

MONTGOMERY COLLEGE
Dept. of Engineering, Physical and Computer Science
ENES 206 MATLAB for Engineers

Course Description:

ENES 206 MATLAB for Engineers 1 credits
Introduction to MATLAB and prepare students for subsequent courses requiring computation with MATLAB in engineering. It covers basics of MATLAB including simple commands, variables, vector, matrix, plotting, solving equations, differentiation, integration, differential equations and fundamentals of programming in the MATLAB environment. Examples will be given in the applications of physics and engineering.
PREREQUISITE: MATH 182. *One hour lecture and one hour laboratory each week.*

Instructor:

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Required Textbook:

Materials edited by the instructor.

Main Objectives of the Course:

1. To use basic command and graphics in MATLAB.
2. To apply MATLAB in solving algebra and calculus problems.
3. To create simple MATLAB programs in engineering applications.

Course Contents:

1. Introduction to MATLAB and basic commands
2. Variables and symbolic variables
3. Symbolic function and function handle
4. Solving algebra equations
5. Plotting and graphics
6. Differentiation
7. Integration
8. Solving differential equations
9. Script and function .m files
10. MATLAB programming
11. Engineering applications

Grade:

Tests	45%
Lab Exercises	40%
Final Project	15%

Reference Books:

1. *A Guide to MATLAB for Beginners and Experienced Users, 3rd edition*, by Brian R. Hunt, R. Lipsman and J. Rosenberg. Cambridge University Press
2. *Introduction to MATLAB 7 for Engineers*, by William Palm III, McGraw Hill.

Make-Up Exam Policy:

Make-up exams are only given to the students who are officially excused. Please contact the instructor at least three days before the exam to rearrange the make-up test. If emergency occurs that students can't prearrange the make-up test, students need to talk to instructor as soon as possible and provide documents to prove the situations. In these cases, doctor's letter, government's paper and other official documents are accepted.

Support Service:

A student who may need an accommodation due to a disability should talk to me as early as possible. A letter from Disability Support Service (DSS) authorizing your accommodations will be needed.