

Abstract: Cellular Fermentation

BSC2010L

Guidelines

Spring 2021

For this assignment, you will gain experience writing an abstract using the information from the cellular respiration and fermentation exercise. **You will choose to write an abstract based on either the cellular fermentation or cellular respiration exercise. Be sure you are following the guidelines accordingly.** An abstract provides you an opportunity to briefly summarize what you did during the experiment and introduce the conclusions reached. When included in a full lab report, the abstract allows readers to quickly understand the purpose and significance of the experiments performed.

For this exercise, please be sure to reference any background information used from outside sources. You will need to reference at least one source, your lab manual, being sure to include a reference section. **As abstracts typically don't contain in-text citations you aren't required to use them for this assignment. However, you must paraphrase the information from your sources and include all references used in your reference section. Additionally, you will need to be sure you are using in-text citations appropriately for your full lab report assignment.**

Remember, your abstract must be completed individually. Summarize the lab information in your own words and reference sources appropriately. For more information regarding plagiarism, please refer to your syllabus and the USF Academic Integrity Policy.

As the abstract serves as an opportunity to draw readers in, it should be concise, no more than 1 page in length. All writing should be in the **correct tense** and in the **passive voice** (i.e. do not use the terms 'I' or 'We'). **Please be aware that the one page assignment limit does not include the reference section.** Your abstract should be type-written, double-spaced with 1 inch margins, in 12 pt 'Times New Roman' font.

Please note: when writing your abstract section headings should not be used. They are simply listed below to help guide you through the assignment.

Cellular Fermentation Abstract Guidelines:

Title: Includes a meaningful/original title, author's name, lab partner's name, course and section number.

Background Information: Include any background information that will help set the tone for your abstract. Please remember that it is necessary to use references in this assignment. For this portion of the exercise, you must use **at least** your lab manual as a reference.

Please be sure to include the following:

- A definition of cellular fermentation
- What are the roles of glucose, CO₂ and oxygen in cellular fermentation?
- A description of the different types of fermentation (i.e. alcohol fermentation vs lactic acid fermentation)
- Discussion of mono-, di- and polysaccharides in terms of their potential use as a food source

Hypothesis: Include your hypothesis for the cellular fermentation experiment. You should use the hypothesis that you wrote down in your lab notebook.

Results: This portion of your abstract should summarize the provided data from the fermentation activity. When describing your results, be sure to include actual data values (i.e. changes in CO₂ volume over time and between treatments). Writing a simple narrative regarding experimental outcomes is not sufficient.

Result Implications: Briefly discuss the implications of this experiment and state the major conclusions. You will want to consider the following question when writing your result implications:

- If differences were observed between the various carbohydrate and temperature treatments, what accounted for these differences?

Please note that this question is to help guide you in writing this section of the abstract, but your narrative for this question is not necessarily all inclusive of the experimental implications. Make sure you briefly but thoroughly discuss all result implications.

References: Please be sure to include a reference section. The citation style used in the natural sciences is the CSE (Council of Science Editors) citation style. Please reference Guidelines for Lab Reports document in the Appendices of your manual for guidance on format. **Direct quotes may not be used. All information used from another source must be paraphrased and cited appropriately.**

You are required to use at least your lab manual as a reference. Additional outside references must either be a textbook or a scientific journal article, **not a blog or other website.** Tools used to locate electronic copies of journal articles that might be pertinent to your topic include ISI Web of Science (portal can be accessed through the USF Library website, www.lib.usf.edu) and

Google Scholar (scholar.google.com). The library has a guide on how to get started on research and finding reference articles at <http://guides.lib.usf.edu/c.php?g=741066&p=5301722>. There is also an online textbook site at <http://www.ncbi.nlm.nih.gov/books> where you can search for textbooks dealing with your topic.

NOTE: Wikipedia is an encyclopedia and is not an acceptable reference for this course. However, like any encyclopedia, it might serve as a starting point for research, since Wikipedia uses citations and references.

To submit your abstract to Turnitin, go to 'Assignments' in Canvas, click on 'Abstract', then on the 'Upload Submission' button in the assignment dashboard. Be sure that you click the 'Submit' button after uploading the file. You will only be allowed to submit Microsoft Word doc and docx file types. PDFs will not be accepted. You will not receive credit for this assignment unless you submit the full document to Turnitin along with a matching hard copy in class. It is your responsibility to ensure that your document is uploaded correctly. Do not wait until the last minute to submit your assignment.