

Journal of Undergraduate Research Article Guidelines

Clear Title

All papers should include an original title before the initial submission which clearly describes the specific project.

Abstract

The abstract of an article to the Journal of Undergraduate Research (JoUR) is meant to function as a brief summary that will aid readers in understanding the article's purpose. It should include:

- The research focus (statement of problem being addressed through the project)
- The research methods (ex: experimental laboratory work, case studies, field studies, questionnaires, etc.)
- A brief description of the results found through the stated research method
- Main conclusions based on the results

It should not include:

- Descriptions/explanations of key concepts, which belong in the introduction
- Any sort of images/tables/figures specific to the project
- Abbreviations that readers would not have previous knowledge of
- Lengthy background information of the project which also may belong in the introduction

As far as the length of the abstract goes, one should aim for 200-600 words. Keeping in mind that the abstract will be the most portable section of your article, one should take special effort to keep it concise and clear. Abstracts are often used in preprint servers and other venues as the first way to summarize a paper's content

The remainder of the document is a guideline to possible sections to include in your research paper. While your specific paper can include all of these sections, and even add additional sections if deemed necessary, it is not required that these specific types are used. However, it is important that you have well organized sections that somehow fulfill most of the goals describes below, and provide a clear overview of your research endeavor and the contributions you have made in your chosen field of study.

Motivation/Introduction

The introduction of an article is meant to showcase to the reader several concepts. In general, it should address:

- Background information about the broader context of the research in the larger world with substantiated references to outside sources that include proper citations.

- Explanation of research problem being addressed through the research and the motivation for the project itself, as well as explanations of key concepts and abbreviations that the reader would be unaware of
- Hypothesis about the results of the study

Description/Methodology

This category contains a description of the procedure, techniques, or implementation of ideas followed by the researcher, although the level of detail will vary.

This section can include, depending on the particular project:

- Relevant images/figures/tables with proper labels and numbering
 - Additionally, if data from a specific graphic is referenced in the text of the paper, it should be attributed to that graphic
- Materials required for the project
- Necessary analysis of data
- Other information deemed relevant by the author and editor
- Description of relevant detector or hardware used in the project

Results

This section should contain information about what the results of the author's research were in the end. It should make clear:

- An explanation of the unique contribution arising from the specific research project and any new information that was discovered as a result of the research performed

Depending on the specific article, it can:

- Address the hypothesis located in the background section of the article
- Include additional figures/tables/images with proper labels and numbering

Discussion/Reflective Comments

This section should conclude your article in a meaningful way. It should include:

- What was learned through the experience, specifically as it relates to the research question that has been posed
- How the effort could be improved in the future, specifically about future research efforts that could be undertaken to better address the research problem
- This is not the place to include specific personal reflection on the experience

References/Citations/Bibliography

This section should come at the end of the paper and include any citations to outside sources of information referenced in the article. These citations should be numbered in such a way that corresponds with the numbering within the paper. Outside sources must be cited within the paper even when not directly a quote.

Guidelines to Language Used in Academic Papers

The articles submitted and published in the Journal of Undergraduate Research are meant to reflect a high level of academic rigor and professionalism. As such, the following are some requirements regarding language used in any section of an article submitted to the journal:

- Avoid the use of subjective or emotional language within the paper that would influence the reader to view a topic in a certain light. These are in general words that it would be difficult to find an accurate way to measure for the purposes of the study.
 - Quotes obtained from the gathering of data for the research project can be used that contain this language, but it should be made clear that the words are not those of the author, but instead an outside source. As well, an explanation of the phrase should follow that explains the intent behind it to the reader.
 - Examples of emotional/subjective language - Crazy, repulsive, ecstatic, and lucky
- Avoid using personal language within the paper, and endeavor to be as objective as possible
 - A personal anecdote can be used if it is felt that it adds value to the context of the paper or establishes credibility about the topic
 - Examples of personal language: In my personal opinion, I believe/feel/think, and it is my belief that
 - Examples of possible alternative phrases: In light of evidence, from examining the findings, and some theorists argue