

## Coding Challenge I

### *Learning Python Syntax*

Due Monday, 9.13 at 11:59 pm

For this assignment and all future ones, submit answers in **PDF form, and programs in .py format only**. Screenshots can be saved and converted into a PDF. Submissions are uploaded through Blackboard.

#### **1. Print out a statement in Python introducing yourself 3 ways:**

- a. In the Python command shell
- b. In the W3Schools online editor
- c. In a saved program In PyCharm or another editor of your choice
- d. Automatically replace any “i” with “a”, “s” with “z” and “t” with “r” in your statement

#### **2. Define two lists in Python and manipulate their contents**

- a. Define a list A with you and two of your favorite people in it
- b. Define a list B with three biomedical areas that interest you
- c. Combine list A and B by appending or inserting the terms of each index in list B to list A
- d. Check if “imaging” is present in your list
- e. Sort your list
- f. Remove an item from your list
- g. Automatically print out the name of the 2<sup>nd</sup> item on your list

#### **3. Propose a grouping for class team projects based on the survey data ([here](#)) and following criteria:**

- The teams are as diverse as possible in backgrounds and interests
- Data from at least 5 features / columns must be included to identify the groups
- The teams are equitable (that is, all have similar chances of success on the semester modeling project based on their backgrounds, experiences or other criteria)

- There are 3 teams. Each team has 3 or 4 members.

**Please turn in answers the following questions as you solve the Coding Challenge**

**Problem 3:**

- A. What 5 or more attributes (answers to survey questions) did you decide to use to decide on teams? Justify why you picked these attributes
- B. Did you normalize, weight or otherwise change the data prior to analyzing?
- C. What assumptions are behind the approach you used?
- D. Who (letters A through I) are in each of the three team groups you picked?
- E. How did you measure that the teams you picked were (1) as diverse as possible and (2) equitable?
- F. Prepare a 30-60 sec pitch of your team choices to present in class