

Direction du programme de M. Sc.

Master of Science (MSc) Thesis

**Guidelines and Requirements** 

**HEC Montréal** 

Document prepared under the supervision of the MSc Program Director

**Updated: February 2024** 

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#### Foreword

The main purpose of this document is to provide guidelines for graduate students. However, academic supervisors, thesis supervisors and thesis jury members will also find it useful.{§1}¹ These guidelines outline rules based on <u>Academic Rules and Regulations</u> at HEC Montréal, as well as certain indications, subject to interpretation, that offer flexibility to account for differences in theses (e.g., number of hours required to complete a thesis, or thesis length).

Students admitted to the MSc program must satisfy its requirements within a specific period of time. Although the maximum length of the program is four years, full-time students are expected to complete it within around 16 to 20 months This is a rigorous process, which means that students have to make choices. Once students finish their courses, they are expected to work full-time on writing their thesis<sup>2</sup>. Students must demonstrate perseverance and maturity and be able to communicate their results clearly, accurately, concisely and coherently. The thesis presentation must meet the quality standards set out in the <u>Guidelines for writing an academic work at a graduate level</u>. It is the student's responsibility to take the time to learn about <u>the steps in this process</u> and read the literature prepared by the MSc Program Office in order to avoid delays and misusing the allotted time before the submission deadline and evaluation.

These guidelines explain the nature and the requirements of a thesis, the registration and evaluation conditions, the learning objectives of a thesis, and ethical issues.

These guidelines do not address agreements (or contracts) between students and their thesis supervisors. They focus on the requirements of the thesis rather than on interpersonal relationships that may exist in a supervisory relationship. Students should consult the <u>MSc Supervisory Relation – Implementation Guide for Faculty and Students</u> for additional information on these topics.

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<sup>&</sup>lt;sup>1</sup> Gender-neutral forms are used throughout the text.

<sup>&</sup>lt;sup>2</sup> Note that all students enrolled in the thesis stream shall be automatically enrolled in this research activity from their first semester onwards. So it is possible to start the thesis before having completed all the courses in the program. However, students who have no research experience and/or prior knowledge in the field of their specialization are strongly advised not to begin this activity before having completed a minimal number of courses in the program. The student's prospective thesis supervisor may determine if the courses taken by the student are sufficient to start the activity and suggests enrollment in other courses, if necessary.

# 1 Definition

The Master of Science program is designed to train specialists to apply a scientific approach in producing, analyzing and using information needed to develop policies and strategies, make decisions and implement relevant actions to solve a management issue.<sup>3</sup>

The following MSc Program Learning Objectives and Competencies will enable students to:

- Become highly knowledgeable in a specialized field of management.
- Systematically carry out a thorough scientific process.
- Demonstrate ethical and responsible conduct in research and business practices.
- Demonstrate critical thinking skills.
- Work independently to complete a major research project.
- Communicate effectively.

The thesis is a mandatory synthesis activity for students who have registered in the MSc thesis stream. It consists in undertaking "a structured and rigorous research project in a particular field that enables the student to improve her or her knowledge in a specific field of study." The thesis can be devoted to a theoretical or applied subject. It is intended to enable the student to demonstrate the ability to apply a scientific approach to conceptualizing both theoretical and applied problems, as well as the application of critical thinking skills to this process. The person should also demonstrate the ability to write a quality document to communicate research findings.

These skills acquired during the thesis phase typically lead students to hold positions of responsibility as experts in various organizations (strategy advisers, analysts, consultants, etc.). For some students, training in research may also lead to doctoral studies.

# 2 Key Steps in the Scientific Process of Writing a Thesis

By nature, research activities in the humanities and social sciences use a variety of scientific approaches for completing a project. This guide lists the main steps for conducting research using the hypothetico-deductive model. While these stages are usually carried out in this order, other sequences are possible. This section describes the main stages, namely theoretical exploration, methodological approach, data analysis, interpretation, and discussion of research findings. It should be noted that the student who write a thesis must demonstrate critical thinking skills at every step of the research process.

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<sup>&</sup>lt;sup>3</sup> Except from the Official Description of the Master's Programs.

<sup>&</sup>lt;sup>4</sup> Source: Études supérieures et postdoctorales or Faculty of Graduate and Postdoctoral Studies, Université de Montréal. *Guide des mémoires et des thèses*. (*Presentation Guide to Master's Theses and PhD Dissertations* – in French only). (July 2019).

https://esp.umontreal.ca/fileadmin/esp/documents/Cheminement/GuidePresentationMemoiresTheses.pdf

## 2.1 Theoretical Exploration

Theoretical exploration consists in undertaking a literature review with a view to identifying the main references relevant to the topic under study (books, articles from scientific and/or professional publications, etc.). This stage makes it possible to:

- Describe the main themes under study and expose the way in which they arise.
- Identify and synthesize literature relevant to the themes under study.
- Place the student's research in the context of existing literature and demonstrate the relevance and importance of the topic.
- Identify and define the main concepts relevant to the themes under study.
- Propose an analytical framework and research objectives/questions that need to be tested.

# 2.2 What is taught at the Masters' level is a procedure, a methodological approach.

This stage enables the student to:

- Propose one or more research methodologies or analytical models which the student deems appropriate for his/her thesis topic.
- Explain the relevance of his/her choices in addressing/solving the problem using this approach.
- Propose a data collection and measurement strategy, if need be.

#### 2.3 Data Analysis and Interpretation of Results

The main elements of this stage consist in:

- Presenting one of more methods for the analysis and processing of data used.
- Solving a mathematical problem or undertaking data analysis using quantitative (statistical processing, solving a mathematical problem); qualitative (writing and case study); or applied (illustration, simulation) methods.
- Synthesizing and interpreting the results.

#### 2.4 Discussion of Results

This stage enables the student to:

- Review and discuss the results of his/her analyses, in the light of research objectives and the issues the research deals with.
- Discuss these results, comparing them to those reported in the literature.
- Present the limitations of the study and the avenues for improvement.
- Discuss the main theoretical and/or managerial implications of the study.

In some disciplines, other approaches are also used in thesis writing, including inductive approaches that do not necessarily follow the sequence presented. However, regardless of the approach used, the stages described in this guide are inevitably part of the learning process in which the student is engaged. With this in mind, irrespective of the approach they adopt, MSc

students will be exposed to all the above steps while undertaking the various courses and activities in their program, and they must be able to demonstrate that they master them by the time they complete it.

The main objective of the MSc program is learning how to undertake scientific research. Mastering the scientific process is therefore the key feature of the program. Students are strongly encouraged to choose an original theme for study, to display ingenuity in the use of models, and/or to pursue interesting research, since these are advantages which will strengthen the case for those students wishing to submit their work for the Best Thesis Award or for publication of research results.

# 3 General Thesis Information and Guidelines

#### 3.1 Workload

Required activities related to the thesis stream count for 24 credits. They include a mandatory research workshop, which is offered entirely online. This workshop involves the submission of two deliverables: (1) registration of the thesis topic and (2) presentation of a study plan. Students are advised to enroll in it before successful completion of 21 credits.

Given the weight of a university credit by HEC Montréal, each credit should reflect 45 hours of work. Therefore, under proper conditions, it takes about 1,000 hours to complete a thesis, which equals six to eight months of **full-time work**. This activity may require a little more time, however, especially when the methodological approach chosen to deal with the subject involves external constraints that are beyond the control of the student or the thesis supervisor. In such cases, it is very important to undertake and organize regular follow-up, with a view to revising the objectives and timelines initially discussed with the thesis supervisor.

#### 3.2 Thesis Length

Although it is difficult to determine standards for the length of a 24-credit piece of work, a large percentage of successful theses are about 100 pages long. The body of the thesis often consists of 60 to 80 pages. As the ideas contained in research work and the thesis should be clear and concisely written, a thesis should rarely exceed 150 pages.

Students who wish to know more about the theses submitted by students of the MSc program can consult the <u>list of best theses</u> according to their specialization by visiting the HEC Montréal library website.

#### 3.3 Ethical Considerations in Research<sup>6</sup>

HEC Montréal has an Ethics in Research Policy that is implemented through its Research Ethics Board (REB) to fulfill the requirements of the School's three main granting agencies, the Social

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<sup>&</sup>lt;sup>5</sup> Please refer to section 3.6.3. of this guide for more details on these two deliverables.

<sup>&</sup>lt;sup>6</sup> This section is based on HEC Montréal's Research Ethics Board website.

Sciences and Humanities Research Council of Canada (SSHRC), the Canadian Institutes of Health Research (CIHR) and the Natural Sciences and Engineering Research Council of Canada (NSERC).

The REB is responsible for evaluating all research projects involving human subjects that are conducted by students in the MSc program. The REB must ensure that the individuals participating in such research projects are doing so on a voluntary basis, have given their consent to be involved, and, above all, have received all the information they need to make an informed decision.

When filling out the online form to register a thesis topic, the student must answer three questions to determine which approvals are needed from the Research Ethics Board (REB) at HEC Montréal:

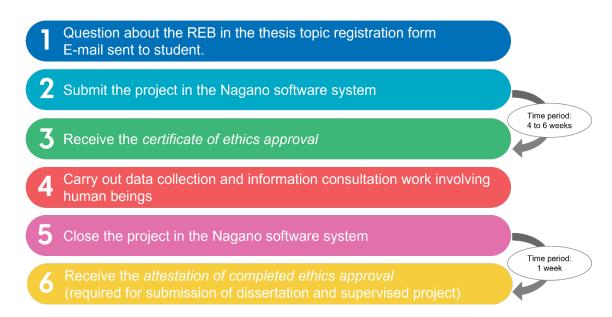
- 1. Does you project require data collection involving human subjects (through interviews, group discussions, questionnaires, observations, or any other collection method)?
- 2. Does your project require the use of previously collected data involving information on human subjects not available to the public?
- 3. Does your project require the matching of different data involving information, whether public or not, about human subjects? (Matching is the comparison of personal data from two separate sources to establish connections between the two data sets.)

If the student answers yes to any of these questions, he or she must fill out the <u>REB's</u> online <u>Research Project Declaration</u> form and wait for a certificate of ethics approval from the REB before starting the project.

If the thesis forms part of one of the already-approved research projects being conducted by the supervisor, it is important to check with the Research Ethics Board whether a separate declaration is needed, since the nature of the project may require additional validation.

These steps must be taken before work on the thesis starts. The <u>REB</u> will not issue a notice of compliance a posteriori, that is once data collection has already started.

This process is detailed below, and a decision tree is presented in appendix 3 of this document:



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## 3.4 Classic or By Articles Format<sup>7</sup>

The classical way of presenting a thesis typically includes a brief introduction, literature review, methodology, presentation and analysis of results, discussion and conclusion chapters. However, a thesis can also be presented in the form of articles ready to be submitted for publication in a scientific journal. In this case, the articles must be preceded by an introduction and a conclusion that put the thesis in context. The student must be the lead author of the articles, i.e., the sole or first author. Students are requested to use the available templates (classic or by articles) for compiling their document. Students must discuss the presentation format with their thesis supervisor. The number of articles, if any, may also vary from one thesis to the next.

Students wishing to present their thesis in the form of articles must first obtain the approval of their thesis supervisor. They must then request an authorization from the MSc Program Office. Other approvals may be required as appropriate. The student is referred to the decision tree in Appendix 1 for a list of approvals that must be obtained. The form(s) to be filled out is/are presented on the Thesis web page.

#### 3.5 Language of the Thesis

Regarding the language of the thesis, HEC Montréal follows the standards and rules of the Faculty of Graduate and Postdoctoral Studies at the University of Montréal. Thus, theses are usually written in French. However, students may request permission to write their theses in English if their mother tongue is not French or if they have spent most of their previous studies in a non-francophone university. When registering his/her thesis topic, he/she must then justify his/her request directly in the Thesis topic approval form on his/her Thesis Portal.

Students enrolled in English-language specializations may write their theses in English without authorization, provided that their thesis supervisor agrees.

A thesis by articles is considered written in French if all sections apart from the articles are written in French. Thus, students who wish to write their theses by articles do not need to request an authorization, when the articles themselves are written in English with the introduction and the conclusion written in French.

#### 3.6 The Thesis

Students in the MSc Thesis stream are automatically registered for the thesis activity every term, including the summer term, until the term in which the final version of their thesis is submitted.

#### 3.6.1 Resources Available to Help Students Write their Thesis

Starting in the first term, students who have chosen the thesis stream have access to a range of available resources to help them write their thesis. These resources are presented in ZoneCours, in the Thesis course outline (Rech 66248A), an activity for which the student is automatically registered in each term.

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<sup>&</sup>lt;sup>7</sup> This section is based on the <u>Guide de présentation des mémoires et des thèses</u> (*Presentation Guide to Master's Theses and PhD Dissertations* – in French only) from the Faculty of Graduate and Postdoctoral Studies at the University of Montréal (July 2015).

These resources help answer several questions related to this activity. The following are examples of some of the questions addressed:

- How do you choose your thesis supervisor?
- How to decide on your thesis topic and the research themes to be explored?
- In what way is a thesis different from a supervised project?
- What is a study plan and how do you develop one?
- What is a literature review and how do you conduct a quality review?
- How do you choose the research methodology for your thesis? Etc.

The student will also find information about the writing of the thesis.

These resources are presented in the form of:

- Guides that will clarify certain major elements for thesis completion (e.g., MSc Supervisory Relationship – Implementation Guide for Faculty and Students, Guidelines for Writing an Academic Work, etc.).
- Video clips of testimonials from professors and graduates.
- Animated slideshows with narration and presentations.
- Information capsules.
- Workshops and coaching offered by the library.
- Lists of references.
- Thesis presentation templates (classic/by articles/LaTeX).

These resources are the result of collaboration between the teaching and administrative departments of the MSc Program and:

- Several professors involved in the MSc Program.
- Graduates of the MSc Program.
- The Learning and Teaching Innovation Centre.
- The Audiovisual Department.
- The HEC Montréal Library.
- The Language Help Centre.
- Career Management Services.

# 3.6.2 Responsible Conduct of Research: From Norms to Practice workshop and the Choice of a Thesis Supervisor and Topic

Before enrolling in the research workshop, students must complete the <a href="ETHI 66201 Responsible Conduct of Research: From Norms to Practice">ETHI 66201 Responsible Conduct of Research: From Norms to Practice</a> workshop, generally during the first year. Not only is it a prerequisite for attending the research workshop, but it is also one of the mandatory activities in the structure of the MSc Thesis Stream. The objectives of this seminar include introducing students to issues relating to Business Research Ethics and encouraging them to

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reflect on the options available to researchers to address these issues as well as the functioning and requirements of the Research Ethics Board (REB).

Students should not wait to complete all their courses before beginning their thesis. However, since this research activity is the in-depth application of knowledge acquired in the MSc program, students should have started their course work before choosing a research subject. Students may not write their theses before beginning their courses.

Before enrolling in the research workshop, students should also have identified a thesis supervisor. By associating with a thesis supervisor, the student also chooses a field of research, a methodological approach and pedagogical supervision throughout this activity. The choice of a thesis supervisor is therefore crucial to the success of the thesis and the timely completion of the program.

Only an HEC Montréal professor may be selected as a thesis supervisor. To see which people may fulfil this role, the student may consult the table presented in Appendix 2. In some cases, it may be appropriate to opt for joint supervision of the thesis, as described in section 3.2 of the MSc Supervisory Relationship – Implementation Guide.

For additional information on the roles and responsibilities of professors and students in a supervisory relationship, please consult the <u>MSc Supervisory Relationship - Implementation Guide</u> for Faculty and Students.

The student is also responsible for finding a thesis topic.

There are several ways to identify a thesis topic, which may be a topic of personal or professional interest to the student. This topic may be identified on the basis of experiences, reading articles, course discussions, topics covered by the media, etc. The faculty member who agrees to act as a thesis supervisor evaluates the interest of the topic, the relevance of the research themes to be addressed in the thesis and their appropriateness to the program objectives and the competencies targeted by the specialization.

Faculty members may also indicate their interest in supervising theses in the context of their own research projects. A student interested in a particular topic related to a current or future project may in this case directly contact the person concerned.

## 3.6.3 Enrolling in the Research Workshop and Submitting a Study Plan

Full-time students typically enroll in the research workshop during their second term. Depending on their progress, they may enroll in the workshop during a later term, but they are advised to do so before having completed 21 MSc credits. As the research workshop involves no hours of work on a learning activity, and does not represent any course sessions, it counts for 0 credits. Nonetheless, students need to enroll in it, in order to register their thesis topic and submit their study plan. Moreover, it is advisable to enroll in it only after having identified a thesis topic and thesis supervisor.

Students confirm their choice of a thesis supervisor and their topic by completing the thesis topic registration form. Registering the thesis topic is the first deliverable required for the research workshop. Students should therefore register their thesis topic during the same term as their enrollment in the research workshop.

Students must register their thesis topic via <u>HEC en ligne</u>. The student should indicate the working title of the thesis and provide a brief description of its objectives and methodology. Once the thesis has been submitted, it must be approved by the supervisor, the academic advisor for the

specialization and the program director. Students are advised by email of any decision on their registration of their topic.

Students should have registered their thesis topic before starting to work on it. A student may not begin collecting data for his/her thesis before registering the topic and submitting an application to the Research Ethics Board, if necessary, as outlined in section 3.3.

Aside from registering their thesis topic, students must also produce a study plan. This lets them plan their thesis process by clarifying the main steps to be undertaken and proposing a realistic timetable. The study plan should be drawn up in collaboration with their thesis supervisor.

Submitting this study plan is the second and final deliverable required for the research workshop. Consequently, students must submit their study plan during the same term in which they enroll in the research workshop, as stipulated in the course outline in **ZoneCours**.

Once students submit these two deliverables, their grade for this research workshop activity will be ES (exigence satisfaite, meaning 'requirement satisfied'). If a student does not submit these deliverables, his/her grade for this required activity will be E (Échec, meaning 'Fail'), and he/she may re-enroll for this activity in a subsequent term.

#### 3.6.4 Data Confidentiality

A student using an organization's data is expected to maintain the confidentiality of the data. The certificate of approval from the REB certifies the confidentiality of the data and commits the student and the co-investigators to maintaining it. In this context, an application to the REB is required prior to the collection and use of data.

#### 3.7 Thesis Submission and Evaluation

#### 3.7.1 Final Thesis Submission

The thesis is complete when the supervisor determines that it is ready for submission. Students are invited to consult the <u>MSc website</u> to find out the procedure for their initial thesis submission. This submission is made online on the <u>Submission of a Master's Level Work portal</u>.

Students must ensure that they have the following documents if their thesis required the collection of data from human beings (through interviews, questionnaires or by any other means):

- the Ethics Approval Certificate from the REB.
- The attestation of completed ethics approval form issued by the REB.

If their thesis is written in the form of articles, students must ensure that they have all the authorizations needed to use their articles in their thesis:

- Request for authorization to write by articles.
- Authorization by co-authors of an article, if applicable.
- Publisher's permission, if applicable.

Only the Request for authorization to write by articles form must be approved beforehand.

It is important to note that the title of the thesis, as indicated on the Submission portal, will be the title appearing on the student's transcript. The student must therefore make a judicious choice, so that it reflects the content of his/her research work.

IMPORTANT: The version submitted during Final Submission is the one that will be evaluated by the jury. After evaluating the thesis, the jury will send a letter grade and verdict to the MSc Program Office, unless the verdict involves making major corrections. No grade will be assigned if major corrections are requested by the jury. In such a case, the student will have to make the requested corrections (see section 3.6.2) and repeat the submission process. The thesis will be submitted to the jury for evaluation again.

#### 3.7.2 Evaluation and Grading

After a thesis is finally submitted, a jury is set up to evaluate it. The MSc Program Office is responsible for choosing a Chair/Rapporteur as well as an examiner to join the supervisor (or cosupervisor) in forming a jury. The Chair/Rapporteur and the examiner are usually chosen from the list provided by the thesis supervisor at the thesis submission approval stage. The thesis supervisor is responsible for suggesting possible jury members. The thesis supervisor is also responsible for ensuring that the nominated jury members are available for the evaluation, before approving the submission of the thesis.

As far as the evaluation of a thesis is concerned, the examiner does not have to be from another university, although this may be appropriate or even desirable in some cases. To be considered **external** to the thesis, the examiner should not have been involved in determining the topic or in the writing of the thesis. Preferably, external examiners would only become involved at the evaluation phase and would only be appointed at this point by the Program Director, in consultation with the academic advisor if necessary.

The evaluation of the thesis aims to determine if the student has an aptitude for applying a rigorous scientific approach in the formulation, conceptualization and resolution of a research or managerial problem. The evaluation also aims to verify whether the student is able to write a thesis that reflects his/her ability to clearly and concisely present the results of his/her work. In general, the report should clearly demonstrate that the student masters the knowledge related to his specialization and meets the requirements of the thesis.

The evaluation accords greater importance to the quality of work completed than to the length of the report. The jury use an evaluation grid (see appendix 4) during its evaluation of the report. The criteria on this grid have been defined based on learning objectives of the program, the targeted competencies and the requirements of the thesis. It is therefore strongly recommended that students in the thesis stream consult this grid before starting to draft the report. The weight given to different criteria depends on the type of project undertaken as well as the specialization. Once the administrative director has transmitted the grade, the student will be able to consult the results of the evaluation grid of the thesis.

The jury must make one of the following decisions:

a) Accept the thesis and assign it a letter grade based on the version initially submitted by the student on the online Submission portal. The jury may accept the manuscript, as is, or request minor corrections. A note is added to the submitted thesis – "The jury that evaluated this thesis has requested minor corrections" – and the student is automatically notified by email of the jury's verdict and the changes to be made. To have this note

removed, the student has one month to correct and submit the revised version of the thesis on the portal. The thesis supervisor will confirm, through the portal, that the corrections have been made. Upon receipt of this confirmation via the portal, the library will replace the previous version of the thesis with the corrected version.

- b) Return the thesis to the student with instructions to make major corrections in it; in this case, the corrected version must be submitted once again for evaluation, within six months of the date on which he/she was informed of the jury's decision.
- c) Reject it, which excludes the student from the MSc program.

The jury therefore evaluates and grades the document as submitted by the student on the graduate work submission portal and not the new version submitted after minor corrections have been made. Only theses submitted with major corrections are re-evaluated.

Once all the jury members have received the thesis, a period of one month is usually considered sufficient time for them to reach a decision, report to the MSc office and advise the candidate accordingly. Note that the entire process of submission and evaluation of the thesis is done via the Submission portal and that each of the stakeholders receives the information by automated emails. It is therefore not necessary to follow up with them, as long as normal deadlines are respected.

#### 3.7.3 Submission to the Library for Thesis Publication

By definition, a master's thesis contributes to our collective knowledge. As such, it is indexed and made available to the public by HEC Montréal. However, a student may request a confidentiality status or a delay in publication for his/her thesis:

- Confidentiality: The confidentiality status guarantees that neither the document itself, nor its description (author, title, summaries, etc.) will be made public, by any means, before the end of the designated period. This status is granted for a maximum of one (1) year, renewable once. At the end of the initial confidentiality period, the document will be processed according to the provisions of the authorization to index, reproduce and distribute a dissertation or a thesis form, unless the student requests the renewal of the status at least 30 days in advance. The student must have serious grounds to request the confidentiality status, such as a commercial confidentiality agreement or a patent application. To request the confidentiality status, the student must fill out the confidentiality status for a thesis or dissertation form and obtain the consent of his/her thesis supervisor as well as of the MSc Program Director. To obtain a copy of this form, the student should contact the MSc Program Office (msc@hec.ca).
- **Delay in publication:** A delay in publication guarantees that the document itself will not be made public before the end of the embargo period, although its description (author, title, abstracts, etc.) will be. The delay in publication is non-revocable and may last 6 months, 1, 2 or 5 years. At the end of this period, the document will be processed according to the provisions of the authorization to index, reproduce and distribute a dissertation or a thesis form. The student must have serious grounds to request a delay in publication, such as a demand from the publisher involved in bringing out articles or books. To request a delay in publication, the student must fill out the delay in publication (embargo) for a thesis or dissertation form and obtain the consent of his/her

thesis supervisor as well as of the MSc Program Office. To obtain a copy of this form, the student should contact the MSc Program Office (msc@hec.ca).

The version of the thesis submitted during online submission will be transferred, stored and preserved in the HEC Montréal <u>archives</u>.

#### 3.7.4 Evaluation of the Thesis and Links with the Learning Objectives of the Program

The MSc program offers a coherent learning process that is focused on the fulfillment of the learning and competency-development objectives, as specified in section 1 of this document.

The thesis is a significant piece of work, providing the basis for a complex evaluation of what the student has learned and of his/her success in meeting the MSc program learning goals and objectives.

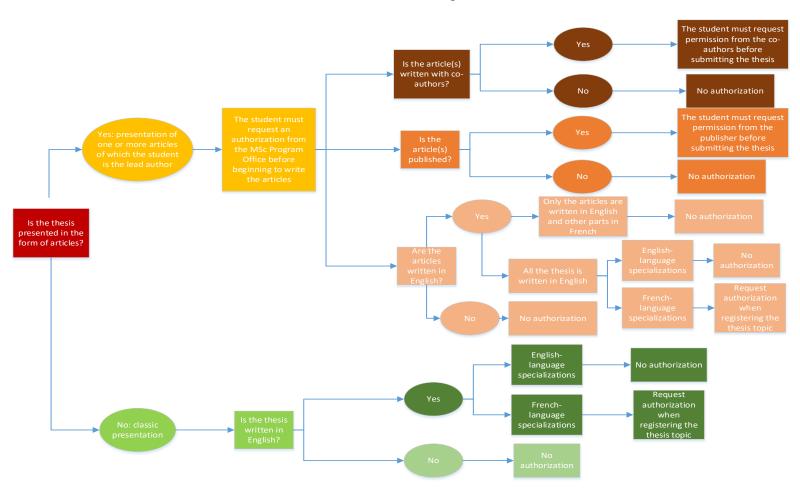
# 4 Plagiarism

All students should be familiar with the <u>Regulation Regarding the Intellectual Integrity of Students</u> and the sanctions on page 4 of the Regulation. In some cases, students may also be subject to the <u>Policy for the Responsible Conduct of Research</u> at HEC Montréal.

The first version of this document was prepared by Professor Robert Lévesque in 1991. Thereafter, the document was successively amended by:

- Professor Claude Laurin (2012),
- Professor Anne Bourhis (2014), and
- The MSc Program Director (2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023 and 2024).

Appendix 1: Decision Tree for Determining the List of Authorizations Required When Writing the Thesis by Articles or in English



# Appendix 2: Thesis or Project Supervision

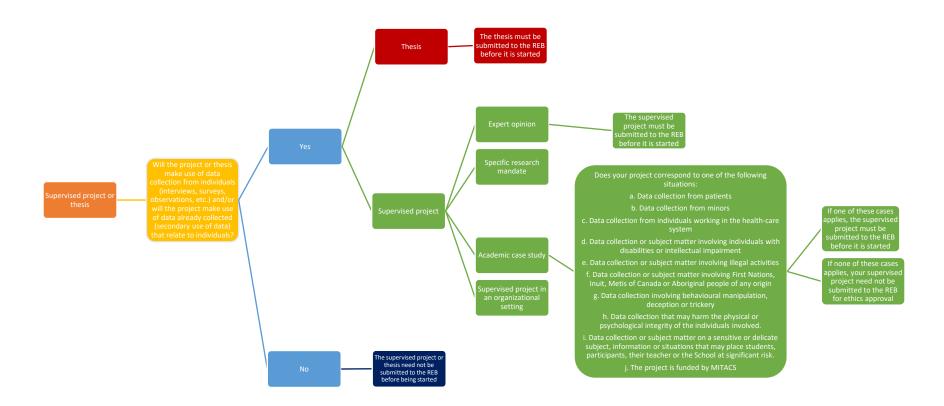
A professor or full-time lecturer may act as a supervisor for a thesis or a supervised project, as indicated in the following table:

Title	Thesis	Supervised Project	
Lecturer	No	No	
Full-time lecturer	Co-supervisor	Yes	
Adjunct professor	Co-supervisor <sup>8</sup>	Yes	
Visiting professor	Co-supervisor	Yes	
Guest professor with career potential	Yes	Yes	
Assistant, associate or full professor at HEC Montréal	Yes	Yes	
Assistant, associate or full professor at another university	Co-supervisor	Co-supervisor	
Postdoctoral Fellow <sup>9</sup>	Co-supervisor	Co-supervisor	

<sup>&</sup>lt;sup>8</sup> An associate professor may only supervise a thesis if he or she has a research background (degree and research publications). However, he or she may serve as co-supervisor of a thesis without restriction.

<sup>&</sup>lt;sup>9</sup> Since the length of stay of Postdoctoral Fellows is limited, only co-supervision is accepted in their case.

Appendix 3: Decision Tree to Determine Whether a Thesis or Supervised Project Requires Research Ethics Board (REB) Evaluation



Appendix 4: Evaluation Grid for Thesis

FORMULATION OF THE RESEARCH PROBLEM					
Criteria	Excellent	Very good	Good	Fair	Poor
Clarity in the stated research problem	The problem under study is perfectly formulated.	The problem under study is very well formulated.	The problem under study is adequately formulated.	The problem under study is sufficiently well formulated.	The problem under study is poorly formulated.
Consistency between the research problem and the objectives	There is perfect consistency between the problem and the research objectives/questions.	There is very good consistency between the problem and the research objectives/questions.	There is good consistency between the problem and the research objectives/questions.	There is a lack of consistency between the problem and the research objectives/questions.	There is no consistency between the problem and the research objectives/questions.
			LITTERATURE REVIEW		
Criteria	Excellent	Very good	Good	Fair	Poor
Relevance of references	All the references used are perfectly adequate for conceptualizing and/or solving the research problem.	Most of the references used are very adequate for conceptualizing and/or solving the research problem.	Most of the references used are adequate for conceptualizing and/or solving the research problem.	Some references used are not adequate for conceptualizing and/or solving the problem studied.	Most of the references used are inadequate for conceptualizing and/or solving the research problem.
Scope of the literature review	All key references in the existing literature have been identified.	Most key references in the existing literature have been identified.	Sufficient key references in the existing literature have been identified.	Some key references in the existing literature have been identified.	Most key references in the existing literature have not been identified.
Appropriate use of literature	All links have been fully established between the references used and the research problem.	Most links have been very well established between the references used and the research problem.	Most links have been well established between the references used and the research problem.	Some links between the references used and the research problem must be improved.	Most links between the references used and the research problem are missing.

Ability to position and demonstrate the relevance of the research problem with respect to existing literature	The positioning and the relevance of the research problem are perfectly demonstrated.	The positioning and the relevance of the research problem are demonstrated in a very good manner.	The positioning and the relevance of the research problem are demonstrated in a good manner.	The positioning and the relevance of the research problem must be improved.	The positioning and the relevance of the research problem are not demonstrated.
			METHODOLOGY		
Criteria	Excellent	Very good	Good	Fair	Poor
Relevance of the methods chosen and justification of choices	All the selected methods are very appropriate, and their use is very well justified.	Most of the selected methods are appropriate, and their use is very well justified.	Most of the selected methods are appropriate, and their use is well justified, but a few changes must be made.	Most of the selected methods are appropriate, and their use is well justified, but many changes must be made.	Most of the selected methods are not appropriate and their use is not well justified.
Rigour in data collection and analysis	All the methods used to collect and analyse data are applied with the utmost rigour.	Most of the methods used to collect and analyse data are applied with a very high level of rigour.	Most of the methods used to collect and analyse data are applied with a high rigour.	Most of the methods used to collect and analyse data are applied with an acceptable level of rigour.	Most of the methods used to collect and analyse data are applied without much rigour.
		ANALYSIS, INTE	RPRETATION, AND DISCUSSION	ON OF RESULTS	
Criteria	Excellent	Very good	Good	Fair	Poor
Depth of results analysis	The depth of the analysis exceeds expectations.	The depth of the analysis largely meets expectations.	The depth of the analysis moderately meets expectations.	The depth of the analysis hardly meets expectations.	The depth of the analysis does not meet expectations.
Results interpretation accuracy	All results are accurately interpreted.	The majority of results are accurately interpreted. There are	Most results are accurately interpreted, but there are several interpretation errors.	There are as many accurately interpreted results as there are interpretation errors.	The majority of results are poorly interpreted.

		very few interpretation errors.			
Ability to meet the research objectives and answer all stated research questions	The analysis addresses entirely the problem by providing answers to all the research questions.	The analysis addresses the problem in a very satisfactory manner by providing answers to most of the research questions.	The analysis addresses the problem in a satisfactory manner but do not provide answers to few research questions.	The analysis addresses the problem fairly but do not provide answers to many research questions.	The analysis does not address the problem and do not provide answers to the research questions.
Ability to take a critical look at the research and discuss its limitations and implications	All the limitations and implications of the research are identified and discussed.	The majority of limitations and implications of the research are identified and discussed.	A good part of the limitations and implications of the research are identified and discussed, but some aspects could be improved.	Part of the limitations and implications of the research are identified and discussed, but some aspects could be improved.	The limitations and implications of the research are not identified or discussed.
			QUALITY OF THE WRITING		
Criteria	Excellent	Very good	Good	Fair	Poor
Criteria Clarity in presenting results	Excellent  The presentation of the results is extremely clear.	Very good  The presentation of the results is very clear.	Good  The presentation of the results is clear.	Fair  The presentation of the results lacks clarity. Minor changes are required.	Poor  The presentation of the results is not clear. Major changes are required.
Clarity in presenting	The presentation of the results is extremely	The presentation of the	The presentation of the	The presentation of the results lacks clarity. Minor changes are	The presentation of the results is not clear. Major

Adherence to the rules of writing an academic work (spelling, syntax, layout, etc.).	All the rules for writing an academic work (spelling, syntax, layout, etc.) are scrupulously adhered to.	All the rules for writing an academic work (spelling, syntax, layout, etc.) are adhered to, but there are a few minor errors.	All the rules for writing an academic work (spelling, syntax, layout, etc.) are adhered to, but there are several minor errors.	Most of the rules for writing an academic work (spelling, syntax, layout, etc.) are adhered to, but there are a few significant errors.	There are significant shortcomings in adherence to the rules for writing an academic work (spelling, syntax, layout, etc.).	
Adherence to citation and bibliographic standards	All citation and bibliographic rules are scrupulously adhered to.	All citation and bibliographic rules are adhered to, but there are a few minor errors.	All citation and bibliographic rules are adhered to, but there are several minor errors.	The majority of citation and bibliographic rules are adhered to, but there are a few significant errors.	There are significant shortcomings in adherence to citation and bibliographic rules.	
	AUTONOMY					
Criteria	Excellent	Very good	Good	Fair	Poor	
Adherence to the established timeline	The student established a timeline to complete the project and consistently adhered to it.	The student established a timeline to complete the project and adhered to it most of the time.	The student needed establishing a timeline to complete the project and adhered to it most of the time.	The student needed help establishing a timeline to complete the project but did not adhere to it most of the time.	The student needed help establishing a timeline for completing the project but never adhered to it.	
Initiative taken to do what is necessary to complete the thesis	The student always showed initiative to do what was necessary to complete the thesis.	The student often showed initiative to do what was necessary to complete the thesis.	The student needed a little help to do what was necessary to complete the thesis.	The student showed little initiative to do what was necessary to complete the thesis.	The student showed no initiative to do what was necessary to means to complete the thesis.	
			GRADE			
	A+/A	A-/B+	B/B-	C+/C	E	