

## **Fundamentals of Programming**

### **Study Guide Final CD**

The final competency demo in FOP is a two part, comprehensive, CD.

#### **Part One**

- "Traditional" exam question types give in Blackboard
- ~45 minutes
- Closed book. Closed notes. Closed Thonny.
- It will consist of a combination of multiple choice, short answer, and "paper/pencil" code writing.
- It will be comprehensive in that it will include questions related to reading/explaining code in both Scratch and Python.
- Any code-based suggestion from a previous study guide for CDs 1-4 still apply to this portion of the CD.

#### **Part Two**

- Coding questions using Thonny and submitted to Autolab (similar to CD3)
- ~1 hour
- You may use one page of notes that you bring with you.
- This portion of the CD will consist of several related code-writing questions.
- You will be provided with a CSV file and asked to write several functions that relate to this file.
- These could consist of:
  - Creating a basic math function that makes a calculation useful with this data.
  - Creating a File I/O function that reads and summarizes one column in the data file
  - Creating a File I/O function that reads in a base file and adds one or more columns of data to a related output file.
  - Creating a File I/O function that reads in a base file and produces a related output file containing only data that meets certain conditions.

While these may be presented in a particular order (task one, task two, task three, etc) you may not have to complete them in that order.

All of your functions will go into a single file and submitted to a single grader on Autolab that will return a score from 0-4. You may submit as many times as you like, but only the final submission will be graded.

NOTE:

It is important for me to state up front that I am trying to see what you have learned in this course as well as how well you can apply that knowledge to new problems. It is very possible that you will see questions on portions of this CD that don't initially look familiar to anything you have done. These are not there to trick you but to see how you can apply what you have seen. Do not panic if something looks too foreign. Do the best you can and know that I do not expect 100% for an A on the CD. Some of the questions are purposefully challenging and I am looking at how close you can get.

Most of you worked very hard this semester and I know that. Show me that hard work on here and you should be just fine!

Go Panthers.

Have a wonderful holiday break.