Evaluation Form – SP2024 MATH490/BIO490 – Final Project Presentation

| Name of Presenter: | Date of presentation: | |
|---|-----------------------|--|
| Name of Evaluator: Ann Podleski, Sandra Leal, Parag Bhatt | | |

| | Below | | Meets | | Exceeds |
|---|-------|---|-------|---|---------|
| Clearly defines research question for project. | 1 | 2 | 3 | 4 | 5 |
| 2. Demonstrates understanding of PlantCV environment. | 1 | 2 | 3 | 4 | 5 |
| 3. Workflow is designed in a logical order and is clearly explained. | 1 | 2 | 3 | 4 | 5 |
| Clearly explains the results of data analysis. If no data is presented, then describes challenges/issues. | 1 | 2 | 3 | 4 | 5 |
| 5. Provides a summary of CURE experience this semester. | 1 | 2 | 3 | 4 | 5 |
| 6. Clearly summarizes the significance of the work (in the light of item 5). | 1 | 2 | 3 | 4 | 5 |
| 7. Clearly communicates knowledge gains in data science and computer skills. | 1 | 2 | 3 | 4 | 5 |
| 8. Cogently addresses questions from the audience (i.e., has done the requisite reading). | 1 | 2 | 3 | 4 | 5 |
| Speaks clearly with adequate volume; avoids distracting mannerisms of speech and gesture; makes occasional eye contact, etc. In short, demonstrates good public speaking practices. | 1 | 2 | 3 | 4 | 5 |
| 10. Makes presentation of their project interesting and appealing to the audience. | 1 | 2 | 3 | 4 | 5 |
| 11. Additional comments: | 1 | | | | |

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Your final presentation for this course will be 15 minutes long. A successful presentation will have the following characteristics:

- Provide background information on the research problem for which Dr. Murphy's data was collected with respect to the phenotype(s) you chose to analyze. Why is studying maize subjected to nutrient stresses important?
- Explanation of student-generated research question. Given the image data that Dr. Murphy collected, what phenotype(s) did you choose to investigate further. What was your hypothesis? How did you design your workflow to obtain the measurements of your dataset (be prepared to explain why you chose to use a particular function within your workflow)?
- Were you able to obtain any data and conduct analysis? If so, please share any data you've collected regardless of stage in analysis. If you have analyzed data, what is your interpretation of the data you've collected and how to does it relate to the field? Even if you data is inconclusive or not significant, it is data collected with a research question in mind and the world deserves to know it!
- If you were unable to obtain results from your workflow, what obstacles did you face? If you had the opportunity to design your workflow all over again, how would you have approached the workflow design differently?
- Describe your experience as a data scientist in this course. Share with the group your challenges and successes, this was a journey for all of us. How does your experience relate to how you believe data scientists engage in research-driven projects?
- Be prepared to answer questions from the group, these questions are not designed to trip you up but to get you thinking about possible ways to further the research. As a member of this research collective, you should try to ask at least one question to each of your fellow researchers. Engaging in discussion is the way we all move forward in STEM.

Even though this is a final presentation, this is meant to be more of a final lab meeting. While these are fairly formal in their presentation style, the interactions are not meant to make anyone feel lesser or fall into traps. Do not hesitate to say "That's a very good question, I had not thought of that. I will look into it and get back to you."