

THESIS FORMAT GUIDELINES
FOR THE DEGREE OF
MASTER OF SCIENCE IN ENVIRONMENTAL SCIENCES

General Overview

The thesis is the compilation and professional showcase of your research. Although you eventually may submit your chapter(s) to different journals or other publication outlets, in your thesis you must use the first (Introduction) and last (Conclusion) chapters to bookend a cohesive report where congruency across all chapters is maintained.

All theses submitted as part of the Master of Science program in Environmental Science must be formatted as follows:

- A frontispiece section that includes the title page, abstract, table of contents and other preliminary material.
- An introductory chapter that provides an overarching introduction to the thesis and the manuscript or manuscript(s) contained therein
- The body of the thesis that contains one or more more manuscript-style chapters that describe the results of your work.
- A concluding chapter that provides a summary of the significance of the thesis as a whole. In keeping with the theme of the environmental science program, you must take your work and put the results into a broader ‘environmental context, focusing on the applied significance and extension of your work.
- Appendix or appendices of supplementary information (if necessary).

Further details on the specific structure of each of these sections, as well as some general information on the copyright and other ownership issues associated with the thesis are provided in this document. Read these guidelines over thoroughly before beginning the construction of your thesis: it may save you a considerable amount of revision later. You must also consult the document “TRU Library Guide to Thesis Submissions”

General formatting rules

Font, Spacing and Margins:

All thesis text must be in Arial, Times New Roman or Palatino 12 point font.

Line spacing must be 1.5 (one-and-a-half) throughout the thesis, except for long quotations, footnotes, table captions and figure legends, and individual references in the “Literature Cited” section, which must be single-spaced (with 1.5 spacing between references).

The left margin of the thesis must be 3.175cm (1.25 inches) to permit binding. All other margins must be 2.54cm (1 inch). All of the text throughout the thesis must be left-justified and formatted for only one column, with the exception of section titles (e.g. ‘Abstract’, ‘Acknowledgements’) which are centred.

Page Numbering:

Lower-case Roman numerals are used for the preliminary pages, with standard Arabic numerals used for all other pages. Page numbers must appear on the top of the right of the page, 1.9cm (0.75 inches) from the top and 2.54cm (1 inch) from the right-hand edge. There is no page number printed on the title page, but it does correspond to page “i” (see the **Preliminary Pages** section, below).

Language

All Master’s theses in the Environmental Science program must be written in English or, with program approval, in French.

Text presentation

The thesis must be completed in good style, with no errors of grammar, spelling, or content.

Each chapter must start on a new page.

Most of the text should be in paragraph form with a minimal use of bullets, lists, or extensive quotations. The first line of each paragraph must be indented, or there must be a larger space between paragraphs than between lines if no indent is used.

Clearly present the results of your analysis. When reporting statistical results, the use of Greek symbols must be used, not text (e.g. ‘ $\chi^2 = 4.3$ ’ not ‘Chi-squared=4.3’).

Units of measurement should follow the international system of units or discipline-specific standards.

The use of footnotes must be frugal throughout your thesis. If absolutely required, they must be numbered consecutively using Arabic numerals throughout the thesis. They must be placed at the bottom of the appropriate page. The format used for footnotes must remain consistent.

Paper:

The paper used for submission must be of high quality:

- Acid free
- White in colour; gray, off-white, or other colours will not be accepted
- High quality, opaque stock
- 8.5" x 11" size
- Paper with holes, lines, or of inferior quality will not be accepted.

Print:

This must also be of the highest quality, with all font and images being clear, sharp, and consistent in intensity. All text must be black. Only single-sided printing is permitted.

Do not use correcting liquid. Reprint the page(s) if any mistakes are found prior to submission.

Any theses with smudged, blurred, faint, or broken lettering or images will not be accepted.

All colour images must be clearly plotted with a good quality colour printer. No pasting of photographs or other images into the thesis is permitted.

Preliminary Pages

The preliminary pages of the thesis normally consist of the following, in this order:

- Title page
- Abstract
- Table of Contents
- Acknowledgements
- Dedication (optional)
- List of Figures (if figures are used)
- List of Tables (if tables are used)
- Glossary of terms (optional)

Page numbering

As stated earlier, lower-case Roman numerals are used for numbering the pages in the preliminary section. The Title Page is considered the first page ('i') but this number does not actually appear on the page. Page numbers appear on all subsequent pages in this section in the upper right-hand corner (see page 2).

Title Page: *see the example provided at the end of this document*

Follow the formatting, spacing, and style guidelines found on the sample title page. All font and font size requirements for the body of the thesis must be maintained on the title page.

An abbreviated title (less than 60 characters, not including spaces) must be provided at the time of submission to the library for binding, if your actual thesis title exceeds this length. The shortened title will appear on the spine of the bound thesis. It is your responsibility to provide this abbreviated title.

Abstract

An “Abstract” is required as part of the preliminary pages. It summarizes all sections of the thesis, including methods and general conclusions. It must not exceed 500 words in length in accordance with the Library and Archives Canada guidelines, and it must not include abbreviations, acronyms, jargon, reference citations, or any figures or tables.

The first line in this section consists of the thesis supervisor’s designation and name, centred at the top of the page one line-space above the section title. Start the body of the abstract two lines below this, reverting back to left-justified text.

Include a list of keywords(up to eight) two lines below the last line of text in the abstract. Your choice of these keywords is very important, as they will be used for the electronic indexing of your thesis. The use of inappropriate or uncommon keywords may make your thesis ‘invisible’ for people searching via electronic data bases. Discuss and finalize the choice of keywords with the advice of your supervisor.

Here is an example of the layout of the Abstract section:

Thesis Supervisor: Associate Professor Leo Pold

ABSTRACT

[*Abstract text, max. 500 words*]

keywords: keyword1, keyword2, keyword3, etc.

Table of Contents:

This itemizes and presents the page numbers for all the thesis sections and subsections, including the ‘Literature Cited’, ‘Appendices’, and all preliminary pages.

It must be formatted in a single column with the headings left-justified, the page numbers right aligned, and the two connected by leader lines (dots). Use 1.5 line spacing.

e.g.

Abstract.....	ii
Table of Contents.....	iii
Acknowledgements.....	iv
Dedication.....	v
Chapter 1. Introduction.....	1
Chapter 2. <i>Title of chapter</i>	5

etc.

Acknowledgements

This section must be brief (no more than one page). It serves to acknowledge support (logistical, financial, and moral) that aided in the research, analysis, and writing of the thesis.

Important: permits that allowed the work to be conducted, and the agency/department granting the permit, must be noted here, normally at the end of the text. This includes ethics approval by relevant committees.

e.g.

This work was conducted under permit number ##### granted by the British Columbia Ministry of Environment. The work was approved by the Thompson Rivers University Animal Care Committee, protocol no. #####.

Dedication

Optional. If used, it must be included in the “Table of Contents”, and be on a separate page from the Acknowledgements. Use 1.5 line spacing.

List of Figures

If figures (including graphs, photographs, images, etc.) are used they must be listed consecutively and numbered with Arabic numerals (Figure 1, 2, 3, etc.). If they appear across multiple chapters, then they must be numbered according to the chapter in which they appear.

e.g.

- figures in Chapter 1 are labelled Figure 1.1, 1.2, 1.3, etc.
- figures in Chapter 2 are labelled Figure 2.1, 2.2, 2.3, etc.

Note that ‘Figure’ is capitalized whenever a specific figure is referred to in the thesis.

The labeling of the figures in the thesis must correspond to the listing in the ‘List of Figures’.

In this section, provide the figure number, a title, and the number of the thesis page on which the figure appears.

This section must be formatted in a single column with the headings left aligned, the page numbers right aligned, and the two connected by leader lines (dots), akin to the format used in the Table of Contents page(s) (see previous page).

List of Tables

Use a format analogous to that provided for the List of Figures.

Glossary of Terms

A glossary of terms used in the thesis may be included here. Discuss the appropriateness of this with your thesis supervisor.

Introduction (Chapter 1)

This is your introductory chapter that provides an overarching introduction to the thesis and the manuscript or manuscript(s) contained therein.

It must provide :

- an appropriate review of the literature
- a clarification of the management issue, if applicable to the thesis
- the theme/purpose/goals/hypotheses for the work
- a general overview of the geographic area of study (if appropriate)
- a statement of what is contained (i.e. chapter topics) in the rest of the thesis
- a Literature Cited section (see the following section for guidelines on this)

Figures and/or tables may be included in this chapter, but in this case, they usually represent previously-published work (see the information on copyright permission at the end of this document) or a summary of the literature, rather than original results stemming from the actual thesis research.

Literature Cited (for Chapter 1 and all subsequent chapters)

When citing literature in the body of your chapter's text, and when assembling the Literature Cited section, be sure to follow the style guide particular to your field of study, with the few exceptions noted below. Style guides can be found through the TRU Library.

The Literature Cited section is atypical of the rest of your thesis, in that the lines are single-spaced, with 1.5-spacing between entries. All journal and monograph titles must be written out in full, and all entries must be arranged alphabetically by the surname(s) of the author(s). Literature with more than two authors may be cited as 'et al.' within the body of your chapter, but in the Literature Cited section the names of all authors must be fully written out. Each individual reference must be formatted with a hanging indent.

All references utilized in the particular thesis chapter must appear here, including Table and Figure sources that have been referenced in captions. Do not cite information that has not been referenced.

Body of Thesis (being composed of Chapter 2 and subsequent chapters, other than the final concluding chapter).

This chapter (or these chapters) present the parts of your thesis research. The number of chapters should be discussed with your supervisor (and committee if necessary) prior to the drafting of the thesis.

Chapters in this section must follow standard manuscript format, with the exception that an abstract is not necessarily included in each chapter (again, discuss this with your supervisor – you may wish to include a chapter-specific abstract, to facilitate the eventual submission of your chapter to a journal). The section headings must be bold-typed, capitalized, and left-justified.

i.e.

INTRODUCTION

METHODS

RESULTS

DISCUSSION

LITERATURE CITED

Sub-Section Headings:

The use of sub-section headings must be conservative, but also strategically used to improve the flow and parcelling of ideas. These headings must be made to stand out from the main paragraphs of thesis text by either bolding, underlining, or italicizing, in some intuitive hierarchial fashion.

For example:

METHODS

Field Techniques

Vegetation sampling

☆ *Important* ☆ : note that the numbering of sections and sub-sections is not permitted.

Figures and Tables:

There are a few acceptable locations where you can include Figures and Tables in your thesis: They can be embedded in the body of the chapter text as soon as possible after the paragraph containing the first reference to that particular figure or table. Alternatively, figures and tables may be placed on a separate page (again, as soon as possible after they are first referenced), or grouped at the end of the relevant chapter immediately before the ‘Literature Cited’ section. Whichever method you choose, be consistent throughout the entire thesis (i.e. you can not switch between format styles). Discuss the appropriate format to use with your supervisor.

Figures and tables must be sequentially numbered according to the chapter where they appear, i.e.

- figures in Chapter 1 are labelled Figure 1.1, 1.2, 1.3, etc.
- figures in Chapter 2 are labelled Figure 2.1, 2.2, 2.3, etc.

Each figure or table must be accompanied by a caption that starts out by denoting the number assigned to the particular figure or table, i.e. “Figure 1.2. Map showing the ecosystem boundaries of Arrakis”. Whatever format you choose to apply, there must be enough room on one page for the figure or table and the accompanying caption. Landscape format for tables and figures should be used only if absolutely necessary.

If you are embedding your figures and tables in the text, then there must be a double space between the figure or table and the rest of the thesis text. Captions must be sufficiently descriptive to allow the figure or table to be interpreted outside the body of the thesis – they must be ‘stand alone’, and all figures and tables taken from copyrighted sources must be fully cited as appropriate for the subject discipline (see information on using copyrighted material at the end of this document).

The font used on the actual figures and tables (i.e. graph axes labels, map labels, etc.) must be large enough, minimum 2mm size, to enable legibility after microfilming or another reduction process. This is especially important if you envision publishing your manuscript elsewhere: think about how the formatting of your figures and tables in your thesis will lend themselves later on for manuscript submission.

For photographs, high-resolution scanned or digital images must be used rather than mounting the actual photograph on the thesis hard-copy. If colour images are required, in GIS-based theses for example, they must be reproduced clearly and cleanly with definitive differentiation between each colour used.

The use of construction paper, cardboard, paint, pencil, or pen are not acceptable mediums for illustrations, images, graphs, tables, or other figures.

Literature Cited:

See page 8 for details on formatting this section and on citing literature in the text of your chapter.

CONCLUSION (final chapter)

The concluding chapter provides a summary of the significance of the thesis as a whole (particularly important for multi-chapter theses). In keeping with the theme of the Environmental Science M.Sc. degree, you must put your results into a broader environmental context, focusing on the applied significance and extension of your work.

More specifically, the concluding chapter should contain:

- Discussion and conclusions relating the manuscript chapters to each other (where appropriate) and to the overall field of study
- Comments on strengths and weaknesses of the thesis research
- Evaluation of current knowledge and proposals for new ideas related to the field of study
- Presentation of the status of relevant working hypotheses
- Discussion of the overall significance and contribution of the thesis research to the field of study
- Discussion of any potential applications of the research findings, i.e. can the information be used to resolve a management issue?
- A comprehensive discussion on future research directions in the field
- a Literature Cited section (see page 8 for details on formatting this section)

APPENDICES

If the student and the Thesis Supervisor agree that material should be appended, then it must be compiled in one or more appendices after the Conclusion chapter. Each appendix must begin on a new page. Number and cite multiple appendices as 'A', 'B', 'C', etc.

OTHER MATERIALS THAT MAY BE PART OF YOUR THESIS

These include documents or other materials that cannot be included with the thesis text, such as CDs, DVDs, or large maps or images that will not fit on a standard 8.5" x 11" page.

CDs or DVD:

Disks may be placed in a holder, mounted on the inside back cover of the thesis, but they must lie flat enough to permit proper closing and storage of the thesis. It is recommended that you research the type of archival media that is most likely to efficiently and safely store your information over an extended period of time.

The holder for the disc must be properly and professionally labeled as follows:

Student's full name – last name, first.

- Degree to be awarded – MSc. Environmental Science.
- Date of convocation – Spring 2009, Winter 2010
- The copy number – all disks submitted must be labeled with the copy number. (1 of 1, 1 of 2, or 2 of 2).
- Thesis title.

On each disc use a permanent marker to clearly and neatly print the same information as on the case. Do not affix a label to the disc or it will not be accepted.

Large Maps or Images:

Items of this nature should ideally be digitized and provided on a CD or DVD as described above. If this is absolutely not possible, then the documents may be submitted rolled up or folded. They must also be labeled on the back with a 1" x 3" label with the following information:

- Student's full name – last name, first.
- Degree to be awarded – MS Environmental Science
- Date of convocation – Spring 2009, Winter 2010
- Thesis title.

The front of the figure must be clearly labeled on the bottom-right corner in the same format as other Tables or Figures used in the thesis. The full source citation is also required.

SAMPLE TITLE PAGE:

AN INFORMATIVE BUT CONCISE THESIS TITLE

by

JAMES TIBERIUS KERQUE

List Degree(s) Already Held, Awarding Institution, Year

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF
MASTER OF SCIENCE IN ENVIRONMENTAL SCIENCES

in the Department of *name of your home department*

Thesis examining committee :

Leo Pold (PhD), Associate Professor and Thesis Supervisor, Department Name
Dara Win (PhD), Associate Professor and Committee Member, Department Name
Hyla Regilla (PhD), Associate Professor and Committee Member, Department Name
Hugh Witt (PhD), External Examiner, Department Name or other affiliation

Month and year of degree completion
Thompson Rivers University

Full given name of the author, year of degree completion

COPYRIGHT MATTERS

It is critical that you exercise proper and judicious use of copyrighted material. A failure to do so can have serious and legal consequences.

Herein is a quick summary of matters relating to the use of copyrighted material, so it is critical that you also consult the document “**TRU Guide to Thesis Submissions**” before submitting your thesis.

TRU operates under Canadian copyright law, and all theses must provide proof that the student has obtained appropriate copyright permission for all copyrighted material in their work. This is the responsibility of the student.

Copyright law protects the ownership and usage of all printed, artistic, digital, musical, and other produced works. Copying such material without proper citation or obtaining written permission to do so by the producer(s) or copyright holders to such work is a violation of copyright law.

Copyright applies to such works as listed above regardless of whether the work was published or not, and this protection lasts for 50 years following the death of the producer.

Generally, the use of copyrighted material does not require written permission from the copyright holder as all quotations, original ideas, and paraphrasing must be completely and correctly cited by the thesis author in the style appropriate to their discipline of study. However, there are also many instances when written approval is required. Discuss your source usage with your supervisor to determine if such steps are necessary.

Various websites are available to allow you to obtain further information on copyright in Canada. The Librarians at TRU can help you in this regard.

Obtaining copyright authorization

If you require written authorization from a copyright holder to utilize their work, you must include written proof of such authorization for each instance where permission is required at the submission of their thesis.

If you are using information which you have previously published, and where you signed over copyright ownership to the publisher, you will be required to contact the publisher to obtain written permission to use your work in the thesis. Check the publisher’s website first, as many journals have special instructions for thesis writers posted. If the work was created with co-authors, their written permission to use their material will also be required.

Apply for authorization as soon as possible and well in advance of the thesis submission deadline.

All written authorizations must be originals, signed in ink. Electronic mail authorizations will not be accepted

If the copyright holder wishes to provide written permission via an alternate method to that of the TRU form, the requester must provide all of the information requested in this form, and the copyright holder must provide written and signed approval on personal/company letterhead, or their own consent form, while indicating that she/he understands the use the copyrighted material is to be put to and that the use of such material is conditional/unconditional. If the use is conditional the copyright holder must provide specifics on the conditions of use.

When approaching a copyright holder for authorization:

- State who you are, that you are affiliated with Thompson Rivers University, and what project you are working on;
- State what the copyrighted material will be used for and if you will be altering it in any way;
- If you can, send a copy of the material you would like to include in the thesis, along with any alterations made.
- Ensure that the person or organization provides written approval for the use of the copyrighted material.
- Ask if the person would like a copy of the completed thesis for their own records;
- State that you will be granting non-exclusive licenses to the TRU library and the Library and Archives Canada, and provide links to the licenses;
- Keep records of all correspondence, including e-mails.

If you are unable to obtain authorization all of the copyrighted material must be removed from the thesis. In the resulting blank space the student must indicate that copyrighted material was removed due to copyright restrictions, give a full description of the removed material's content, and provide a full citation to the copyrighted source.

When authorization is obtained, all copyrighted information must be fully cited, and must contain the copyright symbol, the name of the copyright holder, and a statement that the use/alteration of the work is by permission.