Republic of Iraq
The Ministry of Higher Education and Scientific Research
Supervision and Scientific Evaluation Body

College : Shatt Al-Arab University College
Department : Computer Technology Engineering
Stage: First
Lecturrer Name: Salah Mortada
Academic Status: Assistant lecturer
Qualification: Master's degree

Course Weekly Outline

Lecturer Name	Salah Mortada Shahen
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Subject Name	Computer organization
Course Objective	1- Introducing the student to the basic circuits in the installation of an electronic calculator, studying the main parts of memory, input and output units, and the microprocessor, and studying the internal structure of the processor and the internal injunctions of the 8085 processor. 2- The practical application in laboratories of the theoretical lessons and urging students to apply them.
Course Description	Keeping abreast of developments in the field of computer design, its uses and scientific and practical applications in various areas of life.
References	1- Computer organization and architecture: a design for performance (8th edition) by William stalling. 2- Computer Organization, By: Carl Hamacher, 5th Edition, McGraw-Hill, NY, USA, 2002.

Course Assessment	**Term Exam**	**Project**	**laboratory**	**Quizzes and Attendance**	**Final Exam**
	20	**-**	**10**	**10**	**60**

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Objectives	Scientific material	Theoretical material	date	week
The ability to apply knowledge of the basic parts of a computer organization, the ability to design, formulate and solve theoretical problems and implement them in practice, the ability to be provided with sufficient information to pursue their scientific qualification, and the ability to work in applied fields.	Introduction to computer systems, Main parts of computer system, Organization and architecture.	Introduction to computer systems, Main parts of computer system, Organization and architecture.	**1/11/2021**	**1**
	Von Neumann architecture	Von Neumann architecture	**8/11/2021**	**2**
	Introduction to the main digital component (registers, buffers, decoder, encoders, multiplexer ….)	Introduction to the main digital component (registers, buffers, decoder, encoders, multiplexer ….)	**15/11/2021** **22/11/2021**	**3**, **4**
	Memory hierarchy (internal registers, primary memory, secondary memory, cache memory …)	Memory hierarchy (internal registers, primary memory, secondary memory, cache memory …)	**29/11/2021** **6/12/2021** **13/12/2021** **20/12/2021** **27/12/2021**	**5**, **6**, **7**, **8**, **9**
	System buses	System buses	**3/01/2022**	**10**
	Memory addressing, Memory organization and expansion	Memory addressing, Memory organization and expansion	**10/01/2022**	**11**
	CPU basic Organization: Arithmetic & logical unit organization (parallel adder cct., subtraction cct., increment & decrement cct., logical cct.)	CPU basic Organization: Arithmetic & logical unit organization (parallel adder cct., subtraction cct., increment & decrement cct., logical cct.)	**17/01/2022** **24/01/2022** **31/01/2022**	**12**, **13**, **14**
	CPU basic organization : Control unit	CPU basic organization : Control unit	**7/02/2022** **14/02/2022**	**15**, **16**

	organization	organization		
	Input & Output organization (peripherals devices , isolated and memory mapped I /O , data transfer	Input & Output organization (peripherals devices , isolated and memory mapped I /O , data transfer	**21/02/2022**	**17**
	Computer S /W (machine language , assembly language , OS , …)	Computer S /W (machine language , assembly language , OS , …)	**28/02/2022**	**18**, **19**
	Basic concept Idea of microprocessor	Basic concept Idea of microprocessor	**14/03/2022**	**20**
	Introduction to 8085 UP architecture	Introduction to 8085 UP architecture	**21/03/2022**	**21**
	8085 Pin configuration	8085 Pin configuration	**28/03/2022**	**22**
	8085 addressing mode & instruction set	8085 addressing mode & instruction set	**4/04/2022 11/04/2022**	**23**, **24**
	Instruction set group for 8085 , data transfer group , Arithmetic and logic group Branch group instructions for 8085 Stack memory and subroutine	Instruction set group for 8085 , data transfer group , Arithmetic and logic group Branch group instructions for 8085 Stack memory and subroutine	**18/04/2022 25/04/2022**	**25**, **26**
	8085 Assembly Programming I	8085 Assembly Programming I	**2/05/2022 9/05/2022**	**27**, **28**
	8085 Assembly Programming II	8085 Assembly Programming II	**19/05.2022 23/05/2022**	**29**, **30**

Lecturer signature **Head of Department Signature**