DLSPH Doctor of Philosophy Social and Behavioural Health Sciences

Dissertation/ Thesis Guidelines

I. Introduction

Students are required to write and defend a thesis that presents original research. This work could include collecting primary data, or using existing data sources as long as students demonstrate independence in the development of the research questions, and analysis and interpretation of the data. Students may choose to write a monograph- or manuscript-style thesis, following approval of their dissertation committee.

II. Supervision

Successful applicants will have research interests congruent with those of one or more members of faculty, and may have identified a possible primary or co-supervisor, prior to admission. Admission may otherwise be conditional upon identifying a supervisor. Thus, applicants are strongly encouraged to seek out potential supervisors, and discuss with them the possibilities, prior to applying to the degree program. Applicants should note that identifying a potential supervisor does not guarantee admission. Students must be supervised by a faculty member who has an appointment with the DLSPH and Full membership in the School of Graduate Studies (SGS). Students are strongly advised to plan their courses in consultation with their supervisors, keeping in mind program requirements, career aspirations and the overall skills/training that they would like to obtain. Faculty outside the core SBHS group may be eligible to supervise with the approval of the Division Head and the Associate Dean of Academic Affairs. Students who change their area of interest and wish to change supervisors should discuss this with their supervisor and Division Head/PhD Program Director.

Students have the right to appropriate assistance and guidance from their supervisors. Supervisors and students are required to meet on a regular basis throughout the program to discuss academic, financial and personal matters related to the student's progress. Students should assume responsibility for contacting the supervisor, arranging meetings, taking minutes of the discussions, and providing copy of the minutes to their supervisor for approval. In addition, students and their supervisors are required to complete an annual progress review and an annual funding agreement. Further guidelines on graduate supervision may be found at SGS Graduate Supervisory Guidelines for Students, Faculty and Administrators.

III. Thesis Committee

Students are required to establish a thesis committee comprised of their supervisor and a minimum of two additional faculty members with Full or Associate membership in SGS. While there is no formal policy regarding the maximum number of thesis committee members, large committees can be difficult to organize for meetings and approval of written work. The role of the thesis committee is to supervise the progress of the dissertation and act as the examining committee at the thesis defense. The student, with the support of the supervisor, should select committee members who will be most helpful to them in the preparation of the thesis. Generally

the supervisor approaches prospective committee members, confirming their willingness to serve and formalizing arrangements. Students should meet with their thesis committee at least every six months (or more frequently as needed). More regular meetings should be held with the supervisor.

IV. Thesis Proposal

These guidelines address only the broadest parameters of the structure of a thesis research proposal. Students are advised to discuss and come to agreement with their committee regarding expected length of the proposal. The proposal must be reviewed and approved by the student's Thesis Committee before the student proceeds with the research. A copy of the proposal and the committee's approval should be sent to the PhD Program Director/Division Head.

Proposal Components

Title Page – Student's full name, proposed title of thesis, date, degree sought, department, university and names of the committee members.

Abstract – One page maximum (350 words) briefly summarizing the overall purpose and objectives of the proposed research, its significance, theoretical and methodological approaches, and the primary research design components.

Problems Statement and Research Questions

- A clear and concise statement of the research problem or issue, and an indication of why it is important; problem may be theoretical/methodological (e.g., a conceptual issue) and/or substantive (e.g., a particular health or health care) issue. There should be a clear statement of what is currently known about the problem/issue in the scholarly literature and what is missing. This establishes the justification of the proposed research.
- The overall aim/objective of the thesis or central research question.
- The project objectives or overall questions, and how these relate to the overall purpose of the study. Research hypotheses may be presented, if appropriate.
- The significance of the study, including potential contributions to theory and research on the proposed area of research.

Theoretical Approach

• An outline of the theory or conceptual model/framework that will guide the proposed research (research questions, literature review and research design).

Critical Review of Relevant Research

- A comprehensive, critical review of existing research literature. A rationale for the literature search should be provided, as well as the search strategy.
- A critical review evaluates both the substantive content and methods of existing research. In addition to detailing the current state of knowledge about a problem/issue, it should point to areas overlooked or inadequately addressed by existing studies, and discuss how the proposed study will address these deficiencies and make a unique contribution to the literature.

Research Design

• Describe and justify the study design. If a multi-study or multi-method research design is proposed, the type, description and rationale for each study or method should be included. Assess the epistemological consistency between the research questions, proposed design and also analytic techniques to be used.

Sampling, participant/case selection methods and recruitment

- Provide a rationale for the method of sampling or selecting data, whether they be participants/cases, documents, or other forms. (e.g., why a particular group and not another).
- Justify the proposed/anticipated sample size and its representativeness (where appropriate). For example, how many documents, interviews, focus groups will be consulted/undertaken and why? Where appropriate provide a sample size calculation with proper referencing of the method(s) used in the calculation.
- Describe how/why the research participants will be recruited (in the case of primary data collection) or how secondary data, documentary and other evidence will be selected. Justify and demonstrate the feasibility of acquiring the anticipated data.

Data Collection

- Describe the data collection procedures (e.g., surveys, interviews, documents) and provide copies of all tools (e.g., questionnaire, interview guide, selection of written materials).
- Appropriateness of the proposed data collection to the objectives of the research.
- Validation of measurement instruments (e.g., Have instruments been validated? How and with what results?)
- Sources of bias (e.g., influence of interviewer, type of questions), and where appropriate, means to reduce them.

Ethical considerations

- Assess any ethical issues and challenges that relate to the study design, participants, documents/records, analyses and dissemination of findings. Discuss how these issues will be addressed, minimized and/or disclosed to participants, communities etc.
- Where relevant, provide copies of any agreements reached to access data, participants and/or documents/records.
- Disclose any real or perceived conflicts of interest.

Data Analysis

- Data analysis procedures (e.g. statistical or qualitative analysis techniques).
- Describe how the analysis procedures are consistent with the research questions, design and data collection methods described elsewhere in the proposal.
- If appropriate, describe how different types of data will be combined.
- Describe procedures for substantiating the rigor of the research process, such as:
 - Quantitative: e.g., validity, reliability, generalizability
 - Qualitative: e.g., trustworthiness, authenticity or other concepts of validity relevant to qualitative research

Limitations

• A discussion of study limitations.

Anticipated Contributions and Dissemination/Knowledge Transfer Plan

- What do you anticipate will be the major contributions of your study.
- Describe who and how your results will or should be shared with.

Timeframe

• Estimated time needed to complete the thesis. Include time to various milestones (e.g., time to obtain ethics approval; recruit participants; collect data; analyze data; produce a draft of the thesis; defend).

V. Ethics Review

Research involving human participants conducted by graduate students must be reviewed and approved by a University of Toronto Research Ethics Board (REB) prior to its commencement. Further details and forms can be found at the University of Toronto's Humans in Research website. Students conducting research at a hospital or under the supervision of a hospital-based researcher must also submit their research protocol to their respective REB for review, and all REBs of all hospitals involved in the research.

Prepare Application for Review by the Office of Research Ethics

Compile the ethics review application in accordance with the guidelines outlined by the Office of Research Ethics. Copies of the research instruments, letters of introduction to participants, consent forms, etc. should be included in an appendix.

Submit Application for Ethics Review

The study protocol and all appendices should be submitted to the Office of Research Ethics by email, preferably in a single Word document or pdf. Hard copies are not necessary.

Review Process

The Ethics Review Boards meet at regular intervals throughout the year, so students should check with the Office of Research Ethics for the meeting schedule and plan the submission of their Ethics Protocol accordingly. The ethics review process varies in length, depending on the nature of the project; it can take up to 8 weeks since revisions are often required.

VI. Thesis Formats

Format Options for Dissertation

Students may choose one of two options for the preparation of the dissertation: **a monograph** or a series of **manuscripts**/journal articles. When deciding whether to do a monograph or a manuscript style thesis, the student and committee should consider whether a monograph/book or peer-reviewed publications is the most appropriate method for disseminating the information contained in the thesis.

A) **The monograph-style thesis** is a coherent document that provides a complete and systematic account of the thesis research. It is a single report, divided into chapters: introduction, literature review, theoretical underpinnings, methods, results, and

discussion. A reference list would be followed by various appended material, which might include data collection instruments, additional related findings, and so forth.

B) The manuscript-style thesis is constructed around a set of related original manuscripts. The main body of the dissertation comprises a minimum of three complete, stand-alone manuscripts; at the time of the thesis defense these may be published in a peer-reviewed journal, submitted for peer review, or considered to be of publishable quality by the student's thesis committee. The manuscript-style thesis differs from the monograph thesis in format rather than content. The amount of detail that can be included in manuscripts prepared for publication is limited by journal page requirements. Therefore, in addition to manuscripts, the manuscript-style thesis will need to include one or more preliminary chapters expanding on relevant theory, substantive research and methods, and a final synthesis chapter as described in the following except from the School of Graduate Studies, University of Toronto Handbook:

"The candidate, through the graduate unit, shall present a thesis embodying the results of original investigation, conducted by the candidate, on the approved topic from the major field. The thesis shall constitute a significant contribution to the knowledge of the field and must be based on research conducted while registered for the PhD program.

A thesis should have a coherent topic with an introduction presenting the general themes of the research and a conclusion summarizing and integrating the major findings. Nonetheless, it may contain a collection of several papers. The collection of papers may be expanded or supplemented by unpublished material, scholarly notes, and necessary appendices. In all theses, pagination should be continuous and there should be a common table of contents and an integrated bibliography for the whole thesis. The hard copy of every thesis must be a printed or typed document in a standard form that can be easily microfilmed."

Manuscript-Style Thesis Format and Guidelines

The thesis should be based on a single coherent research project, rather than a series of unconnected projects. The manuscripts should be preceded and followed by material that unites the manuscripts and provides a holistic and comprehensive representation of the dissertation. So, for instance, an introduction, literature review, theoretical underpinnings, and methods that are more global in scope than those included in the manuscripts themselves, precedes the manuscripts. A discussion chapter that ties the manuscripts together follows; it describes the contribution of the findings as a whole to the scientific field, the implications of the findings for public health practice/policy, and future research. Appended material might include the methodological details not presented in the methods sections of the manuscripts. One or more of the manuscripts may be published or submitted for publication prior to the thesis defense; however, this is not required. The following are examples of the possible content of the chapters and manuscripts.

<u>Introductory Chapter(s)</u>: includes information on background, literature review, theoretical framework, research questions/hypotheses, and methods not discussed in adequate detail in the manuscripts.

<u>Manuscripts</u>: At least two out of the three required manuscripts must be on the research results. The third could be research results, a systematic review of the literature, methodological developments, critiques of /contribution to theoretical underpinnings, policy implications, or knowledge transfer/translation activities.

<u>Final Chapter</u>: summarizes and synthesizes the information contained in the manuscripts, as well as overall recommendations and discussion of limitations and future research.

While the manuscript-style option allows students to learn how to prepare and get a head start on publishing their thesis results, it creates a number of challenges that a student and their committee members should be aware of and be prepared to deal with. These include:

- A collection of manuscripts that lack a coherent theme;
- Inadequate or missing information related to the substantive literature, theory, methods, and results;
- Where manuscripts are co-authored, it may be difficult to determine the student's role/contribution, unless clearly stated; and
- Greater time and effort on the part of the student and committee members to produce manuscripts deemed to be of publishable quality for submission to peer-reviewed journals.

The following guidelines were established to help prevent problems arising from these challenges.

- At the thesis proposal approval stage, the student and thesis committee should agree on the thesis format (i.e., manuscript or monograph). The format can be changed later with agreement of the student and thesis committee.
- Anticipated potential manuscripts should be identified and described in the approved thesis proposal, subject to revision as data are collected and analysed. A provisional outline of the chapters and manuscript content should be agreed upon shortly after the proposal approval and modified/updated if changed during the process of completing the thesis.
- The material in the thesis distributed for the final thesis defense must be the student's original work, but may be part of a collaborative project. Committee members may provide feedback on the various parts of the thesis, including the manuscripts, as they would with a monograph thesis.
- The student must be first author on all manuscripts. Authorship of the manuscripts should be discussed and agreed to at the time of the proposal approval/defense stage and modified if necessary during the thesis completion process. For information on the determination of authorship, please consult Intellectual Property Guidelines for Graduate Students and Supervisor at the University of Toronto.
- Where the thesis contains manuscripts which have been authored jointly, the candidate is required to specify the contributions of all authors. The nature and extent of the candidate's input must be precisely expressed for each manuscript. The nature and extent of the intellectual input by others must be explained clearly and acknowledged in the Statement of Contribution by Others. The statement shall appear at the end of each manuscript. Please consult the International Committee of Medical Journal Editors' guidelines, Defining the Role of Authors and Contributors.

VII. Thesis Defense

Arrangements for the PhD Oral Defense and for the preparation of the final thesis are given at length in the SGS calendar (see Doctoral Examinations & Schedule).