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

University : Shatt Al Arab
College : Engineering Technique
Department : Medical Device Technology Engineering
Stage: Second
Lecturrer Name: Assistant Lecturer Aya Abdul Hussein
Academic Status: Master's
Qualification: Lecturrer at : Shatt Al Arab University

Course Weekly Outline

Course Lecturer	**Assistant Lecturer Aya Abdul Hussein**				
e-mail	**ayah.abdulhussain@sa-uc.edu.iq**				
Title	**Computer programming and its applications**				
Course Coordinator					
Course Objective	**Enabling the student to use the MATLAB language effectively to solve mathematical and engineering problems, and design projects using programming or graphical user interfaces (GUI).**				
Course Description	The student will acquire skills in dealing with the MATLAB environment, understanding basic programming syntax, and designing and implementing algorithms to solve applied problems using various MATLAB tools.				
Textbook	Introduction to MATLAB for Engineers William J. Palm III				
References	INTRODUCTION TO MATLAB FOR ENGINEERING STUDENTS ,David Houcque				
Course Assessment	**Term Exam**	**Project**	**practical**	**Quizzes and Attendance**	**Final Exam**
General Notes	**Assessment according to Bolonga system** **Quizzes 10% Assignments 10% Projects / Lab. 10% Report 10% Midterm Exam 10%**				

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Week	Date	Topics Covered	Number of Hours	Notes
1		introduction, MATLAB Environment, MATLAB Windows (Command Window, Workspace Window, Command History .window, Help Window, Editor Window).	3	
2		A First Program, Expressions, Constants, Entering Matrices, Useful Matrix Generators, Subscripting, End as a subscript, Colon Operator, Transpose Deleting Rows or .Columns.	3	
3		Variables and assignment statement, logical .operator.	3	
4		Arrays, Built in functions, Basic Matrix Functions (sum, max, min, mean, magic, diag, .length, size, median, prod, sort).	3	
5		Basic Plotting (Multiple Data Sets in One Graph, Specifying Line Styles and Colors, Multiple Plots in One Figure, Setting Axis .Limits).	3	
6		Arguments and return values, M-file, input-.output statement	3	
7		Control Statements (Conditional statements: .If, Else, Elseif, switch case)	3	
8		Repetition statements: (While statement, For .statement)	3	

Lecturer signature

Head of Department Signature