

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

Republic of Iraq
The Ministry Of Higher Education
& Scientific Research



University: Diyala University
College: of Engineering
Department: computer & software
engineering
Stage: second year
Lecturer name: Abdullah Their
Abdulstar

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Course Instructor	Assistant lecturer Abdullah Thair Abdulstar				
E-mail	Abdullah.thaier@yahoo.com				
Title	System programing				
Course Coordinator	Theory : ٢ hrs\w Practical : ٢ hrs\w				
Course Objective	<ol style="list-style-type: none">١. Define the computer part.٢. Study these parts and how these parts connect and operate.٣. Study and describe of ٨٠٨٥ microprocessor.٤. Make the student knows how to write a Program in assembly language the ٨٠٨٥.٥. Experiment the programing by the student.				
Course Description	Microprocessor ٨٠٨٥ Programing of microprocessor ٨٠٨٥				
Textbook	<ol style="list-style-type: none">١. Microprocessor Architecture Programming and applications with ٨٠٨٥ By R.S.Gaonkar٢. Computer System Fundamentals by Dohof, J.٣. ٨٠٨٦, ٨٠٨٨, ٨٠٢٨٦ Assembly Language by Scanlon٤. Microprocessor Architecture Programming and applications with ٨٠٨٥ By R.S.Gaonkar٥. Computer System Fundamentals by Dohof, J.٦. ٨٠٨٦, ٨٠٨٨, ٨٠٢٨٦ Assembly Language by Scanlon				
Course Assessments	Term Tests ١	mid	Term Tests ٢	Laboratory	Final Exam
	(١٠%)	(٢٠%)	(١٠%)	(١٠%)	(٥٠%)
General Notes					

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Course Weekly Outline

Week	Date	Topes Covered	Lab. Experiment Assignments	Notes
١	٢٣/٩/٢٠١٤	Computer parts and how these parts connect and operate	Define the microcomputer	
٢	٣٠/٩/٢٠١٤	Study of ٨٠٨٥ microprocessor pins and signals	Define the microcomputer part ١	
٣	٠٧/١٠/٢٠١٤	Internal Architecture of ٨٠٨٥ microprocessor: ALU, Timing and control unit, Instruction register and decoder, Register array.	operate the microprocessor ٨٠٨٥	
٤	١٤/١٠/٢٠١٤	Data Transfer Instructions:MOV Rd, Rs, MVI Rd ٨-bit, LDA ١٦ bit, STA ١٦ bit.	Experiment ١: ١-١	
٥	٢١/١٠/٢٠١٤	LHLD ١٦ bit , SHLD ١٦ bit , LXI Rp ١٦ bit , MOV R,M	Experiment ١-٢	
٦	٢٨/١٠/٢٠١٤	LDAX Rp , MOV M,R, STAX Rp	Example ١	
٧	٠٤/١١/٢٠١٤	IN ٨-bit , OUT ٨-bit	Example ٢	
٨	١١/١١/٢٠١٤	Arithmetic And Logic Instructions: ADD R , ADI ٨-bit.	Example ٣	
٩	١٨/١١/٢٠١٤	٤.٢ SUB R , SUI ٨-bit.	Experiment ١-٤	
١٠	٢٥/١١/٢٠١٤	٤.٣ INR R , DCR R , ANA R , ANI ٨-bit. ٤.٤ ORA R , ORI ٨-bit, XRA R , XRI ٨-bit.	Example ١ Example ١.١	
١١	٠٢/١٢/٢٠١٤	Branch Instructions: MP ١٦-bit, JC ١٦-bit, JNC ١٦-bit	Example ١.٢	
١٢	٠٩/١٢/٢٠١٤	JZ ١٦-bit, JNZ ١٦-bit, JM ١٦-bit,	Example ١.٣	

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		JP ١٦-bit.		
١٣	١٦\١٢\٢٠١٤	JPE ١٦-bit, JPO ١٦-bit	Experiment ٢	
١٤	٢٣\١٢\٢٠١٤	Arithmetic Operation Related To Memory: ADD M, , , DCR M	Example ١	
١٥	٣٠\١٢\٢٠١٤	SUB M ,INR M	Example ٢	
١٦	٠٦\٠١\٢٠١٥	End term exam		
Half – year break				
١٧	١٧\٠٢\٢٠١٥	Additional Logic Instructions:RLC, RAL,	Experiment ٣	
١٨	٢٤\٠٢\٢٠١٥	RRC instructions	Experiment ٣.١	
١٩	٣\٠٣\٢٠١٥	RAR instructions,	Example ١	
٢٠	١٠\٠٣\٢٠١٥	CMP ,M instructions	Example ٢	
٢١	١٧\٠٣\٢٠١٥	R, CMP instructions	Example ٣	
٢٢	٢٤\٠٣\٢٠١٥	Counter And Time Delay: Write a program to setup time delay using : one register , register pair , and loop techniques	Experiment ٣.٢	
٢٣	٣١\٠٣\٢٠١٥	Write a program to setup time delay using: register pair ,	Example ١	
٢٤	٧\٠٤\٢٠١٥	Write a program to setup time delay using : loop techniques	Example ٢	
٢٥	١٤\٠٤\٢٠١٥	Stack And Subroutine: Define: Stack, Stack pointer Register, Program counter, and their uses.	Experiment ٣.٣	
٢٦	٢١\٠٤\٢٠١٥	How information is stored and retrieved by using PUSH and POP.	Example ١	
٢٧	٢٨\٠٤\٢٠١٥	LXI Sp ١٦- bit , PUSH Rp , PUSH PSW, POP Rp , POP PSW instructions	Example ٢	
٢٨	٠٥\٠٥\٢٠١٥	CALL and RETURN instructions	Example ٣	
٢٩	١٢\٠٥\٢٠١٥	Interrupt Instructions: Interrupt	Experiment ٤	

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		Process.		
٣٠	١٩/٠٥/٢٠١٥	RSI instructions	Experiment ٤.١	
٣١	٢٦/٠٥/٢٠١٥	EI, DI instructions	Example	
٣٢		End term exam		

INSTRUCTOR Signature:

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