COSC150: Laboratory 1 (5 September 2023)

Collaboration and Introduction to Programming Concepts: Getting Started with Excel

I.   Who are we: Collaboration using Google Sheets:

   http://tinyurl.com/COSC150-Collaborations

II.   Simple Programming Concepts

   1. Variable names
   2. Assignment
   3. Random (pseudo-random) Number Generation
   4. Iteration
   5. Recursion
   6. Controls
   7. Conditions and Branching
   8. Visualization

One method of learning is to learn each skill, practice it, then apply it. Examples?
Use a "sandbox" approach, where you can learn specific skills without "fear" of harm.
Using Excel as a computational "sandbox". Developer mode.

III.   Algebra, Arithmetic, Numerics (numerical computing)

   1. What is "Exact", what is "approximate
   2. Round-off vs. Truncation
   3. What you learned in ARITHMETIC may not hold for NUMERICS

IV.   Simple Pet Model

   1. Variable names
   2. Assignment
   3. Control

V.   Flipping a coin, Genetics, Rolling a dice, PI

   1. Variable Names
   2. Conditions, Branching
   3. You vs. Machine
   4. Model Analogy

http://www.shodor.org/interactivate/activities/Histogram/

BEFORE THURSDAY CLASS 7 SEPTEMBER: Write a 1-2 page summary of what you
EXPECTED from each exercise, what you OBSERVED, and upon REFLECTION, what you
learned. EMAIL me (panoffrm@wofford.edu) in PDF format