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Telfer Guidelines and Resources for M.Sc. in Health Systems- Thesis

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Master of Science in Health Systems

The following guidelines are intended to provide general information to students applying to and enrolled in the M.Sc. in Health Systems graduate program. You will also find links to useful resources at the end of this document where you can access additional information.

1. Searching for a Supervisor

M.Sc. with Thesis

You need to find a professor willing to supervise you **before you apply** to the M.Sc. program with thesis. Your admission depends on it. Thus, you need to identify Telfer professors in your preferred concentration area whose research matches your interests and background. You can find professors' information using the program's [Learn about our Faculty](#) tab. Contact them to see whether they are willing to supervise a thesis and learn of their research interests, recent publications, and currently funded research projects. When you have identified potential supervisors, email them on an individual basis to schedule an appointment to discuss your qualifications, and obtain more information about their research activities.

In your email to potential supervisors, include the following information:

1. Your CV
2. A short paragraph about your research areas of interest (keep your scope wide and general, not too narrow or focused)
3. Why you find the professor's research expertise interesting and aligned with your own interests (you need to read some of his/her recent publications to write something compelling).

2. The M.Sc. Thesis

The M.Sc. thesis does not count for any academic units but is a core requirement of the thesis option of the program. It requires significant research preparation and an approved thesis proposal before it officially starts. A thesis carries a significant academic and research merit, and in particular, it is an important requirement to fulfill for those who intend to continue their studies with a doctoral degree.

Compared to a research project, a thesis typically aims to make a novel contribution to scholarly literature. It, therefore, tends to focus more on advancing scholarship that has more generalizable implications for management than on finding practical solutions to specific problems, although one does not necessarily preclude the other. For example, a thesis could aim to clarify the meaning of an important concept, why research studies on a particular topic are inconsistent in their findings, or even identify new reasons why certain types of desirable management outcomes tend to occur. Thesis work is also more likely to involve the collection of data among human participants, which first requires approval from the University research ethics board.

Students typically spend one full year on thesis-related work once they complete all courses. This can be reduced if the student starts thesis work part-time with their supervisor shortly after entering the program while they are also taking the required courses for their program. Students aim to defend their proposal by the end of their second term, after which they conduct the proposed research, produce their thesis, and ultimately defend it.

2.1 Research Topic

The research topic may be chosen by the student or proposed by the thesis supervisor but must be accepted by both. A pertinent research topic corresponds to the research interests of the student and to the areas of specialization of the thesis supervisor.

The thesis topic must be submitted to the Telfer Graduate Office by the end of the second term (Winter – year one). To this effect, students must submit their thesis topic through an **Add or Modify Thesis Title** service request. Type your research topic in the comment box.

2.2 Thesis Proposal

The thesis proposal is compulsory for students who choose the thesis program option. You prepare it in coordination with your thesis committee (your supervisor and two other Telfer professors). A written version of your proposal must be submitted to your supervisor and committee for evaluation. A thesis proposal defence is optional. It will be arranged by your supervisor at their discretion.

Once the evaluation is complete, the [Thesis Proposal Form](#) must be submitted to the Graduate Office.

The thesis proposal should include the following sections:

- Abstract (a short summary of the proposed thesis, including the main topic, the specific research question[s], and the methods to be used)
- Introduction (in the first 1–3 paragraphs identify the main topic, explain its importance, list the specific research questions you aim to answer, and explain why they need answering; in the 5–7 pages that follow, review scholarly literature that justifies your specific research questions and chosen methodology)
- Methods (explain the steps you plan to take to answer your research questions, such as the type of participants or data needed, how you will access them, the measures you will use, and the analytical methodology you will apply)
- Workplan (a timetable that identifies the milestones and the progress to be achieved at each milestone)

2.3 Thesis Submission and Evaluation

As per the guidelines of the Faculty of Graduate and Postdoctoral Studies (FGPS), your thesis needs to be examined by your thesis committee (see above). The List of Examiners needs to be submitted to the graduate office at least one month before you intend to submit your written thesis for evaluation. Once your thesis is submitted, the graduate office will distribute it to your examiners and collect their evaluations at the end of a one-month evaluation period.

Your oral defence will be scheduled by the graduate office in coordination with your thesis examiners. The final version of your thesis must be submitted within one month of your successful oral defence.

For more information on writing and defence of a thesis, please consult the following resource:

<https://www2.uottawa.ca/study/graduate-studies/thesis>

3. MHS Research Internship

All MSc MHS candidates will be required to undertake a one-semester Health Systems Research Internship in a research institute or other organization. The internship will allow the student to conduct research and at the same time learn about and be involved in one or several of the research projects conducted in the institute or organization.

The student will work under the direct supervision of the thesis supervisor and the internship mentor from the organization. The research mentor may be involved in the student's thesis research and may be a member of the student's thesis committee, but they do not have to be. Further, the research project the student works on during the internship does not have to be related to the student's thesis research (although it can be).

3.1 Prerequisites

Students must seek guidance and approval from the MSc Health Systems Program Director to register for the Health Systems Research Internship. Students must complete the required coursework and have their thesis proposal approved prior to registering. Exceptions to this must be approved by the Program Director.

3.2 Objectives

The primary objective of the research internship is to enhance student research skills and knowledge through interaction with researchers in their field. The internship will also serve to immerse students in a research-intensive work environment, to prepare them for future work in the field, and to expose and involve students in outside research projects.

3.3 Program Learning Goals and the Internship Proposal

The five Learning Goals of the MSc MHS program will guide students throughout their internship. Students will develop research competencies that reflect to varying degrees these program goals while making substantive contributions to the host organization. The learning goals of the MSc in MHS program are:

- | | |
|--------|--|
| HS LG1 | Demonstrate the ability to recognize and articulate research problems related to healthcare systems. |
| HS LG2 | Demonstrate original and critical thinking, and the ability to develop theoretical concepts. |
| HS LG3 | Demonstrate knowledge of the different approaches and methods used in the pursuit of research. |
| HS LG4 | Demonstrate an awareness of, and sensitivity to, the social, ethical, political, and security and privacy impacts of conducting health systems research. |
| HS LG5 | Demonstrate awareness of the importance of knowledge translation and competence in its execution. |

3.4 Internship Responsibilities

A positive internship experience relies on effective communication between all parties; the student, the thesis supervisor(s), the program director, and the research mentor. Issues should be discussed as they arise to enable the successful completion of the internship within one semester. In addition, all parties involved in the internship process have the following responsibilities:

Student Responsibilities

- To maintain registration for all semesters that the internship spans;
- To attend research seminars at the internship site while continuing to attend the Healthcare Systems Management Research Seminar Series at Telfer (if placed in Ottawa);
- To work with the thesis supervisor(s) and the program director to determine a suitable research internship that ideally complements the student's thesis research;
- To agree to and to conduct ethical research based on guidelines established by the supervisor and the mentor. See the website of the Office of Research and Ethics for ethics requirements;
- To complete the [Internship Agreement Form](#), the [Internship Learning Objectives Form](#), and develop a [Research Internship Proposal](#) in consultation with the supervisor and mentor. All three documents must be submitted to the Graduate Office before beginning the internship;
- To complete the [Assessment of Internship Objectives](#) and [Final Evaluation Form](#) at the end of the internship with the supervisor and mentor. Both forms must be submitted to the Graduate

- Office prior to the date that [grades are due for the semester](#);
- To prepare a Seminar Presentation to be held in the term following the completion of the internship.

Thesis Supervisor(s) Responsibilities

- To actively aid the student in securing a research internship site and research mentor;
- To guide the student in formulating the Research Internship Proposal;
- To review the **Internship Proposal** and sign the **Internship Agreement Form & Internship Learning Objectives** before the beginning of the internship and the **Internship Final Evaluation Form and Assessment of Internship Objectives** at the end of the internship;
- To communicate the expectations of the research internship at the outset to the mentor and maintain ongoing communication with this person throughout the internship;
- To enforce academic deadlines and ensure the internship starts and finishes on the agreed dates;
- To assess the student's work based on the criteria outlined in the **Research Internship Proposal, Internship Learning Objectives**, and the **Assessment of Internship Objectives**

Research Mentor Responsibilities

- To provide guidance to the student about suitable internship opportunities;
- To approve and sign both the **Internship Agreement Form** and the **Internship Final Evaluation Form**

3.5 Duration, Timeline, and Registration

Student internships take place over one semester (12 - 16 weeks). The internship can be done in any semester once the thesis proposal has been successfully defended but ideally is completed in the summer term of the first year or the fall term of the student's second year. Any exceptions should be discussed with the program director and brought to the attention of the Graduate Office. These situations include delayed internships or internships that do not coincide with the regular schedule of the semester, etc.

In the event that an internship spans across more than one semester, the student must be registered for both semesters, have received approval from the director to do so and indicated this in their signed Internship Agreement Form and the Research Internship Proposal (see 7.1).

In order to register, students must submit the Internship Proposal, the Internship Agreement Form, and the Internship Learning Objectives as a Residency Service Request.

3.6 Selecting a Site

Students can do the internship at any research institute or research intensive organization provided that it is approved by the supervisor and the program director.

To determine the internship site, dialogue between supervisors and students should begin in the fall or early in the winter of the students' first year. Supervisors must be active in helping students find an internship site.

3.7 Stipends and Scholarships

In principle, students can be paid a stipend from the research mentor's grant or by the institution but it is not a necessary condition. The amount a student is paid is at the discretion of the organization. If a stipend is offered, it is recommended that the amount meets or exceeds the minimum annual stipend for a graduate student as suggested by the Canadian Institutes of Health Research: \$5950 for four months.

3.8 Working Hours

It is crucial for the student, mentor, and supervisor to work together to determine and agree to schedules and reasonable deliverables for the internship. The suggested work schedule for the internship is 35 hours per week.

3.9 Deliverables: Research Internship Proposal

The Research Internship Proposal should guide students through the internship. It should include the objectives of the research internship, the deliverables and the timeline. The Proposal will be developed with the input of both the supervisor and the research mentor. The format can follow the headings below and must address all of the required criteria.

A comprehensive proposal must address all of the following criteria:

- **Tasks and Responsibilities**
 - What role will the student be undertaking? What will be accomplished?
- **Timeline and Deliverables**
 - List major deliverables that are expected of the student by the research institute, and the dates of the internship.

3.10 Deliverables: Internship Assessment of Objectives

The student's Learning Objectives must be assessed, in writing, at the end of the internship.

The following points should be considered:

- Were each of the Learning Objectives achieved? If so, was it by the expected means?
- Were the Learning Objectives altered from what was originally proposed, why?
- Were there any unexpected Learning Objectives that were developed? How?

This reflective exercise will be the basis of the student's internship assessment and must be approved by the supervisor and the research mentor, and signed off on in the **Final Evaluation Form** and the **Internship Assessment of Objectives**. The student's ability to meet the Learning Objectives described in the **Internship Learning Objectives** will determine whether the internship will be evaluated as Satisfactory or Non-Satisfactory.

3.11 Deliverables: Research Internship Student Presentations

The Internship Presentation is generally 15 minutes in length and will be scheduled by Graduate Office once all the students in a cohort have completed their internship. Ideally, the supervisor, research mentor, current MHS students and interested faculty should attend.

The Internship Presentation should provide a summary of the student's research during the internship. Points to include are:

- Background to the organization and research
- Methodology
- Results
- Time for questions

3.12 Performance Evaluation

The MSc MHS Research Internship is evaluated on a Satisfactory (PASS) or Non-Satisfactory (FAIL) basis. As it is a compulsory course, students who are evaluated as Non-Satisfactory must retake and successfully complete MHS 7991 in order to finish the program.

The **Final Evaluation Form** and the **Assessment of Internship Objectives** should be submitted to the Graduate Office shortly after you complete your internship, so your final grade can be entered. Please submit your signed documents by email to graduate@Telfer.uottawa.ca.

4. Referencing and Plagiarism

Plagiarism is a serious offense at the University of Ottawa. It applies not just to your thesis or research project report, but also to any deliverable that you hand in for a course, or anything you publish (whether submitting a paper to a journal, conference, workshop, or writing on a website) while a student at the University of Ottawa.

Often students do not realize the seriousness of this issue for universities. Visit <http://en.wikipedia.org/wiki/Plagiarism> or <http://www.plagiarism.org/> for a list of various types of plagiarism and how to prevent them.

At the University of Ottawa, there is a detailed list of sanctions that may occur... UP TO AND INCLUDING EXPULSION FROM THE UNIVERSITY. <https://www2.uottawa.ca/about-us/policies-regulations/academic-regulation-i-14-academic-fraud>

Please be aware of and carefully follow the guidelines listed below in all writing you submit while attending the University of Ottawa.

The University of Ottawa's document on plagiarism states that:

"PLAGIARISM is taking another person's words, ideas or statistics and passing them off as your own. The complete or partial translation of a text written by someone else also constitutes plagiarism if you do not acknowledge your source. When borrowing another person's words, use quotation marks and include complete references (author's name, date, pages). Internet sources must also be acknowledged. Also, when borrowing another person's ideas, acknowledge their origin."

When writing your thesis or research project report, try to minimize the amount of text you borrow from other sources. There might be cases where you see it appropriate to quote exact sentences from the source. If that is the case, then use quotation marks and include the complete reference (author's name, date, pages).

If you paraphrase sentences from other authors, you must still cite the full references and give them full credit. When paraphrasing, avoid keeping the same sentence structure used in the original source. Instead, try to use your own words in paraphrasing the original sentences.

Even when you "properly" reference your sources, whether you quote them exactly or paraphrase them in your own words, you should still avoid importing too much material from other sources in your writing. Keep in mind that this is "your" document. As such, it should mainly include your contributions in your own words.

There are software applications to check the similarity of your written materials with other sources

available on the Internet, such as published journal articles, conference proceedings, theses, and technical reports. Here are some examples of such software applications:

- WriteCheck (<http://en.writecheck.com/>) to check for plagiarism and grammar.
- iThenticate (<http://www.ithenticate.com/>) is used by publishers to check similarity.
- Turnitin (<http://www.turnitin.com>) is available to all Telfer professors free of charge.

5. Resources

The following resources prove to be valuable and useful when planning your research project or thesis, writing the proposal, conducting the research, and writing the final project report or thesis.

5.1 Research Internship Information Sessions

Your supervisor will help you find the best internship placement to help you gain the skills and knowledge required to become an accomplished health-systems researcher. In Winter of Year 1 you will be invited to attend an information session to learn more about the internship.

5.2 Academic Support

[Academic GPS](#) provides students with various forms of support. For instance, students can make **writing appointments**, during which they receive mentoring from more experienced peers on how to improve their academic writing skills.

[Academic Accommodations](#) ensures full access and participation in the learning environment with dignity, autonomy, and without impediment.

5.3 Library

Management library (2nd floor of Desmarais building):

<https://telfer.uottawa.ca/en/management-library/>

The Management library's research librarians (see link above) are critically valuable to any M.Sc. student seeking assistance on how to conduct the best possible literature search.

Morrisette library (main campus library): <https://biblio.uottawa.ca/en/morissette-library>

5.4 Service Request Guide

An instruction guide for creating Services Requests and the different types of Service Requests is available on the [Student Handbook, Forms, and Guidelines](#) page.

6. Typical Course Sequence

Please see [Program Requirements](#) for a typical course sequence.

Year 1	Fall	MHS 5301 – Research Design Methodologies and the Conduct of Research
		MHS 6380 – Systems Analysis, Modeling and Decision Support in Health
		MHS 6991 – Health Systems Seminars
		1.5 optional course units in health administration (MHA) at the graduate level
Year 2	Winter	Elective (1.5 units)
		Elective (3 units)
	Notes:	<ul style="list-style-type: none">• You must submit your Research Topic during this semester.• You should maintain your enrolment in MHS 6991 if you haven't completed 6 seminars.• You should submit your thesis proposal for evaluation by the end of this semester.
	Summer	MHS 7991 – MHS Research Internship
	Fall	THM 7999 – Master's Thesis
	Winter	THM 7999 – Master's Thesis
	Summer	THM 7999 – Master's Thesis