



MATLAB Tutorial

ECE 002

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Tutorial Outline

- Functions using M-files.
- Numerical Integration using the Trapezoidal Rule.
- Example #1: Numerical Integration using Standard Programming (Slow).
- Example #2: Numerical Integration using Vectorized MATLAB operations (Fast).
- Student Lab Exercises.

What Are Function M-Files

- Function M-files are user-defined subroutines that can be invoked in order to perform specific functions.
- Input arguments are used to feed information to the function.
- Output arguments store the results.
- EX: $a = \sin(d)$.
- All variables within the function are local, except outputs.

NOTE: Local variables are variables that are only used within the function. They are not saved after the M-file executes.