

COEN 45, MATLAB Programming
Winter Quarter, 2011

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Lab Instructions

General

COEN 45 is a five-unit course of which one unit is for the lab sessions. You should be registered for one of the three lab sessions which are held in the Design Center. The lab assistant will take charge of the lab sessions. Please arrive on time because he will usually have some comments about the assignment at the start.

You must do your work and submit it during the lab period. If you are unable to finish an assignment or are absent from a session, you can attend a makeup session near the end of the quarter. Download and study the instructions for each lab *before* coming to the lab session. Bring your textbook - you may need it for reference. And don't forget MATLAB's extensive built-in help.

Assignments

Assignments will be posted at <http://www.gibson2.com/coen45>, the class web page. You must do your own work, though I encourage you to consult with your fellow students during the lab. The end product of each submission will be a MATLAB script that does the work specified in the assignment. In some cases you will also generate function files. Your lab assistant is there to help if you get stuck. When you have finished, please do the following:

1. Demonstrate the script to the lab assistant.
2. Print a copy of your script file and sign it. Also print a copy of any function files that you have generated and any plots that were requested. Leave these copies with the lab assistant.
3. Some assignments ask you to explain some result. Write your comments on your script printout at the appropriate point.
4. All files must begin with a comment section (text with a % character at the start of each line). At a minimum, the comment section must include:
 - Assignment number
 - Brief description of the assignment
 - Your name
 - Today's date

Commands that fail

Lab or homework assignments may occasionally ask you to do things that will generate MATLAB error messages (such as bogus matrix multiplications). In order to prevent MATLAB from terminating your script when it encounters such an error, enclose the offending command in a try-catch-end sequence.

```
try
    x = sqrt(z);    %% will fail if z does not exist
catch
    disp('error!'); %% write your own message
end;              %% MATLAB continues after end
```

Grading

Assignments will be graded with a maximum of 10 points. In order to receive full credit,

- Your script must execute properly
- Your script should be properly indented and reasonably commented
- You must answer any questions in the assignment

You should be able to get full credit on all labs. If your work is deficient in any way you have the full lab time in which to fix it.