

Thesis and Seminar Paper Guidelines

at the EQUA Endowed Chair for Family Business Culture and Ownership



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1 General Information

1.1 Thesis Goals

Your thesis is the last step toward your academic degree. According to § 18, Sentence 2 of the general academic and examination regulations (APSO) at the Technical University of Munich “The final thesis is designed to determine whether or not the student has the ability to work independently according to academic principles”. By working on your final thesis, you will demonstrate that you can:

- independently conduct comprehensive research,
- independently collect and evaluate scientific data,
- critically question sources of information and differentiate unreliable sources from reliable sources,
- develop your own scientifically justified point of view by composing argumentative texts,
- independently manage your project, develop a realistic schedule and create suitable work packages,
- independently identify problems and work on solutions.

1.2 Finding your topic

Your final thesis is your entry ticket to your job, next academic chapter or scientific career. You should use that to your advantage and select a topic that you’re passionate about and that fits your next planned destination. If you’re for example thinking about starting your own business, great! Why not use your final thesis to work on that? If the topic of the thesis means something to you, you will probably work harder for it and reach better results.

If you’re unsure of where your next step is leading you or if you’re interested in a variety of topics and you cannot decide which way to go, here are some tips on how to find your topic:

1. Write down your research interests within your field or topics that you find appealing
2. Conduct research and see what has already been done within this field
3. Identify possible gaps or research opportunities:
 - Are there areas where you find no or little research?
 - Do the scholars mention possible future research topics within their papers?
 - Do you have open questions after reading the papers that you wish to answer with your research?
 - Is there a company that you’re interested in or are there open research topics available at a certain company that you could apply for
4. Use these gaps or opportunities to formulate possible research topics

Sometimes you might even find open thesis topics posted on our website.

1.3 Application

If you want to write your thesis in cooperation with our Chair please send us the following documents:

- CV
- Transcript of records
- Possible research topics you would like to work on within our competence field

1.4 Admission requirements and registration

You must fulfil certain requirements to be eligible for the thesis registration. Every degree program has slightly different requirements. Please make sure to check the program-specific academic and examination regulations (FPSO) of your degree program to find out whether you have fulfilled the requirements to start your final thesis. For TUM School of Management you can find the FPSO and other important documents for all degree programmes in the download section on the website:

<https://www.wi.tum.de/downloads/>

Once you're ready for registration you'll need to provide us with your personal information and the working title of your thesis. We will send you a form where you can fill in the following information:

- matriculation number
- surname, first name
- the working title of my thesis (in consultation with the supervisor)
- registration date (in consultation with the supervisor)
- optional: cooperation partner (e.g. company, NGO, etc.)

After that, your supervisor at our Chair will register you online in the portal of TUM School of Management. You will then receive a notification via email to confirm the provided data and to fill out additional information.

1.5 Timeline

The processing time after the thesis registration is usually 3 months (Bachelor thesis) or 6 months (Master thesis). Please check the processing time of your degree program. The schedule for your final thesis consists of roughly six main steps (see [Table 1](#)). You will start with the preparation. During this step, you should familiarize yourself with scientific practices, conduct literature research, refine your topic and select the methods you're going to use in your experimental part. You should then be prepared for the next step, which consists of writing an Exposé and developing your schedule. Once you've completed the framework your thesis can be registered (see 1.4 Admission requirements and registration). Then the actual work phase begins. You will work on the theoretical part of your thesis, collect, and analyse your data. Finally, yet importantly, you should plan some time for the correction phase before you submit your final thesis.

Table 1. Exemplary timeline

Step	Time Frame	Tasks
1	Approx. 4 weeks	Preparation Phase: Familiarize oneself with scientific practices (Citing, Literature Research, ...), Literature Research, Topic Refinement, Method selection
2	Approx. 2 weeks	Exposé and Time Schedule
3	-	Thesis Registration
4	Approx. 9 weeks (Bachelor) Approx. 22 weeks (Master)	Work Phase: Thesis Writing, Data Collection and Analysis
5	Approx. 1 – 2 weeks	Correction Phase: Proofreading
6	-	Thesis Submission

1.6 Thesis Submission

Once you finish your thesis, you need to officially submit it to us. Please send the thesis as a PDF as well as all additional attachments via email as discussed with the supervisor at our Chair. A hard copy is not required but of course, you can print and bind it if you would like.

1.7 Thesis Publication

It is not required to publish your thesis but you can do so. Publishing your thesis is a great way to get started in academia. If you think about publishing your thesis results in a journal it is recommended to familiarize yourself with the individual requirements of said journal. TUM library offers information and consultation on publishing your work via Open Access:

<https://www.ub.tum.de/en/open-access>

Additionally, you can upload your thesis on mediaTUM or have it included in the library to make it available to other TUM members:

<https://www.ub.tum.de/en/publishing-bachelor-master-thesis>

2 Formal Criteria

2.1 Scientific practices

Your final thesis is a scientific work and therefore you must be confident with scientific practices such as Literature Research, Literature Management and Citing. Especially for bachelor students, the final thesis is often the first major scientific work they are confronted with which can be overwhelming for some students. The TUM university library has a variety of great offers for students who are working on their final thesis. For the best possible outcome, we therefore highly recommend using the courses and classes they have to familiarize yourself with scientific practices. You can find the course program as well as other offers and information on the library website: <https://www.ub.tum.de/en/studying-researching>

2.1.1 Literature Research

The first step to work with references is to find and get access to them. The library offers you free full access to a great variety of literature, e-journals and databases for your literature research. The online catalogue (OPAC) might be a good starting point for you.

- **Overview – Searching and Finding with the University Library:**
<https://www.ub.tum.de/en/searching-finding>
- **Course – Literature Research 1 – Tools for Studying:**
<https://www.ub.tum.de/en/ecourse/literature-research-1>
- **Course – Literature Research 2 – Search Strategies for Seminar Papers and Theses:**
<https://www.ub.tum.de/en/ecourse/literature-research-2>

2.1.2 Reference Management

Managing your references manually can be tedious and prone to error, especially if you have a huge amount of literature and sources that you're working with. Reference management programmes simplify the process and make it easier to handle your references. The two prevalent programmes are Citavi and EndNote. TUM offers free campus licences for students.

- **Learn how to install Citavi or EndNote with a campus license:**
<https://www.ub.tum.de/en/reference-management>
- **Citavi – Introductory Course:**
<https://www.ub.tum.de/en/ecourse/reference-management-with-citavi-introductory-course>
- **Citavi – Advanced Course:**
<https://www.ub.tum.de/en/ecourse/reference-management-with-citavi-advanced-course>
- **EndNote – Introductory Course:**
<https://www.ub.tum.de/en/ecourse/reference-management-with-endnote-introductory-course>
- **EndNote – Advanced Course:**
<https://www.ub.tum.de/en/ecourse/reference-management-with-endnote-advanced-course>

2.1.3 Citing

Correct citing is one of the most important prerequisites for good scientific practice. There are different citation styles used for different scientific fields. The university library offers a **Citation Guide**, which gives an overview of the three main styles:

- author-year system
- number system
- footnote system

In economic and social sciences the author-year system has established itself and is widely used by most researchers. A very popular and approved author-year citation style is **APA**. It is also very common to use indirect quotes. Direct quotes can be used as well if the exact wording of the source is important but they should not be used excessively. Next to the **Citation Guide** the university library also offers a great E-Course on Moodle which we recommend if you're unsure about citing:

- **Citation Guide:** <https://mediatum.ub.tum.de/1225458>
- **Course – Cite It Right:** <https://www.ub.tum.de/en/ecourse/cite-it-right>
- **APA:** <https://apastyle.apa.org/>

2.1.4 Number of required references

There are no clearly defined guidelines for the number of required references. If you write a more theory-based paper, you will certainly use more external sources than if you work primarily with your own data. It also depends a lot on the length of your work. As a rule of thumb, you should have at least two references for every written page. For example, if you write five pages, you should use at least ten sources. Nevertheless, it is very much dependent on the individual approach.

2.1.5 Scientific Writing in English

If you need support since English is not your native language or if you want to refine your scientific writing style you can look at the offers of the TUM Language Center. Something that might be particularly interesting for you is the service of the English Writing Center. You can book an appointment there, bring your English text and work on it with professional language instructors.

- **English Writing Center:**
<https://www.sprachenzentrum.tum.de/en/sprachenzentrum/languages/english/english-writing-center/>

2.2 Layout

The layout should visually support the content of your thesis and is, to a certain extent, at the student's own discretion. For your guidance, we offer the following suggestion. Keep in mind that these are suggestions only. If you prefer another typeface or layout since it would suit your topic better, feel free to discuss it with us.

2.2.1 Overall guidelines

- Format: DIN A 4
- Continuous pagination
 - Main part: Arabic numerals (1, 2, 3, ...)
 - Appendix: roman numerals (I, II, III, ...)
- Typeface according to the TUM Corporate Design:
 - Arial or TUM Neue Helvetica (non-serif)
 - Times New Roman (serif)
- Type size: 11 pt (Arial), 12 pt (Times New Roman)
- Line-spacing: 1,5-spaced lines
- Margins (for printing):
 - Left margin: 4 cm
 - Right margin: 2 cm
 - Upper margin: 2 cm
 - Lower margin: 2 cm

2.2.2 Figures and tables

- Each figure and table should be referred to in the text. If you don't refer to it, you probably don't need it at all.
- Each figure and table must be numbered consecutively and must be labelled by a caption:
 - Figure: Caption is placed underneath
 - Table: Caption is placed above
- Figures should not be used as placeholders or for decorative purposes (except for the title or cover page).
- Figures and tables that originate from other sources must be marked as such.
- If a figure or table is created based on an external source, this must also be noted.

2.3 Exposé and Time Schedule

The Exposé is the first milestone during your final thesis process. It is a short document (1 - 3 pages) and should provide an initial summary of the planned research project containing the following sections:

1. Description of the research question
2. Thesis Goals
3. Methods and Approach
4. Time Schedule

The Exposé will allow you and your supervisor to get an overview of your work and to determine which methods are going to be used to approach the thesis goals. In addition, you should include a **schedule**. Since the available time is limited, it is advised to break down the project into work packages and set deadlines. You should also plan in buffers for unexpected events.

2.4 Thesis Length

The thesis length might vary depending on the topic and used methodology. The writing style should be as precise as possible (quality over quantity). As a reference, we suggest:

- Bachelor thesis: 30 – 40 pages (if 1.5 line spacing is used)
- Master thesis: 40 – 60 pages (if 1.5 line spacing is used)

Appendix, list of illustrations, list of tables, list of references and cover sheet do not count. Additional materials should always be attached in the appendix.

2.5 Thesis Structure

Every thesis is different of course but there is a recommended structure that you should stick to:

1. Cover Sheet and Declaration of Originality
2. Blocking Note (might apply when working with a company)
3. Abstract
4. Table of contents
5. List of tables
6. List of figures
7. List of abbreviations (if needed)
8. Introduction
9. State of Science / Theory
10. Methods
11. Results
12. Discussion
13. Summary and Future Outlook
14. References
15. Appendix

2.5.1 Cover Sheet and Declaration of Originality

The cover sheet is located at the beginning of your thesis. It can be in English or German and must contain the following elements:

- TUM Logo
- Title (In German and English; does not apply if the thesis is written in English)
- Subtitle (If applicable)
- The degree that you are obtaining
- Supervisor
- Your contact information
- Date of submission

A template in German is available on the TUM portal:

https://portal.mytum.de/corporatedesign/vorlagen/index_wissenschaftliche_arbeiten/



The image shows a template for a TUM cover sheet. It features the TUM logo in the top right corner. Below the logo, there are fields for 'Titel der Arbeit' and 'Untertitel'. Further down, it specifies the degree type: 'Wissenschaftliche Arbeit zur Erlangung des Grades B.Sc./M.Sc. ... an der TUM School of Management der Technischen Universität München.' At the bottom, there are three sections: 'Betreut von' (Supervisor) with details for Univ.-Prof. Dr. Dr. h. c. mult. Max Musterprofessor, 'Eingereicht von' (Submitted by) with details for Martin Mustermann, and 'Eingereicht am' (Submitted on) with the instruction 'Datum in München'.

Figure 1. TUM Cover Sheet Template for Final Theses in German

With the declaration of originality, you declare that you have completed the thesis independently and without outside help. It is attached to the cover sheet template. Here is the German and English version you can use:

Selbstständigkeitserklärung

Ich versichere, dass ich die Arbeit selbstständig angefertigt, nicht anderweitig für Prüfungszwecke vorgelegt, alle benutzten Quellen und Hilfsmittel angegeben sowie wörtliche und sinngemäße Zitate gekennzeichnet habe.

Ort, Datum, Unterschrift

Declaration of Originality

I declare that I have written the thesis independently, that I have not submitted it elsewhere for examination purposes and that I have indicated all sources and aids used.

Place, Date, Signature

2.5.2 Abstract

The Abstract should be a precise summary of your research question, the methods you used and the substantial findings and discussions of your thesis. It should be as precise as possible and should not be longer than one page. Someone who has not read your whole work should be able to understand your approach and major findings just by reading the abstract. Make sure to include the following elements:

- Research question
- Methods
- Main results and discussion

If the thesis is written in German, you have to include an English translation as well.

2.5.3 Table of Contents

Your table of contents illustrates the structure of your thesis. The chapters should be clearly distinguished from each other in terms of content. The size of each chapter, subchapter and section should be well-balanced. If you break down one chapter there should be at least two resulting subchapters (otherwise it doesn't make sense to break it down). The chapters should be numbered in ascending order and page numbers must be indicated. The level of subdividing should not exceed four levels (i.e. your last numbering level should be 1.1.1.1). A common practice is to structure your work using the hourglass method:

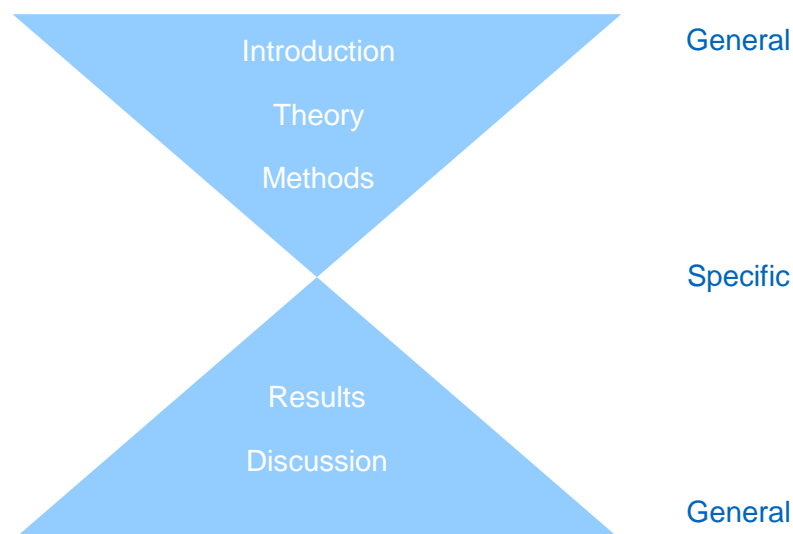


Figure 2 Hourglass Method

The hourglass method goes from general to specific and back to general. You start with a general introduction, which gets more specific once you talk about your concrete research questions. You do the same in the theory part, where you start with the general theories and then tailor them to your individual research question. The same goes for the methods. In the second part of your thesis, you adopt the opposite approach. You first report and discuss your individual research results and then end the discussion by putting them in a more general context and giving an outlook.

2.5.4 List of tables, figures and abbreviations

You should have individual lists for tables, figures and abbreviations. Of course, this only makes sense if several figures or tables were used. If abbreviations are considered to be common knowledge (such as “e.g.”), they can be used in the text without prior definition and do not appear in the list of abbreviations. When an abbreviation is used for the first time, it must be defined and appear in the list of abbreviations (e.g. “Family Business (FB)”)

2.5.5 Introduction

In the first part of the introduction, you should describe the starting point and the motivation behind your research questions. Try to provide answers to the following questions:

- Why and for whom is this topic relevant?
- What is already known about the topic and what remains open?
- What are you contributing with your work?

In the next part, you will briefly explain the concrete objectives and the methods you’re using to get there.

2.5.6 State of Science / Theory

In this part of your thesis, you should give a theoretical overview of your research topic. Try to ask yourself the following questions:

- Which theories and definitions are relevant to answer my research question?
- What does the reader need to know to fully follow my thought?
- What is known about the topic so far?
- What hypotheses can you derive from this for your own work?

2.5.7 Methods

In this chapter you should first describe in general terms the methods you have used and how they work. Then you go into your individual research design and how exactly you applied these methods. Be as transparent as possible.

2.5.8 Results

Here you should present your results clearly and concisely. Try to divide the results into logical sections that make them easier for the reader to follow.

- What are your findings?
- Which results stand out the most?

2.5.9 Discussion

In this chapter, you will focus on the main findings of your results and discuss them in the context of your research question and literature.

- What are the main findings?
- Which findings are in accordance with the literature?
- Are there findings that are unexpected and why?
- Which of your hypotheses has been confirmed?

2.5.10 Summary and Future Outlook

The central results are **summarized** here once again. The framework closes when the statements from the introduction are taken up again. Here, the **limitations** of one's own research can also be pointed out and possibilities for **future research** projects can be opened up.

2.5.11 References

All sources and references must be included in the list of references. For ease of reference, we recommend that you arrange them in alphabetical order.

2.5.12 Appendix

The appendix contains additional information such as data sets or tables that you refer to in the text, but which are often too extensive to include directly in the body text. Results of the work, such as posters or self-contained case studies, can also appear in the appendix. The pages in the appendix do not count as part of the regular page count. It is recommended to paginate the appendix with roman instead of Arabic numerals.