

Objectives for ENGR 121 Exam 2:

For this exam you should be able to:

Complete all of the objectives for Exam1

Work with files

- create a data file using a text editor or Microsoft Excel
- read in ASCII and Excel files
- write ASCII & .MAT files
- describe what a delimiter is
- assign a specific variable name to an imported data array
- address an imported array

Plot in MATLAB and Excel

- create and label an xy graph in MATLAB and EXCEL with either a single or multiple series
- properly format a graph based on the "Requirements for a Correct Plot" and the "Hints for Improving Plots" (including critiquing and improving a provided graph)
- solve an equation graphically
- copy graphs, functions, and command window material into a word processing program and organize into a coherent solution
- create log-log and semi-log plots in MATLAB
- plot functions in MATLAB and EXCEL
- create figures with multiple plots (subplots)

Program in MATLAB and Excel

- evaluate relational expressions by hand and in MATLAB (i.e., expressions involving <, >, ==, ~=, ...)
- evaluate logical expressions by hand and in MATLAB (i.e., expressions involving and, or, not, ...)
- explain and use the order of precedence for relational and logical expressions
- use the MATLAB function *find*
- use logical functions with character variables
- use if structures to carry out branching, including if, else, and elseif in MATLAB
- use and explain a switch-case statement
- use and describe a simple for loop used for a fill or a accumulation type problem
- explain what will happen in a given one of the above structures with given inputs
- debug a defective code using the above structures

Exam:

Wednesday, April 2nd

- There will be a substantial function problem.
- The test is closed book and notes.
- You may have one (8.5 x 11) sheet of paper with your own notes.
- You may use a calculator in the computer portion of the test.
- Accessing the internet, your network drive or portable media during the exam will result a failing grade on the exam.