







Flow up of
implementation
syllabus

Course Instructor	Auhood Hadi Jabbar
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Title	<i>Microprocessors</i>
Course Coordinator	
Course Objective	Provide an overview of the computer architecture which is a description of the structure of a computer system and also Introduce the general information about the Intel family of microprocessors and thorough knowledge of 8086 MP especially
Course Description	Briefly detail the history of the computer and list applications performed by computer systems. Providing information about 8086 microprocessor, its architecture, registers, addressing modes, interrupts, interfacing. Describing the function of the microprocessor and detail its basic operation. Drawing the block diagram of a computer system (CPU) and explain the purpose of each block. This description is written for students who require a thorough knowledge of programming using assembly language and interfacing of the Intel 8086 microprocessors. Enabling the student to use this information in teaching.
Textbook	Richard blum, professional assembly language, wiley publishing, inc, 2005 Walter a. triebel, "the 8086 microprocessor architecture, software and interfacing techniques".prentice hall, 1985 THE INTEL MICROPROCESSORS, 80386,80286,80188.8088/8086 Pentium, Pentium Pro Processor Pentium II, Pentium III, Pentium 4, and Core2 with 64-Bit Extensions Architecture, Programming, and Interfacing Eighth Edition ARRY B. BREY 2009 Kant, K., 2007. <i>Microprocessors and Microcontrollers: Architecture, Programming and System Design 8085, 8086, 8051, 8096</i> . PHI Learning Pvt

<p>Republic of Iraq The Ministry of Higher Education & Scientific Research 2024-2023</p>	 <p>وزارة التعليم العالي والبحث العلمي Ministry of Higher Education & Scientific Research</p>	<p>University: College: Department: Stage: Lecturer name: Academic Status: Qualification: Place of work:</p>			
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<p>Course Assessment</p>	Term Tests	Laboratory	Quizzes	Project	Final Exam
<p>General Notes</p>					

Course weekly Outline

week	Date		Lab. Experiment Assignments	Notes
1	17/9/2023	Introduction Computer system Hardwar Computer parts	Introduction Assembly and machine languages	
2	24/9/2023	Microprocessor elements CPU architecture	Learn the skill to use emu 8086 program	
3	01/10/2023	Fetch and execute cycle Examples of Applying this cycle	Examples of Applying this cycle By using MOVE instruction	
4	08/10/2023	Explain the BUS system (ADD, ADC) Additions instructions	(ADD, ADC) Additions instructions	
5	15/10/2023	Multi-Tasking technique Subtraction instruction (SUB, SBB)	Examples of Subtraction instructions (SUB, SBB)	
6	22/10/2023	Brief History of Intel Family Providing a detailed and comprehensive comparison of all family	varied examples ADD,ADC SUM,SBB,MOV	
7	29/10/2023	8086 MP architecture increment INC or decrement DEC	INC and DEC examples	

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8	05/11/2023	Pipelining IN 8086 and Logical instructions NOT. AND,OR.XOR,TEST		Varied examples Including code of programming of Logical instructions NOT. AND,OR.XOR,TEST	
9	12/11/2023	Execution unit and Multiplication instructions MUL AND IMUL Division instructions DIV AND IDIV		Varied examples Including code of programming of MUL, IMUL,DIV, IDIV	
10	19/11/2023	Flags register With examples		Implementation of flag Registers with example	
11	26/11/2023	Logical address and Physical address With varied examples and Unconditional transfer instructions Call, RET,JMP		Programs include Unconditional transfer instructions Call, RET,JMP	
12	03/12/2023	Segment Overlapping		additional examples	
13	10/12/2023	Assembly language Instruction Format Conditional transfer instructions		examples of how to use Conditional transfer instructions	
14	17/12/2023	Addressing modes		revision and additional examples	
15	24/1/2023	Exams			
16	31/1/2023	Exams			

Half-year Break



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17	28/1/2024	Addressing modes	
18	04/2/2024	Types of Instructions Data Transfer Instructions LEA,LDS and LES	Simple programs of LEA,LDS and LES
19	11/2/2024	Set of arithmetic instructions.	Various programs for mathematical operations.
20	18/2/2024	Types of Logical instructions	Various programs for Logical operations
21	25/2/2024	Shift and rotate instructions	Various programs
22	03/3/2024	String instructions	Examples string instructions
23	10/3/2024	Stack	Examples POP PUSH
24	17/3/2024	Interrupt	Examples About interrupt
25	24/3/2024	Interrupt types	Examples interrupt instructions
26	31/3/2024	I/O Port	I/O instructions
27	07/4/2024	Procedure	Simple programs of procedure
28	14/4/2024	Procedure	Additional programs
29	21/4/2024	Array	Code of programs
30	28/4/2024	Array	Varied programs
31	05/5/2024	Review	Review
32	12/6/2024	Exams	

تؤيد اللجنة العلمية مطابقة الخطة التدريسية لمفردات منهج المادة الدراس

Instructor Signature(Lab.)

Instructor Signature(Theoretical)

1st Scientific committee member

2nd Scientific committee member

3rd Scientific committee member

Head of Scientific committee

Dean