

Guidelines for the Biology 190 Laboratory Writing Assignment

The Assignment:

The semester project for BIOL 190 is a short literature review of a recent, peer-reviewed, original research journal article within the context of cell and/or molecular biology.

You will choose a topic that interests you, but the primary focus of the paper will be the original research article you choose as your main source. Therefore, you are reviewing a specific original research article, not writing a report on the topic itself.

Picking a topic:

Take the time to select a topic that interests you. Choosing a topic for which there is plenty of literature available will make your assignment considerably easier, but avoid topics that are too broad. You may consider starting with a broad topic and then narrowing it down to a specific subsection of that topic. For example, "stem cells" is far too general of a topic, while "embryonic stem cells used to engineer tooth production *in vitro*" is a good, specific topic.

The CSN library services have a great page to help you get started. It provides assistance in picking your topic, and looking for sources. Visit this link: <http://libguides.csn.edu/research-101/choose>

Other great sources for ideas are science news sites such as:

- Sciencedaily.com
- EurekAlert!

Think of a few sample topics. Your instructor will need to accept your proposed topic. Topics that are not strictly based on *current* cell and/or molecular biological research are not permitted.

A few sample topics

- Specific use of stem cells (e.g. used in dentistry)
- Probiotics: good bacteria in foods (lactobacillus, bifidobacterium, pick one)
- Food-borne illness: bad bacteria in foods (salmonella, campylobacter, E. coli, pick one)
- The biochemical basis of obesity
- Low dose of aspirin for treatment of chronic disease
- Genetic engineering of plants/crops
- The development and/or treatment of cancers (pick one)
- Use of algae to produce oil
- Use of algae to reduce CO₂ in the air and decrease the Greenhouse Effect
- MRSA: methicillin resistant staphylococcus aureus

- Current understanding of the mechanisms or treatment of infectious disease.
 - Chose one: Cholera, Rabies, Hanta Virus, Pneumonia, The Plague, Mumps, Measles, Mad Cow Disease, Influenza, Polio, AIDs, West Nile Virus, Ebola
- Current research into diabetes (type 1 or 2)
- Caloric Restriction Diet
- New vaccine development
- Prions

Choosing Resources:

The library has created a site especially for the BIOL190L research paper. <http://libguides.csn.edu/biol190>. We will spend one entire lab period using the library resources to get you started.

You will need AT LEAST one peer-reviewed, scholarly *original research* article as your main source of information, and a minimum of 3 total resources are required. Review articles are a great source of background material, but your main source must be an original research article. You may use as many peer-reviewed articles as you like, but as these are typically difficult to read you may use other resources to supplement your main source.

Sources that cannot be used include, but are not limited to: encyclopedias, Wikipedia, textbooks and commercial webpages. If you'd like to use a webpage as a source it must end in ".gov" or ".edu". If you are uncertain of a source, ask. You also cannot base large portions of your paper on books; the assignment is to familiarize yourself with scientific journals.

Writing the paper:

The format for scientific publications varies dramatically from journal to journal. Simply for consistency as a class, we will be using the APA format. Please refer to the CSN library's information about this format. The current link is: <http://libguides.csn.edu/APA>. While the choice of APA format isn't important, strictly following format is very important and will be a major determinant of your grade on the assignment.

You must include/adhere to the mandatory guidelines below:

1. Title page: Title of the essay, your full name, the course name and number, your section, and your instructor's name in the middle or the top the page. The abstract should be included on the second half of the title page.
2. Abstract: An abstract is one full paragraph, approximately 5-10 sentences that *fully summarizes your entire paper*. The abstract should be printed on the title page.

3. The paper must be a bare minimum of four pages typed, double-spaced. The four pages do not include anything (title page, abstract, figures, bibliography, etc.) other than the text of the paper itself. Do not use subheadings, extra carriage returns, or anything that alters the margins or constraints of double-spaced (see #5).
4. You must have at least one peer-reviewed, original research, journal article that is no more than four years old as your *main* source. Other journal articles and scholarly sources may also be used. Sources that cannot be used include, but are not limited to: encyclopedias, wikipedias, textbooks and commercial webpages. If you are uncertain of a source, ask your instructor.
5. In addition to APA formatting, the type-format must be strictly adhered to. Margins cannot be any larger than 2.5 cm (1 inch). Do not justify the margins. Do not use anything larger than a 12 point font, and use a traditional print font, such as Times New Roman. Do not use anything larger than double spaced throughout the entire document (e.g. between paragraphs).
6. Scientific names of organisms must be italicized (e.g. *Homo sapiens*). Otherwise do not use bold, italics, underlines, headers, footers, footnotes, capital letters, subheadings, or any other formatting unless directed to do so by your instructor.
7. Illustrations, graphs and diagrams are encouraged, but do not count toward the four pages of written text.
8. **Use your own words only.** Do not use another author's words/sentences, and you are not allowed to use any direct quotations from other authors.
9. The paper must be written in a formal tone and for a scientific audience. Do not write in the first person.
10. Turn in your paper with a single staple. Do not use plastic covers.
11. You must also submit a digital copy to Canvas. You will not receive a grade without it.

There is ZERO tolerance for plagiarism. It is one of the most blatant forms of cheating in the classroom, and is disrespectful to the instructor and to the author whose work is being misrepresented. Copying someone else's sentences or ideas in whole or in part is not tolerated. Even when giving credit, as noted in bullet point #8 above, you must use your own words, only. This assignment is about *your* writing.

Plagiarism results in a zero grade and the incident may be filed with the office of the Vice President of Academic Affairs at CSN.

Writing Center: They assist students in developing a writing plan to help you decide WHEN you need to accomplish each step (making an outline, reading the

papers, etc). Take these directions with you. Note THESE research paper directions take precedent over any information obtained from the writing center. Note: the writing center does not check for plagiarism.

Smarthinking Tutoring will help you with grammar and organization. It is available at the Canvas home page. After you submit your paper, turn around time is 24 hours.

Click Smarthinking Tutoring

Click Writing Center

Click writing center click essay center and fill out the form.

Pick Organization and Transitions as the two areas in which you need help. You will need to return to smarthinking in 24 hours to retrieve your comments.