacing By D.V. Hall
2. Assembly language programming By Ytha Yu, Charles Marut
3. The Intel Microprocessors By Barry B. Brey.