



Ministry Of Higher Education and Scientific Research
Mustansiriyah University/College of Science/Department of Mathematic



(الخطة الدراسية للمساق)

Course Plan

Course No.: 54451143

Academic Year: 2022/2023

Course Name: Programming Topics in computer science(1) **Time Division:** 3hr Theoretical and 2hr Practical

Semester & Year: First , 2022 /2023

Course Description

(2 credit hours, Prerequisite : Introduction to matlab languages , functions and commands , matrices construction .

Course Intended Outcomes:

At the end of the Course, students are expected to learn basics of matlab language, using simple built in functions, using matrices, indexing.

Course Outline:

Week	Topics Covered		
1	1.General Introduction 2.Getting started with MATLAB.		
2	1. MATLAB as Calculator . 2.Logical Expressions and Operators.		
3	1.Roots of Polynomials. 2.Constructing polynomials from known roots.		
4	1. Evaluation of polynomial at specified values. 2.Rational Polynomials.		
5	.Using MATLAB to make plots.		
6	Script and function files. Exercise.		
7	Representation of Numbers		
8	Base-N and binary.		
9	Floating point numbers.		
10	1.Functions and operators. 2.Exercise.		
11	Matlab Functions And Commands Deals With vectors.		
12	Matlab Functions And Commands Deals With Matrices .		
13	1.Roots approximation 2.Roots of quadratic equations.		
14	Newton's Method for roots approximations.		
15	1.Bisection method for roots approximations. 2.Exercise.		

Textbooks:

[1] Numerical analysis Using MATLAB and Excel 3rd edition 2007.

[2] An introduction to MATLAB Programming and numerical Methods for Engineers 2014.

Suggested references:

[1] Numerical Computing with MATLAB 2004.

Marking:

First Semester				Second Semester				Final Exam
1st exam	2nd exam	Practical	Activity	1st exam	2nd exam	Practical	Activity	
16	16	4	4					60

Assignments and/ or Projects:

Assignment/ Project	Description	Due Date	Marking
Problems	Tutorial-homework		3
Test questions	Test students understanding		3

Instructor(s) information

Section: 2

Lecture Room: [مختبر الدراسات الأولية & A402]

Office No.: (2)

Instructor's Name: *Dr. Ahmed Shawki* : Email : *a.s.jaber20@uomustansiriyah.edu.iq*

Office Hours: Mon. : (10:10 - 11:00)

wed.: (10:10 - 11:00)

NOTES:

-Office Hour: Other office hours are available by appointment.

-The content of this syllabus not be changed during the current semester.



Lecturer Signature

Chairman Signature