

Cell Biology Lab Report Guidelines

- Number all pages.
- Use 12-point font, Times New Roman, 1-inch margins (not 1.25), double-spaced.
- Report should be 5-7 pages long.
- Lab reports should be written in the third person with the object of the sentence replacing the subject.

For instance: instead of writing, "I chopped the spinach into one inch strips", write, "The spinach was chopped into one inch strips".
- Lab reports are DUE THE FOLLOWING WEEK at the start of lab. Lab reports should be handed in before the end of the quiz for full credit. Lab reports handed in between the end of the quiz and the end of the lab will receive 10 points less, lab reports handed in after the end of the lab are considered late and will receive 0 points.
- There are no re-writes.
- You must write your lab report ALONE.
- You must use the lab report format explained below.
- Each segment explained below must be included and presented in the order introduced below.
- You will convert your Lab Report into a .pdf format and upload it at the appropriate place on the course web site. Please note that you will also need to turn in an identical hard copy to your TA by the due date.

Title Page: 5 points. It should be on a separate page. Remember the title should not only be specific, but it should also accurately reflect the purpose of the experiment. Also on the title page include your name, date, your lab section and your lab partners.

Introduction: 30 points. Your opening paragraph should include the reason or purpose for performing the experiment. The following three to four paragraphs should provide background information necessary to the reader in order to comprehend the experiment. It's also important to structure this background information in a logical and coherent manner. In the last paragraph you should include your specific hypothesis about this experiment. Tell the reader what you predict (you can use first person here). Be as specific as possible. You must cite all references (e.g. Watson and Crick, 1953).

Methods: 10 points. You do not need to list the materials. Methods should be written in the third person, past tense and paragraph form. State exactly what was done in the lab, mention all protocol modifications.

Results: 20 points. Put ALL tables and graphs here, and a brief description of what you have observed during the experiment, but DO NOT analyze them until the discussion. For example if you were to measure a rock in lab this is the section in which you would give its weight. In the discussion you would then interpret that measurement and decide whether it's a heavy or light stone. Present your results to the reader in such a way as to make it easy for the reader to follow the experiment. Finally, remember to label your tables and graphs so it is easy to refer back to them in the discussion.

Discussion: 30 points. Restate your hypothesis. Was the hypothesis supported by the data? Why or why not? When answering these two questions you must explain how you came to your conclusions. You **MUST** use your data in order to determine if the original hypothesis held up or not. Error analysis is also an important part of this section. In every experiment you perform your results will never match your hypothesis exactly. There is always variation present and it is up to you to identify some of these sources of variation or error. That is why it is crucial for you to be taking detailed notes in your lab notebook during the experiment. You should also understand the concept of controls and compare all your data points to controls (if they are used in the experiment).

References: 5 points. List all cited references here. In text, cite references that you use, but do not quote directly from these. Do not use quotation marks when you are giving information from a source, everything should be in your own words. Remember, even if you are writing from memory you should search for authoritative sources to cite. Citations not only provide the reader with links to further information, but also protect the author from claims of plagiarism. Plagiarism will result in a grade of zero on the lab report and possible disciplinary action.

Example of a reference: Watson JD, Crick FH (1953) Molecular structure of nucleic acids; a structure for deoxyribose nucleic acid. Nature 171, 737-738.