

What should go into the Bio 350 Lab Report

You lab reports will be written using a scientific writing heuristic approach. In short, this means you will be coming up your own explanations as to what the data means, rather than trying to come up with the “right answer”. In most cases, there is no one answer fits all, especially when we begin measuring responses with live organisms. Below are the basic components for the Heuristic Lab Report. This is a list of topics to help you put your own thoughts together for the report – **DO NOT JUST SIMPLY ANSWER THE QUESTIONS YES/NO FASHION AS YOUR REPORT!** Use the information below to help you put together the content you want to include in your report.

1. Introduction (Beginning Questions and Information) –
 - a. What is the basic information available about this topic (i.e. in your textbook, in review articles)?
 - b. What are my questions about this topic, experiment, case study, or problem?
 - c. What information am I hoping to obtain by conducting this experiment?
 - d. What do I predict will happen?
2. Methods
 - a. What will I do to help answer my questions? During data collection? Types of data analyses to apply?
3. Results
 - a. Data/Observations – What did I observe when I completed my tests and procedures
 - b. Claims – What can I claim? What does the result mean?
 - c. Evidence – What evidence do I have for my claims? How do I know (statistics)?
4. Discussion – Reading, Reflections, and Relation to Lecture Topics –
 - a. How do my ideas compare with other ideas about this topic, or published information?
 - b. How have my ideas changed compared to what I thought before lab, or before lecture?
 - c. What connections did I make between the lab activity and the lecture concept?

Analysis of Data

1. Data is collected from every group, during every lab section, then merged into one data set. Electronic copies of the complete data set are posted online on Blackboard and the BIO 350 web page. Use the class data that corresponds with your section. For example, if you are in section 004 that meets on Wednesdays, you need to use the class data from Wednesday. On occasion, we may ask you to use the class data from all sections of the class (all of the Monday section and all of the Wednesday sections), but we will let you know in advance when this applies.

BOIO 350 Weekly Lab Reports
Report Formatting and General Guidelines

2. When constructing tables, figures and graphs, it is expected that you will present the average response, with standard errors, for each piece of information you and your classmates collected data on.
3. When making any comparisons or when trying to detect a “significant” change, statistical analyses such as Chi-square, regression, or analysis of variance ANOVA should be conducted on the data, using a p-value of 0.05.

Report Formatting

1. Insert a title page that includes the name of your report, your name, your student ID, your lab section number, and the date.
2. The title pages should be followed by the body of your report with sections put in the following order: Introduction (min 2 paragraphs), Methods (min 2 paragraphs), and Results/Discussion Sections (variable paragraphs), finished off by any figures or graphs (section labels Figures, and Graphs). When complete, your report should be between two and five pages long.
3. The textual body of the report is to be a minimum of 2 pages in length. This minimum is for the text - it does not include the additional pages for any tables or graphs.
4. In your report, you need to have at least one graph or table with proper labels. Do not embed the figures/graphs in the results section of your paper. Instead, add any tables or figures as separate sections (one for tables, a different one for figures) at the end of the report .
5. The final report must be typed with:
 - a. 10-12 point font
 - b. Double spaced (all text)
 - c. New Times Roman or Arial type fonts only---(just keep it simple and clean)---

Any other formatting styles will result in points deducted. No handwritten reports will be accepted. Final reports must be submitted online through blackboard – through the Safe Assign Link no later than 5 PM on the due date.
6. The report must be free of spelling and grammatical errors, including run-on sentences, improper punctuation, inappropriate use of acronyms, etc. Such errors, if found, will result in an automatic 1 point deduction per error (up to 5 points maximum per report). It is strongly recommended that you have your report reviewed by a fellow classmate before you submit it to Safe Assign.
7. All reports must be cleared through Safe Assign (no more than 10% match to any other publication, student paper, or article).