EEE 208 – Programming for EEE
8.45 – 12.30, Tuesday

INSTRUCTOR: Assist. Prof. Dr. Engin Mendi
OFFICE: 226
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OFFICE HOURS: By appointment

DESCRIPTION: The aim of this course is to introduce basic principles of programming and implementing mathematical concepts in MATLAB.

REFERENCES

1. A Practical Introduction to Programming and Problem Solving, S. Attaway, 2nd Ed. Butterworth-Heinemann: 2011.
2. Introduction to MATLAB for Engineers, W. J. Palm III, University of Rhode Island. The McGraw-Hill Companies, Inc.: 2010.
3. Experiments with MATLAB, C. Moler, http://www.mathworks.com/moler/exm/chapters.html
4. Matlab ile Programlama, D. Dal.

GRADING

Attendance	5 %
Quizzes	15 %
Homework	15 %
Midterm Exam	30 %
Final Exam	35 %

TENTATIVE COURSE TOPICS SCHEDULE

Week 1	Introduction to MATLAB, Standard MATLAB Windows, MATLAB as a Calculator, Assignments, Operation with Variables
Week 2	Operations with Arrays and Matrices, Introduction to 2-D Graphics
Week 3	Writing Script files (m-files), conditional statements, Writing Comments
Week 4	Loop statements and program flow, Working with 2-D Graphics (plots, subplots, logarithmic and polar)
Week 5	Writing Functions, Working with graphic handles and 3-D Graphics
Week 6	Review, Phasors, s and z-planes in Matlab
Week 7	Data and Data Flow in MATLAB, Data Types (format short, long, bank etc)
Week 8	Midterm Exam
Week 9	Function optimization, working with symbolic math toolbox
Week 10	Differentiation and Integration, Solving Ordinary Differential Equations
Week 11	Regression and Fitting Functions; Statistics Toolbox
Week 12	Signal Processing Toolbox
Week 13	Communication with External Devices
Week 14	Introduction to Simulink, Modeling Electrical and Mechanical Systems