



CHE137/138 Computer Programming 2016-17 Fall/Spring Semester

Faculty Members:	Lecturer. Ayhan AYDIN
Research Assistans:	Res.Assitant Rahime songür/Rahime Songür
Credits:	(3 2) 4
AKTS Credits:	5
Class:	Compulsary
Precondition:	-

Course Definition

Definition of, manipulation of, and operations on matrices and other data types available within Matlab. Matlab's basic entity, the matrix, multidimensional arrays, cell arrays and structure arrays. Curve fitting on experimental data working with polynomials. Programming in Matlab, scripts and functions in Matlab-code, Working with Matlab function-functions. Numerical integration and optimization on MATLAB functions solving differential equations. Matlab Graphics.

Course Aim

Main objective is learning definitions, manipulations and operations on matrices and other data types available within Matlab.

Course Source

1. Lecturer's notes.
2. Matlab for Engineers - Pearson Education - Holly Moore ISBN13: 9780131362178

Teaching methods and techniques

Lecture,
Question/Answer
Discussion

Course Teaching Outputs

1. Recognize commands and their output in Matlab program.
2. Compute mathematical operations (such as limit, derivative, integral) using computer
3. Construct simple user defined functions to solve the given problems
4. Analyze the output of a given program
5. Modify a written program for obtaining the solution of a problem

MÜDEK Çıktıları- Ders Öğrenme Çıktıları İlişkisi -orta/çok katkı yapılanlar

No	MÜDEK Çıktısı	Ders Öğrenme Çıktısı No				
		1	2	3	4	5
4.1	Modern teknik ve araçları geliştirme, seçme ve kullanma becerisi;	X	X			X
4.2	Bilişim teknolojilerini etkin bir şekilde kullanma becerisi	X	X			
6.3.	Bireysel çalışabilme becerisi			X	X	
7.2.	En az bir yabancı dil bilgisi	X		X	X	

Weekly Schedule

Week	Subject
1	Introduction. Review: matrix operations
2	Matrices and vectors, Matrice and Array Operations
3	Interactive Computing, Flowcharting
4	Control Structures, Ifs, Loops, Style
5	Switch, Loop , Array Examples
6	Examples, Functions
7	Functions, Recursion
8	Matlab Structures and Objects
9	Matlab Structures and Objects, Strings
10	File Input Output
11	Plotting,More on Graphics and Plotting
12	Polynomials, Curve Fitting and Interpolation
13	Advanced 3-Dimensional Plots
14	Applications in Numerical Analysis

Performance Evaluation

Evaluation Type	Count	Average
Midterm	1	40
Homework	1	10 (homework and quiz)
Final Exam	1	50
TOPLAM		100

Etik Kod

Derste; sınavlar, ödevler ya da projelerde kopya yapılmasına "sıfır tolerans" gösterilir. İlgili yaptırım, Ankara Üniversitesinin Disiplin Yönetmeliği'nde tanımlanmıştır.

Tarih:

Ad-Soyad;

İmza