**Helpful Matlab Functions, v.2**

Here’s a list of Matlab functions that you may find helpful. I expect to update this document during the semester, and will denote each update with a new version number.

- **ceil(x)** rounds x to the next highest integer.
- **figure(x)** creates a new figure with label x. For example, figure(1) creates a new figure titled ‘figure 1’, etc. This just sets up a place and name for a figure, it doesn’t create any content.
- **hist(x)** creates a histogram from array x.
- **length(x)** returns the size of the longest dimension of x. If x is a vector, this is the same at its length.
- **mean(x)** returns the mean value of x. If x is a vector, the mean value of x is returned. If x is an array the columns of x are treated as vectors and a row vector of mean values is returned.
- **ones(x,y)** creates an array of dimensions (x,y) of ones
- **plot(x,y)** creates a plot using vector ‘x’ for the x-axis, and vector ‘y’ for the y-axis
- **rand(x,y)** returns an array of dimensions (x,y) of random numbers between 0 and 1
- **round(x)** rounds x to the nearest integer
- **std(x)** returns the standard deviation of x. If x is a vector, the standard deviation of x is returned. If x is an array the columns of x are treated as vectors and a row vector of standard deviations is returned.