



Course Summary

Course Instructor	Dr. Najwa Raheem Mustafa				
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Title	Computer3 (MATLAB)				
Course Coordinator					
Course Objective	Teach the students MATLAB programming language.				
Course Description	The aim of the course is to give students essentials of MATLAB programming language, manipulating matrices in MATLAB, 2D and 3D graphs, loops and conditional statements, polynomials, integration and differentiation in MATALB.				
Textbook	Gilat, Amos; MATLAB an Introduction with Applications (4 th ed.); John Wiley & Sons; 2011.				
References	<ol style="list-style-type: none"> 1. Hahn, Brian; Valentine, Daniel T.; Essential MATLAB for Engineers and Scientists(3rd ed.); Elsevier Inc.; 2007 2. Attaway, Stormy; MATLAB: A Practical Introduction to Programming and Problem Solving; Elsevier Inc.; 2009 3. Hunt, Brian R.; Lipsman, Ronald L.; Rosenberg, Jonathan M.; A Guide to MATLAB for Beginners and Experienced Users; Cambridge University Press; 2011. 				
Course Assessments	Term Tests	Laboratory	Quizzes	Project	Final Exam
	20	15	5	---	60

Course Weekly Outlines

Week	Topics Covered	Lab. Experiment Assignments
1	Introduction to MATLAB, essentials.	Examples on MATLAB
2	Arithmetic operations, order of precedence, variables, and statements.	Examples on arithmetic operations, order of precedence, variables, and statements.
3	MATLAB built-in functions	Examples on MATLAB built-in functions
4	Arrays: creating arrays, built-in functions .	Examples on arrays: creating arrays, built-in functions.
5	Arithmetic operations on arrays, solving linear systems.	Examples on arithmetic operations on arrays, solving linear systems.
6	Script files.	Examples on script files.
7	User-defined functions.	Examples on user-defined functions.
8	2D & 3D plots.	Examples on 2D plots.
9	2D & 3D plots, cont..	Examples on 3D plots.
10	Conditional statements.	Examples on conditional statements.
11	Conditional statements, cont..	Examples on conditional statements.
12	Loops.	Examples on loops.
13	Polynomials.	Examples on polynomials.
14	Differentiation and integration in MATLAB.	Examples on differentiation and integration in MATLAB.