

Engineering Analysis ENG 3420 Fall 2009

Dan C. Marinescu

Office: HEC 439 B

Office hours: Tu-Th 11:00-12:00

Lecture 21

■ Last time:

- Relaxation
- Non-linear systems
- Random variables, probability distributions, Matlab support for random variables

■ Today

- Histograms
- Linear regression
- Linear least squares regression
- Non-linear data models

■ Next Time

- Multiple linear regression
- General linear squares

Statistics built-in functions

- Built-in statistics functions for a column vector s :
 - $\text{mean}(s)$, $\text{median}(s)$, $\text{mode}(s)$
 - Calculate the mean, median, and mode of s . mode is a part of the statistics toolbox.
 - $\text{min}(s)$, $\text{max}(s)$
 - Calculate the minimum and maximum value in s .
 - $\text{var}(s)$, $\text{std}(s)$
 - Calculate the variance and standard deviation of s
- If a matrix is given, the statistics will be returned for each column.