

Course Description Form

1. Course Name:					
Microprocessor Techniques I					
2. Course Code:					
MRTE1330					
3. Semester / Year:					
1 st Semester					
4. Description Preparation Date:					
6-2-2024					
5. Available Attendance Forms:					
presence					
6. Number of Credit Hours (Total) / Number of Units (Total)					
3/15					
7. Course administrator's name (mention all, if more than one name)					
Name: Noor Ayad Yousif Hilantu Email: noor.a.yousif@uotechnology.edu.iq					
8. Course Objectives					
Course Objectives			<p>1- Understanding the concept of micro processing and identifying bus cycles, time states, and operations synchronization.</p> <p>2- Designing hardware circuits of interfacing and programming them and Writing software in assembly language</p>		
9. Teaching and Learning Strategies					
Strategy		<p>1- Learn the basic instruction of 8086</p> <p>2- Design an interface circuit and Writing software in assembly language</p> <p>3- Theoretical lectures, practical experiments, emulator software</p>			
10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject	Learning	Evaluation method

			name	method	
1	3	Internal Architecture of 8086 8086's Addressing Modes		Lectures	Discuss and evaluate homework
2	3	8086's Instruction set: Data Transfer Instruction		Lectures	Discuss and evaluate homework
3	3	Arithmetic Instructions		Lectures	Discuss and evaluate homework
4	3	Continue:		Lectures	Discuss and evaluate homework
5	3	Logic Instructions		Lectures	Discuss and evaluate homework
6	3	Shift & Rotate Instructions		Lectures	Discuss and evaluate homework
7	3	Control Flow Instructions		Lectures	Discuss and evaluate homework
8	3	Subroutine Instructions		Lectures	Solve questions
9	3	Loop Instructions		Lectures	exam
10	3	8086 Microprocessor modes and signals		Lectures	Discuss and evaluate homework
11	3	System clock and Bus cycles		Lectures	Discuss and evaluate homework

12	3	Basic I/O interface		Lectures	Discuss and evaluate homework
13	3	The 8255 programmab Peripheral Interface		Lectures	Discuss and evaluate homework
14	3	The 8255 programmab Peripheral Interface (continued)		Lectures	exam
15	3	Memory interface		Lectures	Discuss and evaluate homework

11. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports etc

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	The 8088 and 8086 Microprocessors Programming, Interface, Software, Hardware, and Applications By: Walter A. Triebel & Avtar Singh
Main references (sources)	The Intel Microprocessors 8086/8088, 80186/80188, 80286, 80386, 80486, Pentium, and Pentium Pro Processor-- Architecture, Programming, and Interfacing By: Barrey B. Brey
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	