

# Reaction Paper Rubric

BIOL 1435

Spring 2023

## Assignment

Write a two-page synthesis paper for any of the assigned readings—excluding book chapters—from the syllabus. Students should format their paper into the following sections: 1) Motivation, 2) Methods, 3) Results, 4) Findings, 5) Conclusions, and 6) Questions; which correspond to the six questions in the rubric below. Students may choose when their reaction paper is turned in, but students must turn them in prior to the beginning of class with said assigned reading. Student's acting as discussion leaders may choose to write their reaction paper about the paper for which they are presenting.

## Grading Rubric

As a guide I have denoted in parentheses what sections these questions are commonly found in, but note that not every journal and article are formatted in the same way.

1. What was the goal/motivation of the study? - 10% (Introduction Section)
  - (a) Consider *why* the authors wanted to conduct the study as opposed to what they did.
2. What methods were used in this study? - 30% (Methods Section)
  - (a) What data was used in this study and how was it acquired (e.g., simulated gene trees from `msprime`, high-coverage whole genome *Drosophila* sequences collected from Southern Africa, etc)?
  - (b) What are the explicit/implicit assumptions in this study (e.g., constant effective population sizes in an underlying model, windows determined by LD-decay are independent, etc)?
  - (c) In what ways does this study's approach differ from previous work—i.e., what new feature, data, and/or analysis makes this work novel?
3. What were the results from this study? - 20% (Results Section)
  - (a) Synthesize all figures and tables in the main text.
4. How did the authors interpret their findings? - 10% (Discussion Section)
  - (a) How does this study relate to previous work?
  - (b) What is the contribution of this study to the field—i.e., what did this study discover that was new?

- (c) What questions did this study answer?
  - (d) What questions did this study raise?
5. What did the author(s) concluded based on their findings? - 10% (Conclusion Section)
- (a) What contributions did the author(s) make to the field (i.e., the overarching take home message)?
  - (b) What are the limitations of this study?
  - (c) Propose at least one follow-up experiment/analysis based on the authors conclusions.
6. What questions do you still have after reading this paper Make a list of at least three questions that you have after having read the paper. - 10%