

# Thesis Format Guidelines

B.Sc. Honours Thesis  
Earth 436A, B and 499  
Department of Earth and Environmental Sciences,  
University of Waterloo

*(Modified after: <https://muse.union.edu/geology/students/tips-and-guides/thesis-format-guidelines/>)*

The thesis represents the culmination of your years as an undergraduate student. It gives you the opportunity to apply your knowledge and demonstrate your skills as a professional geoscientist while guided by a faculty supervisor.

It is important that your thesis be prepared in a standard and professional format. These guidelines are representative of formats used for B.Sc. theses in other programs in the Faculty of Science. Please follow these guidelines unless you are instructed otherwise by your faculty supervisor who is familiar with more specialized conventions in your sub-discipline.

## **Due Date for Final Submission:**

Refer to the course syllabus for Earth 436A, B and 499 for submission deadlines.

## **Paper, Typing, Margins:**

The final thesis must be typed and submitted in either WORD or PDF format. The layout must be portrait 8.5" X 11", single sided, double spaced, with 1.5" margins on the left side of the paper and 1" margins on the other three sides. Fold-out inserts are permitted provided they are 8.5" portrait format with 1.5" left margin. The type used in all text, tables, and captions should be Cambria, Arial or Times New Roman font and size 12. All text, including captions and references, should be left justified. First lines of paragraphs should be indented, and blank lines should not separate paragraphs.

If your thesis includes a large map, diagram or chart, please submit as a separate file. Make it clear there is a second file or additional files accompanying the main thesis file. (Such materials would be included in a pocket within the printed thesis if it were to be printed).

### **Sections of the Thesis:**

The thesis must be organized into sections placed in the following order:

- Title page (see example below)
- Abstract
- Dedication (optional)
- Acknowledgements
- Table of Contents
- List of Figures
- List of Tables
- Body of the text divided into its own sections and sub-sections with figures and tables
- References Cited
- Appendices (optional)

### **Pagination of the Thesis:**

All page numbers should be in the top right hand corner of the page, except the title page (page i) which is counted but not numbered. All preface pages including the Title Page, Abstract, Dedication, Acknowledgments, Table of Contents, List of Figures, and List of Tables, should be numbered in sequence with lower case roman numerals (ii, iii, iv, etc.). The title page is the first page (page i) but is not shown on the page. All other pages from the first page of text to the end of the document should be numbered in sequence with Arabic numerals. Figures, tables, and appendices should be numbered in the same sequence they are referred to in the text. Most word processors have automatic functions for numbering pages, but do it last after insertion of figure and tables, to avoid the headaches of repaginating every draft.

### **Abstract:**

The abstract you submit for the Symposium Day and that which is included in the final thesis should not be longer than 200 words. As a general guide, you can subdivide the abstract into parts:

*Purpose/Question:* 1 or 2 sentences, why you studied the topic, what is significant, how does your work add to existing knowledge

*Methods/Approaches:* 1 or 2 sentences, what did you do, how did you collect/analyze data?

*Results/Findings:* 3-4 sentences about what you found

*Interpretation:* 3-4 sentences, what do results mean? Sometimes it is easier to combine results and interpretation together.

*Conclusion(s):* 1 sentence, what you have learned, why it is significant?

### **Levels of Headings:**

The thesis must be separated into various parts. Normally no more than three levels of headings are required. First order headings, usually referred to as sections, separate the thesis into its major parts, such as the Abstract, Introduction, Conclusions, and References. Second order headings separate the major parts into intermediate parts. Third order headings separate the intermediate parts into minor parts. Headings of any order must be on the same page as the first line of text below it (that is, headings may not be left alone on the bottom of a page).

1. First order headings are **FULLY CAPITALIZED**, centered, and in bold type.
2. Second order headings have **Major Words Capitalized**, are centered, and are in bold type.
3. Third order headings have **Major Words Capitalized**, are left justified, and are in bold type.
4. Fourth order headings may be necessary in some circumstances. If you choose to use fourth order headings, these are left justified, and indicated alphabetically using (a), (b), (c) etc.

### **The Body of the Text**

**Title Page:** The format for the title page must be strictly followed as shown in the example below. The title should give the reader a clear idea of the nature of the material in the thesis. It is important that the title be clear and informative rather than mysterious or imaginative. Normally it should fit on no more than two lines.

**Abstract:** The abstract should be on its own page and may not exceed 250 words. Use the Word Count function in WORD to count words. The abstract should succinctly state the nature of the project, the reasons for conducting the work, the results of the research, and your conclusions.

**Text, Figures, and Tables:** The body of the text should contain figures and tables, all of which must be cited in sequential order in the text. Each figure and table should be located as soon after its first citation as is reasonably possible. However, do not embed the figures and tables until the text of the thesis is

finalized. Embedding figures in drafts only leads to problems. Figures and tables should be cited using the capitalized word, for example “Figure 1” and “Table 1”. Each figure and table must have a caption and should start with the figure or table number, followed by the text of the caption (for example: “Figure 6. Photograph of fault zone interior, note geological hammer for scale.”). Tables have short titles and are placed above tables. Captions should appear below figures. Captions should be single-spaced, left-justified with no indents or hanging indents.

### **References:**

All references cited anywhere in the thesis must have a complete citation in the References Cited section. The formats for citing other peoples’ work in the text and in the reference section should follow professional standards as used by the Canadian Journal of Earth Sciences. If such standards are not followed, the thesis will be considered incomplete.

**In Body of Report** (including tables and figures): Always use author last name and year of publication. i.e. “(Smith 1989)”. If more than a single reference, it is the same format but the order is chronological with oldest followed by youngest citation date ( i.e. (Smith 1989; Harris 2001; Jones 2016). Where there are two references by the same author in the same year, the references are presented in the References Cited section according to alphabetical order of the reference title, given an alphabetic letter after the year, and indicated as follows in the text: (i.e. Harris 2001a, b).

### **In References Cited list:**

***Examples:*** (Taken from: <http://www.nrcresearchpress.com/page/cjes/authors>)

This is the standard format used by the Canadian Journal of Earth Sciences. This format should be followed for different kinds of references in the References Cited section.

#### ***Journal article:***

Kovanen, D.J., and Slaymaker, O. 2003. Lake Terrell upland glacial resurgences and implications for late-glacial history, northwestern Washington State, U.S.A. Canadian Journal of Earth Sciences, **40**: 1767–1772.

***Journal article available online only (with URL):***

van der Sanden, J.J., and Hoekman, D.H. 2005. Review of relationships between grey-tone co-occurrence, semivariance, and autocorrelation based image texture analysis approaches [online]. Canadian Journal of Remote Sensing, **31**: 207–213. Available from <http://pubs.casi.ca/doi/abs/10.5589%2Fm05-008> [accessed 9 September 2005].

***Journal article available online only (with DOI):***

van der Sanden, J.J., and Hoekman, D.H. 2005. Review of relationships between grey-tone co-occurrence, semivariance, and autocorrelation based image texture analysis approaches [online]. Canadian Journal of Remote Sensing, **31**: 207–213. doi:10.1139/rs03-011.

***Report:***

Sanders, W.W., Jr., and Elleby, H.A. 1970. Distribution of wheel loads in highway bridges. National Cooperative Highway Research Program Report 83, Transportation Research Board, National Research Council, Washington, D.C.

***Book:***

Williams, R.A. 1987. Communication systems analysis and design. Prentice-Hall, Inc., Englewood Cliffs, N.J.

***Part of book:***

Healey, M.C. 1980. The ecology of juvenile salmon in Georgia Strait, British Columbia. *In* Salmonid ecosystems of the North Pacific. Edited by W.J. McNeil and D.C. Himsworth. Oregon State University Press, Corvallis, Oreg. pp. 203–229.

***Paper in conference proceedings:***

Whittaker, A.A., Uang, C.-M., and Bertero, V.F. 1990. Experimental seismic response of steel dual systems. *In* Proceedings of the 4th U.S. National Conference on Earthquake Engineering, Palm Springs, Calif., Vol. 2, pp. 655–664.

***Institutional publications and pamphlets:***

Dzikowski, P.A., Kirby, G., Read, G., and Richards, W.G. 1984. The climate for agriculture in Atlantic Canada. Available from the Atlantic Advisory Committee on Agrometeorology, Halifax, N.S. Publ. ACA 84-2-500. Agdex No. 070.

***Corporate author:***

American Public Health Association, American Water Works Association, and Water Pollution Control Federation. 1975. Standard methods for the examination of water and wastewater. 14th ed. American Public Health Association, American Water Works Association, and Water Pollution Control Federation, Washington, D.C.

***Thesis:***

Keller, C.P. 1987. The role of polysaccharidases in acid wall loosening of epidermal tissue from young *Phaseolus vulgaris* L. hypocotyls. M.Sc. thesis, Department of Botany, The University of British Columbia, Vancouver, B.C.

***Electronic citation:***

Quinion, M.B. 1998. Citing online sources: advice on online citation formats [online]: Available from <http://clever.net/quinion/words/citation.html> [cited 20 October 1998].

***Citation including URL:***

Tremblay, R. 1998. Development of design spectra for long-duration ground motions from Cascadia subduction earthquakes. Canadian Journal of Civil Engineering, **25**: 1078–1090. Available from <http://nrcresearchpress.com/doi/abs/10.1139/198-028> [accessed 20 October 2005].

***Citation including DOI:***

Tremblay, R. 1998. Development of design spectra for long-duration ground motions from Cascadia subduction earthquakes. Canadian Journal of Civil Engineering, **25**: 1078–1090. doi:10.1139/L04-079.

**Appendix (singular)/Appendices (plural):**

Appendices should contain any substantial amount of raw data or material that, while pertinent to the thesis, would detract from reading the thesis if left in the body of the text. In general, material that is important to the thesis but not critical for understanding the main points are put in appendices. Such material in appendices could include lengthy tabular data, values from model calculations, lengthy details of mathematical or analytical procedures, or sample location and specimen descriptions. Appendices should be cited in the text as APPENDIX A, APPENDIX B etc., and labeled as such in first order headings. The usual text, caption, figure, table, and citation guidelines apply. Table and figure numbers should continue the numbering used in the text, but should not be specifically cited in the text except as Appendix A, etc.; if they are, they belong in the text). All appendices must be cited in the body of the text (e.g., see Appendix B) like figures, tables, and references. If there is only one appendix, it should be labeled APPENDIX A.

**Final Thesis Submission:**

The final thesis copy must be complete including all preface pages, text, figures, tables, references, and appendices, in the proper format specified here.

**Final copies are to be submitted electronically and deposited in the course Dropbox on LEARN. Please name your electronic file in the following fashion: 2016 underscore, your last name, your first initial. Example: 2016\_SmithJ.**

DRAFT

[SAMPLE TITLE PAGE]

TitleTitleTitleTitleTitleTitle TitleTitleTitleTitleTitleTitle TitleTitleTitleTitleTitleTitle  
TitleTitleTitleTitleTitleTitle TitleTitleTitleTitleTitleTitle

by

John G. Smith

A thesis

presented to the University of Waterloo

In fulfillment of the

thesis requirement for the degree of

Honours Bachelor of Science

in

Earth Sciences

Waterloo, Ontario, Canada

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