Assessment Plan – NEUR 265

Assessment Title

Coding Homework

Due Date

Coding Homework #1: 02/10/2023, 11:59 PM
Coding Homework #2: 02/24/2023, 11:59 PM
Coding Homework #3: 03/03/2023, 11:59 PM
Coding Homework #4: 03/10/2023, 11:59 PM
Coding Homework #5: 03/24/2023, 11:59 PM
Coding Homework #6: 03/31/2023, 11:59 PM
Coding Homework #7: 04/07/2023, 11:59 PM
Coding Homework #8: 04/14/2023, 11:59 PM
Coding Homework #9: 04/21/2023, 11:59 PM

Value

15 point each (135 points total)

Introduction

Learning to effectively code will require practice outside of the classroom. Weekly practice will allow you to **write effective code**, **create graphical output,** and **organize your data and code.** Coding homework will build off of concepts and work that we do in-class during the week.

Directions

Coding homework will be assigned in Google Colaboratory (colab.research.google.com) each week. I will share the homework sheet with you in Colab (via your Lafayette-linked Google account). Homework assignments will look much like the assignments we do in-class. You will be prompted to create snippets of code within the Colab notebook. You will sometimes use outside datasets to finish your homework – these datasets will be provided to you via Google Drive.

Once you have finished your homework, you will upload it as a Jupyter notebook in the main branch of your GitHub repository. You will do this by choosing “File”, and “Save a Copy in GitHub”.

Your notebooks will be scored on accuracy (does your code work?), organization and formatting (is your code as simple as possible?), and graphical output (are your graphs displaying the correct information? Are axes labeled?)

Scoring

Criteria	Weight	Unacceptable	Satisfactory	Exemplary
Accuracy	50%	(0 – 74.9%) Code does not run – produces errors consistently.	(75– 89.9%) Most code runs, but some produces errors.	(90 - 100%) All code runs perfectly.
Organization	15%	(0 – 74.9%) Code is extremely convoluted. Syntax that we have not covered in class is used.	(75-89.9%) Code is mostly clean, but sometimes convoluted.	(90 - 100%) All code is written as simply as possible, using only syntax covered in class.
Graphical Output	35%	(0 – 74.9%) Graphs display wrong output, axes aren't labeled, graphs are formatted incorrectly.	(75-89.9%) Graphs are mostly formatted correctly, but might contain slight errors/formatting problems.	(90 - 100%) Graphs display correct content, axes are labeled correctly, formatting is correct.

Assessment Plan – NEUR 265

Assessment Title

Final Poster Presentation

Due Date

Posters due 04/27/2023 at 11:59 PM
Posters will be presented during the final week of class

Value

50 points

Introduction

At the end of the semester, you will present a final project to the class. At the end of the semester, you will have a final project that you will present to the class. This project will be in the form of a scientific poster, with Introduction, Methods, Results, and Discussion sections. For this project, you will perform an original analysis of your data and present the output (your visualizations) in the Results section of the poster. The Methods section of the poster will contain information about the analyses that you performed, including snippets of code. The Introduction section will contain a paragraph about which analysis you chose and why, and the Discussion section will contain a paragraph outlining your interpretation of your results, and why you think they might be important. This project will enable you to **draw conclusions** about brain-behavior relationships, **write** clean and efficient code, and **create** clean and intelligible graphs.

Directions

To be given closer to the end of the semester.

Scoring

Criteria	Weight	Unacceptable	Satisfactory	Exemplary
Content	40%	(0 – 74.9%) The required content (as outlined in the assessment plan) is not present.	(75– 89.9%) The required content is generally present. Some parts may be missing.	(90 - 100%) The required content is clearly present and summarized well.
Organization	40%	(0 – 74.9%) The poster is not formatted correctly. Ideas are difficult to follow.	(75-89.9%) The poster is generally formatted correctly, but some parts may be sloppy.	(90 - 100%) The poster is formatted perfectly. The flow from Introduction to Discussion is immaculate. Ideas are easy to follow.
Oral Presentation	20%	(0 – 74.9%) Figures and concepts on poster are not explained correctly.	(75-89.9%) Explanation of content is mostly good. Presenter might read from cards.	(90 - 100%) Presenter engages with audience, explains everything on poster perfectly and with confidence.

Assessment Plan – NEUR 265

Assessment Title

Article Discussion & Reflection Essays

Due Date

Article Discussion: 01/27/2023 by 11:59 p.m.
Reflection Essay: 03/10/2023 by 11:59 p.m.

Value

20 points total (10 points each)

Introduction

Anybody can become good at coding. The idea that people are innately "good" or "bad" at math, science, and coding is false. How good you become at coding is largely dependent on how much effort you put into learning how to do it, and how well you learn from failure. Failure is normal when analyzing data and learning how to code – your code will almost certainly fail at some point during this course. This assignment will help you develop the confidence to be successful at coding.

Directions

During the first week of class, you will read the Slate article "The Secret Technique for Learning How to Code", and write a short (1-page) essay detailing the following:

- Your past coding experience, and your attitude toward coding (Do you like it? Are you apprehensive about it?)
- Your impression of the article, and how/if the article has changed your attitude toward coding or how you think about your own coding abilities
- Why you are taking this course, and what you hope to get out of it

For the reflective essay:

You will write a short (1-page) paper detailing the following:

- How has your attitude toward coding changed from the first week of the semester? What has contributed to this change?
- Which aspect/assignment have you liked the most during the course? Which have you liked the least? What are your reasons for both?
- Reflect on the skills you thought were necessary for coding at the beginning of the course. Do you still think those same skills are the most important for coding? Why or why not?

Scoring

Criteria	Weight	Unacceptable	Satisfactory	Exemplary
Content	70%	(0 – 74.9%) Content (as outlined in the assessment plan) is not present.	(75-89.9%) Paper is well summarized, content is generally present.	(90 - 100%) Paper is excellently summarized.
Clarity and Organization	30%	(0 – 74.9%) Summary lacks clear transitions. Too much (or too little) space is dedicated to one topic.	(75-89.9%) Transitions are present, and generally make sense. Outline of paper is clear.	(90 - 100%) Transitions are excellent. The summary flows well from beginning to end. Everything is presented in a logical order.