



# Western Undergraduate Research Journal

Health and Natural Sciences  
prepare. grow. achieve.

## SUBMISSION GUIDELINES 2018 - 2019

WESTERN UNDERGRADUATE RESEARCH JOURNAL OF HEALTH AND NATURAL SCIENCES

Prepare • Grow • Achieve

[HTTP://IR.LIB.UWO.CA/WURJHNS/](http://ir.lib.uwo.ca/wurjhns/)  
WURJHNS@UWO.CA

## TABLE OF CONTENTS

Introduction	pg. 3
Types of Articles	pg. 3-5
Online Submission Instructions	pg. 5
Referees	pg. 6
Formatting Requirements	pg. 6
Additional Formatting Requirements	pg. 7-9
References	pg. 9-10
Tips on Good Writing	pg. 10
Submissions Checklist	pg. 10

## INTRODUCTION

The *Western Undergraduate Research Journal of Health and Natural Sciences* is a student-run, open access, peer and Faculty reviewed journal that publishes research articles, mini-review articles, Students in the Field reports, briefing notes, and short communications within the fields of Biology, Chemistry, Health Sciences, and Medical Sciences. The goal of WURJHNS is to enrich undergraduate education by providing students with opportunities to showcase their research accomplishments. All authors submitting a manuscript to WURJHNS must be students at Western University and be the first author of their manuscript. However, other Western and non-Western students and Faculty members can be co-authors. Submitted work can be conducted as part of summer research opportunities, independent study courses, thesis projects, and course work. Research conducted by a Western student at other academic institutions can also be published in WURJHNS.

## TYPES OF ARTICLES

Because this journal publishes electronically, page limits are not as relevant as they are in the world of print publications. However, authors should exercise some discretion with respect to length. Below are the different types of articles accepted by WURJHNS for publication and the corresponding page limits.

### *Research Article*

- Must include an Abstract, Introduction (with a clear statement of the research question), Methods, Results, and a Discussion/Conclusion where the author discusses the implication for future research
- Should be grounded in the relevant experimental evidence in the field of research
- Should use figures and tables where appropriate
- 12 pages double spaced maximum, not including appendices, references, citations, and figures

### *Short Communication*

- Short communication articles are preliminary reports of original research that are limited in scope and as a result do not warrant publication in the form of a Research Article
- 6 pages double spaced maximum, not including abstract, appendices, references, citations and figures
- Must contain an Abstract and References, but the body does not need to be divided into Introduction, Methods, Results, and Discussion. Methods may be described in the text or, if appropriate, in figure legends or table footnotes.
- Should not contain more than two figures (which may be multi-panel)

WESTERN UNDERGRADUATE RESEARCH JOURNAL OF HEALTH AND NATURAL SCIENCES

Prepare • Grow • Achieve

[HTTP://IR.LIB.UWO.CA/WURJHNS/](http://ir.lib.uwo.ca/wurjhns/)  
WURJHNS@UWO.CA

### *Mini-Review Article*

- Should include an abstract, introduction, a thorough discussion of the current experimental evidence and methodology where appropriate and implications for future research should be discussed where possible
- Abstract should outline the topic of concern and clearly indicate the significance of the topic of research
- Methods section must include both inclusion and exclusion criteria for articles reviewed
- Article may be organized through the use of subheadings
- 15 pages double spaced maximum, not including appendices, references, citations, and figures

### *Students in the Field Report*

- Students in the Field reports encourage Western students to write about any experience they have had in the area of health and natural sciences that bridge the gap between theory and practice
- 4 to 5 pages double spaced
- Authors should consider including the answers to the following questions to help guide them:
  - What was the nature of the work you were involved in?
  - What is the scientific relevance of the issue?
  - How does this impact your future professional choices?
  - How does this experience relate to the advancement of knowledge and research in the broader scientific field?

### *Letters to the Editor*

- Letters to the Editor should provide respectful, critical, and constructive commentary and/or analysis on a WURJHNS publication
- Letters should be short and concise and should not exceed more than 750 words of text, excluding references
- Should be written in narrative style and not contain any headings
- A WURJHNS Editor will be responsible for reviewing Letters. Submission of a Letter does not guarantee it will be accepted for publication

### *Letter in Reply*

- Authors of the publication in question can respond to and address the comments made
- Replies should follow the same format as Letters to the Editor

### *Briefing Note*

WESTERN UNDERGRADUATE RESEARCH JOURNAL OF HEALTH AND NATURAL SCIENCES

Prepare • Grow • Achieve

[HTTP://IR.LIB.UWO.CA/WURJHNS/](http://ir.lib.uwo.ca/wurjhns/)  
WURJHNS@UWO.CA

- Briefing notes are short, concise papers that inform decision makers about an issue.
- 4 to 5 pages double spaced
- Must include the following headings:
  - Issue – This describes the issue, proposal or problem and explains why the briefing note is important.
  - Background – Discuss the relevant history that has led to the current situation. Summarize relevant research, literature, current statistics and what has been done about the issue to date.
  - Current Status – Describes the current situation and what is being done about the issue. Do not repeat information that was included in the Background section
  - Key Considerations – Summarize all the important facts and developments that need to be considered now. Please present the details required for the reader to make an informed decision.
  - Conclusion/Recommendation – Summarize what you want the reader to leave with from the briefing note and do not introduce anything new in this section. Proposed recommendations must address the issue and should be substantiated by the facts provided in the previous sections.

#### *Perspective Article*

- Perspective articles are short essays that highlight a personal viewpoint on a recent topic relevant to the health and natural sciences
- Article must engage the reader by evaluating the evidence on the topic, providing sound arguments, and a logical conclusion
- Articles may be written in narrative style or may be organized through the use of headings
- 4 to 6 pages double spaced maximum, not including references and figures/tables
- Maximum of two figures/tables

#### *Course Work*

- Articles written as a part of a Western course are acceptable, and should be formatted according to the Research Article, Mini-Review Article, Short Communication, etc guidelines above, depending on the nature of the work.

## ONLINE SUBMISSION INSTRUCTIONS

WESTERN UNDERGRADUATE RESEARCH JOURNAL OF HEALTH AND NATURAL SCIENCES

Prepare • Grow • Achieve

[HTTP://IR.LIB.UWO.CA/WURJHNS/](http://ir.lib.uwo.ca/wurjhns/)  
[WURJHNS@UWO.CA](mailto:wurjhns@uwo.ca)

- For the complete step-by-step process for submitting a manuscript, please go to [ir.lib.uwo.ca/wurjhns](http://ir.lib.uwo.ca/wurjhns) and select “Submit Article”.
- Please include keywords with your manuscript. Keywords indicate the topics that are addressed in your manuscript. The keywords will also enable users to find your manuscript in our archives.
- Please include a subject area for your manuscript. The four subject areas published by WURJHNS are Biology, Chemistry, Health Sciences and Medical Sciences. If your manuscript does not fall under any of the aforementioned subject areas, contact the WURJHNS team at [wurjhns@uwo.ca](mailto:wurjhns@uwo.ca) and an effort will be made to accommodate your manuscript.
- Please include a cover letter with your manuscript. This will facilitate the review process.

## REFEREES

- For those submitting a Research Article, Mini-Review Article, Short Communication, or Briefing Note, please provide the names, emails, and department affiliation of 3 potential referees. Referees must be Western Faculty members and they must be knowledgeable in the area of research of your submitted manuscript.
- **Please do not contact or notify referees.** There must be no conflict of interest between the authors and referees.
- WURJHNS editors retain the right to decide whether or not the suggested reviewers are used.

## FORMATTING REQUIREMENTS

- Do not include a title page or abstract within the main document. The abstract should be pasted in the textbox provided by the online system during the submission process. A title page will be automatically generated by the online system.
- Do not include page numbers, headers or footers. These will be added by the editors.
- Only articles written in English will be considered for publication.
- Submit your manuscript, including tables, figures, appendices, etc., as a single Microsoft Word file.
- Page size should be 8.5 x 11-inches.
- All margins (left, right, top and bottom) should be 1.0 inches (2.54 cm), including your tables and figures.
- Double space your text.

WESTERN UNDERGRADUATE RESEARCH JOURNAL OF HEALTH AND NATURAL SCIENCES

Prepare • Grow • Achieve

[HTTP://IR.LIB.UWO.CA/WURJHNS/](http://ir.lib.uwo.ca/wurjhns/)  
[WURJHNS@UWO.CA](mailto:WURJHNS@UWO.CA)

- Use a single column layout with both left and right margins justified.
- Font:
  1. Main Body—12 pt. Times New Roman
  2. Endnotes—10 pt. Times New Roman
- If figures are included, use high-resolution figures, preferably encoded as Encapsulated PostScript (eps).
- Copy-edit your manuscript. Manuscripts that are not appropriately copy-edited will be returned to the author(s) for copyediting and therefore delay the publication process. The Writing Support Centre at the Student Development Centre may provide some assistance with copy-editing.

## ADDITIONAL FORMATTING REQUIREMENTS

### *Indenting, Line Spacing, and Justification*

- Indent all paragraphs except those following a section heading.
- Do not insert extra space between paragraphs of text with the exception of long quotations, theorems, propositions, special remarks, etc. These should be set off from the surrounding text by additional space above and below.
- Don't "widow" or "orphan" text (i.e., ending a page with the first line of a paragraph or beginning a page with the last line of a paragraph).
- All text should be left- and right-justified (i.e., flush with the left and right margin—except where indented).

### *Language and Grammar*

- All submissions must be in English. Except for common foreign words and phrases, the use of foreign words and phrases should be avoided.
- Personal pronouns should not be used when preparing manuscripts. Therefore, sentences should be constructed in the following manner: “Data are presented as mean  $\pm$  SEM” as opposed to “I present data as mean  $\pm$  SEM” or “We present data as mean  $\pm$  SEM”.

### *Colour Text*

- Set the font color to black for the majority of the text. We encourage authors to take advantage of the ability to use color in the production of figures, maps, etc., however, you need to recognize that this will cause some of your readers problems when they print the document on a black & white printer. For this reason, you are advised to avoid the use of colors in situations where their translation to black and white would render the material illegible or incomprehensible.
- Please ensure that there are no colored mark-ups or comments in the final version, unless they are meant to be part of the final text. (You may need to

WESTERN UNDERGRADUATE RESEARCH JOURNAL OF HEALTH AND NATURAL SCIENCES

Prepare • Grow • Achieve

HTTP://IR.LIB.UWO.CA/WURJHNS/  
WURJHNS@UWO.CA

"accept all changes" in track changes or set your document to "normal" in final markup.)

#### *Emphasized Text*

- Whenever possible, use *italics* to indicate text you wish to emphasize rather than underlining. The use of color to emphasize text is discouraged.

#### *Foreign Terms and Specialized Language*

- Whenever possible, foreign terms should be set in *italics* rather than underlined. The use of jargon and other specialized should be avoided when possible.

#### *Headings*

- Headings (e.g., start of sections) should be distinguished from the main body text by their fonts or by using small caps. Use the same font face for all headings. There should be space above and below headings.

#### *Main Text*

- The font for the **main body** of text must be black and in Times New Roman.

#### *Titles*

- Whenever possible, **titles of books, movies, etc.**, should be set in *italics* rather than underlined.

#### *Endnotes*

- Endnotes should appear at the end of the paper in 10 pt. Times New Roman font. They should be single spaced. Endnote numbers or symbols in the text must follow, rather than precede, punctuation. All endnotes should be left and right-justified (i.e., flush with the right margin), unless this creates awkward spacing.

#### *Tables and Figures*

- To the extent possible, tables and figures should appear in the document near where they are referenced in the text. Large tables or figures should be put on pages by themselves. Avoid the use of overly small type in tables. In no case should tables or figures be in a separate document or file. All tables and figures must fit within 1.0" margins on all sides (top, bottom, left and right) in both portrait and landscape view. Table and figure captions should be included.

#### *Mathematics*

- Roman letters used in mathematical expressions as variables should be italicized. Roman letters used as part of multi-letter function names should not



be italicized. Subscripts and superscripts should be a smaller font size than the main text.

- For both short and long mathematical expressions, use the Microsoft Word equation editor or Math Type software.
- Equations should be numbered sequentially. Whether the equation numbers are on the right or left are the choice of the author(s). However, you are expected to be consistent with this choice.
- Symbols and notation in unusual fonts should be avoided. This will not only enhance the clarity of the manuscript, but it will also help to ensure that it displays correctly on the reader's screen and prints correctly on their printer.
- When proof reading your document under PDF, pay particular attention to the rendering of the mathematics, especially symbols and notation drawn from other than standard fonts.

## REFERENCES

It is the author's obligation to provide complete references with the necessary information. After the last sentence of your submission, please insert a line break—not a page break—and begin your references on the same page, if possible. References should appear right after the end of the document. References should have margins that are both left- and right-justified.

When citing references, authors are required to adhere to the Vancouver Style of referencing which can be found on the University of Murdoch Libraries webpage: <http://wwwlib.murdoch.edu.au/find/citation/vancouver.html>

Referencing software, such as EndNote and Refworks, can be utilized to reference the manuscript in order to maintain consistency throughout the document. A free trial version can be downloaded from the following link: <http://www.endnote.com/endemo.asp>

### *Citations within the Text*

- A number in superscript format e.g. 6 or enclosed in round brackets, e.g. (1) or (26), placed in the text of the essay, indicates the relevant reference. Citations are numbered consecutively in the order in which they appear in the text and each citation corresponds to a numbered reference containing publication information about the source cited in the reference list at the end of the manuscript. Once a source has been cited, the same number is used in all subsequent references. No distinction is made between print and electronic references when citing within the text. (*Courtesy of Murdoch University Libraries*)

### *Reference List*

WESTERN UNDERGRADUATE RESEARCH JOURNAL OF HEALTH AND NATURAL SCIENCES

Prepare • Grow • Achieve

[HTTP://IR.LIB.UWO.CA/WURJHNS/](http://ir.lib.uwo.ca/wurjhns/)  
[WURJHNS@UWO.CA](mailto:WURJHNS@UWO.CA)

- A numbered list of references must be provided at the end of the paper. The list should be arranged in the order of citation in the text of the manuscript, not in alphabetical order. List only one reference per reference number. In addition, please include the Digital Object Identifier (DOI) numbers as a part of references for electronic journals where possible.

#### *How to Cite Journal Articles*

- Please cite journal articles in the following format:  
#. Author of article AA, Author of article BB, Author of article CC. Title of article. Abbreviated Title of Journal. year; vol(issue):page number(s). DOI:####

#### *How to Cite Books*

- Please cite journal articles in the following format:  
#. Author/editor AA. Title: subtitle. Edition(if not the first). Vol.(if a multivolume work). Place of publication: Publisher; Year. Page number(s) (if appropriate).

## TIPS ON GOOD WRITING

Below you will find helpful links to websites that offer good tips and suggestions in order to enhance your writing skills. The information in these links addresses the fundamentals of writing and more specifically, tips on writing clear research papers.

<http://www.sdc.uwo.ca/writing/index.html?handouts>

<http://www.sds.uwo.ca/writing/index.html?grad>

## SUBMISSIONS CHECKLIST

- ✓ My article is formatted according to the WURJHNS Submissions Guidelines
- ✓ My article meets the page requirements
- ✓ My article is referenced according to the Vancouver Style of citation
- ✓ DOI's are included as a part of my references where appropriate
- ✓ I have copyedited my manuscript
- ✓ I have created an online account
- ✓ I have included 3 potential referees for my manuscript (for authors submitting a Research Article, Mini-Review Article, Briefing Note, or Short Communication)

WESTERN UNDERGRADUATE RESEARCH JOURNAL OF HEALTH AND NATURAL SCIENCES

Prepare • Grow • Achieve

[HTTP://IR.LIB.UWO.CA/WURJHNS/](http://ir.lib.uwo.ca/wurjhns/)  
WURJHNS@UWO.CA

- ✓ I have received permission from my research supervisor to submit my article to WURJHNS
- ✓ I have uploaded my article onto the WURJHNS online platform