

Slide Formatting Guide

BIOE 498/598 PJ

Spring 2022

Title Slide

- ▶ Assignment Name
- ▶ Names/e-mail addresses for all group members

Introduction and Research Questions

- ▶ What motivated you to study this system?
- ▶ Define the factors and the response.
- ▶ What questions are you trying to answer (big picture)?

Description of the Data

- ▶ Input factors, units, and ranges
- ▶ Response units and range
- ▶ Number of observations and replicates; if there were duplicates, say how many were averaged.

Methods

- ▶ What approach did you take?
 - ▶ **Example:** *We build a statistical model that predicts X using Y and Z .*
- ▶ Avoid jargon and technical terms. Simply explain the overall approach.

Results

- ▶ Results are factual based on the data and/or model.
- ▶ Write the results in words, including the effect sizes.
 - ▶ **Example:** *Applying fertilizer in January increased yields 1.1-fold over treating in April*
- ▶ Only describe the practically and statistically significant results. This avoids you needing to say “significantly” for every result.
 - ▶ **Exception:** Mention any effect that you expected to be significant but wasn't.
 - ▶ **Example:** *No change in yield between broadcast and plowed fertilizer applications.*

Conclusions

- ▶ Conclusions are subjective based on your interpretation of the results and/or judgment.
 - ▶ **Example:** *Treating in January increased yield by 10%, but this benefit needs to be compared to the costs of accessing the fields early.*
- ▶ If asked, include next steps or follow-up experiments/analyses.
 - ▶ **Example:** *We estimate another 8 runs are needed to determine if time of application and method of application interact.*

Supplementary slides

- ▶ The all data, code, and plots used in the analysis.