

Guidelines for Master's Reports & Theses

A Master's report or thesis in the School may take several forms, examples of which include:

- Empirical testing of a theory, convention or concept;
 - Investigating the causes of a phenomenon pertinent to environmental studies;
 - Explaining trends which are cogent to environmental studies;
 - Exploring an environmental issue;
 - The formulation of a solution to a specific environmental problem.
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- In every case, the topic should have practical significance and lead to original insights into the environmental issue on which the report or thesis focuses. Topics may be multi-, inter-, or single disciplinary. **However, where the disciplinary focus is narrowly defined, it remains essential that the report or thesis be informed by extra-disciplinary approaches both in its formulation of the topic and in its consideration of any conclusions reached.**
 - Reports and theses must be based on original research. While not strict requirements, empirically based theses will usually analyze primary data and produce a product that is of publishable quality (in whole or in part). Empirically based reports may make use of primary or secondary data collection, and may or may not be publishable.
 - Where topics are not amenable to, or primarily based on, empirical research, reports and theses are distinguished in terms of the depth and breadth of critical and constructive engagement with the issue, originality of arguments, or theoretical contribution.
 - The workload associated with a thesis is equivalent to that required in four term-length courses; a report is analogous to two courses. A report, however, is not just half of a thesis or a poor thesis. Each must stand on its own and demonstrate to the supervisor and the other examiner(s) that the student can pursue independent research.

RESEARCH PROPOSAL:

- Each student is expected to submit a brief report/thesis proposal to their supervisor, for his/her approval. This must take place no later than the end of the student's third month of enrolment (earlier is preferable).
- The student is not allowed to commence the proposed research until the supervisor has approved the proposal and the Graduate Research Ethics Board (GREB) has approved the research plan (if it will involve human subjects). Work involving animals will be managed under the University's animal care policy.
- The research proposal should be developed in close consultation with the supervisor. It is anticipated that thesis students will enter the program with supervision having been already arranged with a faculty member of the School. However course-based students may not have identified a topic or a supervisor until part way through their first semester. Once the proposal has been reviewed by the student's supervisor, it will be forwarded to a second faculty member for his/her review and comment (using the Decision Sheet for Report/Thesis Proposals). The supervisor will be solely responsible for approving, rejecting, or requesting revisions to the proposal.

- Proposals are normally 4-6 pages long for reports and 6-8 pages for theses (not including a preliminary bibliography of at least 10 resources) and contain answers to the following questions:
 - 1) What do you propose to study?
 - a) Your environmental issue.
 - b) Your research question(s).
 - 2) Why do you wish to pursue this area of study?
 - a) Your reason for interest in the issue.
 - b) Your goals and objectives.
 - 3) How will you address your research question?
 - a) Your level of preparation (e.g. coursework, work experience, etc.)
 - b) Your research approach (e.g. describe the indicators/variables that you will examine, sources of information, and how you will analyze your data to answer the research question(s)).
 - c) Your work schedule and general chapter outlines.
 - d) Your preferred structure of supervision (e.g. scheduled or as-needed meetings, modes of submission for review, etc.).

STRUCTURE OF A THESIS (RESEARCH STREAM):

- A thesis will normally develop from a body of literature, and either challenge a theoretical construct developed in the literature, or attempt to confirm a theoretical proposition.
- A thesis must include a comprehensive critical review of the relevant literature from which it developed and should make a scholarly contribution to that literature.
- The length of a thesis should be a maximum of 100 double-spaced typewritten pages.
- Given the variety of possible approaches to environmental issues there is no formally prescribed structure of a thesis, however, the following is a typical format for those engaged in empirical research (Deviation from these guidelines should be agreed with the supervisory committee prior to submission):

Chapter 1 - Introduction: This identifies the precise topic to be addressed, the general approach to be taken, introduces the topic, and presents the thesis structure. The introduction is preceded by a one page abstract presenting the key findings as well as a 2-3 page Executive Summary. The Executive Summary should identify the questions addressed by the project, briefly discuss the method and data sources used, and highlight key findings and recommendations.

Chapter 2 - Literature Review: This outlines and provides a critical interpretation of relevant and recent work, and describes how the current effort may contribute to our understanding of the problem or issues raised in the introduction.

Chapter 3 - Methodology: This provides an in depth critical discussion of the methods employed, especially in terms of their relation to those used by others to research

similar questions. The criteria used to evaluate the method's effectiveness should be discussed. This chapter should operate to set out the methodological "terms of reference" for the study. Anticipated major problems are identified along with ways of resolving them.

Chapter 4 - Findings: This identifies the results of the research, and generates specific recommendations for how the problem or issues should best be addressed.

Chapter 5 - Conclusions: This provides an overview of the most important findings, conclusions and recommendations arising from the research. It may make suggestions regarding future research in this area, and place the contribution of the thesis in broader context of the environmental field.

- In the case of non-empirically based theses the exact format taken should be discussed in detail and agreed with the supervisor prior to submission. It will generally follow an accepted format in a discipline appropriate to the student's project and approach.
- When the student and supervisor feel that the thesis is ready for examination, a thesis committee will be struck. The committee consists of a member from outside the School, usually from a cognate department, the School Director or a delegate, another ENSC faculty member, the supervisor and a chairperson. The committee reads the thesis and if they believe it is ready to be orally defended, an oral examination is held.
- The student is informed immediately of the result of the oral examination. According to the *School of Graduate Studies and Research* rules, a thesis is assessed in one of the following categories on the basis of the written thesis and the oral defense:
 1. Passed;
 2. Referred; or
 3. Failed
- After the completion of revisions, four unbound copies of the thesis must be submitted to the Graduate

STRUCTURE OF A REPORT (COURSE STREAM):

- A Master's report may take a variety of forms. Empirically based reports will generally apply known concepts and procedures to a specific situation and limit their conclusions in both time and space. All reports should offer methodologically defensible answers to specific research questions and, where appropriate, may recommend specific solutions to a well-defined environmental problem.
- A report will demonstrate a student's ability to work independently in applying research methods to a particular environmental issue.
- A report is expected to be a maximum of 60 double-spaced typewritten pages. The report should be printed double-sided.

- There is no prescribed format for a report but the following guidelines are recommended for empirically based studies. (Deviation from these guidelines should be agreed with the supervisory committee prior to submission):

Chapter 1 - Introduction: The general problem or issue to be examined is identified and its setting is briefly described. The rationale or justification for investigating the problem is explained. The Introduction is preceded by a 2-3 page Executive Summary, which should identify the questions addressed by the project, briefly discuss the method and data sources used, and highlight key findings and recommendations.

Chapter 2 - Methodology: This provides a critical discussion of the methods employed, especially in terms of their relation to those used by others to research similar questions. This chapter should operate to set out the methodological "terms of reference" for the study and fully describe the method to be used, the data to be gathered and the instruments that will gather the data. The criteria used to evaluate the method's effectiveness should be discussed.

Chapter 3 - Investigation: The problem or issue is described in detail and analyzed using appropriate analytic tools e.g. statistics. The research results and any conclusions reached are discussed and evaluated.

Chapter 4 - Recommendations: The final chapter may offer recommendations for applying the research to practical concerns and recommend specific courses of action.

- In the case of non-empirically based report the exact format taken should be discussed in detail and agreed with the supervisor prior to submission. It will generally follow an accepted format in a discipline appropriate to the student's project and approach.
- The examination committee for the Master's Report will consist of two members: an external examiner who is not a member of the School faculty and the faculty supervisor. The Director of the School establishes the examination committee, normally when advised by the report supervisor that a report is ready for examination. The committee may be established earlier if requested by both supervisor and student.
- A unanimous decision of the two examiners is required to pass the report (with or without revisions). In the event that the two examiners cannot come to a consensual decision, the Director of the School will act as a third examiner, and the approval decision will be made by a majority (two out of three) vote.