SAINT MARY'S UNIVERSITY BACHELOR OF ENVIRONMENTAL STUDIES PROGRAM

Honours Program – Description and Regulations including regulations for the Honours Thesis (BEST 4599)

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INTRODUCTION TO THE HONOURS PROGRAM IN THE BACHELOR OF ENVIRONMENTAL STUDIES

This document provides a description and a set of regulations for the Honours program in Bachelor of Environmental Studies and the Honours Thesis course (BEST 4599). It is important to distinguish between the two:

- The Honours program is a complete program within the BES degree, which offers students the opportunity to undertake advanced research in environmental studies.
- The Honours Thesis is an important component that distinguishes the BES Honours degree from the standard BES degree. It is a six-credit hour course normally completed in the student's final year of study.

Honours Program Requirements

Honours students must complete the six-credit course BEST 4599.0 - Honours Thesis as part of his/her 120 credit hour degree program. This would normally be completed in the final year of the program (last 30 credit hours) and would replace the requirement for 6 credit hours in approved BES electives in the last 30 credit hours (Year 4) of the program. Otherwise, the structure of the Honours BES degree is identical to the structure of the standard BES degree.

Admission into the Honours Program

Students must apply to be admitted into the BES Honours program. Normally an application is made after the student has completed sixty (60) credit hours in the program. Students seeking admission will also be assessed on the basis of their overall academic record. Applying as early as possible is encouraged so that the student can plan his or her thesis research effectively.

To apply, complete an application for admission to an Honours program (available online at the Service Centre web page, www.smu.ca/servicecentre/forms.html#honoursapplication) and submit it to the Registrar. The Registrar will forward the application to the BES Coordinator for evaluation.

Minimum requirements for admission are:

- A minimum cumulative grade point average of 3.00 (B standing), with no grades below a 2.0 (C standing)
- An agreement-in-principle between the student and a BES faculty member (any faculty member who has taught a course in the BES Program in the last two academic years) who will supervise the Honours thesis.

Possession of the minimum requirements does not establish the right of an applicant to be admitted, or readmitted, to the program. Note: to graduate with honours, students must achieve a minimum degree grade point average of 3.00 (B standing).

Although it is not necessary to define a specific Honours thesis topic at the time of application, it is important that the BES Coordinator knows there is suitable supervisory capacity and interest among faculty members to support incoming Honours students. This requires the applicant to have considered their research interests and to have made a connection with an appropriate faculty member prior to submitting the application for admission.

Purpose of the Honours Program

The Honours program is designed:

- To give the student an opportunity to conduct a major, independent research project under the guidance of a faculty supervisor.
- To prepare the student for graduate work and enhance applications for graduate programs (since many graduate programs require completion of an Honours program).

REGULATIONS FOR THE HONOURS THESIS (BEST 4599)

Description

A research project (culminating in a final report commonly known as a "thesis") is normally completed in the student's final year in the Honours program. The student undertakes and presents a piece of independent original research under the guidance and supervision of a faculty member. The Honours Thesis course is overseen by the B.E.S. Program Coordinator, while the student's primary contact is with his or her supervisor.

The normal timetable for this six-credit hour course extends from September to April, although other timetables may be discussed with the B.E.S. Program Coordinator.

Minimum Required Milestones

There is a minimum set of required milestones for the Honours Thesis, as follows:

- Research proposal
- Preliminary research plan (applicable to students who will be conducting research during the summer)
- Research plan
- Interim report
- Draft copy of thesis
- Final copy of thesis
- Thesis defence
- Corrected thesis

A summary of the dates of these milestones is shown in Table 1. More information about these requirements is provided below.

Determining the specific steps required for completing the research and preparing the subsequent thesis is different for all students. A detailed schedule should be developed by the student and supervisor (and updated frequently). Students are advised not to consider the minimum required milestones alone to provide a sufficient framework for a successful project and ensure a fulfilling experience in the course.

Submission of Assignments

All assignments must be submitted to the supervisor, second reader, and B.E.S. Program Coordinator. The supervisor and second reader are responsible for evaluation or grading, while the B.E.S. Program Coordinator is provided with a copy in order to stay informed about the research project and the student's progress.

Grading

Specific values of components of the Honours Thesis course are shown in Table 1. Two people participate in grading the work: the student's supervisor and a second reader. Final grades are determined in conjunction with the B.E.S. Program Coordinator. Marks are assigned for the Research Plan and Interim Report; however, IP (In Progress) will be submitted to the Registrar for the interim (Fall Term) grade.

Research Proposal

<u>Purpose</u> Before undertaking the research project, the student must submit a research proposal for approval. The purpose of a research proposal is for the student to demonstrate that the research project he or she envisages completing is suitable, theoretically sound, and feasible.

Development A non-credit series of five seminars (called Honours Thesis Proposal Preparation) will be held by the B.E.S. Program Coordinator during the Winter Term preceding the Honours Thesis year. These seminars are directed to all students who will be completing their Honours Thesis in the following year, regardless of whether research will be conducted during the summer. Participation in the seminar series is strongly recommended, but not strictly mandatory. The purpose of the seminars is for the Coordinator, with input from the supervisor, to guide students through the early stages of the development of their research project and the writing of a valid research proposal.

Students who will be completing their Honours Thesis in the following year should contact the B.E.S. Program Coordinator no later than the beginning of the Winter Term preceding their Honours Thesis year to find out about the schedule for the seminar series.

For students who intend to do field work or perform other research activities during the summer, receiving approval for the proposal before commencing the research is compulsory.

(Furthermore, a preliminary research plan must be developed – see below for information about preliminary research plans.)

A Risk Assessment form must be submitted along with the proposal. (See below for information about this form.)

If there are circumstances that prevent a student from participating in the seminar series, the student must develop their proposal in conjunction with the supervisor prior to the applicable deadline.

<u>Deadline</u> There are two possible deadlines for submission of the research proposal:

- April 30: This is the deadline for students who participated in the seminar series during the Winter Term preceding the Honours Thesis year and/or any student who will be conducting research during the summer. It is the recommended submission deadline so that the research can proceed without delay in September.
- September 15: This is the final deadline to accommodate students who did not submit earlier.

<u>Content</u> The research proposal must inform the assessors about the subject of the research project, and how he or she intends to proceed with investigating the subject. The proposal should be 3-4 pages in length (excluding a list of references), double spaced, and must include the following information:

- The title of the proposed research project.
- A description of the conceptual framework that underlies the research. Key sources that inform the student's understanding of the topic should be cited, but it should be noted that an extensive literature review is not required.
- A brief explanation of the aim of the research, and a statement of the research questions that it intends to address.
- An overview of proposed data to be collected, and methods that are proposed to collect and analyze the data. This includes the nature of: source materials; proposed field work, such as surveying, site investigation, questionnaires, interviews; and methods of data analysis, including analytical, statistical, computer, graphic, or cartographic techniques.
- A list of references for any sources cited.

<u>Assessment</u> Proposals will be evaluated on the following bases:

- Suitability of the topic as a subject for investigation in environmental studies.
- Student's conceptualization of the nature of the topic and the areas to be investigated.
- Suitability of the data and analytical methods for both the topic and the student concerned.
- Feasibility of completing the study within the time allowed.
- Completion of the Risk Assessment form.

It is possible that the proposal will be referred back to the student for re-writing or clarification before approval is given. Research Ethics Students should be aware that, when applicable, approval of the Research Ethics Board (REB) is required *before* any research activity begins. Acquiring REB approval is considered to be part of the research process so evidence of such approval is not required when the proposal is submitted.

Supervisor Progress Assessments

The Honours Thesis has a limited period of time for its completion. In the event that the student is encountering difficulties with formulating or completing the research project, it is important for the problem to be recognized in a timely manner and for appropriate intervention or change of direction to be made. Therefore, the supervisor is required to submit four assessments of the student's progress to the B.E.S. Program Coordinator by the following dates:

November 7 January 10 February 1 March 1

There are two options on the progress assessment form: 1) the student has made at least satisfactory progress on his or her research project; and 2) the student has not made satisfactory progress on his or her research project. If the supervisor is sufficiently concerned to indicate the latter, he or she must inform the B.E.S. Program Coordinator why that option was selected, and what plan the student has developed, with the supervisor's guidance, to address the situation.

The student's response to the progress assessment is required. If the student disagrees with the supervisor's assessment, an explanation of why the assessment is not valid must be prepared and submitted with the progress assessment form.

Research Ethics Board

All research conducted at Saint Mary's University that involves human or animal participants requires *prior* approval of the Research Ethics Board (REB). REB approval is required for a broad range of research *involving* humans, <u>not</u> limited to direct study *of* humans. It is the student's responsibility to investigate whether REB approval is required for his or her project, to complete the application process if necessary, and to adhere to all research ethics requirements of the university.

Seeking REB approval is considered to be part of the research process. Therefore, an application to the REB may be submitted after the research proposal is approved. Information about the REB and applications is found at www.smu.ca/academic/research-ethics-board.html.

Table 1. Summary Table of Components, Deadlines, and Grade Values for the Honours Thesis 1, 2

Deadline ³

Component	For a student who will be conducting research during the summer	For a student who will not be conducting research during the summer	Grade Value
Research Proposal	April 30	Either April 30 or September 15	Accept/ Reject
Preliminary Research Plan	Prior to commencement of research activity	n/a	_
Research Plan	October 15 (see corresponding section in text)		15%
Supervisor Progress Assessments	November 7 January 10, February 1, March 1		_
Interim Report	November 30		10%
Completion of Data Collection and Analysis	January 31 (recommended)		_
Draft Copy of Thesis	February 28		_
Final Copy of Thesis	One week after last day of classes of Winter Term ⁴		60%
Thesis Defence	During Winter Term Examination Period ⁵		15%
Corrected Thesis	Prior to	_	

¹ This table defines the minimum components of the Honours Thesis. Each student must develop a detailed schedule for conducting the research and preparing the thesis, in consultation with the supervisor.

² For all deadlines, if the date falls on a weekend, the submission is due on the following Monday.

³ The student is required to meet all deadlines. Submission dates are firm and *penalties of one letter grade per day* (e.g., A to A-) will be assessed for late submissions. Assessment of late penalties is the responsibility of the B.E.S. Program Coordinator and will be done after the assessors have graded the submission according to the guidelines contained herein.

⁴ This date changes slightly each year but is included in each new version of the Academic Calendar. The actual date will be determined annually based on those appearing in the Academic Calendar.

⁵ The date of the thesis defence is set on a date and time that is suitable for the student, the supervisor, and the second reader.

⁶ The late penalty described above does not apply to the corrected thesis. A final grade will be assigned – but not submitted to the Registrar until a satisfactory corrected version of the thesis is submitted to the Supervisor and approved for submission to the Supervisor, the B.E.S. Program Coordinator, and the Library Archives.

In order to graduate in the Spring Convocation, the Registrar requires the grade to be submitted by *date* (check with B.E.S. Program Coordinator about the specific *date* for the current year). This date should be considered an absolute deadline or the student will not graduate at Spring Convocation.

Risk Assessment Form

All Honours students must complete the Risk Assessment form. Depending on the nature of the research, some Honours projects will have no identifiable risks and the form may indicate that, but it must be completed to demonstrate that potential risks have been considered.

The form is available on the Honours in BES page at the Bachelor of Environmental Studies website (*smu.ca/bachelor-of-environmental-studies*).

The completed form must be submitted along with the research proposal. Submit it to your supervisor and the Honours Program Coordinator.

Preliminary Research Plan (for students conducting research during the summer)

This information applies only to students who will conduct research during the summer. For students who will be commencing their research project in September, skip to the Research Plan section.

While the research proposal may be viewed broadly as an overview and initial plan for the project, a more in-depth research plan must be developed before data collection begins. Use the description of the research plan in the next section as a guide to the material that should be included in the preliminary research plan, and how a research plan differs from a research proposal described above.

Note that a full review of the literature in the form of an annotated bibliography is <u>not</u> expected for the preliminary research plan, although references to key sources supporting the conceptual framework should be included.

There is no set deadline for the preliminary research plan and it will not be graded, but the supervisor and second reader must be satisfied that the student is sufficiently knowledgeable about the research and is prepared to proceed with data collection.

For students who intend to begin data collection early in the summer (e.g., early May), the research proposal (due by April 30) and preliminary research plan (required before data collection begins) may seem to be required close together in time. However, the two items are intended to be discrete steps in the research process with distinct characteristics (see the descriptions in the respective sections). Furthermore, the proposal must be approved before moving on to the preliminary research plan. Therefore, viewing the research proposal and preliminary research plan as items that might be submitted simultaneously is erroneous. Students beginning data collection early in the summer are encouraged to complete their research proposal before April 30 to receive the approval that is required to proceed with preparing their preliminary research plan.

Students who conduct research during the summer must subsequently submit a full research plan (which will be graded) by the October 15 deadline. The preliminary research plan must be revised to reflect work that has been completed and any changes in proposed steps and methods that have been made. See the *Research Plan* section below regarding evaluation of the research plan for those students who conducted research during the summer.

Registration in the Honours Thesis Course

Students who conduct research during the summer but are not employed as a research assistant must be enrolled in the Honours Thesis course to ensure they have liability coverage.

Research Plan

<u>Purpose</u> As stated above, while the research proposal may be viewed broadly as an initial plan for the project, a more in-depth research plan must be developed before data collection begins.

In preparation for undertaking an independent research project, the student must survey the literature which applies to his or her problem. In doing so, he or she will acquire the background to understand the context in which his or her work is done, including previous related studies and the research methods used in those studies.

<u>Deadline</u> The submission deadline is October 15. Submission of the research plan means that the student will be moving on to the data collection stage of the research no later than October 15.

Content The research plan must contain:

- An introduction to the research topic and the conceptual framework underlying it.
- An annotated bibliography representing a full listing of relevant literature sources about the research topic. (Note that an integrated literature review is not required at this stage; the annotated bibliography should be developed into an integrated literature review for the interim report.)
 An annotated bibliography consists of a list of individual items. Each item in the list is comprised of two parts: a bibliographic reference list entry, followed by a summary and/or critical review that describe the relevance of the source to the topic.
- A statement of the research problem, and a description of the thesis' research questions, objectives, and any hypotheses to be tested.
- A detailed description of proposed data and methods for data collection and analysis.
 (Note that the student is not bound strictly to using the methods described. Appropriate

- adjustments changes or additions may be made as the research unfolds.)
- A specific list of research steps and intended completion dates.

Evaluation Regarding the evaluation of the research plan, the context of the student's progress will be taken into account. For example, students who have completed some of their research during the summer will be at a more advanced stage in their project, and will be able to provide a different perspective and an updated description of the research project (e.g., methods of data collection that *were* used, and data that *were* collected), in comparison to those who did not conduct research during the summer. Evaluation of the research plan needs to take that difference in progress and perspective into account.

Interim Report

The intent of the interim report is ultimately for the student to demonstrate that significant progress has been made on the research project on a path towards producing a successful thesis.

The description of content below contains both a required element and a number of suggested elements. The latter allows for each student and supervisor to determine what material should be included in the interim report; however, for the material and format that are presented, each student will be assessed on similar evaluation criteria.

<u>Assessment</u> Thesis-level quality work is expected in the interim report. The report will be evaluated on the following bases:

- Presentation of evidence of substantive progress having been made to date.
- Content or substance of the report.
- Quality of written expression and visual presentation (including illustrative material, citation skills, reference-list formatting, etc.).

Required Content This element is mandatory:

• A full, integrated literature review developed from the annotated bibliography.

<u>Suggested Content</u> These elements are recommended for students and supervisor to consider including in the report, but are not mandatory:

- A statement (updated, if applicable) of the research problem, purpose, and objectives; and any hypotheses to be tested.
- A description of the study area.
- A description of the research methods.

- A description of the current state of affairs of the project, with an updated list of research steps and intended completion dates.
- A proposed structure for the thesis, including chapter titles, section and sub-section headings, and a provisional list of illustrative materials that are planned.

Format Students may choose to prepare the interim report generally in the form of the early chapters of a "thesis-in-progress." For materials that will ultimately become part of the thesis, to maximize efficiency students are encouraged to follow the formatting guidelines specified for the thesis during preparation of the interim report.

Deadline The submission deadline is November 30.

Draft Copy of Thesis

A draft copy of the thesis is required so that the supervisor has an opportunity to comment, note corrections, and advise on required or suggested changes. Apply the formatting guidelines that are specified for the thesis below.

The draft copy should be prepared with the same level of quality that is expected of the thesis. *It is not acceptable to submit an unrefined "first draft" version of the thesis to the supervisor.* Characteristics of an acceptable draft copy include:

- High quality of written expression.
- Illustrative material complete and wellpresented.
- Citations complete; list of references complete and well-formatted.

Upon initial examination, the supervisor may choose to return the draft copy to the student for improvements if it does not meet a sufficient standard. Revision would be required before resubmitting to the supervisor.

<u>Deadline</u> The *recommended* deadline for completion of the first draft is February 28.

Final Copy of Thesis

The thesis must be prepared according to the guidelines provided later in this document. Detailed procedures and formatting requirements are given.

Students should be aware that this version of the thesis is the one that will be graded (worth 75% of the overall course grade). Corrections and improvements suggested by the supervisor and second reader must be made before the final grade is submitted and the thesis is submitted to the University Archives.

<u>Deadline</u> The deadline for submission of the thesis is one week after the last day of classes in the Winter Term.

<u>Assessment</u> The thesis will be assessed on the following bases:

- Substance of the research project (e.g., conceptualization of research problem, literature review, description of study area and explanation of methods, data collection, analysis, evaluation of hypotheses, interpretation and discussion, conclusions, recommendations).
- Organization.
- Quality of written expression.
- Relevance and quality of illustrative material and appendices.
- Adherence to formatting guidelines.

Guidelines for Preparation of Thesis

Be aware that the corrected copy of the report will be inspected by University Archives staff. These Program regulations have been written to align with the University's requirements for submission of a thesis, but in the case of a discrepancy, the University may require that its requirements supercede these regulations.

Formatting The term "formatting" is used here to refer to the appearance and position of material on the page. Complete formatting requirements are provided at the end of this document, along with model pages. When formatting the report, attention must be paid to fine details.

The remainder of this section presents guidelines for the preparation of the thesis other than its formatting characteristics.

Length The report (excluding the preliminaries [title page, approval page, abstract and résumé, acknowledgements, table of contents, list of tables, list of figures]) should be no longer than 80 pages, including body, tables, figures, list of references, and appendices. The Program will not accept a thesis that is longer than 100 pages, excluding the preliminaries. The 100-page length limit is firm and applies to both the final copy submitted for grading and to the corrected report submitted for binding.

<u>Signatures</u> Because of privacy issues, no signatures may be included in the submitted full thesis. The Examining Committee is required to sign one copy of the title page that will be included when the thesis is submitted to the University Archives; this page will be kept separately at the University Archives.

<u>Abstract</u> An abstract not exceeding 300 words must be included in the report. Details about formatting the abstract page are included below.

The abstract should be presented in both English (Abstract) and French (Résumé). It is the student's responsibility to translate the abstract into French.

<u>Structure</u> No constraints on structure of the thesis are imposed. The student is responsible for developing an appropriate structure, in conjunction with his or her supervisor.

A basic structure, which might be considered as a starting point subject to adaptation, is to have chapters named as follows: 1 – Introduction; 2 – Study Area; 3 – Methods and Data; 4 – Results; 5 – Discussion; 6 – Conclusions and Recommendations.

<u>Spelling</u> Students are free to choose either "British" or "American" spelling, but usage (British vs. American) must be consistent throughout the work.

<u>Citations, References, and Notes</u> All sources must be cited and a corresponding list of references (or notes) must be included. Details about formatting citations, references, and notes are included below.

<u>Illustrations</u> The term "illustrations" is used to refer to both tables and figure; i.e., supplementary material that helps to illustrate points being made in the text.

Students are encouraged to create original illustrations as the first choice, or adapt illustrations from sources as the second choice. Reproducing an illustration directly from a source should be avoided when possible; not only is it better to fill your report with your own work, there are complications with copyright issues when reproducing material directly that can be avoided.

Students must be aware of copyright rules for diagrams or tables reproduced from other sources. If the student wishes to include such material in the report, copyright approval must be obtained. Alternatively, the diagram may be redrawn and the original author attributed using the format "(Adapted from Smith, 2004, Figure 3)".

Appendices Information about the research that is too extensive or inappropriate to be included in the body of the report may be summarized and placed in an appendix. Often this information is related to methodology and contains original data prior to processing or analysis.

Such information might include: full data set summarized in the body; questionnaire or survey form used; data recording form; and details of data collection protocols.

Thesis Defence

The supervisor chairs the thesis defence. Members of the public are invited attend to the student presentation and may stay to observe the first round of questions from the examining committee.

Student Presentation After introductions of the student and the examining committee, the student makes a presentation, maximum 20 minutes in length, to summarize the research conducted and main findings. Members of the audience are invited to ask questions after the presentation.

Question Period The remainder of the examination consists of two rounds of questions posed by the committee about the research and thesis, responses from the student, and discussion about the project (e.g., achievements, obstacles overcome, findings). The student should bring his or her copy of the thesis to the examination, as questions about specific material may be asked. No comments or questions are permitted from audience members who remain to observe the first round of questions.

<u>Length</u> The maximum length of the examination (introductions, student presentation, and question period) is $1\frac{1}{2}$ hours.

<u>Signatures</u> The student must bring an extra copy of the title page for the assessors to sign.

<u>Assessment</u> The thesis defence is assessed on the following bases:

- Quality of the student's presentation.
- Student's ability to answer questions about the research, to defend decisions made, and to engage in discussion about the research conducted.

Assignment of Final Course Grade

After the thesis defence, the supervisor and second reader independently assign marks for the thesis and the thesis defence. The B.E.S. Program Coordinator combines all the marks into a final grade for the course, and informs the two assessors of the grade. If an assessor feels that the final grade is not appropriate, the two assessors and the Coordinator meet to discuss the situation and to arrive at a final decision.

Regulations of University Archives

The regulations that are used by University Archives staff to assess theses are contained in documents available from the Library website:

www.smu.ca/academics/archives/honours-thesis.html

www.smu.ca/webfiles/ th027_honours_format_procedures.pdf

Students should acquire a copy of these documents and note that the following statements are included:

- "If you included material that you did not write or create yourself (such as questionnaires, graphs, tables, maps, illustrations, web pages, etc.), you must submit a letter of permission from the copyright holder (i.e., the creator) granting vou permission to use their material. All materials copied from web sites are considered to be copyrighted unless a statement on the site explicitly says otherwise, in which case a copy of that public domain statement must be submitted with your manuscript. Failure to include proof of public domain or a permission letter from the copyright holder is a serious offence. This letter of permission should be addressed to you. Referencing/ citing the material in your thesis is not sufficient; copyright permission must be obtained according to University Senate regulation. Theses with outstanding copyright infractions will not be added to the Institutional Repository until corrected by the student."
- "If a thesis is missing any of the above elements, the student will be contacted to make corrections."
- "If you used human subjects as part of your research (for example, conducted interviews or surveys), you will have obtained a
 Certificate of approval from the University's
 Research Ethics Board. The original or a copy of the certificate should be submitted with your project."

<u>Signatures</u> University Archives regulations specify that the title page of the thesis includes the names but not the signatures of the examining committee (i.e., the supervisor and the second reader). A hard-copy of the title page with original signatures of the examining committee must be submitted.

Approval to Submit Corrected Thesis to University Archives

The normal expectation is that the student will undertake the procedure to submit the corrected thesis to the University Archives. However, following the thesis defence, a discussion will be held among the supervisor, second reader, and student, with the question being whether the thesis is deemed to be suitable to be submitted to the University Archives. The supervisor will review the discussion and make a decision. The B.E.S. Program Coordinator may be asked to join the discussion and contribute to making a final decision.

If a decision is made such that the corrected thesis will not be submitted to the University Archives, it still must be submitted to the B.E.S. program (as described in the second stage in the next section) in order for the final grade to be submitted.

Submission of Corrected Thesis (If Approved)

There are two stages in the process of submitting the corrected thesis: submitting to the University Archives and submitting to the B.E.S. program.

<u>To the University Archives</u> See also the previous section regarding requirements and procedures for submission to the University Archives.

- E-mail a single file PDF version of your thesis to theses@smu.ca. (The University Archives no longer requires or accepts bound hard copies of the thesis.) In the e-mail message, include your A-number.
- At the University Archives office, submit the page containing original signatures of the examining committee as well as any applicable documentation (REB certificate, restriction letter, copyright letters, etc.).

To the Bachelor of Environmental Studies Program

Hard copies of the thesis are no longer bound at Saint Mary's. A PDF copy of the report will be retained by the Program.

- Send a single file PDF version of your thesis to:
 - o The supervisor, and
 - The B.E.S. Program Coordinator.

FORMATTING THE THESIS

Formatting Regulations

Pay close attention to the details in these formatting regulations, and ensure consistency of appearance through the thesis.

<u>Margins</u> Standard page margins (2.5 cm) are defined by University Archive regulations. All material on the page, including page number, and illustrative material, must be contained within the margins.

First set the positions of the header and footer to 2.5cm, and then set the margins for non-header/footer material:

- For the preliminaries: left and right (2.5 cm), top and bottom (3.5 cm).
- For the remainder: top (3.5 cm), left, right, and bottom (2.5 cm).

There is a difference because the page numbers in the preliminaries are at the bottom centre of the page, but for the remainder, page numbers are placed in the top right corner.

See the section on Titles below regarding placement of titles.

<u>Justification</u> Use left-justification for the text in the abstract, acknowledgements, body, and list of references. This means there will be a ragged margin on the right side of the page for these sections of text.

<u>Page Numbering</u> There are two sections of page numbering: the preliminaries, and the remainder of the report. Use the same font and font size for the page numbers that is used for the text.

The preliminaries are numbered in small Roman numerals (e.g., i, ii, iii, ...), centered between the margins, and placed 2.5 cm up from the bottom of the page. The title page is page i, but this number does not appear on the title page. The first page after the title page is numbered as page ii.

The remainder of the report (beginning with the first page of Chapter 1) is numbered in Arabic numerals (e.g., 1, 2, 3, ...) that are placed in the upper right corner of the page, 2.5 cm from top of the page.

<u>Font</u> University Archives regulations are no more specific than requiring a "legible font", so it is the student's choice for font type and size. The same font must be used for all text in the report, including preliminaries, table and figure titles and captions, equations, and page numbers.

Font size *within* illustrative material (tables and figures) may be smaller than the text, as long as it remains legible.

Line Spacing Text in the main body of the thesis is double-spaced. Use 1.5 line spacing on the title page. The abstract, and figure and table captions should have 1.2 line spacing. Titles and captions for figures and tables, references, and footnotes/endnotes should be single-spaced, with successive references and notes separated with a blank line.

Ensure that figures and tables, and corresponding titles and captions, are set apart from the text with some blank space.

<u>Starting New Paragraphs</u> New paragraphs in the text should be identified either:

- By indenting the first line one tab space but not inserting a blank line before the paragraph; or
- By inserting a blank line before the paragraph, but not indenting.

Although either style may be chosen, the chosen style must be applied exclusively throughout the report.

<u>Preliminaries</u> The preliminary pages include, in order: title page, dedication (optional), abstract, résumé, acknowledgements, table of contents, list of tables, and list of figures.

<u>Title page</u> Information on the title page (recall the instruction to use 1.5 line spacing) includes:

- Title of thesis (bold text, all uppercase) preceded by a blank line
- Name of author (bold text, preceded by the word "by")
- The words "Submitted in fulfillment of the requirements of BEST 4599"
- The words "for the Degree of Bachelor of Arts [or Bachelor of Science (Honours)]
- The words "Bachelor of Environmental Studies Program", "Saint Mary's University", and "Halifax, Nova Scotia, Canada"
- The words "Copyright [author's name, year]" or "© [author's name, year]"
- Date of submission (title page date and date on abstract page must be the same)
- The words "Members of the Examining Committee:"
- Names of examining committee members (do not include signatures) and the word "Supervisor" in parenthesis after the supervisor's name. On the line after each committee member's name state the name of the department and university (or equivalent information about the person's institution).

Refer to the model title page for the layout of these items.

<u>Section Titles</u> Section titles refer to names of major preliminaries and body of the report (i.e., Abstract, Résumé, Acknowledgements, Table of Contents, List of Tables, List of Figures, Chapters, and Appendices). Each of these major sections begins on a new page, regardless of whether there is blank space on the page at the end of the previous section.

To format titles (except the title names of chapters and appendices; see below for those items):

- Use all uppercase letters and bold text.
- Centre title between the margins.
- Insert a blank (double-spaced) line before the title. This creates an effective margin from the top of the page of approximately 4 cm.
- Insert a blank (double-spaced) line after the title.

On the opening page of a new chapter or appendix, write the chapter number as described in the preceding instructions (e.g., **CHAPTER 1**). On the next (double-spaced) line, write the name of the chapter in bold text, but use uppercase only for the first letters of main words. Insert a blank (double-spaced) line after the chapter name.

<u>Dedication (optional)</u> If the student wishes to include a dedication page, it is placed immediately after the title page.

Write the dedication in italics, centre it between the page margins, and position it about 2/5^{ths} down the page. Only the dedication itself appears on the dedication page – do not write the word Dedication.

In the model Table of Contents, a dedication was assumed to have been written. Not including a dedication page would decrease the remaining page numbers for the preliminary sections each by one.

<u>Abstract</u> An abstract must be prepared with these characteristics:

- Do not exceed 300 words.
- Write the heading ABSTRACT, in bold text, centered between the margins, followed by a blank line.
- State the title of the thesis, in bold text, uppercase only for main words, centered between the margins, followed by a blank (single-spaced) line.

- Include the word "by" followed by the author's name on the next line, centered between the margins, followed by three (single-spaced) lines.
- Use 1.2 line spacing for the abstract text, followed by a blank line.
- Show the date of submission after the abstract text. Place the date adjacent to the left margin.

Because University Archive regulations require the date on the title page and the date of submission to be the same, use the date that the thesis is submitted prior to the thesis defence. As mentioned above, this is the copy that is graded, despite subsequent corrections being made (normally) after the thesis defence.

<u>Acknowledgements</u> The acknowledgements section is used to thank various people for assistance and support during completion of the research project.

<u>Table of Contents</u> The list of items in the Table of Contents includes the following (note that the title page and the Table of Contents itself are not listed):

- Dedication (if applicable)
- Abstract
- Résumé
- Acknowledgements
- List of Tables
- List of Figures
- Chapter numbers and names
- References
- Appendix numbers and names (if there is only one appendix, it does not have a number [just named Appendix]).

To format the items in the Table of Contents:

- Do not use bold text; and use uppercase only for the first letters of main words.
- Use double-line spacing (except for long chapter names; see below).
- Arrange all of the preliminary sections, all of the chapters, the list of references, and all appendices together as separate groups by inserting (double-spaced) blank lines between the groups.
- Start the name of the item at the left margin.
- After the item, insert a right-justified tab with a dot leader; then write the page number on which the item appears or begins. The right margin must be vertically aligned, not ragged. Using a right-justified tab will produce a list of page numbers that is vertically aligned against the margin, not ragged.

For the chapters, write the chapter number, insert a tab, and then write the chapter title (e.g., Chapter 1 [TAB] Title of Chapter 1).
 If the title is too long to fit on one line, continue it on the next line (use single-spacing). Indent the second line so that the continuation begins below the beginning of the title on the first line.

<u>Lists of Tables and Figures</u> The lists of tables and figures are formatted similarly to the Table of Contents.

- In the respective lists, include tables or figures in the appendix or appendices, if applicable.
- In these lists, the title should be reproduced exactly as shown in the body of the thesis.
 Include only the title of the table or figure, not the caption (if there is one).
- Use uppercase only for the first letters of the first word of the title and proper nouns.
 Other main words that are not proper nouns are all in lowercase.
- If the table or figure title is too long to fit on one line, continue it on the next line (use single-spacing). Indent the second line so that the continuation begins below the beginning of the title on the first line.
- Group tables and figures in each chapter by inserting a blank (double-spaced) line between the groups.
- Continue the list on the next page if necessary.

<u>Headings</u> Headings are the titles of sections and subsections within the chapters. Use a hierarchical system of headings. Headings may be differentiated either by numerals or by format. In both cases, use uppercase for the first letters of main words.

Formats for three orders of hierarchical headings are shown below. Given that the chapter is a major section itself, this effectively creates four levels of sections overall; however, often in undergraduate theses only three levels overall are needed.

To differentiate headings by numerals (where the first numeral in each heading is the chapter number):

First-order: 1.2 Section Title
Second-order: 2.3.1 Section Title
Third-order: 4.1.2.1 Section Title

Start the text of the section on the next line; do not insert a blank line after the heading.

To differentiate unnumbered headings by format:

First-order – bold text: Section Title

Second-order – italicized: Section Title

Third-order – indended, bold text, ending with a period, text continues on same line:

Section Title.

For first- and second-order headings, start the text of the section on the next line; do not insert a blank line after the heading. Text continues on the same line only for third-order headings in this scheme.

These heading formats are modeled after APA style, except that the chapter title name assumes the format of an APA first-order heading; first-order here assumes the format of APA second-order, and so on.

See the Chapter 1 model page for examples of these unnumbered headings differentiated by format.

<u>Citations, References, and Notes</u> All sources must be cited and a corresponding list of references must be included. Within the text, either **in-text parenthetical references** or the **endnote style of referencing** may be used. Normally the in-text style is used in the social sciences and the natural sciences, while endnotes are sometimes used in the humanities.

Endnotes should be referred to by superscripted numbers in the text and listed in order at the end of each chapter.. Endnotes may contain a mixture of explanatory notes and bibliographic information for sources.

A style guide has been produced jointly by the Writing Centre and the Department of Geography and Environmental Studies. The guidelines for formatting in-text citations or endnotes, and the list of references, contained therein apply to the thesis.

<u>Measurements</u> Except for quoted historical references or where dimensions are commonly referred to with imperial units, all measurements should be in metric. For quoted historical references, metric conversions should be given in [square brackets].

<u>Numbers</u> Real values, even when rounded to zero decimal places, should always be written with numerals (e.g., 4 m, 2.5°C). Integer values should be written as words if the value is less than or equal to ten (e.g., three samples), or written with numerals if greater than ten (e.g., 125 people).

Numbering Illustrations Tables and figures are grouped separately and numbered in the order in which they appear. Use consecutive numbering within each chapter: e.g., Table 1.1, Table 1.2, Table 2.1; Figure 1.1, Figure 1.2, Figure 2.1.

See the section below about Numbering Appendices for information on numbering figures within appendices.

Size of Illustrations Tables and figures (along with the corresponding title [and caption, if there is one]) must fit within the standard margins stated above, leaving space for the page number also to fit within the margins. If space permits, two tables or figures may be placed on the same page. Either portrait or landscape orientation may be used.

<u>Placement of Illustrations</u> Illustrations may appear either on a page also containing text, or separately on the first page after being mentioned in the text. Illustrations should be centered within the page margins.

If placing an illustration on a page containing text, it should be placed adjacent to the top *or* the bottom of the page, so that there is text only either above or below. An illustration should <u>not</u> be surrounded by text above *and* below. Separate the illustration and title (and caption, if included) from the adjacent text with a blank (double-spaced) line.

<u>Illustration Titles and Captions</u> Each table and figure must be accompanied by the number and a brief title (not followed by a period) (e.g., Figure 3.4 Title of Figure). Use uppercase only for the first letters of the first word of the title and proper nouns. Other main words that are not proper nouns are all in lowercase.

The illustration title is included in the List of Tables or List of Figures.

Optionally, a longer caption may follow the title to help the reader understand the contents of the table or figure. Although the caption may be more detailed than the title, it should still be brief; use the text rather than the caption to introduce and discuss the information in the table or figure.

Captions are not shown in the List of Tables or List of Figures. Captions are written in sentence form ending with a period; use uppercase only for the first word and proper nouns. Start the caption on a new line below the figure number and title.

Titles and captions should be single-spaced. The width of each illustration defines the corresponding margins to be used for the title and caption (if included); thus the title and caption should not extend significantly outside the width of the illustration itself. Left-justify the title and caption.

Numbering Appendices If there is only one appendix, it is not numbered (it is just called Appendix). Tables and figures would be numbered using "A" as the equivalent to a chapter number: e.g., Table A.1, Table A.2; Figure A.1, Figure A.2.

If there is more than one appendix, number them consecutively from A, e.g., Appendix A, Appendix B, etc. Within each appendix, number illustrations following the guideline for chapters, with the appendix letter equivalent to a chapter number: e.g., Table A.1, Table A.2, Table B.1; Figure A.1, Figure A.2, Figure B.1.

Model Pages

The following pages show formatting models for pages in the thesis. Use these models in conjunction with the preceding regulations.

Although the specifications provided in these formatting regulations describe the minimum requirements, there will still be decisions that must be made about layout of material on the page. Use good judgement in situations that are not specified here to create a layout and appearance throughout the thesis that will be pleasing to the reader and is free of distractions.

(Insert blank line above title)

AN ANALYSIS OF TRENDS IN ENVIRONMENTAL PROTECTION POLICIES IN NOVA SCOTIA, 1980-2016

by Robert J. Green

A thesis submitted in fulfillment of the requirements of BEST 4599

for the Degree of Bachelor of Environmental Studies (Honours)

Bachelor of Environmental Studies Program
Saint Mary's University
Halifax, Nova Scotia, Canada

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Members of the Examining Committee:

Dr. Alison P. Smith (Supervisor)

Department of Environmental Science

Saint Mary's University

Dr. John R. Maxwell

Department of Political Science
Saint Mary's University



(Insert blank line above all major section headings)

ABSTRACT

An Analysis of Trends in Environmental Protection Policies in Nova Scotia, 1980-2016

by

Robert J. Green

An abstract is a succinct summary of the report and its main findings. See the formatting requirements for the abstract in the regulations section of this document. Use 1.2 line spacing for the abstract text.

April 5, 2017

(Note: Thesis title on title page is all in uppercase; here only the main words are in uppercase.)

ACKNOWLEDGEMENTS

In any study of this size, it is understandable that the author should wish to acknowledge assistance and support from various people. The Acknowledgements section is available for this purpose. Use double line spacing.

TABLE OF CONTENTS

Inser	rt a blank line	Use a right-justified dot leader to ensure the right margin is not ragged.
Dedication ((optional)	ii
Abstract		iii
Acknowledg	gements	iv
List of Table	es	v
List of Figur	es	vi
Insert a	blank line after the group of	preliminary sections, the group of chapters, and the list of references.
Chapter 1	Title of Chapter 1	1
Chapter 2	Title of Chapter 2	11
Chapter 3	Title of Chapter 3	31
Chapter 4	Title of Chapter 4	51
Chapter 5	Title of Chapter 5	71
Note: Only	the main chapters are requir	ed to be listed in the Table of Contents.
		81
		e endnotes system of referencing is used; ader the first-level heading Notes at the end of each chapter.
Appendix	Title of Appendix	84
Note: If the		r, label them as Appendix A, Appendix B, and group them as the

LIST OF TABLES

Table 1.1	Title summarizing contents of table	4
Table 1.2	Title summarizing contents of table	6
	Insert a blank line between groups of tables in each chapter.	
Table 2.1	Title summarizing contents of table	14
Table 4.1	Title summarizing contents of table	58
Table 4.2	Title summarizing contents of table	61
Table 4.3	Title summarizing contents of table	61

LIST OF FIGURES

Figure 1.1	Title summarizing contents of figure	5
	Insert a blank line between groups of figures in each chapter.	
Figure 2.1	Title summarizing contents of figure	12
Figure 2.2	Title summarizing contents of figure	16
Figure 3.1	Title summarizing contents of figure	33
Figure 3.2	Title summarizing contents of figure	33
Figure 3.3	Title summarizing contents of figure	44
Figure 4.1	Title summarizing contents of figure	65

(insert blank line above all major section headings)

CHAPTER 1

Title of Chapter 1

First-Order Heading

This is the first line of text in the first chapter. In this example headings differentiated by format are used. Headings in the text are not indented. First-order headings are in bold, with the text beginning on the next line.

In this example paragraphs are indented; therefore a blank line is not inserted before the new paragraph.

The body of the thesis has double line spacing.

Second-Order Heading

Second-order headings are italicized and in bold.

Third-Order Heading. Third-order headings are indented, in bold, not italicized, and end with a period. Paragraph text continues on the same line of the heading.

(Note: These heading formats are modeled after APA style, except that the chapter title assumes the format of an APA first-order heading; first-order here assumes the format of APA second-order, and so on..)

CHAPTER 2

Title of Chapter 2

1.1. First-Order Heading

This is the first line of text in the first chapter. In this example headings differentiated by format are used. Headings in the text are not indented. First-order headings are in bold, with the text beginning on the next line.

In this example paragraphs are not indented; therefore a blank line must be inserted before the new paragraph.

The body of the thesis has double line spacing.

1.1.1. Second-Order Heading

Second-order headings are in bold.

1.1.1.1. Third-Order Heading

Third-order headings are in bold.

REFERENCES

First reference placed here.

References are arranged in alphabetical order, single spaced and left-justified only, and separated from each other by a blank line.

Follow the formatting models shown in the Department of Geography and Environmental Studies Style Guide.

APPENDIX

Title of Appendix

Appendix material may begin on this page.