

The Title of my Thesis Plus Some Text to Exceed a Single Line and Maybe Even Long Enough to Produce Three Lines (but not More!)¹

Template for preparing Bachelor Theses in Mechatronics at UMIT²

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Hall in Tirol, September 12, 2020

Bachelorarbeit

verfasst im Rahmen eines gemeinsamen Bachelorstudienprogramms von LFUI und UMIT – Joint Degree Programme

eingereicht an der UMIT – Private Universität für Gesundheitswissenschaften, Medizinische Informatik und Technik, Department für Biomedizinische Informatik und Mechatronik zur Erlangung des akademischen Grades

Bachelor of Science

Beurteiler:³

Univ.-Prof. Dr. Frank Woittenek

Institut für Automatisierungs- und Regelungstechnik

¹Title and subtitle in English if text is written in English. Remaining parts of titlepage must be in German!

²Subtitle is optional.

³Evaluator is instructor of lecture in which bachelor thesis is written.

Formal Structure of a Bachelor Thesis

This bachelor thesis is to be printed one-sided.

- The bachelor thesis is structured as follows:
 - Page 1: Titlepage
 - Page 2: Acknowledgment (optional)
 - Page 3: Kurzfassung (in German!)
 - Page 4: Abstract (in English!)
- This is followed by:
 - Table of Contents
 - List of Figures (optional)
 - List of Tables (optional)
 - First Chapter
 - ...
 - Last Chapter
 - Bibliography (numeric citation style as in this template is not obligatory; you may also use an author-year style)
 - Appendix (optional)
 - Last page: Verpflichtungs- und Einverständniserklärung (in German!)

Electronic Submission

For electronic submission the thesis is to be converted into pdf-format. It is required that this file is not password protected!

Using the LaTeX Template

The LaTeX template is based on the memoir class. You may use configuration options of this class to customize the look of your thesis.

Peter Wilson. *The Memoir Class for Configurable Typesetting. User Guide*. The Herries Press, Normandy Park, 2016

<http://mirrors.ctan.org/macros/latex/contrib/memoir/memman.pdf>.

Short description of class options

uni: Options are LFUI or UMIT.

type: Options are BA (Bachelor), MA (Master), or PhD (PhD).

lang Options are english or german.

study Options are BauUmwelt (Bau und Umweltingenieurwissenschaften), Bau (Bauingenieurwissenschaften), Umwelt (Umweltingenieurwissenschaften), Mech (Mechatronik), Elek (Elektrotechnik), or Doktorat (Doktorat Technische Wissenschaften).

specialization Options are

- BBP (Baustoffe, Baubetrieb und Projektmanagement)
- KIB (Konstruktiver Ingenieurbau)

- MOS (Modellierung und Simulation)
- EEG (Energieeffiziente Gebäude)
- GVW (Geotechnik, Vermessung und Wasserbau)
- UVW (Umwelttechnik und Verkehrswesen)

This option only has an effect for the Master programs Bauingenieurwissenschaften or Umweltingenieurwissenschaften.

expose Options are false and true. Default is is false. Can be used for all sorts of exposés (BA, MA, PhD).

explanation Options are false and true. Set to false for final version!

```
\documentclass[
uni=UMIT,
type=MA,
lang=english,
study=Mech,
% specialization=BBP,
% expose=false,
% explanation=false,
]{ftwthesis}
```

Exclusion from use (“Sperre”)

If the exclusion from use (“Sperre”) has been approved of, the end of blocking period must be given via the command `\publicafter{}`. If the exclusion from use has not been applied for or has not been granted, this command must not be used.

Acknowledgment

Optional. If not needed, just delete or leave empty.

Kurzfassung

Kurzfassung Ihrer Arbeit in deutscher Sprache. Verpflichtend!

Abstract

Abstract of your thesis in English. Compulsory!

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1 Information on this Class

The documentclass `ftwthesis` is based on the `memoir` class by Peter Wilson (now maintained by Lars Madsen), see [1]. You may use the configuration option of this class to change the layout of your thesis. For example, the command `\defaultlists` increases the vertical spacing in lists [1, p. 136].

2 Heading at Level 1 (section)

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

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2.1 Heading at Level 2 (subection)

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

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Heading at Level 3 (subsection)

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

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Heading at Level 4 (paragraph) Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should

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3 Lists

Example of a List (itemize)

- First item in a list
- Second item in a list
- Third item in a list
- Fourth item in a list
- Fifth item in a list

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

Example of a List (4 * itemize)

- First item in a list
 - First item in a list
 - * First item in a list
 - First item in a list
 - Second item in a list
 - Third item in a list
 - Fourth item in a list
 - Fifth item in a list
 - * Second item in a list

- * Third item in a list
- * Fourth item in a list
- * Fifth item in a list
- Second item in a list
- Third item in a list
- Fourth item in a list
- Fifth item in a list
- Second item in a list
- Third item in a list
- Fourth item in a list
- Fifth item in a list

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

Example of a List (enumerate)

1. First item in a list
2. Second item in a list
3. Third item in a list
4. Fourth item in a list
5. Fifth item in a list

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

Example of a List (4 * enumerate)

1. First item in a list
 - a) First item in a list
 - i. First item in a list
 - A. First item in a list
 - B. Second item in a list
 - C. Third item in a list
 - D. Fourth item in a list
 - E. Fifth item in a list
 - ii. Second item in a list



Figure 1: Logo of the UMIT (example for a figure)

- iii. Third item in a list
 - iv. Fourth item in a list
 - v. Fifth item in a list
- b) Second item in a list
 - c) Third item in a list
 - d) Fourth item in a list
 - e) Fifth item in a list
- 2. Second item in a list
 - 3. Third item in a list
 - 4. Fourth item in a list
 - 5. Fifth item in a list

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

Example of a List (description)

First item in a list

Second item in a list

Third item in a list

Fourth item in a list

Fifth item in a list

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

Table 1: Multiplication table for quaternions (example of a table)

| | 1 | i | j | k |
|----------|----------|------------|------------|------------|
| 1 | 1 | i | j | k |
| i | i | -1 | k | - j |
| j | j | - k | -1 | i |
| k | k | j | - i | -1 |

4 Frequently Asked Questions

Die Kapitel und Abschnittüberschriften sind nicht zu unterscheiden

Dieses Phänomen betrifft nur Bachelorarbeiten und Exposés und ist beabsichtigt. Für „artikelartige“ Texte ist `\section` die höchste vorgesehene Gliederungsstufe. Verwenden Sie `\section`, `\subsection`, `\subsubsection` etc. und vermeiden Sie `\chapter`.

Eine lange Kapitelüberschrift verursacht Probleme mit dem Zeilenumbruch in der Kopfzeile.

Geben Sie eine optionale Kurzversion der Kapitelüberschrift an:

```
\chapter[Kurze Kapitel\"überschrift]{Eine laaaaaaaaaaaaaange
Kapitel\"überschrift, die Probleme mit dem Zeilenumbruch verursacht}
```

Beachten Sie, dass die Kurzversion auch in Inhaltsverzeichnis aufscheint.

Wie kann ich den Satzspiegel (Seitenränder) ändern?

Verwenden Sie dazu die entsprechenden Befehle der `memoir`-Klasse. Diese werden in Kapitel 2 der Dokumentation [1] beschrieben. Ein Beispiel ist

```
\setlrmarginsandblock{37.125mm}{*}{*}
\setulmarginsandblock{37.125mm}{*}{*}
\checkandfixthelayout
```

Bitte beachten Sie:

- Das Einstellen der Seitenränder ist typographisch anspruchsvoll und hängt unter anderem vom verwendeten Papierformat, der Schriftart und der Art der Bindung ab.
- *Wichtig:* Ändern Sie den Satzspiegel erst nach `\begin{document}`! Ansonsten kann das Layout der Titelseite in unerwünschter Weise betroffen sein.

Wie soll ich Artikel in meine kumulative Dissertation einbinden?

Verwenden Sie das Paket `pdfpages`:

```
\usepackage{pdfpages}
...
\includepdf [pages=-]{mein-artikel.pdf}
```

Eventuell wollen Sie diesen Artikel auch ins Inhaltsverzeichnis aufnehmen:

```
\includepdf [pages=-,%
  pagecommand={%
    \phantomsection%
    \addcontentsline{toc}%
      {section}%
      {Titel f\"ur das Inhaltsverzeichnis}}%
  {mein-artikel.pdf}
```


Bibliography

- [1] Peter Wilson. *The Memoir Class for Configurable Typesetting. User Guide*. The Herries Press, Normandy Park, 2016.
<http://mirrors.ctan.org/macros/latex/contrib/memoir/memman.pdf>.

Verpflichtungs- und Einverständniserklärung

Ich erkläre, dass ich meine Bachelorarbeit selbständig verfasst und alle in ihr verwendeten Unterlagen, Hilfsmittel und die zugrunde gelegte Literatur genannt habe.

Ich nehme zur Kenntnis, dass auch bei auszugsweiser Veröffentlichung meiner Bachelorarbeit die Universität, das/die Institut/e und der/die Arbeitsbereich/e sowie die Leiterin bzw. der Leiter der Lehrveranstaltung, im Rahmen derer die Bachelorarbeit abgefasst wurde, zu nennen sind.

Ich nehme zur Kenntnis, dass meine Bachelorarbeit zur internen Dokumentation und Archivierung sowie zur Abgleichung mit der Plagiatssoftware elektronisch im Dateiformat pdf ohne Kennwortschutz bei der Leiterin bzw. beim Leiter der Lehrveranstaltung einzureichen ist, wobei auf die elektronisch archivierte Bachelorarbeit nur die Leiterin bzw. der Leiter der Lehrveranstaltung, im Rahmen derer die Bachelorarbeit abgefasst wurde, und das studienrechtliche Organ Zugriff haben.

Hall in Tirol am
Bettina Mayer, BSc