

FACULTY OF DENTISTRY UNIVERSITY OF TORONTO
GUIDELINES FOR M.Sc. SPECIALTY STUDENTS PURSUING THE M.Sc. SPECIALTY – THESIS OPTION

Programs entail the combination of graduate research leading to the defence of a Masters thesis with advanced clinical education in a specialty discipline of dentistry.

Each student's objective is to achieve a graduate standard of research that is set at the start of the program, detailed planning for the thesis project and its anticipated, successful outcome. Research activities should begin with program commencement, thereby combining the demanding schedule targeting clinical proficiency with the standard implicit in a graduate degree. Following are some helpful guidelines for the students to assume responsibility for reaching their objectives on time and in style:

Select a research advisor and research topic during the first term of the program

The graduate advisor must be a member of the School of Graduate Studies (SGS); consult the Faculty Calendar and/or SGS Calendar. Your graduate advisor can be an SGS member in any discipline of dentistry or in any related biomedical research field. When an extra departmental member is involved, co-supervision with an SGS member of Dentistry is mandatory. If the principal advisor is a new member of SGS, co-supervision is encouraged. You may pursue laboratory, clinical, epidemiological survey, or educational research, as long as the project is of high, graduate level standard.

As soon as possible, consult with your clinical program director to get ideas about the broad scope of research avenues in your field. Feel free to discuss options with any member of staff. Select a topic that is significant, that stimulates you, which you will enjoy, and that is achievable. Select a research advisor in whom you feel confidence, one who is committed and deeply engaged in graduate research and one who can guide you to achieve your research objectives while you also pursue your clinical education.

Complete a thorough topic review and research proposal by the of your first year

A thorough literature review and a (software) system for comprehensive reference management at the beginning will be of enormous help when you write your thesis and publications later.

Consult your research advisor often during this period. Set clear research objectives and a testable hypothesis, which will guide your project and set the tone for your thesis. Learn the rationale and details of appropriate methods which you will use to test the hypothesis; write a clear plan of methods. Include anticipated strategies for illustrating and statistically analyzing the type of data that you propose to gather. Include a proposed budget; your advisor should be consulted for a source of financial support; students should bear none of the cost of research. Include target milestones and dates for achieving the steps of your project. Set the scope. Set an end-point in advance.

The proposal must be approved at a formal meeting with your advisory committee, and its approval must be forwarded in a written report, on departmental forms, from your committee to the Associate Dean of the Department of Graduate/Postgraduate Studies by the end your first year, so as to allow for approval of Scientific Merit and Ethics approval.

Consult regularly and get to know your advisory committee members

Your advisor will help select committee members. M.Sc. committees will normally include your advisor and 2 SGS staff members. Advisory committees must be approved by the Associate Dean of Graduate/Postgraduate Studies. Advisory committee members are selected for their diverse expertise in your project area; they are there to help, not to examine and not to do your work for you.

Formal committee meetings are held once a year, with additional meetings being required by the Associate Dean of Graduate/Postgraduate Studies, the Advisory Committee, and/or the student. Scheduling them is your responsibility.

Research Involving Human Subjects Review

Scientific merit of graduate student research proposals requiring human subjects review must be approved by your advisory committee under the supervision of the Graduate Department.

Any student submitting a proposal to the Ethics Review Office for human subjects review should apply to the Associate Dean of Graduate/Postgraduate Studies for a letter confirming the scientific merit of the project. Such a letter will only be issued if the Graduate Department has on file a copy of the research proposal and the completed Graduate Advisory Committee Report form signed by all committee members stating approval of the scientific merit student's research proposal.

Please be advised that the health Sciences Committee that reviews proposals from the Faculty of Dentistry undertakes a scientific as well as an ethics appraisal of each proposal. Consequently, that committee may require changes to research design, processes and procedures irrespective of the assurance of scientific merit provided by the Faculty.

Use the research time available in your curriculum efficiently

All thesis option specialty programs must provide sufficient time for graduate standard research. One year of a 3-year curriculum plan (or equivalent) must be reserved for full-time (75-80%) research. Additional full-time research engagement is generally available in the summer months, other than the time allotted for a short vacation. All thesis option specialty programs must provide time during the academic year for some research activity.

Coursework Requirements

There may be additional SGS course required to support your research project that you may be required to complete to support your research project that are in addition to compulsory courses for the clinical specialty you are undertaking. Consult your research advisor.

Students Must Complete the Course, Master's Seminars in Oral Health Sciences

Students undertaking this option are also required, as a component of their research training, to take and fulfill all requirements for the obligatory Seminars in Oral Health Sciences course. This is a required course for all graduate students in the Faculty of Dentistry. Graduate Specialty students are required to attend one year and complete any assignment as set by the director. Your Specialty Head will provide you with a timetable for your mandatory attendance.

The program includes an annual series of research ethics seminars. As per requirements for the course, M.Sc. specialty students are required to attend all seminars one year; present one 25 minutes seminar which is evaluated by the core faculty group present at the seminar; chair one seminar; present a poster at the Faculty of Dentistry Research Day. Research Day posters are evaluated by all Faculty members in attendance.

The thesis requirement

Graduate students in the in the M.Sc. specialty thesis option are required to submit and defend a comprehensive research thesis. Although there is no clear definition of the Master's degree by the School of Graduate Studies, the University and the Department at present accept the statements that "the master's degree should be considered as certification of two attributes: familiarity with a body of knowledge in a specified number of fields and acquaintance with the methods of research which will permit at least a beginning of systematic and independent inquiry. The M.Sc. thesis does not have to contain a finished piece of research but should provide a competent report of the student's mastery of certain relevant techniques and their application to a specific problem. The M.Sc. thesis may be organized in one of two ways: *Traditional Style* – Introduction (in which pertinent literature is reviewed and the problem or hypothesis stated); Materials and Methods; Results; Discussion; Conclusions or Summary; Bibliography; and Appendices *Publishable Style* – Discrete chapters each in a format suitable for submission for publication. Papers already published may be used provided that the title page, abstract and references are removed and that the format conforms to the rest of the thesis. Reprints or manuscripts may not be bound into the body of the thesis. General Introduction, including literature review and statement of problem, and discussion sections must be included, as well as conclusions or summary. Students should note that, presently, thesis defences may not be scheduled during the month of August.

Plan to have all data analyzed by the end of fall term of the final curriculum year, so the thesis can be submitted well before the end of the year. The thesis draft must be approved by all members of your advisory committee before submission; its review by the examiners takes at least 3 weeks from the time of submission. The form, Request to Book a M.Sc. will be completed and submitted by your supervisor when you are ready to go to the defence stage.

Program completion

All programs have a prescribed timetable and require a minimum of three years full-time registration except Dental Public health, (2 years) Oral Pathology & Oral Medicine, and Oral and Maxillofacial Surgery & Anaesthesia (4 years). The maximum time limit for completion of program requirements is 6 years, with the exception of Dental Public Health which is 5 years from initial program registration.

Keep in focus that all requirements for the clinical specialty discipline, graduate courses and the completion of defence of the M.Sc. thesis must be achieved and approved by the Associate Dean prior to program completion.

Timely completion depends on an early start, detailed advance planning, and efficient conduct of the research project.