UCI UNDERGRADUATE RESEARCH JOURNAL PAPER SUBMISSION GUIDELINES

The UCI Undergraduate Research Journal welcomes the submission of manuscripts from all academic disciplines. It is expected that submissions to the *Journal* will be structured according to the established literary conventions of the discipline researched, and that manuscripts will be organized/sectioned in a manner that maximizes both the substance and clarity of the document.

There is no preset number of papers that will be accepted for publication in the *Journal*. All papers that meet our standard of excellence, regardless of how many there are and what disciplines they are from, will be published. If no submitted papers are judged to be worthy of publication, the *Journal* will not be published.

SELECTION CRITERIA

Regardless of the field of study, all papers published in the Journal have these items in common:

➢ The purpose and significance of the research is described clearly for the Journal's multidisciplinary audience.
➢ The research is original and relevant to its field.
➢ The research project was well designed and executed.
➢ The results are thoughtfully interpreted and thoroughly analyzed.
➢ Conclusions are logically supported through results and cited sources.
➢ Supporting materials—including illustrations, graphs, and references—reinforce the descriptions and claims made in the text.
➢ The paper is well written, efficiently organized, and easy to follow.
➢ The paper is free from spelling, punctuation, grammatical, and other writing errors.

Journal Submission Deadline

Monday, October 8, 2018

Submit your paper online through the UROP Web site:
http://www.urop.uci.edu/journal.html

"Publish in the Journal" Workshops

Tuesday, May 29, 3–5 p.m.
Wednesday, June 6, 3–5 p.m.

Student Services II, Classroom 1010A/B

Do you want to get published? This workshop will teach you how to strengthen the content and format of your paper, and will review the guidelines for submitting a publishable paper for *The UCI Undergraduate Research Journal*.

SUBMISSION REQUIREMENTS

Your paper must include these elements, in addition to the body of the paper:

➢ Title Page
➢ Abstract
➢ Key Terms List
➢ Acknowledgements
➢ Works Cited

Submitted papers must conform to these standards:

➢ 25 page maximum
➢ 12-point Times New Roman
➢ Double spaced (Abstract may be single spaced)
➢ One-inch margins, single column
➢ References in MLA format

Submission Checklist

❑ I have reviewed the Paper Submission Guidelines, and my paper conforms to them.

❑ My paper answers the question, "What is the significance of my research?".

❑ I have checked that my abstract and conclusions accurately reflect the content of my paper.

❑ I have explained all technical or scientific terms unique to the topic of my research.

❑ My paper includes applicable in-text citations, graphs, and data.

❑ I have verified that the sources listed in the Works Cited section correspond to the in-text citations.

❑ People from other disciplines have read and critiqued my paper.

❑ My mentor has read my paper, and I have asked my mentor to suggest improvements.

❑ I have spell-checked and read my paper thoroughly, resolving all grammatical and other writing errors.

PAPER STRUCTURE

Your paper must include Title Information, an Abstract, Key Terms, Acknowledgements, and Works Cited sections, in addition to the manuscript body. The following sections describe these parts of the paper.

Title Information

The title information must include the following:

➢ Paper title
➢ Student name(s) and UCI ID number(s)
➢ Professor(s) or mentor(s) who guided the research, and his/her/their home department(s)

Abstract

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. An abstract is not an introduction; it summarizes the results of the work, not merely listing topics that are discussed in the paper.

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, what your purpose was, how you went about the project, what you learned, and what you concluded.
➢ It is a well-developed paragraph with exact wording.
➢ It must be understandable to the *Journal's* multidisciplinary audience.
➢ It does not include any citations, charts, tables, figures, spreadsheets, or other supporting information.

Abstract Format

Many abstracts follow a format similar to this:

1. The problem to be investigated.

   One to two sentences that state why the project was undertaken.

2. The purpose of the study.

   One to two sentences that outline the nature of the project and how it differs from other similar projects.

3. The methods.

   One to two sentences that briefly summarize the important methods used to perform the project.

4. The major results.

   One to two sentences that summarize the major results—not necessarily all the results—of the project.

5. The interpretation.

   One to two sentences that summarize your interpretation of the results.

6. The implications.

   One sentence that summarizes the meaning of your interpretation—the importance of the results.

Abstract Guidelines

Abstracts should be:

➢ In Microsoft Word.
➢ In Times New Roman font, size 12.
➢ No more than 250 words in length.
➢ A single paragraph.

Key Terms

This is a list of up to seven alphabetized words or short phrases that are central and specific to your research. All of the key terms must be explained in your paper—do not define them within the Key Terms list.

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:

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

The following sections describe sections that are common in many science papers. While these sections are common, they are not required.

Introduction

The Introduction provides the information needed to understand the rest of the paper. Make sure to:

➢ Establish the basis and background for the project.
➢ Define terms and concepts that may not be familiar to readers outside the field.
➢ Present the objective(s) and question(s) the research addresses.
➢ Summarize previous research and the current status of the topic.

- Discuss the relevance and significance of the research.
- Describe the general methods and rationale used to explore the hypothesis.

In some papers, especially Social Science and history papers, the Introduction should end with a clearly defined thesis. The thesis, usually one to three sentences, outlines the entire paper. It should include:

- The issue or problem you hoped to resolve
- Three to four aspects of the subject you studied to analyze the issue
- What was concluded

Methods and Materials

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):

- Subjects used and their pre-experiment handling and care
- Sample preparation technique
- Origins of samples and materials
- Protocol for collecting data—how the procedures were performed
- Statistical analysis techniques used
- Information on computer programs used or written
- Descriptions of equipment setup 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. If feasible, follow the organization of the Methods and Materials section to provide consistency for the readers.

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:

- Did the results provide answers to the testable hypotheses?
- If so, what does this mean for those hypotheses; are they supported or refuted?
- 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? Have others proposed it before?
- Do these results agree with what others have shown? If so, do other authors suggest an alternate explanation to explain the results? If not, how does this experiment differ from others? Is there a design flaw in this experiment?
- How do these results fit in with results from other studies? Do results from related studies affect the way you have interpreted these results?

Beyond simply interpreting the results, consider the following (in any order):

- What factors or sources of error might have influenced your results?
- What anomalous data appeared and how can you explain them? Are they explained by a theory, either yours or somebody else's?
- Was this experiment the most effective way to test your hypothesis? How could the experiment be improved to gain further insight?
- How have the results and conclusions of this study influenced our knowledge or understanding of the problem? How could this research be applied?
- What would be the next step in this study?
- What experiments could be run—or data found—to further support your hypothesis? What experiments could be run to disprove your hypothesis?

Social Science and History Papers

Focus a Social Science or History analysis around a central theme. Keep the focus on the theme and avoid jumping between ideas. Discuss how the facts and the history you describe relate to the overall central theme of your paper. Every claim must be supported by citations, evidence, or through logical argument.

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 (not footnotes or endnotes) with the complete references listed at the end of the paper. All resources—people, journals, pamphlets, etc.—must be referenced.

References must be in MLA format. See the "Citing References" section on page 7 for an overview of the reference format. For further information, MLA handbooks are available in the UROP office.

LAYOUT AND STYLE

This section describes the required format and layout for submissions.

Document File

Page Count	Papers are limited to a maximum of 25 pages. This includes all elements of the paper, including graphics, Works Cited, Key Terms, etc.
File Format	Submitted documents must be in one of two file formats: - PC-formatted Word (.doc) file - Adobe Acrobat (.pdf) file

Page Margins	Set margins to one inch (1") on all sides.
Font	Use 12-point Times New Roman throughout the paper.
Line Spacing	Set Line Spacing to Double.
Page Numbers	Number all pages. Center page numbers on the bottom of each page.
Figures	Number and title all figures, including graphs, drawings and photos. Place figure captions below the figures.
Tables	Number and title all tables. Place table captions above the tables.
Equations	Number all equations. Place equation numbers in parentheses to the right of the equations.
Footnotes	In general, avoid the use of footnotes. If, however, there is critical supporting text that does not fit in the main text flow, a few footnotes may be appropriate. Never use footnotes to cite references.

Style Guidelines

Commas in Lists	In a list of three single words (apples, pears and bananas), there is no comma before the *and*. Use a comma before *and* for lists with four or more single words (apples, pears, bananas, and kumquats) or if one or more of the items listed has more than one word (apples, pears, passion fruit, and kumquats).
Semicolons	Use to separate two closely related, independent clauses; independent clauses can stand on their own and have both a subject and a verb. Semicolons can also be used in lists of multiple phrases where commas are already used.
Space after Periods	Use a single space after periods. Do not use double spaces.
Space after Colons	Use a single space after colons. Do not use double spaces.
Em dashes	Do not insert a space before or after an em dash (double hyphen).
Slashes	Do not insert a space before or after a slash.
Italics	Italicize foreign words used in their original context, such as *in vitro* and *in vivo*. Italicize *et al.* in the text, but not as part of in-text references.

Acronyms	When defining acronyms, only capitalize proper nouns.
Unit Abbreviations	Abbreviate units without periods: Seconds: sec Grams: g Minutes: min Kilometers: km Hours: hr
Degree Symbols	Angles: #° (no space before the degree symbol) Temperature: # °F or # °C (space before the degree symbol) In Word, click Insert, then click Symbol to open the Symbol dialog. With the font set to Times New Roman, select the degree symbol from the table. Another way to insert a degree symbol is to hold down the Alt key and, on the numeric keypad, press 0 1 8 6, then release the Alt key.

Graphics

Use graphics, including figures, tables, graphs, etc., to illustrate and support your text. Graphics should be able to be understood on their own and must:

➢ Be of high resolution, at least 350 DPI (dots per inch). Note that many screenshots and pictures from the Web are 72 DPI, which is not suitable for print.
➢ Have neat, legible labels.
➢ Be simple. Avoid forcing too much information into a single graphic.
➢ Be clearly formatted.
➢ Indicate error. Include standard deviation information in tables and use error bars in graphs.
➢ Have detailed captions.
➢ Be mentioned in the text.

CREATIVE WRITING SUBMISSIONS

The UCI Undergraduate Research Journal is a research journal, and research, at its heart, is a process of inquiry. Research identifies questions, issues or problems, defines methods to address them, gathers and analyzes data, and tries to reach meaningful conclusions. The best research is also a process of innovation; a creation of new procedures, knowledge, and ways to think about our world.

In addition to traditional research papers, the *Journal* also welcomes creative writing projects—including narrative fiction, literary journalism/narrative non-fiction, poetry, and dramatic works, such as screenplays, theater scripts, and radio plays—that are relevant to the research process. To be considered for publication in the *Journal*, creative projects must also capture, in some way, the creative process sense of research, and clearly express the significance of that process.

Consider these examples:

- A research paper that breaks down and explains the techniques used in creative writing, with specific examples of artists and an analysis of their works. Possibilities include exploring the ways fiction writers increase the tension in a story, or how poets give their poems musical qualities.
- A nonfiction narrative/narrative journalism/literary journalism work that reports on specific people and/or events. These submissions should include—as a detailed author's note at the end (or as a part of the narrative, if the author prefers)—a description of the research process, including the author's goals, expectations, methods, results, and the significance of the work.
- Creative writing that discusses or otherwise deals with a field of research, such as a poem that explains, or a play that enacts, game theory. The accompanying abstract should describe the related field how the creative work relates to the field.
- An experiment that extends the art of creative writing. As experiments in physics explore the fundamental laws of nature, experiments in creative writing can explore new ways to express ideas. Submissions of this type should include—in the abstract or as part of the paper—a thorough description of the experimental nature of the work, its significance, and the process used in its creation.
- A work that gives narrative expression to material that is or has been the subject of research. One example would be a narrative presentation of living conditions of Hispanic day laborers whose working conditions are the subject of research. Narratives of this type should be submitted as corollaries to the research they accompany or expand.

TIPS ON GOOD WRITING

Producing a paper of excellent quality is not as daunting as it may seem; it just takes a little planning:

- Write your paper with an interdisciplinary audience in mind. Your audience includes students, faculty, and members of the university community who are not in your field. Consider their level of knowledge about your specialization as you write.
- Keep writing throughout the research process. By the time you come to the conclusion of your project, the amount of information you have collected can seem overwhelming. Try to sit down each week and write a few paragraphs about your topic. These preliminary drafts will be invaluable when you start to write your paper.
- Check sentence order. Make sure that all the sentences in a paragraph relate to each other. You may want to prepare an outline after you have written the paper to make sure that each paragraph is in the most appropriate place. If you sense that the paragraphs are out of order,

try cutting the paper apart paragraph by paragraph and physically rearranging the segments. Then reorder them on your computer.
- Evaluate the use of quotations. Avoid excessive use of direct quotations; paraphrase whenever possible.
- Get feedback on a preliminary draft. Have your faculty mentor read your paper and make suggestions. Ask students in your field and from other disciplines to make suggestions as well.
- Read to your plants. This sounds silly, but it works. A few days after you finish your paper, read it out loud. Reading aloud forces you to slow down, which can help you catch spelling and grammar mistakes, along with awkward phrasings or unnecessary sentences.

Style and Flow

Consider these suggestions as you write and update your paper.

Transitions and text flow: Ensure that sentences and paragraphs flow cleanly from one to the next. Clean, logical transitions help prevent confusion. Make sure each sentence and paragraph deals with a single subject. Using shorter paragraphs and sentences increases readability; consider whether extremely long paragraphs and run-on sentences would be better broken up into two or more.

Precise language: Be aware of overuse of inexact terms such as *approximately* and *about*. Unless there is a stated reason for avoiding precision, such terms frequently make it seem as if you are trying to avoid making solid, definite claims.

Statements of fact: All claims that are stated as facts must either be properly cited or logically follow from earlier statements. Subjective language like "obviously" and "it is imperative that" usually cannot be supported and should be avoided.

Fact vs. interpretation: There must be a clear distinction between stated facts (including previous work, methods and results) and your opinions and interpretations. A clear organizational structure can help with this, but sometimes it is important for both types of information to be within the same paragraph. Make sure it is clear which is which.

First person: While first person writing should generally be avoided, it is sometimes important to personalize your role or opinion. Make sure that first person references are appropriate and refer specifically to you (and co-researchers, if plural).

Passive voice: Active voice writing is generally clearer and easier to read than the passive voice. However, science writing usually emphasizes what is being done over who is doing it, therefore falling naturally into passive voice. Use active voice if appropriate, but do not change the focus of the writing.

Tense: It is usually best to avoid the future tense except for describing work to come. The research has already taken place (we did this, these results occurred), and the paper

exists now (this paper shows, the next section describes). In comparative literature and similar papers, it is often appropriate to refer to a historical figure's writing in the present tense (Homer writes, Galileo argues that).

Ending sentences with prepositions: It is generally better not to end a sentence with a preposition. However, this should not be an absolute rule—do not rigidly follow it if clarity would suffer (keeping in mind Winston Churchill's famous quote, "…ending a sentence with a preposition is something up with which I will not put.").

Split infinitives: Rigidly avoiding split infinitives is another common rule that should be broken if clarity would otherwise suffer. For example, use "to show clearly," rather than "to clearly show."

Beginning sentences with *and:* It is not always incorrect to begin a sentence with *and*, *but*, *however*, or other connectors. Doing so can help emphasize an important point or reestablish a main idea after a long series of statements. However, they should be avoided if they do not clearly serve a deliberate purpose.

Meaningless phrases: Avoid common phrases that add to the word count but have no meaning. Consider sentences beginning with such phrases as, "At this point it is important to remember that…," which can almost always be removed without decreasing the meaning of the sentence or the paper. One meaningless phrase is used so often that it is listed next, as a separate entry.

…in order (to)…: These two commonly-used words usually add nothing but length. They can almost always be removed, especially when they appear at the beginning of a sentence. For example, change "In order to determine the results, we did that" to "To determine the results, we did that."

Word Choice

As you read through the text, consider whether you have used the best, most precise words to make your point. Often writers use words that do not quite mean what they intend, or use big words that sound impressive but detract from the paper's readability. The following sections list some (but by no means all) commonly misused words to look for.

Words that Are Used Incorrectly

Academic writing must be precise; words are often selected to communicate an exact meaning. However, many words are frequently used incorrectly. This section lists some of the most commonly misused words. English Professor Paul Brians of Washington State University has compiled an impressive list of common English language errors that you can use for further reference. It is on the Web at: www.wsu.edu/~brians/errors/index.html

Comprise: It is correct to write that many papers *comprise* the *Journal*. However, avoid "comprised of" statements, such as writing that the *Journal* is *comprised of* many papers. While not technically incorrect, many people see this as an error. Consider using "composed of" or "made up of" instead.

Its or It's: Use an apostrophe when the word can be expanded to mean "it is." For possessives (the dog wagged *its* tail), an apostrophe is incorrect.

From or Between: When indicating a range, *from* includes the endpoints, *between* does not. For example, "integers *from* 1 to 4" includes both 1 and 4, while "integers *between* 1 and 4" only includes 2 and 3.

Lead or Led: The past tense of the verb *to lead* is *led*, not *lead*.

Significant: Use this word to describe a numerical result only when the result is statistically significant.

Since or Because: Use *since* to indicate time, as in "since the year 2000, something has happened." Use *because* to indicate causal relationships, as in "because something took place in the year 2000, something else happened."

That or Which: It is best to use *that* to distinguish something from a larger group ("the cells that were cancerous" refers to only some of the cells). Use *which* to further define an entire group ("the cells, which were cancerous" indicates that all of the cells were cancerous). A good guideline to follow is that *which* is usually preceded by a comma, while *that* is not.

Obfuscating Verbiage

Many research papers are filled with large, ungainly words. They often seem to be used with an assumption that big words sound more impressive than shorter ones. Unfortunately, they tend to decrease readability, and often precision, while taking up more valuable print space. Be alert for these, some of which are listed here.

Comprehensive: This word implies a lot of something, but is very imprecise without stated limits to its scope. Without limits, *comprehensive* means to cover absolutely everything.

Methodology: This impressive sounding word can usually be replaced by its simpler and less imposing synonym, *method*.

Target: When used as a verb, this could have two separate meanings. For example, if you aim a comment at a specific audience, both the comment and the audience have been targeted. Use more precise terms such as *aim* and *direct at*.

Utilize: This means to use, and is seldom an improvement over its shorter synonym. Also, avoid other forms of *utilize*, such as *utilizing* and *utilization* (and especially avoid cumbersome phrases like "utilizing the methodology").

CITING REFERENCES

All references should be in MLA format. This section gives an overview and examples of the reference format. For more details or other examples, please consult the MLA Handbook (available in the UROP Office) or search online for other MLA guides.

In-Text Referencing

In-text referencing depends on whether the reference deals with a specific section or the conclusions of an entire work.

➢ Specific section: Cite the name of the author(s) and page number(s) only (James 115). There is no comma before the page number.
➢ Entire work: Cite the name of the author(s) and year of publication (James, 1984). There is a comma before the year.

Format multiple-author references according to the number of authors:

➢ Two authors: (Collins and Fremont, 1977)
➢ Three authors: (Collins et al., 1988)

For parenthetical in-text references, "et al." is not italicized. Italicize *"et al."* everywhere else.

Works Cited Section

Here are some examples of common entries for a Works Cited section. If you cite two or more entries by the same author(s), provide the name(s) only in the first reference and use three hyphens and a period (---.) for the others. Also make sure to provide the unabbreviated article and journal titles.

Books

Author(s) of Book. Book Title. City Published: Name of Publisher, Year Published.

Eggins, Suzy. Analyzing Conversion. London: Cassell, 1997.

Eggins, Suzy, and Diane Slade. Analyzing Conversion. London: Cassell, 1997.

Eggins, Suzy, Diane Slade, and Ann Sheldon. Analyzing Conversion. London: Cassell, 1997.

Books Published in a Different Edition

Author(s) of Book. Book Title. Ed. Name of Editor. Edition Number. City Published: Name of Publisher, Year Published.

Chaucer, Geoffrey. The Works of Geoffrey Chaucer. Ed. F. W. Robinson. 2nd ed. Boston: Houghton, 1957.

Scholarly Journal Articles Paginated by Issue

Author(s) of Journal. "Article Title." Journal Name Volume.Issue Number (Year Published): Page Numbers.

Hallin, Daniel C. "Sound Bite News: Television Coverage of Elections, 1968-1988." Journal of Communication 42.2 (1992): 5-24.

Scholarly Journal Articles with Continuous Pagination

Author(s) of Journal. "Article Title." Journal Name Volume (Year Published): Page Numbers.

Craner, Paul. "New Tool for Art: The Computer and Music." Computers and Humanities 25 (1991): 14-19.

Articles in a Collection or Anthology

Author(s) of Article. "Article Title." Title of Collection or Anthology. Ed. Name of Editor. City Published: Name of Publisher, Year Published. Page Numbers.

More, Hannah. "The Black Slave Trade." British Women Poets. Ed. Paula Feldman. Baltimore: Johns Hopkins University Press, 1997. 472-482.

Articles in a Newspaper

Author(s) of Article. "Article Title." Name of Newspaper. Date, Edition: Page Numbers.

Lohr, Steve. "Now Playing: Babes in Cyberspace." The New York Times. 3 Apr. 1998, late ed.: C1.

Articles in a Magazine (weekly/every two weeks)

Author(s) of Article. "Article Title." Name of Magazine. Day Month Year: Page Numbers.

Mehta, Pratap Bhanu. "Exploding Myths." New Republic 6 June 1998: 17-19.

Note: For a magazine published monthly or every two months, provide the month and year only.

Interviews that You Conducted

Name(s) of Person(s) Interviewed. Interview Type. Date Conducted.

Pei, I.M. Personal interview. 22 July 1993.

Bed, Alvin F. Telephone interview. 10 Dec. 1990.

Electronic Publications

Because this area is so diverse, here are a few guidelines to follow. Be as complete and specific as you can.

Title of database or project (underlined).

Name of editor(s) of the database or project (if given).

Electronic publication information, including version number, date of electronic publication (latest update), and name of the organization.

Date of access and Web site address.

CNN Interactive. Ed. J. Doe. Vers. 98.2. 8 May 1998. Cable News Network. 8 May 1998 <http://www.cnn.com/>.

Note: To cite a selection within a database or project, begin with the author's name and then, in quotes, the title of the work. Then proceed as described above. Be sure to give the specific Web site address for the selection.