Instructions for Authors 2024-2025

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Article Types

MSURJ accepts articles in the following two categories:

i. **Research articles**: These articles report original research carried out by the student during their undergraduate career. They must demonstrate clear writing and sound scientific reasoning, and have scientific merit consistent with the undergraduate level of expectations. We welcome articles from all disciplines of science, mathematics, and engineering.

ii. **Review articles**: Review articles synthesise novel insights based on an in-depth examination of the area of study. They summarise the current state of understanding on a topic in science and encapsulate information from a vast number of peer-reviewed papers to give readers a comprehensive yet concise review of the topic. Review articles should provide new insights on the field.

Please note that interest articles (interviews with scientists, feature articles, opinion pieces, etc.) should be directed towards our blog, *The Abstract*.

Eligibility

Articles eligible for publication **must** meet the following criteria:

i. The research reported in the article must be carried out during a student's undergraduate career at any accredited higher-education institution;

ii. All authors or co-authors of the paper must review the MSURJ Instructions for Authors and sign the Publication Rights Agreement (PRA) and Submission Checklist when submitting the article;

iii. For publication in the next issue, the complete submission package as outlined under the below section, "Submission Requirements," must be submitted to MSURJ by the annual submission deadline. Articles may be submitted at any time, but publication will be delayed to the next issue if submitting after the deadline.

Important note: Students currently pursuing graduate studies are welcome to submit a research paper carried out during their undergraduate studies. However, we do not accept research completed during graduate studies.

Authorship, Rights, and Consent

Authors **retain all rights** to their research work. More information is available in the Publication Rights Agreement.

MSURJ reserves the right to refuse any submission.

We ask that authors sign the PRA and Submission Checklist as part of the article submission process. Any submission that does not include a PRA is **automatically rejected**.

How to Submit

To submit, please create an account at msurjonline.mcgill.ca. This is MSURJ's Open Journal Systems website, to which you will upload your submission files and through which your assigned editor will communicate with you. Clearly label your files, making sure to include your name in each filename, e.g. "LAST NAME, FIRST NAME: Manuscript." For additional guidance on using the website, please consult our OJS Guide for Authors at msurjonline.mcgill.ca/about/submissions.

See below for the mandatory content and format requirements pertaining to the submission. Links to access files in cloud storage will not be accepted.

Submission Requirements

All submissions **must** meet these criteria to be considered for publication.

Content of submission:

    a.   The article, in the following format:
        i.   Article must be in .doc, .docx, or .tex format.
       ii.   Limit length to ~**4000 words**, excluding references, equations, and figure labels.
      iii.   Font:
- Body text is in Times New Roman, 12-point font.
- Text in figures is preferentially in Minion Pro, but Times New Roman or another common serif font is acceptable.

      iv.   Format citations and references as follows:
- In-text citations are given as superscript numbers before punctuation.
  - If multiple sources are cited, numbers are separated with commas.
  - Each citation number should correspond to only one reference.
  - If it is likely the citation may be confused for a superscript number in the text, the citation may be enclosed in parentheses.
- ISO 4 abbreviations must be used for journal titles unless other commonly used abbreviations exist (e.g. *PLoS Biol.* instead of *Public Library Sci. Biol.*).
- *All references should include a link to the respective DOI where available*
- The references are to be given in an ordered list according to appearance in the text and in the following style pursuant *Nature*:
  - **Journal article:**
    - **Format:** Surname, A. A. Article title. *Abbreviated journal title* **Volume number**, pages or article number (publication year). DOI url
    - **Example:** Shu, F. H., Adams, F. C. & Lizano, S. Star formation in molecular clouds: observation and theory. *Annu. Rev. Astron. Astrophys.* **25**, 23–81 (1987). https://doi.org/10.1146/annurev.aa.25.090187.000323
  - **Book section:**
    - **Format:** Surname, A. A. in *Book title* (eds Surname, A. A.) pages (publisher, year). DOI url

- **Example:** Tryon, C. A. & Ranhorn, K. L. in *Culture History and Convergent Evolution* (ed. Groucutt, H. S.) 143–156 (Springer, 2020).
  - **Book:**
    - **Format:** Surname, A. A. *Title* (publisher, publication year). DOI url
    - **Example:** Padamsee, H., Knobloch, J. & Hays, T. *RF Superconductivity for Accelerators* (John Wiley and Sons, 1998).
  - **Preprint:**
    - **Format:** Surname, A. A. Article title. Preprint at DOI url (deposition year).
    - **Example:** Bamman, D. & Burns, P. J. Latin BERT: a contextual language model for classical philology. Preprint at https://doi.org/10.48550/arXiv.2009.10053 (2020).
  - **Website:**
    - **Format:** Surname, A. A. Website title (Publication year); url
    - **Example:** Packard Humanities Institute. The Packard Humanities Institute's Searchable Greek Inscriptions (2005); https://inscriptions.packhum.org/
  - **Data Set:**
    - **Format:** Surname, A. A. Data set title. *Repository name* DOI url (deposition year).
    - **Example:** Bourges, L. et al. JMMC stellar diameters catalogue – JSDC. Version 2. *VizieR Online Data Catalog* https://cdsarc.cds.unistra.fr/viz-bin/cat/II/346 (2017).
- Publishing locations (city, country) may be added after a space following the journal title or publisher if there is ambiguity.
- If there are more than five authors, give only the first author and "et al." Otherwise, list all authors.
- Name suffixes (e.g. Jr, Sr, III) are given without punctuation after the author's surname.

v. Formatting of numbers, units, and equations:
- **If your article contains complex mathematical formulae, please submit in .tex or use the equation feature of Microsoft Word with LaTeX input.**
- In-text mention of labelled equations is "Equation 3" instead of simply (3). If equations are not labelled, referring to them in-text must be done in an unambiguous and simple manner.
- In-text mention of figures is "Figure 3" instead of "Fig. 3".
- Decimals include leading zeroes (e.g., 0.228 instead of .228).
- Common statistical variables are italicized (e.g., n, f, R, and p).
- Greek letter variables and units are not italicised (e.g., 10 µm).
- Units are abbreviated and preceded by a space, except percentages (e.g. 36 in.; 7,200 °C; 128 µg; 95%).
- No spaces before and after numbers and signs (e.g., p=0.005, 8.05±0.1, n<2,000).

vi. Footnotes: Footnotes are to be designated by *, †, ‡, §, ¶, **, etc.;

vii. Abbreviations:
- Abbreviations can be used to describe well-known countries/institutions/agencies (e.g. USA, MLA, ANOVA) without

clarification, but use the full name for something in the first mention if it is not well-known by the layperson (e.g. "… a tumour was found in the ventral tegmental area (VTA) of the patient…," then just use VTA in the rest of the manuscript).
- Do not use excessive abbreviations; e.g. use "versus" instead of "vs." (except if you are reporting game scores or legal cases). Write out months and days of the week.
- Plurals of initialisms are indicated by appending a lowercase "s" (i.e. DVDs not DVD's).
viii. Latin and Foreign Terms: only italicise them if they are the unabbreviated version: e.g. *et cetera* and *et alii,* but "etc." and "et al."
ix. No Contractions: Do not use contractions (e.g. "it is" instead of "it's," "do not" instead of "don't," etc.)
x. Capitalization: check to make sure that all titles are in title case. The first word is always capitalised. All remaining words are capitalised except prepositions, conjunctions, and articles. For example, "Potential Uses of Stem Cells in Future Years", not "Potential Uses Of Stem Cells In Future Years" or "Potential uses of stem cells in Future Years"
xi. Ordered lists: if listing anything using numbers, standardise the formatting as follows:
- [1] one, [2], two, and [3] three
- not (1), 1., 1), or any other permutation/combination
xii. Oxford commas should be used

b. Signed Publication Rights Agreement.
c. Separate files for the figures, in the following format:
   i. Individual figures, appropriately titled.
      1. **Minimum image resolution is 300 DPI**.
      2. .tiff or .png format.
   ii. **If you wish to include any previously published table or figure, you must include a written permission from the copyright holder.**
   iii. A maximum of 6 figures, charts, and tables is allowed per article. Logically composited panelled figures are acceptable.
   iv. Images should remain clear if converted to grey-scale.
d. If not in the article, a document with appropriately labelled figure and table captions. Each caption is to begin with the text "**Figure #.**" or "**Table #.**" in boldface followed by the title, another full stop, and a description for figures.
e. Signed Submission Checklist
f. If applicable, the "Supplementary Material" file as follows:
   i. Figures, tables, materials and methods, and code or links to public code repositories may be included in Supplementary Materials.
   ii. All of the above must be indexed as in the main article, with figure and table numbering preceded immediately by an uppercase "S." Numbering for supporting information begins at S1.
   iii. References must be included.

Content of Research Articles

Research articles should contain the following sections in order.

i. **Abstract:** The abstract should tell the story of your article. We suggest you address the following sections, as fluidly as possible.
    - **Background:** Provide the context for the study and hint at the significance of your work. State the objective of the study and the main hypothesis tested.
    - **Methods:** Describe the basic design of the study as well as its setting, participants, and key measurements or outcomes.
    - **Results:** Provide data for the key measurements, if applicable. Where appropriate, give measures of statistical significance. All data in the abstract must be reported in the text of the paper.
    - **Limitations:** Identify the limitations of your study, methodological or otherwise.
    - **Conclusion:** Briefly summarise the main findings and their implications.
ii. **Keywords:** 3-5 terms that represent the article content.
iii. **Introduction:** Background, motivation, and significance of the research.
iv. **Body:** This section narrates your research, what you did and what you found. Information must be grouped in a logical manner.
    - Required sections: "Methods" and "Results"
    - Other headings for the body, including division of the results, are up to the author.
v. **Discussion:** This section provides an interpretation of the results. Significance of the research, its implications in the field at-large, and its limitations. Comparison to existing works is highlighted. Future directions should be given.
vi. **Acknowledgements:** Concise and professional, including non-author collaborators, assistants, *sources of grants and funding (required if applicable)*. Do not thank the reviewers or editors.
vii. **References:** Strong priority should be given to peer-reviewed articles and books which are published or in-press. You must use Nature-style references.

Content of Review Articles

Review articles should contain the following sections in order**.**

i. **Abstract:** The abstract should summarise your article, in a concise and enticing manner. We suggest you address the following sections (as fluidly as possible) in your paragraph:
    - **Background:** Provide the context and overall importance of the topic in review.
    - **Methods**: Describe the data sources used. Provide the number of studies reviewed and the selection criteria.
    - **Summary**: Present the key takeaways and essential conclusions of the review. New insights or proposed directions in the field should be highlighted.
ii. **Introduction:** The article should begin by providing readers with a general understanding of the topic of interest, including its significance both in the wider world and in research communities.
iii. **Body:** The headings for the body of the review are up to the author. Information must be grouped in a logical manner. Methods must be discussed.
iv. **Acknowledgements:** Concise and professional, including non-author collaborators, assistants, *sources of grants and funding (required if applicable)*. Do not thank the reviewers or editors.
v. **References:** Strong priority should be given to peer-reviewed articles and books which are published or in-press. You must use Nature-style references.

Additional Requirements

Some articles may have additional requirements imposed, depending on the field of research.

    a. Chemical compound numbering: major chemical compounds are assigned bold numbers. Alphanumeric (e.g. **1a**) assignments may be used.

    b. Nucleic acid sequences: Key sequences integral to the conclusions of the work should be provided. In extenuating circumstances, please include an alternative plan (e.g. "sequences available on request" or a timeline for when they can be published) in the submission.

    c. For research requiring approval from an Institutional Review Board (IRB; or the equivalent at your institution), a statement must be included under the methods section indicating that the specific named IRB reviewed your work.

Submission Suggestions

These are some suggestions that we strongly suggest authors adopt. If your article does not follow these suggestions, it will still be considered for publication. However, if the article is accepted, authors should expect to work on these points later on during the editing process.

    1. **Write in the active voice when possible**. We encourage writing styles that engage the reader.

    2. **Avoid excessive technical jargon.** We aim for our journal to be accessible to any undergraduate.

    3. **Gender neutral pronouns** are required if specificity is not needed.