

2007 Summer@CENS Journal Paper Submission Guidelines

As part of your participation with the Summer@CENS Undergraduate Research Program you will need to complete a final paper on your research. Your paper will be included in the *Summer@CENS Annual Research Journal*. It is expected that submissions to the *Journal* will be structured according to the established literary conventions of the discipline and that your paper be organized/sectioned in a manner that maximizes both the substance and clarity of the document.

Please take care in using proper grammar, and emphasize the structure and readability of the document, keeping in mind that the *Journal* will be read by a multidisciplinary audience.

Paper Structure

Your paper must include the following, in addition to the manuscript body:

- Title and abstract page
- Key Terms
- Acknowledgements
- Works cited

Title and abstract page

The title page should include your name and the paper title. It should also include all of your fellow researchers and mentors. The abstract must include sufficient information for readers to judge the nature and significance of the topic, the adequacy of the investigative strategy, the nature of the results and the conclusions. Keep in mind that an abstract is not an introduction. It should also include a summary of the substantive results of the work.

For example:

Title of paper:

Author list (alphabetical order OR order of primary investigator...please inquire with your faculty mentor regarding order)

Abstract:

What is an abstract?

An abstract is a summary of your paper and your whole project. It should have an introduction, body and conclusion. It highlights major points of the content and explains why your work is important, the study's purpose, methodology, lessons learned, and conclusions. It is a well-developed paragraph with exact wording. It must be understandable to an interdisciplinary audience. It does not include any charts, tables, figures, spreadsheets or other supporting information.

Abstract guidelines:

Please utilize font: Arial, size 10.

No more than 250 words in length.

Single-spaced and a single paragraph.

Abstract format:

Many abstracts follow a format similar to this:

1. The problem to be investigated. (Why the project was undertaken?)
2. The purpose of the study. (How is your research different from other similar studies?)
3. The methods.
4. The major results.

5. The interpretation.
6. The implications of your research. (What is important?)

Key Terms

This is a list of up to ten alphabetized words or short phrases that are central and specific to your research. All key terms must be explained in your paper.

Manuscript Body

Organize the body of the paper carefully. Subdivide the body into sections to emphasize both content and clarity. Use headings and subheadings to make the organization clear.

Consider the following:

1. Use the accepted terminology of the field to describe any materials, subjects or experimental procedures used to gather and analyze data.
2. Include detailed methods, so readers would be able to replicate the investigation.
3. State the results clearly and succinctly. Thoroughly discuss, interpret and analyze the implications of the findings.
4. Describe any problems you encountered and explain any unexpected findings. Include ways to improve or expand your research.
5. Provide a conclusion that restates the question(s), results, and broader significance of the research.
6. Plainly and succinctly discuss the impact of the results, both globally and specifically, to enlighten readers, regardless of their previous background in the field of study.

Introduction

The introduction provides the information needed to understand the rest of the paper.

Make sure to:

1. Establish the basis and background for the project.
2. Define terms that may not be familiar to readers outside the field.
3. Present the objective(s) and question(s) the research addresses.
4. Summarize previous research and the current status of the topic.
5. Discuss the relevance and significance of the research.
6. Briefly describe the general methods and rationale used to explore the hypothesis.

Methodology

The purpose of this section is to make it possible for someone versed in your area to repeat your experiment and reproduce your results. Describe, in complete detail, exactly what you did. Include the following (if applicable):

1. Subjects used and their pre-experimental handling and care (if used)
2. Sample preparation and materials
3. Origins of samples and materials
4. Protocol for collecting data and how the procedures were performed
5. Statistical analysis techniques used
6. Information on computer programs used or written
7. Descriptions of equipment set-up and function

Results

Present the key results of the project without interpreting their meaning. Do not present raw data; use text, tables and figures to summarize.

Discussion

Use this section to interpret the results of the project. Restate the major issues you discussed in the introduction and interpret them in light of the results. It is important to answer these questions:

1. Did the results provide answers to the testable hypothesis?

2. If so, what does this mean for those hypotheses; are they supported or refuted?
3. If not, do the results suggest an alternate hypothesis? What is it? Why do the results suggest it? What further results might solidify the hypothesis?
4. Do these results agree with what others have shown?
5. What factors or sources of error might have influenced your results?
6. What anomalous data appeared and how can you explain them?
7. Was this experiment the most effective way to test your hypothesis? How could the experiment be improved to gain further insight?

Conclusion

1. Restate your research question(s), sum-up your results and speak to the significance of your research and the impact of your findings.
2. How have the results and conclusions of this study influenced our knowledge or understanding of the problem? How could this research be applied?
3. What would be the next step in this study?
4. What experiments could be run, or data found, to further support your hypothesis? What experiments could be run to disprove your hypothesis?

Acknowledgements

Thank the people/organizations that have supported the research and acknowledge funding sources where applicable.

Works Cited

Papers must contain full in-text referencing.

