modern-um-thesis

This is the documentation manual for the `modern-um-thesis` Typst template, generated using `Tidy`.

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Top Level

documentclass

All functions and variables to be used in the Typst thesis template for University of Macau.

Parameters

```
documentclass(
  doctype: "doctor" "master" "bachelor",
  date: datetime,
  lang: "en" "zh" "pt",
  double-sided: bool,
  print: bool,
  info: dictionary
) -> dictionary
```

doctype `"doctor"` or `"master"` or `"bachelor"`

Type of thesis

Default: `"doctor"`

date `datetime`

Date of submission

Default: `datetime.today()`

lang `"en"` or `"zh"` or `"pt"`

Language of the thesis

Master's theses must be written in English.

If you choose "master" doctype, DO NOT select the other 2 languages.

Default: `"en"`

double-sided `bool`

Enable double-sided printing

For Doctoral theses, double-sided printing is required (i.e. please set to true).

For Master's and Bachelor's theses though, single-sided printing is strongly recommended, but double-sided printing is still allowed.

Default: `true`

print `bool`

Add margins to binding side for printing

In most cases, this should be set to true.

Default: `true`

info `dictionary`

Thesis information, including:

`title-en`: Title of Thesis, **required**
`title-zh`: 论文标题
`title-pt`: Título da Tese
`author-en`: Name of Author, **required**
`author-zh`: 作者姓名
`author-pt`: Nome do Autor
`degree-en`: Degree Title, **required**
`degree-zh`: 学位名称
`degree-pt`: Doutorado
`academic-unit-en`: Name of Academic Unit, **required**
`academic-unit-zh`: 学术单位名称
`academic-unit-pt`: Nome da Unidade Acadêmica
`supervisor-en`: Name of Supervisor, **required**
`supervisor-zh`: 导师姓名
`supervisor-pt`: Nome do Supervisor
`co_supervisor-en`: Name of Co-Supervisor
`co_supervisor-zh`: 共同导师姓名
`co_supervisor-pt`: Nome do Co-Supervisor
`department-en`: Name of Department
`department-zh`: 系名称
`department-pt`: Nome do Departamento

Apart from all **required** entries above, if you choose a language other than "en", you must also provide translations for all **required** entries in that language.

Default: `(:)`

Layouts

doc

Document metadata & global settings

Parameters

```
doc(
  date: datetime,
  doctype: "doctor" "master" "bachelor",
  lang: "en" "zh" "pt",
  double-sided: bool,
  print: bool,
  info: dictionary,
  body: content
) -> content
```

date `datetime`

Date of submission

Default: `datetime.today()`

doctype `"doctor"` or `"master"` or `"bachelor"`

Type of thesis

Default: `"doctor"`

lang `"en"` or `"zh"` or `"pt"`

Language of the thesis

Default: `"en"`

double-sided `bool`

Enable double-sided printing

Default: `true`

print `bool`

Add margins to binding side for printing

Default: `true`

info `dictionary`

Thesis information

Default: `(:)`

frontmatter

Set up front matter environment

Parameters

```
frontmatter(
  doctype: "doctor" "master" "bachelor",
  lang: "en" "zh" "pt",
  body: content
) -> content
```

doctype `"doctor"` or `"master"` or `"bachelor"`

Type of thesis

Default: `"doctor"`

lang `"en"` or `"zh"` or `"pt"`

Language of the thesis

Default: `"en"`

mainmatter

Set up main matter environment

Parameters

```
mainmatter(
  doctype: "doctor" "master" "bachelor",
  lang: "en" "zh" "pt",
  body: content
) -> content
```

doctype `"doctor"` or `"master"` or `"bachelor"`

Type of thesis

Default: `"doctor"`

lang `"en"` or `"zh"` or `"pt"`

Language of the thesis

Default: `"en"`

appendix

Set up appendix environment.

Example:

```
#show: appendix
= Appendices <appendices>
== What do I put in here <section>
Material that is related to, but\ not
appropriate for, inclusion in\ the text,
can be placed in the\ appendices. They
must meet the\ formatting requirements
described\ in this document.
```

Appendix A Appendices

A.1. What do I put in here

Material that is related to, but not appropriate for, inclusion in the text, can be placed in the appendices. They must meet the formatting requirements described in this document.

Parameters

```
appendix(
  doctype: "doctor" "master" "bachelor",
  lang: "en" "zh" "pt",
  body: content
) -> content
```

doctype `"doctor"` or `"master"` or `"bachelor"`

Type of thesis

Default: `"doctor"`

lang `"en"` or `"zh"` or `"pt"`

Language of the thesis

Default: `"en"`

Pages

cover-ms

Generate cover page for Master's thesis

This is a replica of the thesis cover .doc file provided by University of Macau

You can simply call `#cover()` instead of `#cover-ms()`. The document will automatically choose the correct cover based on the `doctype` parameter.

Parameters

```
cover-ms(
  date: datetime,
  double-sided: bool,
  info: dictionary
) -> content
```

date `datetime`

Date of submission

Default: `datetime.today()`

double-sided `bool`

Enable double-sided printing

Default: `true`

info `dictionary`

Thesis information

Default: `(:)`

cover-phd

Generate cover page for PhD thesis

You can simply call `#cover()` instead of `#cover-phd()`. The document will automatically choose the correct cover based on the `doctype` parameter.

Parameters

```
cover-phd(
  date: datetime,
  lang: "en" "zh" "pt",
  double-sided: bool,
  info: dictionary
) -> content
```

date `datetime`

Date of submission

Default: `datetime.today()`

lang `"en"` or `"zh"` or `"pt"`

Language of the thesis

Default: `"en"`

double-sided `bool`

Enable double-sided printing

Default: `true`

info `dictionary`

Thesis information

Default: `(:)`

declare-ms

Generate Quote Slip (declaration page) for Master thesis

You can simply call `#declare()` instead of `#declare-ms()`. The document will automatically choose the correct declaration based on the `doctype` parameter.

Parameters

```
declare-ms(
  date: datetime,
  lang: "en" "zh" "pt",
  double-sided: bool,
  address: str content,
  telephone: str content,
  fax: str content,
  email: str content
) -> content
```

lang `"en"` or `"zh"` or `"pt"`

Language of the thesis

Default: `"en"`

double-sided `bool`

Enable double-sided printing

Default: `true`

declare-phd

Generate declaration page for PhD thesis

You can simply call `#declare()` instead of `#declare-phd()`. The document will automatically choose the correct declaration based on the `doctype` parameter.

Parameters

```
declare-phd(
  date: datetime,
  lang: "en" "zh" "pt",
  double-sided: bool
) -> content
```

lang `"en"` or `"zh"` or `"pt"`

Language of the thesis

Default: `"en"`

double-sided `bool`

Enable double-sided printing

Default: `true`

abstract

Generate thesis abstract page

When `doctype` is “master”, this is a replica of the thesis abstract .doc file provided by University of Macau

When `doctype` is “doctor” or “bachelor”, this is merely a heading.

Parameters

```
abstract(
  doctype: "doctor" "master" "bachelor",
  lang: "en" "zh" "pt",
  double-sided: bool,
  info: dictionary,
  keywords: list of string,
  body: content
) -> content
```

doctype `"doctor"` or `"master"` or `"bachelor"`

Type of thesis

Default: `"doctor"`

lang `"en"` or `"zh"` or `"pt"`

Language of the thesis

Default: `"en"`

double-sided `bool`

Enable double-sided printing

Default: `true`

info `dictionary`

Thesis information

Default: `(:)`

keywords `list of string`

Thesis keywords (Listed in metadata and after abstract)

Default: `()`

outline-image

List of Figures

Parameters

```
outline-image(lang: "en" "zh" "pt") -> content
```

lang `"en"` or `"zh"` or `"pt"`

Language of the thesis

Default: `"en"`

outline-table

List of Tables

Parameters

```
outline-table(lang: "en" "zh" "pt") -> content
```

lang `"en"` or `"zh"` or `"pt"`

Language of the thesis

Default: `"en"`

outline-table-image

List of Tables and Figures

Parameters

```
outline-table-image(lang: "en" "zh" "pt") -> content
```

lang `"en"` or `"zh"` or `"pt"`

Language of the thesis

Default: `"en"`

Public Utility Functions

This section documents utility functions used in the `modern-um-thesis` template.

These functions are defined in the `/src/utils` folder and are callable by the end-user.

ppi `content`

Shortcut for upright Greek letter pi.

Example:

```
$A = ppi r^2$
```

$A = \pi r^2$

ee `content`

Shortcut for upright e, the base of the natural logarithm.

Example:

```
$ee^x$
```

e^x

ii `content`

Shortcut for upright imaginary unit i.

Example:

```
$1+2ii$
```

$1 + 2\mathrm{i}$

fill

A box that fills the available space with spaces

Parameters

```
fill(width) -> content
```

hline

A horizontal line that stretches across the page

Parameters

`hline(stroke) -> content`

uline

Fill the available space with an underline

Parameters

`uline(width) -> content`

toprule `content`

The horizontal line at the top of a three-part table

midrule `content`

The horizontal line under the first row of a three-part table

bottomrule `content`

The horizontal line at the bottom of a three-part table

Private Utility Functions

This section documents utility functions used in the `modern-um-thesis` template.

These functions are defined in the `/src/utils` folder and are hidden from the end-user. They are documented here for development purposes.

camel-case

Converts a string to camel case format.

Parameters

`camel-case(body) -> str`

format-name

Converts a name string/content to format SURNAME, Given Name

Parameters

`format-name(body) -> str`

to-str

Converts a value to a string representation.

Parameters

```
to-str(it) -> str
```

pattern-heading-first-level

Generate the numbering pattern of first-level headings for package numbly

Parameters

```
pattern-heading-first-level(
  lang: "en" "zh" "pt",
  supplement: content
) -> str
```

lang `"en"` or `"zh"` or `"pt"`

Language of the thesis

Default: `"en"`

supplement `content`

Supplementary of the heading

Default: `[Chapter]`

is-chapter-page

Returns whether the current page is one where a chapter begins. This is used for styling headers and footers.

This function is contextual.

Parameters

```
is-chapter-page() -> bool
```