

Department of Mechanical & Aerospace Engineering

MAE10

Introduction to Engineering Computations

Winter Quarter 2011

Instructor:

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Required Textbook:

Author: Holly Moore

Title: MATLAB for Engineers (2nd Edition)

Publisher: Pretince Hall.

Grading:

Homework: 10 %

Midterm I: 25 %

Midterm II: 30 %

Final Exam: 35 %

No late homework will be accepted under **any** circumstances. Students absent to a midterm will have their final examination weighted to the correct percentage of the class grade.

Integrity Statement:

It is expected that all material you prepare for this course MUST be original. While it is expected that you will consult references in preparing the material for the class, you may not turn in material prepared by someone else as original material in fulfillment of the assignments and exams for MAE-10. Any evidence of this will be considered a possible violation of academic integrity and be reported as such to the office of undergraduate affairs.

Main Goal:

The main goal of the course is to develop computational programming skills and learn computational tools to be used in the solution of engineering problems.

Topics:

1. Introduction to Computing
2. Basic Matlab commands
3. Arrays: one-dimensional and multi-dimensional
4. Flow control
 - 4.1 Selective execution
 - 4.2 Repetitive execution and iterations
5. Input and Output
6. Modular Programming: Functions
7. Plotting
8. Advanced data types

Note:

Parts of this course are subject to change in order to meet the needs of the students currently enrolled.