

Guidelines for Completing a Research Thesis for M.Eng and Ph.D. Students **Office of Associate Dean of Graduate Studies (ADGS)**

Students are advised to continue proceeding towards completing their thesis and graduation despite the COVID-19 pandemic. The ADGS Office is here with you to support you on this challenging journey. It is an unprecedented situation, as labs are closed and students are expected to work remotely. Special considerations will be given to the circumstances. Below are some guidelines to help you continue working towards your thesis and graduation. Your supervisor is the primary and first point of contact and so maintain close communication with him/her.

Students in the early year(s) of their M.Eng or Ph.D. program

1. Develop a plan for your research work in consultation with your supervisor. The plan may have a later start in your experimental work.
2. Identify alternative research activities that you can engage in, which may not require a lab. For instance, you may take time to conduct the literature review for your research or the experimental design.

Students in the middle of their M.Eng or Ph.D. program

1. Proceed with your research work and consult with your supervisor for adjustments due to the current interruption of COVID-19.
2. The time and effort you have invested in the lab related activities will be recognized and valued as a part of the academic progress.
3. Document your experimental design, plan for experimental work, expected data, and details on how you hope to analyze the generated data. Also document how the COVID-19 pandemic has impacted your experimental plan.
4. In consultation with your supervisor, consider engaging in a related research activity that may be combined with your experimental design or planned work. You may invest your current time in this activity. This activity becomes part of your research thesis.

Students in the final stage of their M.Eng or Ph.D. program

1. Consult with your supervisor regarding the adjustments required to complete and submit your thesis.
2. Document your research activities, for example:
 - a. experimental design and related activity;
 - b. how many experiments have been completed;
 - c. how many more runs were expected to be completed;
 - d. what results have been achieved;
 - e. what conclusions can be drawn from the current results;
 - f. how the expected results would differ if more experiments were conducted; and
 - g. how the COVID-19 pandemic has impacted your research activity.
3. It is suggested you document your work, including what has been achieved and what are the expected results from the unfinished experiments/tests, in consultation with your supervisor.
4. Examiners will make accommodations of the special circumstances of COVID-19. Provide sufficient information so that the examiner can understand the extent and depth of the work completed and work that could not be completed due to COVID-19.

Please see link: https://www.mun.ca/sgs/go/guid_policies/theses.php

(Thanks for the advices provided by University of Calgary posted on <https://grad.ucalgary.ca/sites/default/files/teams/3/FGS%20Guidelines%20for%20Remote%20Super%20vision%20March2020.pdf>)

Guidelines for Formatting Theses and Reports
School of Graduate Studies, Memorial University of Newfoundland
Updated August 5, 2016

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1. General comments

The purpose of writing a thesis is to make original research done by the student accessible to others. It is important, then, to ensure that the thesis as submitted for examination reflects well on the quality of both the student and the University. These guidelines supplement information provided in the School of Graduate Studies Calendar and describe relevant School of Graduate Studies procedures and policies that will help you during thesis writing and submission. It is the responsibility of both the student and the supervisor to be familiar with all general regulations of the School of Graduate Studies, the degree regulations and any specific requirements of the student's academic unit with respect to examination of any of the above.

All Doctoral candidates are required to submit a thesis that describes their research completed as a requirement of their academic program at Memorial University. The Doctoral thesis must demonstrate original scholarship that makes a significant contribution to knowledge in the candidate's field of study. Thesis requirements for Masters' programs vary and students are advised to consult the School of Graduate Studies Calendar for specific information. The Masters' thesis describes research completed

during the student's academic program at Memorial University and should demonstrate an ability to carry out research and to organize results. Masters' degrees requiring submission of a project report, paper folio, practicum, or internship report that are examined through the School of Graduate Studies are subject to the same regulations as theses. It is the responsibility of both the student and the supervisor to be familiar with all regulations of the School of Graduate Studies, the degree regulations, and any specific requirements of the student's academic unit with respect to examination of any of the above. Students in PhD programs and thesis-based Masters' programs should be aware of the following fundamental points:

- The thesis supervisor strongly influences a student's academic and professional development. Through the choice of a supervisor, a student also chooses a work environment and often financial support as well. The value and success of the thesis depend to a very large degree on the quality of the relationship that develops between supervisor and student.
- The thesis topic should be decided upon as early as possible. Students should be aware that thesis-based Masters' programs are normally completed within 24 months; hence, research projects should be well defined and chosen with care.
- The actual style and format of a thesis are of utmost importance. Students should strive to write in a style that is clear, concise and interesting as well as informative. Writing style is a matter of personal choice and skill, although the type of prose style used in a thesis will be governed in part by the requirements and the conventions of the discipline. A high degree of literacy is expected of all graduate students. Elegance and clarity are desirable whatever the subject of the thesis might be. Grammatical and spelling errors are no more acceptable than are typographical errors. Obscurities of meaning can arise from clumsy grammatical construction or from excessive use of jargon, and these should therefore be avoided. Use of editorial services or other assistance that provides substantive writing or re-writing of the thesis is unacceptable.
- The thesis should demonstrate a mastery of the literature relevant to the subject.
- The thesis must meet the standards and requirements established by the [Theses Canada](#) at Library and Archives Canada.
- Material presented in the thesis should conform with the Intellectual Property guidelines of Memorial University or agreements entered into with external funding or other agencies.
- Research funded by CIHR, NSERC or SSHRC must conform to ethical guidelines in the [Tri-council Ethics Policy](#).

2. Thesis Regulations

2.1 General Format

Theses may be prepared in traditional (unified) or manuscript (research paper) format. In traditional format the body of text, which may appear as a series of chapters, describes the work as a whole. Theses prepared in manuscript format present the research as a series of chapters based on published papers or papers prepared for publication. It is advisable to consider the thesis format that will best present the thesis research early in the program in consultation with the supervisor and the supervisory committee who must approve the final choice.

Although chapters (research papers) for theses prepared in manuscript format should be written as "stand alone" documents of published work or work prepared for publication, they must be logically connected and integrated into the thesis. An unconnected assembly of research papers is unacceptable. The format of each chapter must be consistent with the School of Graduate Studies General Regulations as described in this document. A literature review of broad scope and text describing how the chapters (research papers) are integrated must be presented in the Introduction and Overview chapter. Students considering submission of a thesis in manuscript format should seek specific guidance from their supervisor, both during the practical aspects of research and in the preparation of the thesis.

2.2 Order of Contents

The required components of a thesis should be ordered as follows:

Traditional Format

- Title Page
- Abstract
- Acknowledgments
- Table of Contents
- List of Tables
- List of Figures
- List of Plates
- List of Abbreviations and Symbols
- List of Appendices
- Thesis text
- Bibliography and References
- Appendices

Manuscript Format

- Title Page
- Abstract
- Acknowledgments
- Table of Contents
- List of Tables
- List of Figures
- List of Plates
- List of Abbreviations and Symbols
- List of Appendices
- Thesis text
- Introduction and Overview
- Co-authorship Statement
- Chapters (research papers)
- Summary
- Bibliography and References
- Appendices

2.2.1 Title Page

The title page contains the copyright notice as well as the information used to identify the thesis in library databases. The format should follow the example shown in Appendix 1. The date on the title page should indicate the month and year of graduation. In choosing a title, students should keep in mind that it is a valuable scholarly reference and will often be the only information that a prospective user of the thesis will have available. Care should be taken, therefore, to ensure that the title describes the contents of the thesis as accurately as possible and contains electronically searchable keywords.

2.2.2 Abstract

The purpose of the abstract, which should not exceed 150 words for a Masters' thesis or 350 words for a Doctoral thesis, is to provide sufficient information to allow potential readers to decide on relevance of the thesis. Abstracts should contain appropriate key words and phrases designed to assist electronic searches.

2.2.3 Acknowledgments

Intellectual and practical assistance, advice, encouragement and sources of monetary support should be acknowledged. It is appropriate to acknowledge the prior publication of any material included in the thesis either in this section or in the introductory chapter of the thesis.

2.2.4 Table of Contents

A decimal system such as the one shown in Appendix 2 should be followed. Each heading and subheading appearing in the table of contents must appear in the text of the thesis.

2.2.5 Lists of Tables, Figures, Plates, Abbreviations and Symbols, and Appendices

Lists of tables, figures, plates and abbreviations must follow the table of contents if tables, figures, plates and/or abbreviations are incorporated in the thesis. Each list should appear on a separate page with the appropriate page numbers (Appendix 3). It is advisable to use the decimal system (e.g., Figure 4.2 is the second figure in Chapter 4) if this system is followed for headings.

2.2.6 Thesis Text

2.2.6.1 Traditional Format

The body of text, which may appear as a series of chapters, describes the research as a whole and should be presented in a scholarly manner consistent with the accepted conventions of the discipline.

2.2.6.2 Manuscript Format

Introduction and Overview

The Introduction and Overview chapter provides a comprehensive review of the literature that establishes the student's familiarity with relevant work in the field; sets out the objectives of the thesis; places the research into the larger context of the candidate's discipline; and provides overall thematic cohesiveness of the chapters (research papers) to the reader. A separate bibliography should be provided for each chapter (research paper).

Co-authorship Statement

Research in some disciplines, particularly the sciences, is often collaborative and will necessarily involve contributions of several authors. It is expected that a thesis author will have made a major intellectual and practical contribution to all work that is reported in his/her thesis. Principal author status is normally required for use of research papers in a manuscript-format thesis. A clear statement describing the contribution made by the thesis author in each of the general research stages listed below is necessary to assist examiners in reviewing the thesis and, in the case of Doctoral dissertations, conducting the oral defence. The co-authorship statement should specifically address contributions made in i) design and identification of the research proposal, ii) practical aspects of the research, iii) data analysis, and iv) manuscript preparation.

Chapters (research papers)

Normally, only papers in which the candidate is considered to be the principal author can be used in a manuscript-format thesis. Each chapter should be prepared as a "stand alone" document describing published work or work prepared for publication. As such, each chapter requires an introduction, text body, experimental/methodology (if applicable) and bibliography. The description of methodology should be sufficiently detailed so as to allow reproduction of the research by the reader. Original research data and results should be presented as appropriate. Figures and tables should be integrated into the text where appropriate. Chapters must be presented in consistent format throughout the thesis.

Summary

Theses written in manuscript format require a summary that unites the material presented in the chapters in a cohesive way.

2.2.7 Bibliography and References

Theses written in traditional format require a collected bibliography containing all citations. Departmental regulations may require a unified list of all work cited and consulted in addition to separate bibliographies for each chapter (research paper) for theses in manuscript format. Bibliographical format should be appropriate to the discipline.

Bibliographic data must be complete, clear and exact, and must give sufficient information to enable readers to locate the references. Methods of handling and listing references in the text vary and the author is permitted a certain freedom of choice. Students are advised to use a style appropriate for the discipline. The MUN Library has an extensive collection of online guides at <http://www.library.mun.ca/researchtools/guides/citations/>.

2.2.8 Appendices

Appendices are normally included to provide information that would detract from the readability of the main body of the text or to present data or information used in the thesis but not directly obtained by the thesis author. For example, lengthy tables, tabulated and reference data, detailed explanation of laboratory procedures, and computer programs are typically included in the appendices. Please note that no signed documents may be included within the thesis.

2.3 Text Presentation

The general text of the thesis should be printed double-spaced in portrait format with single spacing used for footnotes or lengthy quotations. Triple or larger spacing may be used where necessary to set off headings, subheadings, or illustrations. Font, font size, style of footnotes and references should be consistent. Times New Roman or similar font of at least size 12 is recommended for text. Smaller fonts may be used for footnotes, graphs, etc. but must be sufficiently clear to permit microfilming.

2.4 Margins

A margin of 3.8 cm (1.5 inches) on the left-hand side of the pages is required to allow for binding. Minimum margins of 3 cm (1.25 inches) are required at the top and the bottom. A 2.5 cm (1 inch) margin is required on the right-hand side. These requirements also apply to tables and diagrams.

2.5 Pagination

Each page in a thesis must be identified by a distinct number for ease of reference. Material preceding the first page of the text (i.e., acknowledgments, table of contents, etc.) is to be numbered using lowercase Roman numerals, centered at the bottom of each page. The title page is considered to be page (i) but is not so indicated. Text for theses in traditional format must be numbered consecutively in Arabic numerals beginning with the first page of the text, i.e., Page 1 of Chapter 1. All figures, plates, tables, appendices, and similar material are numbered as pages of the text through to the end of the thesis. Chapters (research papers) in manuscript format may be numbered consecutively within the entire thesis or within each chapter but each page must have a unique reference. In the latter case the chapter and page number should be designated in Arabic numerals (e.g., 2-3 is Page 3 in Chapter 2).

2.6 Illustrations

Tables, figures, photographs, scanned images and other non-text material whether in black/white or colour should be legible, arranged neatly and effectively, and must always be referred to in the text. The title of a table should be placed above the table, and the title of a figure or plate should be positioned below the figure.

Oversize maps, charts or diagrams must be folded so that they can be bound with the pages or, as is most common, inserted in a pocket fastened to the inside of the back cover when the thesis is bound. If possible, media containing additional print or non-print material should be included in a pocket fastened to the inside of the back cover when the thesis is bound. Prints, photo-offsets or scanned images should be provided in all required copies of the thesis. Where not forming a complete page, non-text material should be properly mounted on a page. It should be noted that colour images do not produce good microfilm copies.

2.7 Intellectual Property and Copyright

Canada's Copyright Act permits "fair dealing" of someone else's work. There is reasonable flexibility in the interpretation of what constitutes "fair dealing" and you are allowed to quote a reasonable extract provided it is properly cited. Extensive quotation requires written permission of the copyright holder (usually the publisher) which must be noted in the thesis. Students opting to submit a thesis in manuscript format should note that incorporation of published material will require written permission from the copyright holder. Copies of the Canadian Copyright Act can be consulted in the Reserve Section of the Queen Elizabeth II Library and the Health Sciences Library (Call number: [KE 2799 C427 2008](#)). A useful statement of the Canadian Copyright Act relevant to Educational Institutions in Newfoundland can be found at: <http://www.cmec.ca/Programs/Copyright/Pages/Default.aspx> At the time of submission of a thesis, students are requested to complete and sign a "Request to Include Copyright Material" form (Appendix 4). Students should also be fully aware of [Memorial's Copyright Policy](#).

2.8 Thesis Release

At the time of submission of a thesis, students must agree to authorize the deposit of the thesis in the University Library.

2.9 Theses Canada Participation

A digital copy of the thesis is sent to the Theses Canada Program <http://amicus.collectionscanada.gc.ca/thesescanada-bin/Main/BasicSearch?coll=18&l=0&v=1> where it will be catalogued, preserved and be accessible in the Theses Canada Portal.

In addition, theses submitted in manuscript format must include a written waiver of all rights required to permit publication of the thesis as described above. Written permission must be obtained from any co-author who retains copyright or the person to whom the co-author has assigned copyright (Appendix 4). The thesis should indicate that the article has been reproduced "with permission" or "under license". Copies of letters for permission or licenses should be submitted to the School of Graduate Studies at the time the thesis is submitted for examination.

2.10 Language

With the exception of the Departments of French and Spanish or German and Russian, all theses and reports must be written in English, except with the express permission of the Dean of Graduate Studies.

2.11 Supplementary Files

Supplementary files may be included with a thesis and in any file format. All graduate students are asked to consider the audience when selecting file format, as some may require specific software to use. If required, the [Request to Include Copyright Material form](#) should be included as a supplementary file.