Thesis Guidelines

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1 Introduction
The following are guidelines for writing a seminar report, project study report, Bachelor’s thesis, Master’s thesis and Diploma thesis. These are meant to be guidelines that can help students in setting up and structuring their thesis. The most important advice is to have consistency throughout the whole thesis, e.g. in the layout or the way literature is referenced. For further questions, do not hesitate to consult your personal advisor.

2 Contents
A typical Project study/Bachelor’s thesis has around 30 to 50 pages and a Master’s/Diploma thesis has around 50 to 80 pages, counted from introduction to conclusion (without appendix). The length of a seminar report is communicated by the lecturer (because they vary from chair to chair). Please note that the exact length of the thesis depends on the topic and applied research methods (please discuss with your advisor). We encourage you to write your paper in English unless something else is requested by your advisor.

Following is a suggestion for the contents of the report/thesis. The detailed arrangement may vary from project to project. The list of figures, tables, abbreviations and symbols are only necessary when corresponding items are used in the report/thesis.

1. Preliminaries
   a. Cover sheet
   b. Signature page
   c. Abstract (maximum 150 words)
   d. Table of contents
   e. List of figures
   f. List of tables
   g. List of abbreviations
   h. List of symbols

2. Main body of thesis (example)
   a. Introduction (problem setting, outline of thesis)
   b. Review of literature and research
   c. Methodology
   d. Results
   e. Conclusion
3. Bibliography/Reference List
4. Appendices
5. Declaration of Authorship

3 Format

Margins
The margins should be set as follows:
- Left margin: 5 cm
- Right margin: 2 cm
- Top margin: 2 cm
- Bottom margin: 1 cm

Font
A single font style should be used throughout the thesis; the only exceptions are figures, tables and appendices. The font size should be 12 points and the font theme should be Times New Roman.
Start headlines with capital letters. Use chapter headings (new page, 20 points, bold), section headings (14 points, bold), subsection headings (12 points, bold) and subsubsection headings (12pt, italicized). Abstracts should be italicized.

Line spacing
The line spacing should be 1.5. The paragraph alignment should be justified.

Page numbers
Page numbers should appear on every sheet except the cover sheet.
All preliminary pages preceding the main body of the thesis should be numbered in lowercase Roman numerals; e.g. i, ii, iii, iv, v, etc. The first page of the main body of thesis begins with the arabic numeral 1.

Chapter numbers
Chapters and sub-chapters should be numbered, for example 1, 1.1, 1.2, 2, etc. (note that there should be no full stop at the end). Appendices can be numbered with letters, for example Appendix A, B, etc.
Chapter names
The names of the chapters should be identical to the names given in the table of contents. All chapter names should be bolded.

Figures and tables
All figures and tables should be referenced in the text, as well as numbered. There should be no recurrence of numbers, i.e. no two figures should have the same number. Figures should be numbered sequentially throughout the thesis (e.g. Figure 1, Figure 2 etc.). Captions should be placed on the same page as the respective figure or table; they should be placed above tables but under figures. Figures should be clear and easily readable.

Formulas
Important formulas should be placed into a separate line and numbered. Mathematical symbols should be described when they first appear in text, later on, the symbols can be used directly.

Templates
Templates (Word/Latex) are provided on the homepage of your supervising chair.

4 Academic Writing in English
Just like German or any other language, the English language is not just a composition of grammar and vocabulary, and writing in English calls for a different style than writing in German. As an introduction to academic writing in English, take a look at the following website of the Finnish Virtual University, which provides an excellent overview of the general principles and rules:

http://sana.tkk.fi/awe/index.html
5 References

5.1 Citations

A citation can either be appended to the sentence containing the cited thought or integrated into the text. In the first case, the authors, the year of publication and - for texts longer than 100 pages - the relevant page numbers must be given in brackets at the end of the sentence:

“Large linear programming problems can be solved efficiently through decomposition (Dantzig and Wolfe, 1960).”

Alternatively, the authors’ names can be included in the text, followed by the year of publication and - if necessary - the page numbers in brackets.

“Dantzig and Wolfe (1960) propose a decomposition approach for the efficient solution of large linear programming problems.”

If a source with more than two authors is cited, only the first author’s name is mentioned, followed by “et al.”. Example: Banker et al. (1984) ....

When stating a page number, you should use the abbreviation "p.", when referring to several pages “pp.” should be used. The abbreviation “f.” indicates that both the page explicitly given and the following page are quoted, i.e. “pp. 23f.” is equivalent to “pp. 23-24.

When citing multiple sources, citations must be given in alphabetical order. Multiple sources by the same author and from the same year are differentiated by appending a lowercase letter to the year of publication.

5.2 Referencing Figures/Tables

The source of figures/tables should be given in parenthesis at the end of the figure/table caption. If a figure/table is adapted from another source, this should also be noted. Titles are not to be capitalized.

5.3 Reference List

The bibliography should be formatted according to the requirements of the journal Management Science by the Institute of Operations Research and the Management Sciences (INFORMS) (http://www.informs.org/Find-Research-Publications/Journals/Author-Portal/Latex-Style-Files). The format of entries in the list of references differs with the type of source. Examples for the most common types of sources are given in the following paragraphs.
Articles in journals and magazines

Monographies and other independent publications

Articles in volumes and conference proceedings
When including articles from edited volumes or conference proceedings, the title of the volume or conference as well as the names of the editors (eds.) must be stated.


Working papers and reports
When dealing with so called “grey literature”, i.e. working papers and reports, available bibliographic information is not always precise and often subject to change. In this case, all
available information about the source should be stated. When including papers downloaded from the internet, the internet address is to be stated as the place of origin.


Websites

6 Appendices
Appendices can be used to include the following content:

- Tables with additional data, e.g. extensive data from your own empirical studies;
- Additional graphics;
- Mathematical proofs that would otherwise compromise readability of the text;
- Extracts from new regulations and guidelines not easily available to the reader;
- Extended examples.

Every element in the appendix must be referenced within the main text. Formal requirements concerning the main text are also valid for the appendix.
7 Declaration of Authorship

The following text should appear on the last page of the thesis. This page needs to be signed.

_________________________________________________________________________

Ehrenwörtliche Erklärung

Ich erkläre hiermit ehrenwörtlich, dass ich die vorliegende Arbeit selbständig angefertigt habe. Die aus fremden Quellen direkt und indirekt übernommenen Gedanken sind als solche kenntlich gemacht.


Ort, Datum

Unterschrift

_________________________________________________________________________

8 Plagiarism

Plagiarism will not be tolerated and results in failing. All reports will be checked for plagiarism. Plagiarism is ...

• when a student hands in a paper that has not been written entirely by himself,
• if one or more passages within the paper are taken from another source without citation.
9 Submission

Reports should be printed in good quality on DIN A4 paper. Seminar papers or reports on project studies are submitted by handing in two hard copies at the office of your supervising chair. Depending on the legal requirements of your course of studies, theses are typically submitted by handing in three hard copies at the TUM School of Management administration (Room 1566). After 16:00, you can hand in your thesis at the main entrance. Please remember to write the complete address on the envelope:

*TUM School of Management
Administration – Room 1566
Arcisstr. 21
80333 München*

Please remember to also send a pdf version of the report to your advisor per e-mail. The following content must be handed in electronically on CD-ROMs attached to the hard copies:

- Written document as a PDF file.
- All presentations held in connection with the report/thesis.
- Bibliographical information on all citations used (BIB or RIS file).
- Any data set, spreadsheet and program code created in the course of the paper or thesis.

Please hand in seminar reports in a plastic document folder. Other reports (Project study, Bachelor’s, Master’s and Diploma theses) should be bound in with a blue cover. The cover sheet should be printed on the blue cover, as well as on the first page of the thesis.