



PREAMBLE

According to the Study plan and the **Applications Directives**, the Master in Statistics includes a Master Thesis. This document provides guidelines about the content of the Master Thesis Project, the content of the Master Thesis, and also guidelines for the oral defense.

With regard to prerequisites, deadlines, registration, as well as the evaluation and retake procedure, please consult the **Application Directives**, which are available on the [GSEM website](#).

MASTER THESIS PROJECT

The project (maximum 4 pages, including the bibliography) should be composed of:

- A statement in the form of the thesis's title.
- The student's name and the date of the project's presentation.
- A short text presenting the subject.
- The methodology.
- References to literature sources.
- A short job description and the internship convention duly completed and signed by the supervisor if the project is linked to an internship.

MASTER THESIS

A Master Thesis is an academic work that represents the culmination of Master's degree studies. A Master Thesis demonstrates the academic maturity of the students, and specifically that they are able to design and implement a small-scale academic research project independently. In the Master Thesis, the students must also demonstrate sufficient depth and understanding of academic knowledge pertaining to the domain of their studies.

A Master Thesis being, in essence, a demonstration of academic maturity, several corresponding criteria follow. The master's candidate must demonstrate sufficient command of basic academic research activities. This includes (1) the ability to review and summarize the relevant literature (including an ability to discern which literature is relevant and which is not); (2) the ability to identify and sufficiently describe a research problem that is relevant, topical, and approachable; (3) the ability to design a research project (simulation study, empirical data analysis); (4) the ability to choose and/or develop and apply and/or implement appropriate statistical methods; (5) the ability to perform simulation studies to test the statistical method(s); (6) the ability to analyze empirical data and draw appropriate and reasonable conclusions and recommendations.

Accordingly, all master theses should include the following elements:

1. A definition of the research problem and a literature review of the relevant papers/books on the topic.
2. The development of a new statistical methodology (when relevant).
3. A description, comparison, and selection of statistical methods.
4. A simulation study (when appropriate).
5. An empirical data analysis (when appropriate).

6. A conclusion with a discussion of findings and recommendations for further research.

There is no fundamental difference between a Master Thesis done in conjunction with an internship or without an internship. It is, however, likely that a Master Thesis done in conjunction with an internship will put more emphasis on the empirical data analysis and focus on a particular problem in a specific field of research.

There is no established criterion for the extent of a Master Thesis in terms of page numbers. What is critical is the content, not the length.

The thesis should appropriately cite all the articles, books, and internet sources (e.g., texts downloaded from the internet, program codes, and syntaxes obtained from the internet) from which information has been taken. Direct quotations of received sources can be used, but in the Master Thesis they must be clearly marked as quotations. Chained referencing of sources should be avoided (i.e., if a source article references another article, the candidate should find the original source and use this as reference). The input and help obtained from other persons and organizations should be acknowledged in a preface. The thesis should be honest about its own contributions and limitations. Ideas received from others should be appropriately acknowledged. No confidential information should be published without express consent by the source.

DEFENSE

Once the work is completed, and in agreement with the Master Thesis Director, the Master Thesis defense needs to be organized, notably by setting a date. This organization is finalized online through the [GSEM Student Intranet](#).

QUESTIONS

All questions may be sent to gsem-masters@unige.ch