Lec15 IAM550 J. Raeder 10/22/2019 Rehash arrays, loops, functions

New:

- Weekly study guide, at end of Tuesday lecture script.
- Self test posted every Friday on the web page. Solution Monday COB.
- Second midterm exam, tentatively scheduled for Thursday, November 7, during class time, 60 minutes.

Review Exam.

All on the blackboard or real time MATLAB

- Rehash loops, assignments in vectors.
    - Vectors → 1d arrays
    - Create array: assignment, sequence, zeros, ones, rand
    - 2d arrays
    - how to index array, left, right side
    - for loops: sum array, dot product, matrix product
- More on for loops
    - Loop over anything in a vector
    - Loop over string arrays
    - Nested loops
    - Translate sums into loops → Fourier sum
- More on for loops
    - Histogram (random numbers cubed)
    - Show cubing as for loop or vector operation
    - Plot histogram → bar() function
    - Random walk / drunken sailor histogram
    - Population age histogram

Study guide for this week, also topic of this week's labs:

- 'for' loops
- vector creation and indexing
- 'while' loops
- numerical integration