


Vienna-Tech - Template Documentation

v.1.1.0

Example Usage

```
1  #import "@preview/vienna-tech:1.1.0": *
2
3  // Useing the configuration
4  #show: tuw-thesis.with(
5    header-title: "Instruktionen zur Abfassung der Bachelorarbeit",
6  )
7  #maketitle(
8    title: [Instruktionen zur Abfassung der Bachelorarbeit],
9    thesis-type: [Bachelorarbeit],
10   authors: (
11     (
12       name: "Vorname Nachname",
13       email: "email@email.com",
14       matrn: "12345678",
15     ),
16   ),
17 )
```

 Typst

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Styles of the Template

The following styles or functions can be used to set the formatting of the document.

- `appendix()`
- `tuw-thesis()`

appendix

Function to format the Appendix

Parameters

```
appendix(  
    numbering: none str function ,  
    title: none str content ,  
    title-align: alignment ,  
    title-size: length ,  
    title-outline: bool ,  
    numbering-start: int ,  
    outline-exclude: array ,  
    content  
) -> content
```

numbering none or str or function

The numbering of the Appendix

Default: "A.1"

title none or str or content

The title of the Appendix

Default: none

title-align alignment

The alignment of the title

Default: center

title-size length

The size of the title

Default: none

title-outline bool

Wheter the title should be outlined

Default: false

numbering-start `int`

Starting the appendix after this number

Default: `0`

outline-exclude `array`

Exclude these heading levels from being outlined.

Default: `(2, 3)`

tuw-thesis

Thesis Template for Civil- und Environmentalengineers at TU Wien. This function gets your whole document as its body and formats it according to the TU Wien guidelines for theses.

Parameters

```
tuw-thesis(  
  heading-numbering: string content func ,  
  eq-numbering: string func ,  
  eq-chapterwise: bool ,  
  header-title: string content ,  
  header-start: integer ,  
  header-style: element ,  
  papersize: string ,  
  lang: string ,  
  font-size: length ,  
  main-font: string array ,  
  title-font: string array ,  
  raw-font: string array ,  
  paper-margins: dictionary length ,  
  fig-caption-width,  
  title-hyphenation,  
  body  
)
```

heading-numbering `string` or `content` or `func`

The numbering of the headings

Default: `"1.1"`

eq-numbering `string` or `func`

The numbering style of equations

Default: `"(1.1)"`

eq-chapterwise `bool`

Restart the equation counter after every level 1 chapter

Default: `false`

header-title `string` or `content`

The Titel or Text which should be displayed in the header.

Default: `none`

header-start `integer`

The starting page of the header.

Default: `1`

header-style `element`

The style of the header (emph, strong, smallcaps, ...)

Default: `emph`

papersize `string`

The thesis papersize. Affects margins.

Default: `"a4"`

lang `string`

The language of the document.

Default: `"de"`

font-size `length`

The standard fontsize. All other fontsizes are in calculated from this value.

Default: `11pt`

main-font `string` or `array`

The font of the whole document.

Default: `"New Computer Modern"`

title-font `string` or `array`

The font of the headings (of Sans Type)

Default: ("New Computer Modern Sans", "PT Sans", "DejaVu Sans")

raw-font `string` or `array`

The font of the raw text or codeblocks.

Default: "DejaVu Sans Mono"

paper-margins `dictionary` or `length`

The margins of the paper

Default: (left: 2.5cm, right: 2.5cm, top: 2.5cm, bottom: 2.5cm)

Constructors of the Template

These constructors construct certain parts of the thesis.

- `Author()`
- `abstract()`
- `fig-outline()`
- `maketitle()`
- `shortcap()`
- `tab-outline()`

Author

This function is a dictionary that contains the configuration for an Author. Any attributes can be added to the dictionary. The default attributes are `name`, `email`, and `matnr` and are needed for the default `maketitle` function. But these can be modified or extended, via the `fields` and `field-prefixes` arguments.

Parameters

```
Author(  
    name: string,  
    email: string,  
    matnr: string,  
    attrs: dict  
) -> dict
```

name `string`

The name of the author. (mandatory)

email `string`

The email address of the author.

Default: `none`

matnr `string`

The matriculation number of the author.

Default: `none`

attrs `dict`

Additional attributes

Default: `none`

abstract

This function constructs the abstract, which is supposed to come directly after the frontmatter.

Parameters

```
abstract(  
  content,  
  font: string,  
  title: content string  
) -> content
```

font string

The font, which is only used for the heading of the abstract paragraph.

Default: title-font

title content or string

The title which the abstract paragraph should have.


Default: [Kurzfassung]

fig-outline

This function is a wrapper of the outline function and allows for an easy way to create the table of figures.

Example usage:

```
1 #fig-outline()
```

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Parameters

```
fig-outline(  
  title: string content,  
  target: label selector location function,  
  ..args  
) -> content
```

title string or content

The title of the table of figures.

Default: "List of Figures"

target label or selector or location or function

The Target of the table of figures.

Default: figure.where(kind: image)

..args

Additional optional arguments to the outline function.

maketitle

This function constructs the the frontmatter of the thesis.

Parameters

```
maketitle(  
    title: content string ,  
    thesis-type: content string ,  
    authors: array ,  
    date: content string ,  
    date-prefix: content string ,  
    fields: array ,  
    field-prefixes: array ,  
    metadata: bool ,  
    title-font: string ,  
    large-size: length ,  
    font-size: length ,  
    title-hyphenation: auto bool  
) -> content
```

title content or string

The Thesis Title is set here.

Default: []

thesis-type content or string

The type of thesis. Bachelor-, Masters- or another kind of thesis.

Default: none

authors array

An array of authors. For each author, you can specify a name, matriculation number, email. The attributes can be modified via the `fields` and `field-prefixes` arguments.

Default: none

date content or string

Displays the date if it is not none.

Default: `datetime.today().display("[day] [month repr:long] [year]")`

date-prefix content or string

Sets the prefix that is shown before the date.

Default: "Datum: "

fields array

Defines the fields/keys, that the authors need to have, in order to be displayed.

Default: (`"email"`, `"matrnr"`)

field-prefixes array

Sets the prefixes, that are shown before their actual value, which is taken from the authors dictionary.

Default: (`"`, `"Matr.Nr.: "`)

metadata bool

If true writes the title and the first authors name to the pdf's metadata.

Default: `true`

title-font string

Set the font of the title.

Default: `title-font`

large-size length

Size of the heading

Default: `large-size`

font-size length

Size of the authors text.

Default: `normal-size`

title-hyphenation auto or bool

Sets the hyphenation of the title. Is ideal for long titles.


Default: `auto`

shortcap

This function will help you to provide a long caption to a figure, but a short caption to the outline.

Example usage:

```
1 #figure(
```

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```

2   rect(),
3   caption: shortcap("Short caption", "Long caption"),
4 )

```

Parameters

```

shortcap(
  short: string content,
  long: string content
) -> content

```

short string or content

The short caption of the figure.

long string or content


The long caption of the figure.

tab-outline

This function is a wrapper of the `outline` function and allows for an easy way to create the list of tables.

Example usage:

```
1 #tab-outline()
```

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Parameters

```

tab-outline(
  title: string content,
  target: label selector location function,
  ..args
) -> content

```

title string or content

The title of the table of figures.

Default: "List of Tables"

target label or selector or location or function

The Target of the table of figures.

Default: `figure.where(kind: table)`

..args

Additional optional arguments to the outline function.

Further Functions

fancy-typst

This function will output a fancy representation of the word *typst* and looks like this: **typst**

This function might be used like this:

```
1 #show "typst": fancy-typst
```

t Typst

fancy-latex

This function will output a fancy representation of the word *Latex* and looks like this: **L^AT_EX**

This function might be used like this:

```
1 #show "typst": fancy-latex
```

t Typst