

## Introduction to Programming

### Practice

#### Basic graphics

- Create a new script called '**practicePlot**', and in it do the following:
- Create the following vectors:
  - **xVec** = 0:0.1:20
  - **sinVec** = sin(xVec)
  - **cosVec** = cos(xVec)
- Plot the vectors sinVec and cosVec (as a function of xVec), both on the same graph – use a different color and line style for each vector.
- Add to your graph: title, xlabel, ylabel, legend.
- Change the limits of the x-axis and of the y-axis.

#### Graphic handles

- Create a 1X7 vector containing random numbers between 0-10, and plot it while getting its handle.
- Change the line color and style by using this handle and the 'set' command.
- Get the handle of the 'axes' object (by using the handles hierarchy – through the handle to the 'line' object) and use this handle to change the limits of the x-axis and the y-axis of your graph.
- Get the handle of the 'figure' object (by using the handles hierarchy - through the handle to the 'axes' object) and use it to change the figure's color.
- Add labels to the x-axis and the y-axis using handles (hint: they are objects with handles of themselves – can be reached by the properties of the 'axes' object).