Note: Discussion is held in ECT123 and the notes are specific to the computers in those labs, but you can use these notes as a general guide for other computers.

### **Starting Octave:**

Click the quickstart icon. Start > GNU Octave 3.2.0 > click on Octave icon

After clicking the Octave icon, you will see a black window pop up with some text:

GNU Octave, version 3.2.3 Copyright (C) 2009 John W. Eaton and others. This is free software; see the source code for copying conditions. (stuff) octave-3.2.0.exe:1:D:\(some directory) > (blinking cursor)

All commands are issued from a command line, symbolized by the greater than sign (>).

ls or dir – see contents of current directory
cd – change directories
delete – remove file
copyfile – copy file
movefile – renames or moves files
mkdir – make directory
rmdir – remove directory
clc – clear screen
exit – closes terminal
edit – opens text editor
pwd – lists the pathway to the current directory
... – double dots indicate one directory higher

Keep in mind these commands are case sensitive.

Let's try some commands out. First, where are we?

```
> pwd
ans = D:\(some directory)
```

We are in a subdirectory within the **D**: drive. If you type ls you will see the contents of this folder.

```
> ls
(many files that end in .dll)
```

These are the files that run Octave and we don't want to mess around with them. Let's try moving around our computer using commands at the command line. First, move out of the **D**: drive into the **C**: drive. We do this with the **cd** command.

```
> cd C:
> pwd
ans = C:\
```

We are now in C: drive (the hard drive). You can get to the same folder using the graphical user interface (GUI). Go to **My Computer > C:**. You can see what is in the C: drive with the **ls** command.

Let's go to the Desktop.

> cd 'Documents and Settings/'
> cd pnissens
> cd Desktop
> pwd
ans = C:\Documents and Settings\pnissens\Desktop

You are now in the **Desktop** folder and can see what is on your Desktop by typing **ls**. These are the same files and folders that are on your Desktop.

Let's create a folder on your Desktop called **Discussion1**.

```
> mkdir Discussion1
> ls
```

You should be able to see the folder **Discussion1** on your Desktop. What is in it?

```
> cd Discussion1
> pwd
ans = C:\Documents and Settings\pnissens\Desktop\Discussion1
```

You are in the correct folder.

### > ls

You should see nothing because there are no files or folders in this directory. Let's make a simple text file.

### > edit firstfile.txt

A simple text editor should open up. Type anything you want, save the file, then close the text editor if you wish.

Ta da! You have created a text file. Note that you can open this file from your normal graphical user interface. Next, we will move the file into a sub-folder

> mkdir HW	/1
>ls	(see the new directory 'HW1' and the old file 'firstfile.txt'?)
> movefile	firstfile.txt HW1
> 1s	('firstfile.txt' has been moved into the folder 'HW1')
> cd HW1	
> ls	(this is the new location of 'firstfile.txt')

If you want to move the file up one directory (out of 'HW1' and back into 'HW\_Assignments') you can type the following command,

> movefile firstfile.txt	(the double dots mean <i>one level up</i> )
> 1s	('firstfile.txt' has been moved out of 'HW1')
> cd	
> 1s	(there it is)

You can make a copy of a file with the **copyfile** command.

> copyfile firstfile.txt backup\_firstfile.txt
> ls (you have made an identical copy with a different name)

There are a couple of time-saving tricks you can use.

- Cycle through old commands with the up arrow

- Use TAB to auto-complete commands, file names, and folder names.

### **Starting Matlab:**

In Windows, you can start Matlab by clicking on Start > Programs > Matlab > Matlab. You are now at a command line.

Notice the Matlab uses both a graphical user interface and a command line interface. It is more user friendly (and more expensive) than Octave.

## **Creating your first M-File:**

At the command line, type the following:

### > edit myfile.m

You should now be in a text editor. Within the text editor, type the following:

x = 5; y = 7; z = 5\*7; disp('z = ') disp(z)

Save and exit. At the command line, type the M-File name without the **.m** extension.

> myfile

You should see...

z = 35

Now you need to submit your M-File to the EEE dropbox. First, let's rename our M-File using the following format:

ID#\_HW#\_problem#.m

For example: ID12345678\_hw2\_problem3.m

> rename myfile.m ID12345678\_hw2\_problem3.m

# Submitting your homework to EEE dropbox:

Once you are ready to submit your M-files, access your EEE DropBox by:

1. Login to your: <u>EEE account</u>:

2. On the left column, click on the link "Access DropBox" under MyDropBox.

or

Look for "ENGRMAE 10: INTRO ENGR COMP" under "MyStudentClasses", and find the link called "DropBox".

3. On the left column again, you should find a list of folders under "Folder View". Click on the folder link for the corresponding homework assignment you wish to submit.

- 4. Click on the "Assignment Submission" folder link to open up the folder.
- 5. Use the "Upload Files" link on the right column to open the upload menu.
- 6. Follow the displayed instructions to complete your electronic homework submission.

Submit this file to the dropbox called "Discussion 01"