



**Hochschule für Technik
und Wirtschaft Berlin**

University of Applied Sciences

Guidelines Master Thesis

MBA & Engineering in Life Science Management

HTW Berlin
University of Applied Sciences

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<https://lsm.htw-berlin.de>

Berlin, September 2020

Dear Students

The master thesis is an opportunity to work independently on a research project of your own design and contribute to the scholarly literature in your field.

Through your MBA & E in LSM module work, plus your own background research, you will identify a question that has yet to be sufficiently answered or thoroughly tested by prior research. You first craft a thesis proposal to be discussed with your faculty supervisor. Then, you work with your supervisor either a faculty or industry expert, who will help you bring your research to successful conclusion and documentation.

Below are several steps to follow to fulfil master thesis requirements.

1. Determine your Thesis Topic
2. Registration Process and Deadlines
3. Literature Review
4. Prepare a Master Thesis Proposal
5. Writing of Master Thesis
6. Oral Defence

1. Determine your thesis topic and type of thesis work

The basic concept of an academic paper in management studies is to reflect a specific problem with reference to selected academic concepts and theories. When choosing a master thesis topic:

- it is natural to firstly follow your interests, grounded in a true curiosity and openness to investigation
- it has to bear reference to one of your [modules/electives](#) from the programme such as "Production Processes in Life Science Industries"
- it can be theory based or relating to industry/institute, when writing in cooperation with a life science industry partner or institute
- one way can be to choose a broad thesis topic, that you narrow down to a smaller scale after having undergone an intense literature review and have discussed the topics with scholars in your field of interest

Types of thesis work

The basic concept of an academic paper in management studies is to reflect a specific problem with reference to selected academic concepts and theories. Essentially, six types of academic work can be distinguished:

Literature research:

A research question is based on an extended literature review and further reflections. The main achievement lies in the thorough analysis and presentation of the literature and in a logical and conclusive line of thought. Successful literature research usually relies on solid knowledge of basic management theories (e.g. institutional economics, institutionalism, leadership and motivation theories)

Empirical research:

Compared to literature research, the field must be narrowed for empirical research. Following a state of the art based on a literature review, an independent empirical study (document analysis, survey or observation) is conducted. The empirical study may have a quantitative or qualitative focus and may be conducted as a hypothesis generating or hypothesis testing study. The main achievement lies in an adequate choice of literature and methodology as well as in a comprehensible analysis of empirical data and referencing to the theoretical basis. Thus, knowledge of data collecting and analysis methods are required.

Secondary analysis:

A systematic analysis of available empirical studies aiming to compile the individual results to an overall result. Secondary analysis has both a qualitative focus (systematic literature review) and a quantitative focus (so-called meta analysis). The main achievement lies in the systematic approach by means of which the separate findings are aggregated.

Bibliographical analysis:

This approach aims at analyzing structures and developments in a defined field of research by counting citations or key words in a larger number of texts (usually research publications). Examples are citation and cocitation analysis. The main achievement lies in the collection and preparation of data as well as in linking the findings to the appropriate theories.

Conceptual work:

The aim of this type of academic work is to develop a set of instruments to meet practical everyday management challenges. The concept itself ought to rely on theories and empirical findings. The main achievement lies in the comprehensible connection between the theoretical foundations and the developed set of management instruments.

Practice-related work:

This type of academic work is usually only an option for the limited scope of a term paper. The aim is to address a precise challenge in organizational practice by means of theories, concepts and available empirical data. The main achievement lies in the coherent matching of the practical and theoretical perspective. It is up to you to decide which type of academic work you would like to pursue and then to focus on its specifics. When developing a concept and writing your paper of any type specified above, it is helpful to refer yourself to existing work in the given field which can be found through a thorough literature review. Existing papers are a useful reference and help in the early stages of a project.

See below examples of master thesis topics from previous LSM students within the module "Production Processes in Life Science Industries" are:

"Radical Innovations In Life Science Industry And Strategies To Launch It In Market For Maximum Impact: TissUse HUMIMIC Autolab"

"Internationalization of Codecheck GmbH"

"Life Cycle Management of Medical Devices"

After registration for the master thesis, you may change your master thesis topic only once and within the first six weeks of the completion period. (please use change of title form in attachment 1 or visit the [LSM website](#)). The chosen module cannot be changed.

2. Registration Process and Deadlines

Once you have completed all modules (90 credits or less than 10 credits missing) and your proposal has been approved by your faculty supervisor, you can register to write your master thesis.

To do so, please submit completed official registration form (attachment 2 or visit [LSM website](#)) to your HTW Berlin faculty supervisor and the programme manager.

The first supervisor must be a professor at HTW Berlin. The second supervisor can be an external supervisor. He or she must have successfully completed a master's degree programme or an equivalent degree. The second supervisor can be named at a later stage, after the registration form has been submitted.

Following deadlines of writing your master thesis may serve as an orientation for your planning:

- master thesis writing period is 18 weeks
- change of master thesis title at least 2 weeks before master writing period deadline
- application for extension to write the master thesis at least 2 weeks before master writing period deadline
- max. extension additional to the writing period is another 18 weeks
- oral defence of the final master thesis will take place within three months after the thesis has been submitted

To extend writing period please use the master thesis extension form (attachment 3 or visit the [LSM website](#)).

3. Literature Review

3.1 Relevant databases and academic sources

Many helpful databases and academic sources are at your disposal for effective literature searches. First step is to look at the HTW Berlin <https://bibliothek.htw-berlin.de/en/literature/> university library offering:

- central library online catalogue [wegOPAC](#)
- linking to diverse [Databases](#) and [Journals & Newspaper](#)

Further to that, as an HTW Berlin student you can register for free with all libraries of state universities (e.g. the [FU Berlin](#) offers a wide variety of information specialised in pharmacy).

3.2 Search strategies for academic articles

Several strategies can be pursued when searching for appropriate literature.

Keyword search (title, abstracts, etc.): Keyword search is the most widely used search strategy for literature. It yields articles whose title, abstract or full text contains the keyword.

Index search: Articles are usually described by a certain number of key terms. These key terms are also referred to as the index. It is advisable to conduct an index search in addition to a keyword search.

Review of pertinent journals: Certain journals specialize in specific fields (e.g. Journal of Entrepreneurship mainly addresses the topic of entrepreneurship). We recommend that you scan the table of contents of all issues from the past 10 to 15 years for the journals that may be relevant for your topic.

Citations: Once you have found a suitable article, we recommend that you find out in which further sources the article was referenced and which sources were used to write the found article. Databases such as EBSCO or "Web of Science" support this search strategy by offering direct links to the referenced articles.

4. Prepare a Master Thesis Proposal

After having made a decision on the type of thesis work and after completing your preliminary literature research and becoming acquainted with your topic, it is time to develop a proposal of 3-5 pages. This normally consists of the following:

- Problem outline which makes the practical and theoretical relevance apparent
- Objectives and research questions with an outline of the intended findings
- Course of investigation with a preliminary table of contents
- Reference list

The aim of the proposal is to give the supervisor an overview of the intended research project. A detailed *problem outline* enables the reader or supervisor to grasp the topic of the paper, the facts it is based on and its focus. On this basis you must put together a detailed and coherent *list of objectives*. The *course of investigation* describes how you choose to proceed, and which steps will lead you to achieve the objectives of your research. It should become apparent why you are choosing a certain course of action. A preliminary *reference list* containing the main sources (monographs, articles from academic journals, etc.) rounds off your proposal.

5. Writing of Master Thesis

5.1 Formal requirements

The length of academic papers is minimum of 50-60 text pages. Additional pages not counted as text pages are added for the table of contents, list of abbreviations, figures, tables, references and/or interviews, the appendix. Text pages are to be numbered with Arabic numerals (1, 2, 3 etc.), the table of contents and various lists and appendices with Roman numerals (I, II, III etc.).

HTW Berlin formal guidelines are to use Verdana font. Select a font size of 11 pt for the main text and 10 pt for footnotes. Line spacing is to be set to 1.5 in the main text and 1.0 in footnotes. Enter a line break between paragraphs. The margins are to be formatted as follows: 4cm on the left, 2cm on the right, 2.5cm at the top (incl. header) and 2.5cm at the bottom (incl. footer). When subdividing a chapter, it must consist of at least 2 sub-chapters (i.e. there cannot be a section 2.1 without a following section 2.2).

When writing with an industry partner or institute different formal requirement may apply.

5.2. Structure of papers

An academic paper is to be structured as follows:

- Front page
- Table of contents / list of abbreviations
- Text pages of the paper proper
- Reference list / list of interviews
- Appendix
- Declaration of academic integrity (see suggestion Attachment 4)

5.3 Content structure

Depending on the type of thesis work you chose (refer to section 1.) you should stick to the logical train of thought for this particular type of thesis work, so that the reader can follow you easily. Most importantly, aims and objectives of the thesis work should be clearly stated, and results and findings should be properly discussed in the context of the overarching field of research.

6. Oral Defence

The oral defence of the final thesis will take place within three months after the thesis has been submitted. Based on completion of all required modules and successful submission of the final thesis. One aspect of the thesis defence is a presentation of approx. 15 minutes during which the student offers a summary of the thesis' main points. The overall duration of the thesis defence is between 45 and 60 minutes and includes a Q&A Session to the master thesis and programme related topics taught within the modules.

HOCHSCHULE FÜR TECHNIK UND WIRTSCHAFT BERLIN
Student Services- Examination Office

Dept.: _____ Study Programme: _____

Surname: _____ First Name: _____

Place of Birth: _____ Date of Birth: _____

Address: _____ Student ID: _____

_____ Phone: _____

E-Mail: _____

APPLICATION for Admission to the Master Thesis in the

Summer semester _____

Winter semester _____

I declare

- that I have never completed or failed a Master Thesis in this programme at any other university within the purview of the German Basic Law.
- that I am not involved in a pending examination procedure of this kind at any other university
- I enclose both a proposal for the topic of the Master Thesis and suggestions for supervisors, and/or relevant documentation (e.g. a synopsis) in accordance with the programme's examination regulations.
- I opt **n o t** to propose a topic for the thesis or suggest names of supervisors and therefore apply for the assignment of both topic and supervisors.

(⊗ Please cross as appropriate!)

The guidelines pertaining to the application for and admission to the Master Thesis laid down in the examinations regulations for your programme shall apply.

Berlin, _____

Student's signature

Attachment 2 – Master Thesis Registration Form

For the
Chairperson of the Examination Board



of the **Programme** _____
at the Hochschule für Technik und Wirtschaft Berlin

REQUEST TO CHANGE THE TITLE OF THE FINAL THESIS

Family Name: _____ First Name: _____

Telephone: _____ Email: _____

Street address: _____ Postal Code/City: _____

1st Supervisor: _____ 2nd Supervisor: _____

I wish to request for the following change to the title of my thesis.

Previous title:

New title to be confirmed:

Please note that changing the title of the final thesis does not constitute a rejection of the topic as defined by § 21, no. 2 of HTW's Examination Framework Regulations!

Agreement of the 1st examiner: _____

Agreement of the 2nd examiner: _____

Agreement of the examination board: _____

Berlin, _____

Signature of the candidate

Name: _____ Study Programme: _____ Student ID: _____

ANNEX to the Application of Admission to the Master Thesis (Proposal for Master Thesis topic and supervisors)

In accordance with the relevant examination regulations, I suggest the following **topic** for my Master Thesis:

Supervisors:

1. _____ 2. _____

Academic Degree*: _____

Contact/Email: _____

* If the 2nd supervisor is a **non-HTW Berlin member**, then please fill in the academic degree! That person must have gained the same or an equivalent degree as that for which the examination is taking place (§20 RStPO).

The Master Thesis is to be completed

- Individually
- As a group together with the following persons, insofar as this is permitted by the programme's examination regulations:

_____, Student ID: _____

_____, Student ID: _____
(Surname, First name)

- The thesis is to be completed at HTW Berlin.
- The thesis is to be completed at the company _____

I/We agree that the thesis can be written within our company.

Signature/Stamp company

- The completion period shall not begin on the official date, but on _____ (please enclose a **written request** justifying the amended start date, including a confirmation from the company if applicable, for the attention of the examination board)

The above information is given with the agreement of the suggested supervisors.

Berlin, _____

Student's signature

Supervisor/s Comments

- I/We agree to the above suggestion.
- I/We are willing to supervise the Master Thesis of the above student, but state the following amendments to the student's suggestion.

Date, Signature
1. Supervisor

Date, Signature
2. Supervisor

Date, Signature
Examination Board

Attachment 3 – Master Thesis Extension Form

For the
Chairperson of the Examination Board

Received by faculty

of the **Programme** _____
at the Hochschule für Technik und Wirtschaft Berlin

- Bachelor
- Master

Request to **Extend** the Completion of the Final Thesis

Family Name: _____

First Name: _____

Telephone: _____

Email: _____

Street; address: _____

Post Code/City: _____

1st Supervisor: _____

2nd Supervisor: _____

I hereby request an extension to the completion period for my final thesis of
_____ weeks

Reason for extension request: (Please attach appropriate proof)

Berlin, _____

Signature of the candidate

Permission from the 1st supervisor via signature: _____

Agreement of the examination board: _____

Refusal of the examination board: _____

Attachment 4 – Declaration of academic integrity

(Suggestion)

I confirm, that the enclosed master thesis has been completed independently and that no sources or aids other than those revealed have been used. Furthermore, all citations included literally or analogously in the thesis have been marked accordingly.

Place and date

Original signature (by own hand)