

RESEARCH PAPER GUIDELINES

1. STYLE

- a. Write in a clear, logical and concise style. Scientific writing should not be misunderstood. Communicate your findings at the level of those who are familiar with the material covered in our Biological Sciences Core curriculum.
- b. The paper in **TOTAL** (abstract, text sections, illustrations, acknowledgments, and literature cited) may not exceed 12 typewritten or be less than 8 typewritten pages. Papers less than 8 pages or exceeding 12 pages will not be accepted. Utilize the space on each page in its entirety – continue text or graphs/figures rather than starting a new page for a new section. The papers should be printed single-sided on 8 1/2" x 11", using **Times, 12-point font**. Leave one-inch margins on all sides as well as top and bottom. **Type the abstract, literature cited, acknowledgments and figure legends single-spaced. Text is double-spaced.** Do not use footnotes.
- c. **Make certain that the paper is free of typographical, spelling, punctuation, and grammatical errors.**

2. ABSTRACTS

An abstract is an accurate and informative summary of a research project. In the case of a Research paper, it allows the reader to identify the essentials of the work, including: 1) the research question, 2) the methodology, 3) the results, 4) the conclusions. Each of these aspects of the paper should be presented in a sentence or two and the entire abstract should be presented succinctly in a single paragraph as a part of your final paper and poster. Although the abstract appears as the first section of your paper, it should be written last so you can include the necessary information.

- a. Begin with a topic sentence that states the research question.
- b. Avoid jargon and abbreviations; your work may be read by people who may be unfamiliar with the details of the research area in which you have been working.
- c. Type your abstract **single-spaced** in Times 12 point font, .3 indent, one-inch margins
- d. Abstract should contain no more than 250 words.
- e. **FOLLOW THE EXAMPLE OF THE ABSTRACT SHOWN IN THE SAMPLE PAPER ON PAGE 9 OF THIS PACKET.**

3. ILLUSTRATIONS AND TABLES

Place the text describing the graphs or tables on the same page as the figure if possible. Figure legends go below the figures, table legends go above tables. Use space as efficiently as possible.

4. PAGE NUMBERS

Page numbers should be centered on the bottom of each page. Begin numbering on page 2.

5. ORGANIZATION OF THE PAPER

- a. The title of the paper should be typed in Times, 12-point, **ALL CAPITAL LETTERS, BOLD TYPE, CENTERED** at the top of the first page. The title should be a short, clear statement of what is interesting in your paper. "**RESEARCH ON PINE TREES**" would be too general, for example. *If your title is two lines long, do not leave a space in between line #1 and line #2.* Then type author name (your name, last name first), the department in which the work was done, the Faculty of Record's name, and the abstract on that page according to the required format. Remember, the abstract is single-spaced.
- b. Start your introduction on that same page **without** typing the section heading, "Introduction". The introduction should establish why you are doing your research.
- c. These section headings should be typed in Times, 12-point, capital letters, bold type, left-justified:

MATERIALS AND METHODS

RESULTS

DISCUSSION

ACKNOWLEDGMENTS

LITERATURE CITED

- d. See writing references for examples of scientific paper style and organization.

E. A sample paper follows that demonstrates the required format and spacing and further describes the contents of each section of the paper. YOUR PAPER MUST LOOK LIKE THE SAMPLE PAPER BEGINNING ON PAGE 9 – NO EXCEPTIONS.

REFERENCE TEXTS

Students are strongly encouraged to refer frequently to the recommended texts for this program.

Recommended Text:

Pechenik, Jan A., *A Short Guide to Writing About Biology*. 7th ed. New York: Longman. 284 p.

Additional Reference Cited:

[CSE] *Scientific Style and Format: The CSE Manual for Authors, Editors, and Publishers*. 7th ed. 2006. (Formerly - [CBE] Council of Biology Editors. 1994. *Scientific style and format*. 6th ed. Cambridge: Cambridge University Press.)