

MASTER'S THESIS PREPARATION METHODOLOGICAL INSTRUCTIONS

Masters Thesis Guidelines

The preparation of the master's thesis is a systematic process that starts the first semester and finishes with the defense of the final master thesis version at the end of studies. To get the satisfactory results it is important to work consistently, gradually developing the idea by reading and analyzing the literature, creating methodology for the empirical research, collecting and analyzing information and preparing the final report. The aim of semester reports is to present the intermediate results of analysis and to show the smooth progress in achieving final goals of the master thesis.

Master studies in comparison to Bachelor's are significantly substantive and related to students' scientific research. IBEM and ITM master studies end with the final master thesis preparation and presentation, in a form of defense at the end of the 3rd semester. The master thesis is an essential individual result of the entire master studies, based on which, the student is awarded with the master degree. This scientific work integrates theoretical knowledge of the analyzed subject and empirical analytical skills, which compliment the existing scientific knowledge with innovational ideas, discoveries. Presented results must have a certain scientific value, must be imperative to a wider range of problems, not only to the analyzed subject mater.

The work on the master thesis must be started in the fist semester. Students should choose the topic and analyze the literature, which should be expanded and exacerbated on during the entire master programme.

1. MASTER THESIS WRITING GUIDELINES

2. MASTER THESIS STRUCTURE

Master thesis structure	Master thesis structure requirements (i)
Title page	Format it as presented in an Appendix 1.
Contents	Detailed work structure. The list of abbreviations, introduction, conclusions and suggestions, references and attachments have to be presented as independent structural parts. These parts should not be numerated. Sections and subsections should be numerated using Arabic numbers.
Abbreviations	Used abbreviations and their explanations should be provided.
List of tables	A list of tables should be provided with specified page numbers.
List of figures	A list of figures should be provided with specified page numbers.

Master thesis structure	Master thesis structure requirements (i)
Introduction	Introductions should contain: <ul style="list-style-type: none"> • Relevance of the topic and the necessity for solution; • Practical and theoretical value of the topic; • Motives for choosing a particular topic; • Work aims and tasks; • Research object; • Research methods; • An explanation of the work structure (brief overview of all parts, page, table and figure count) • Key literature used; • Work limitations and difficulties;
Literature review	The theoretical basis of the research should be present. <ul style="list-style-type: none"> • Theories, concepts and modules, which explain the analyzed problem. • Explanations for the categories used in the analytical thesis part; This part can be divided in a few structural parts.
Research design	This part should contain an explanation of the way empirical research has been performed. <ul style="list-style-type: none"> • Research module should be formed and presented; • Research object description; • An explanation of the methodology used in the empirical research.
Analysis and Research results	The data collected during the empirical research should be presented. The answer to the formulated researched problem question should be presented.
Conclusions	The conclusions section should be used to reveal the authorship input of the student and to present the key research results. Generalizations of other authors should not be repeated in the conclusions, as well as new statements, which have not been discussed in the main text.
Summary	The summary should be presented in Lithuanian and in English. It should contain an observation of the entire thesis.
Bibliography	Bibliography should contain all of the sources on the basis of which the author formed his/her point of view of the matter. This includes articles, monographs, dissertations and other publications.
Appendixes	At the end of the final thesis attachments can be presented, if they enhance the value of the work.
Reviewer's remarks	An A5 format envelope for the feedback should be glued to the inside of the last (hard-cover) page of the thesis.

If numerous tables, graphs or abbreviations (after the content) are used, an additional sheet(s) can be attached with their lists.

Title page. An example is presented in the appendix.1.

Contents. An example is presented in the appendix 2.

Introduction (overview, preface). Introduction has to reveal the relevance and importance of the analyzed issue (topic) to the overall theory and practice, as well as, to the selected study object (company, organization). Introduction should disclose the motives for selecting a particular topic (for instance, the issue relevant to the company where the master student works; the company is interested in student's discussed issue and would be inclined to see a deeper analysis, solution suggestions; MT author at work constantly faces these questions (issues); the master student had an interest in particular issue for a long time or he has researched it as a bachelor student, etc.).

Thesis goal and tasks should be formulated briefly and precisely in the introduction. Thesis goal should be clear and reflect the research object when looking at the title.

Introduction should include an explanation of the research methods used while writing the thesis (scientific literature analysis and abstract, previous survey, observation, strategic analysis methods, factorial analysis, correlation analysis, other statistical analysis methods, etc.).

Practical and scientific meaning of this thesis should also be briefly presented in the introduction, this can be achieved through a discussion of the obtained results (what has been done and what are the benefits). Work structure and explanations regarding the literature used can be briefly mentioned as well. If the author has published any publications while writing the thesis, they should be mentioned in the introduction.

In the end of the introduction faced problems could be clarified (if any occurred). Introduction should be 2-3 pages.

The body. This part of the thesis should analyze and enunciate a consistent research conducting material (using the methods, which correspond to the thesis nature). Sections (usually 3 to 4) made of subsections with paragraphs, should be present in this part's structure. The number of sections and subsections depend on the topic, nevertheless they should be very detailed (a section should contain 2 to 5 subsections and subsections should contain 2 to 3 paragraphs). The scope of the smallest unit should not be less than 1,5 - 2 pages.

Applied (practical) MT usually has three sections: theoretical, empirical (analytical) and suggestive (schematic). The first section of the thesis should always be dedicated to the chosen scientific-practical issue's theory. The second section, based on the theory module created in the first section, should contain the prepared research methodology and performed current situation

analysis for the subject matter. Suggestions and recommendations derived from the performed analysis should make up the third section.

Section and subsection naming should not be repetitive or duplicate the title of the MT. On the other hand, the main concepts present in MT title should be reflected, associated with the section headings. The section, subsection and paragraph headings' connectivity and consistency should be apparent.

Every subsection at the end should have a short summation, which would outline its main results. Based on these results, the student should formulate the conclusive section statements, which later will be used for the MT conclusions and suggestions.

Conclusions and suggestions. This MT structural element summarizes main MT results and has to be derived from the material presented in the body part of the text. Conclusions should be present in all types of MT, where as suggestions are relevant usually for the applied (practical) types of master theses.

Conclusions and suggestions should show if the goal of the thesis is met and the raised issues are resolved. There should be no analysis of questions, citations or debates in the conclusion and suggestion section. It is not recommended to provide generalized suggestions as to "improve", "perfect", "boost", "expand" and so on. Conclusions and suggestions should be concrete, constructive and brief.

The sequence of the conclusions and suggestions not necessarily have to correspond to the succession of the text. It can be grouped respectively, to highlight main work results. Questions or issues not analyzed in the body of the text should not be considered in the conclusions either. Conclusions and suggestions can be numerated and should take up to 3-4 pages.

Summary (Resume). The summary is a short MT core purpose disposition. It has to reflect these elements (in order):

- Name and surname of the author,
- title (in capital letters),
- words: Final Master Thesis,
- The name of the academic supervisor (academic degree (e.g. professor) and scientific educational name (e.g. doctor), name and surname),
- university, faculty names.
- thesis preparation place, date,
- the size of the thesis (in pages), separately indicated table and graph/chart number.

Short thesis description with these elements should follow after:

- thesis goal and tasks,
- research methodology,
- concrete, tangible work results,
- main conclusions.

The summary should not exceed one page.

References. All of the used, mentioned or cited literature and other information sources should be referenced.

Appendixes. Large tables, various calculations, samples of surveys used, large explanations and other supporting material analyzed in the text should be placed as an appendix. Each appendix has to have a title and a number (e.g. Appendix 1, Appendix 2, etc.). Every appendix has to be pointed to from the text.

3. THEORETICAL SECTION

Basic premises for the theoretical section.

1. This section must be written after the student has:
 - a. done the preliminary research on the chosen question or issue, and has prepared a detailed bibliography,
 - b. firmly decided and formulated the topic for his master thesis,
 - c. prepared a preliminary plan of action and presented all of the mentioned above in the report at the end of the first semester.

Material sorting and the structure of the theoretical section.

1. Before writing this section, the student should look over all of the obtained information and add new sources, then group it into subsections, based on the importance of the information to the research object.
2. Theoretical section should make up 1/3 of the final master thesis (about 20 pages). It is important to separate information into the subsections, and if necessary into smaller sections or paragraphs, to avoid confusion and clutter.

The requirements of the content for the theoretical section.

1. This section should have an explicit explanation for the key concepts and terms (if necessary the dictionary of used concepts can be provided in the appendix).
2. The research area and its situation should be well defined.

3. Key literature, accepted theories, concepts and statements should be assessed.
4. The students should base his/her research on well-known foreign researchers and experiences in general of their country or Lithuania.
5. The student should take a deeper look at the analyzed issue and base his research not only on the obtained information from a book or internet. This part should also contain information from his/her published articles, monographs or other academic publications. It has to show student's expertise, his/her intellectual capabilities and his/her ability to utilize economic theories in solving the real life problems. It is not enough if the bibliography mostly consists of periodical insignificant articles or textbooks and there are not many serious, thematic publications and monographs. At the same time, please do not use sources in the bibliography that were not clearly used in the paper.
6. The paper can not be given much credit if the analyzed proposition is not well based on the theories available on particular issue. This work has to show that the student is familiar with the most important publications, which analyze particular problem.

Preparation of theoretical model.

1. After analyzing the works of scientists from all over the world, the student has to prepare his/her own theoretical model, which shows what theoretical conception (view, understanding or attitude) he/she will use in the second, empirical (analytical) portion of the thesis.
2. This model should be provided as a small subsection, which will conclude the theoretical section. It is preferably that it would be presented as a scheme(s) or if necessary as a table(s).

The use and citation of the sources.

1. The use of the scientific literature does not mean the student is allowed to rewrite the part of the text and state it as his/her own, this will be counted as **plagiarism** and the student will not be allowed to defend his/her work. If the issue comes out during the defense, the student automatically will not pass. The student must reference the sources he uses.
2. References can be provided in two ways:
 - a. In the angle brackets, directing to the source number in the bibliography and the page number (e.g.: [9, p.17]).
 - b. The sources can be pointed out at the end of the page. The student can number the sources in the entire document or separately in each page.

3. It is important not to misinterpret the statements of the authors, and not to interpret them in your own ways. The student can agree or disagree with the statements, but debating and disputing should be done only based on the statements of the author.
4. It is important to keep a good balance between the quantities of the citations and your own words.

Highlighting the most important parts.

1. If needed, the student can highlight some important thoughts used in the text. This is done by underlining or bolding the text, pointing out in prentices and adding his/her initials, for instance: summer (underlined by me A.B.)
2. If the student is translating the text from other languages and is not sure about the right translation or there is no such term in English, next to the translated term he/she needs to put the word or phrase in prentices in the original language.

4. Empirical (analytical) section

In this section the methodology of the research should be described in detail. It is also advisable to give a short characteristic for the object of study (company) and its environment, but the major part should consist of selected question (problem) analysis. It has to be based on the collected, especially primary, data. Collected data should be planted into the analytical tables. The information in the tables should be statistically processed (calculated ratios, dynamic indicators). Analytical text could be accompanied (but not duplicated) with pictures, graphs. Information provided in the pictures or graphs should be available in appendixes (attachments). There should be an abundance of numbers, tables and graphs in analytical section.

Most important in this section is to evaluate the situation at hand and explain fundamental reasons for this situation, as well as, show the reserves for the improvement. All this should be shown using nowadays methods (they should be described in the first subsection) and followed by recommendations, basing and detailing of propositions, explanations of how to solve uprising problems or particular solutions.

Research methods, hypothesis, and data.

Before starting the scientific work, the student should think over and chose the methods he/she is going to use. Methods are the links between existing and new information, theory and practices.

Data obtained during the empirical study is called **primary** or **empirical**. There are two major empirical methods: experiments and observation. The data that is statistically grouped (averages, correlations etc.) is called **secondary** data.

5. TECHNICAL POINTERS FOR THE FINAL MASTER THESIS PAPER

Final thesis paper must be printed on the standard A4 format paper (210x297 mm), with these page settings:

1. Font 12
2. Line spacing 1.5
3. Margins: left - 25mm, right – 20mm, top – 25mm, bottom – 20mm
4. The first line in the paragraph must be indented (10mm).
5. There may be some highlighting or bolding of separate words or sentences.
6. Page numbering should start from the title page to the last page. The page number should not appear on the title and content pages.
7. Page number should appear on the top of the page, in center or in the right corner, in Arabic numbers, without a dot.
8. Every new section should start in a new page with the heading. Paragraphs and subsections should start in the same page after one or two line spacing.
9. The section headings should be in capital letters. The subsection and paragraph headings should only start with a capital letter.
10. All headings must be bolded and centered.
11. The sections, subsections and paragraphs should be numbered using Arabic numbers.
12. Numbering of subsections should start over in every section (e.g. 2.1, 2.2; 3.1, 3.2). If the text is separated into paragraphs, they should be numbered using the same principle (e.g.: 2.1.1, 2.1.2, 2.1.3).
13. Introduction and conclusions, other structural parts (bibliography and sources, summary, appendixes) are not numbered, but should start with the capital letter and should be bolded.
14. Every table, picture or graph should have a capture with the source identified. If the table or a graph was created by the student, he/she must identify what sources did he/she based them on. All tables that do not have sources are perceived as students work, but that must be mentioned in the introduction or next to the first such object.

15. Tables, graphs and pictures must be numbered and have names. These objects must have numbers if there is more than one of each (e.g.: Table 1, graph 1 or by the sections: table 2.2, graph 2.3).
16. The fonts used in the tables and graphs not necessarily have to match the font of the text. The table title should be centered and written above it. The table number should be written above its title, on the right side of the page. The number and the title of the graph or picture should appear below the object.
17. Tables or graphical objects should be compact and take up not more than a page. If you have problems fitting them, they can also be presented vertically in the page. In this case, the title of the object should be on the left hand side. Student should consider adding bigger objects as the attachments (appendixes), instead of putting them into the text.
18. Attachments should have their own numbering. If the table or a graph do not fit in one page, there should be an additional indication on both pages, for instance "Table 5 is continued in the next page" and "continuation of table 5".
19. Used formulas can be typed or written in by hand. Formulas that the student bases something on more than once should be numbered. The number should be in pretexts and on the right side of the line, which contains the formula.
20. Total number of pages without appendixes should not exceed 60 pages.
21. The final draft of thesis should be presented in a binder and in the digital form (CD) to the academic supervisor at least two weeks before the defense date.

6. FINAL MASTER THESIS DEFENSE AND EVALUATION

The final thesis has to be printed, placed in the binder and presented to the academic supervisor. The supervisor will decide if the thesis requirements are met. If the quality of work is confirmed, the supervisor signs the title page of the thesis. No later than 10 days before the MT defense, the thesis has to be presented to the programme administrator and registered, noting the date it was received on. Thereafter the thesis is rendered to the reviewer appointed by the programme coordinator. The reviewer critically analysis the work and writes a review, where he points out positive sides and shortcomings of the thesis, concludes if the thesis meets the requirements and proposes the grade. The review has to be submitted back no later than three days before the defense. The master student has a right to get acquainted to the review before the defense and prepare to answer to the remarks made in it. The final thesis evaluation is made by

the defense Board. The Rector appoints the Board and the chairman, with an agreement of the Dean.

The Board has to make an evaluation of the MT based on the MT requirements, presentation and defense.

MT is defended publicly, anyone can participate (be in the room, ask questions, participate in discussions) at the defense.

Recommended defense order:

1. The defense Board Chairman invites the MT author, announces his thesis topic and the academic supervisor's name, grants the word to the defending student.
2. The student presents his/her work.
3. Student answers reviewer's comments and questions.
4. The word is granted to the Opponent.
5. The student responds to the opponent's questions and comments.
6. Board members and other participants are granted the word.
7. Final word is granted to the thesis author.

The significant part for the MT defense is the presentation. MT presentation usually takes 10 min. Visual material is recommended, it makes the presentation easier to understand, but the most importance has the speech content and its expression. The content of the presentation should include these elements:

- Relevance and significance of the topic,
- thesis goal, tasks, hypotheses (if applicable),
- research methods, its informational description,
- research results (conclusions and suggestions),
- final word ("Thank You" etc.).

It is useful for the student to have a written thesis or other notes for citations and clarifications during the defense. On the other hand, the student should freely elaborate, explain his/her work and make eye contact with the audience, not only read off the notes.

The answers to the Board's questions, reviewer's remarks should be short and concrete; the student can use his notes to answer them.

As a final word, the master student can answer to the Board questions, Board members' remarks; elaborate on his/her future scientific plans; thank everyone who had an input to the thesis.

VILNIUS UNIVERSITY
FACULTY OF ECONOMICS

NAME SURNAME

Title of your master thesis

Master thesis

Allowed to defend _____
Prof. dr. A. Miškinis

Master student _____

Academic supervisor _____
Soc. m. dr. doc. A. Somebody

Work submission date _____
Registration Nr. _____

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