# EE 315 -132
## Dr. Adil S. Balghonaim
## Assignment 1
## Due Tuesday April 29

(a)   Generate 200 random number **uniformly** distributed in the interval (0,1).

(b) plot the histogram of the data ?

(c) write a matlab program to calculate the **mean** and **variance** of the random variable in (a) and verify the result **theoretically** and using the the Matlab function **mean** and **cov**?

**Note**: In writing matlab program to calculate the **mean** and **variance** of the random variable in (a) , do not use the the Matlab function **mean** and **cov** .

(d) Generate 300 random number uniformly distributed in the interval (1,2) and plot the histogram?

(e) Generate 300 random number uniformly distributed in the interval (−1,0) and plot the histogram?
(f) Generate 300 random number uniformly distributed in the interval (0,4) and plot the histogram?
(g) Generate 300 random number **Gaussian** distributed of mean 3 and variance 2 and plot the histogram?