

# The `uantwerpendocs` classes<sup>\*†</sup>

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## 1 Introduction

This package implements the house style of Universiteit Antwerpen for letters, course texts and master/PhD theses. It also implements a class to format exams (which is for efficiency reasons and ease of copying not fully UAntwerpen house style compliant). Using these class files will make it easy for you to make and keep your course texts and theses compliant to this version and future versions of the UAntwerpen house style.

If you think (1) there's an error in compliancy w.r.t. the house style, (2) there's a feature missing in this class file, or (3) there's a bug in this class file, please, contact me through e-mail ([walter.daems@uantwerpen.be](mailto:walter.daems@uantwerpen.be)) about the issue. I'll provide you with an answer and if (and as soon as) possible with a solution to the problem you spotted.

Do you like these class files? You're welcome to send us beer, wine, or just kind words.

## 2 Synopsis

The `coursetext`, `bamathesis` and `phdthesis` classes<sup>1</sup> are an extension of the standard  $\text{\LaTeX}$  `book` class. They are intended to be used for writing course texts and master's or PhD theses. They provides a title page that is compliant to the UAntwerpen house style, and they also typeset the rest of your document appropriately.

The `letter` class is derived from the standard  $\text{\LaTeX}$  `letter` class. It is intended to be used for writing business letters. It is compliant to the house style and allows

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<sup>\*</sup>This document corresponds to `uantwerpendocs` 2.3, dated 2019/03/27.

<sup>†</sup>Thanks to Paul Levrie for testing and proofreading.

<sup>1</sup>For readability the class names have been abbreviated by omitting the `uantwerpen` prefix

for using windowed envelopes of the DL format, with right-aligned window.

The `exam` class is derived from the standard  $\LaTeX$  `article` class and is for efficiency reasons not fully UAntwerpen house style compliant.

They require (and use) the following packages:

- the `atbegshi` package
- the `auto-pst-pdf` package
- the `background` package
- the `color` package
- the `eso-pic` package
- the `etooblox` package
- the `fancyhdr` package
- the `geometry` package
- the `graphicx` package
- the `hyperref` package
- the `ifthen` package
- the `pst-barcode` package
- the `tikz` package
- the `ulem` package

and optionally

- the `varioref` package.

So make sure these packages are available to your  $\LaTeX$  compiler.

### 3 Portability

This class file should be ready to use with all common  $\LaTeX$  compilers (PDF $\LaTeX$ ,  $\LaTeX$ , X $\TeX$ , Lua $\LaTeX$ , ...) from the major  $\TeX$ -distributions (TeX $\TeX$ , TexLive, MikTeX). If you experience problems, please inform the author.

## 4 Usage

### 4.1 Basic Usage

Use the templates provided below. Remember to  $\LaTeX$  your source file twice in order to have the title and final page correctly aligned.

#### 4.1.1 `uantwerpencoursetext` class

Use the following harness for your  $\LaTeX$  course text:

```
\documentclass[a4paper]{uantwerpencoursetext}

\usepackage{<include any packages you require here>}

\facultyacronym{<put your faculty's acronym here>}

\title{<put your title here>}
\subtitle{<put your subtitle here>}
\author{<put your name here>}

\courseversion{<put a version identifier here>}
\versionyear{<the publication date of the course here>}

\lecturer{<person teaching the course>}
\programme{<descriptor of first programme>}
\course{<course code>}{<name of the course>}%

\academicyear{<XXXX-YYYY>}

\begin{document}

  \maketitle

  % put your LaTeX code here

  \finalpage

\end{document}
```

The available faculty acronyms are listed in a table on page 8.

### 4.1.2 uantwerpenbamathesis class

Use the following harness for your L<sup>A</sup>T<sub>E</sub>X bachelor or master's thesis:

```
\documentclass[a4paper]{uantwerpenbamathesis}

\usepackage{<include any packages you require here>}

\facultyacronym{<put your faculty's acronym here>}

\title{<put your title here>}
\author{<put your name here>}
\supervisor{i}{<put supervisor's name(s) here>}{<affiliation goes here>}
\supervisor{ii}{<put supervisor's name(s) here>}{<affiliation goes here>}
\supervisor{iii}{<put supervisor's name(s) here>}{<affiliation goes here>}
\supervisor{iv}{<put supervisor's name(s) here>}{<affiliation goes here>}

% classmarker
\academicyear{<XXXX-YYYY>}

\begin{document}

  \maketitle

  % put your LaTeX code here

  \finalpage

\end{document}
```

The available faculty acronyms are listed in a table on page 8.

### 4.1.3 uantwerpenletter class

Use the following harness for your L<sup>A</sup>T<sub>E</sub>X letter:

```
\documentclass[a4paper]{uantwerpenletter}

% setup fonts according to your specific TeX compiler setup

\usepackage{<include any packages you require here>}

% \logo{} only specify if you want to use your unit's logo

\sender{<put your name here>}{<put your title/role here>}
\facultyacronym{<put your faculty's acronym here>}
\unit{<put your unit here>}
```

```

\address{<put your multi-line address here>}
\email{<user name>}{<domain name>}
\phone{<put your phone number here, start with +32>}
\fax{<put your fax number here, start with +32>}
\mobile{<put your mobile number here, start with +32>}
\returnaddress{<put your single-line return address here>}

\to{<name of the addressee goes here>}
\toorganization{<name of the organization goes here>}
\toaddress{<multi-line address of the addressee goes here>}

\date{<specify date - otherwise today>}
\subject{<specify subject>}

\begin{document}

  \maketitle % generates top of the letter

  \opening{Dear <name>}

  <write your letter here>

  \closing{Kind regards,}

  \carboncopy{<put CC people here>}
  \enclosed{<put reference to enclosed documents here>}

\end{document}

```

The available faculty acronyms are listed in a table on page 8. You may use lists in the `\carboncopy` and `\enclosed` commands. The spacing will be compact.

#### 4.1.4 uantwerpenphdthesis class

```

\documentclass[b5paper,10pt,twoside,openright,filled]{uantwerpenphdthesis}

You may want to use common fonts
\usepackage{<include any additional packages you require here>}

\title{<put your title here>}
\author{<put your name here>}
\facultyacronym{<put your faculty's acronym here>}
\programme{PHD}
  {<put your programme's acronym here>}
  {<put your specialization's acronym here>}
\affiliation{<put your affiliation here>}
\address{<put your contact details here>}

```

```

\supervisorI{<put supervisor's name here>}{<affiliation goes here>}
\supervisorII{<put supervisor's name here>}{<affiliation goes here>}

\jurychairman{<put chairman's name here>}{<affiliation goes here>}

\jurymemberI{<put member's name here>}{<affiliation goes here>}
\jurymemberII{<put member's name here>}{<affiliation goes here>}
\jurymemberIII{<put member's name here>}{<affiliation goes here>}

\phdegree{<put official degree name here>}
\defenselocation{<put location of defense here>}
\defensedate{<put defense year here>}
\titlepageimage{<set file name of title page image here>}

\isbn{<put ISBN13 number here>}
\depot{<put Depot number here>}

\begin{document}

\maketitle
\frontmatter
\tableofcontents
\mainmatter

% write your PhD text here

\appendix

% write appendix material here

\makefinalpage

\end{document}

```

## 4.2 The class options explained

The classes have several options. They are listed below. After every option, it has been indicated to which class the option applies (between square brackets, without prefix `uantwerpen`).

- `copyright` [coursetext]  
This option forces printing a watermark on every page. For the paper version of your document, this is inappropriate, but for any e-copy you make available, this may be appropriate;
- `examiner` [exam]  
This option allows to set the exam class in examiner mode, mentioning the exam-

iner mode on every page (as regular text in the header and also in a watermark) to make sure you never hand out that copy to students and suppressing the fillout pages.

**filled** [letter / coursetext / bamathesis / phdthesis]  
This option causes the text to be filled (simultaneous left and right alignment). Though this setting is not recommended, it is provided because the default `\raggedright` cannot be undone. The **filled** option prevents the `\raggedright` from being issued. However, if you care about the typographic readability of your text, you shouldn't use this option.

**titlepagenoartwork** [coursetext / bamathesis / phdthesis]  
This option forces the title pages to be typeset without circle graphics and logo. This allows for printing on a pre-printed color sheet that already contains circle graphics and logo;

**titlepagetableonly** [coursetext / bamathesis / phdthesis]  
This option forces the title-page data to be printed in table form as first page. Some publishers require the manuscript to be delivered in this form. They perform the entire typesetting of the title page.

**qr** [coursetext]  
This option allows you to generate a QR code containing the details of the course on the title page or the table-only title page. For this option to work, the package `pstricks` is loaded. It will not work with `pdfLATEX` unless you enable shell escape. Read your `pdfLATEX`-package documentation on how to do that.

Common sets of options depend on the purpose:

- to make a text ready for electronic distribution: `a4paper`, `copyright`.
- to make a camera-ready text (for printing) in case the cover is printed on a pre-printed color artwork cover sheet is: `a4paper`, `qr`, `titlepagenoartwork`.
- to make a camera-ready text (for printing) in case the cover is typeset based on table data: `a4paper`, `qr`, `titlepagetableonly`.
- to make a letter: no options (filling a letter is discouraged)
- to make an exam: no options (filling an exam is discouraged)
- to make a PhD text: `b5paper`, `twoside`, `openright` and `filled`

## 4.3 The macros explained

### 4.3.1 Common macros

After every macro, it has been indicated to which class the macro applies (between square brackets), and whether it is mandatory or not.

`\facultyacronym` [coursetext / bamathesis / phdthesis / exam] (mandatory)  
 This macro sets the acronym of the faculty. This macro also sets the faculty name according to the specified acronym. If you're missing a faculty or institute, please ask the author to complete the list.

The available acronyms are:

Acronym	Faculty name
ASoE	Antwerp School of Education
CPG	Centrum Pieter Gillis
FBD	Faculteit Farmaceutische, Biomedische en Diergeneeskundige Wetenschappen
GGW	Faculteit Geneeskunde en Gezondheidswetenschappen
IOB	Instituut voor Ontwikkelingsbeleid- en beheer
IOIW	Instituut voor Onderwijs- en Informatiewetenschappen
LW	Faculteit Letteren en Wijsbegeerte
OW	Faculteit Ontwerpwetenschappen
SW	Faculteit Sociale Wetenschappen
REC	Faculteit Rechten
TEW	Faculteit Toegepaste Economische Wetenschappen
TI	Faculteit Toegepaste Ingenieurswetenschappen
WET	Faculteit Wetenschappen

#### 4.3.2 Macros for the coursetext, bamathesis, phdthesis classes

`\academicyear` [coursetext / bamathesis] (mandatory)  
 Use this macro to specify the academic year in full, i.e. in the form XXXX-YYYY.

`\author` [coursetext / bamathesis / phdthesis ] (mandatory)  
 This macro sets the author of the document. It also sets the `pdfauthor` tag of the `hyperref` package, so that the PDF-document meta-information is correct.

`\copyrightnotices` [coursetext] (optional)  
 Use this macro to specify additional copyright notice messages to appear in the copyright notice on the bottom of page 2 of your course text.

`\course` [coursetext] (mandatory)  
 Code (first argument) and name (second argument) of the curriculum course this coursematerial or exam belongs to. The code should be of the form: TNNFFFAAA, with:



Code	Explanation
T	a number indicating the type of programme (1 for Bachelor courses, 2 for Master courses , 5 for specific courses of preparatory programmes)
NNN	a number assigned by the Faculty's administration
FFF	the acronym of your Faculty, e.g., FTI
AAA	an alphanumeric code assigned by the Faculty's administration

An example of such a code: 1001FTIWIS, for the first-semester mathematics course of the Faculty of Applied Engineering.

For courses of the Faculty of Applied Engineering, the name should be of the form x-YYYYYYYY with x the number of the semester and YYYYYYYY the official name of the course.

In case the course's name contains accented characters, one should also provide a qr version, containing utf8-characters only. The macro for this purpose takes only one argument, i.e. the course's name! This is to avoid inconsistencies in the course codes.

<code>\courseversion</code>	[coursetext] (optional) This macro indicates which version of the course this is.
<code>\defensedate</code>	[bamathesis / phdthesis] (mandatory) Date of the bamathesis defense in Dutch, in the form 'month year', e.g. "juni 2012". In case of a PhD thesis, only the year should be mentioned.
<code>\defenselocation</code>	[bamathesis / phdthesis] (optional) Location of the defense. Defaults to "Antwerpen".
<code>\diploma</code>	[bamathesis] (mandatory) This must be the official title, in Dutch. To avoid errors, we chose to use specific codes, that will expand to the correct description. These codes are specific for the Faculty of Applied Engineering. If you want the author of the package to add codes for your faculty, just ask!

Code	Description (in Dutch!)
Faculteit Toegepaste Ingenieurswetenschappen	
BA-IW-BK	Bachelor of Science in de industriële wetenschappen: bouwkunde
BA-IW-BCH	Bachelor of Science in de industriële wetenschappen: biochemie
BA-IW-CH	Bachelor of Science in de industriële wetenschappen: chemie
BA-IW-EI	Bachelor of Science in de industriële wetenschappen: elektronica-ICT
BA-IW-EM	Bachelor of Science in de industriële wetenschappen: elektromechanica
MA-IW-BK	Master of Science in de industriële wetenschappen: bouwkunde
MA-IW-BCH	Master of Science in de industriële wetenschappen: biochemie
MA-IW-CH	Master of Science in de industriële wetenschappen: chemie
MA-IW-EI	Master of Science in de industriële wetenschappen: elektronica-ICT
MA-IW-EI-AE	Master of Science in de industriële wetenschappen: elektronica-ICT, afstudeerrichting, Automotive Engineering
MA-IW-EI-ICT	Master of Science in de industriële wetenschappen: elektronica-ICT, afstudeerrichting ICT
MA-IW-EM-AE	Master of Science in de industriële wetenschappen: elektromechanica, afstudeerrichting Automotive Engineering
MA-IW-EM-AU	Master of Science in de industriële wetenschappen: elektromechanica, afstudeerrichting Automatisering
MA-IW-EM-EM	Master of Science in de industriële wetenschappen: elektromechanica, afstudeerrichting Elektromechanica
MA-IW-EM-EN	Master of Science in de industriële wetenschappen: elektromechanica, afstudeerrichting Energie
PHD-TI-BK	Doctor in de Toegepaste Ingenieurwetenschappen: bouwkunde
PHD-TI-BCH	Doctor in de Toegepaste Ingenieurwetenschappen: biochemie
PHD-TI-CH	Doctor in de Toegepaste Ingenieurwetenschappen: chemie
PHD-TI-EI	Doctor in de Toegepaste Ingenieurwetenschappen: elektronica-ICT
PHD-TI-EM	Doctor in de Toegepaste Ingenieurwetenschappen: elektromechanica
Faculteit Toegepaste Economische Wetenschappen	
MA-TEW-HI	Master of Science in de toegepaste economische wetenschappen: handelsingenieur
MA-TEW-HIBI	Master of Science in de toegepaste economische wetenschappen: handelsingenieur in de beleidsinformatica
MA-TEW-EB	Master of Science in de toegepaste economische wetenschappen: economische beleid
MA-TEW-BK	Master of Science in de toegepaste economische wetenschappen: bedrijfskunde

`\lecturer` [coursetext] (mandatory)  
This is the name of the person that actually teaches the course (in Dutch: titularis). If there are multiple persons, please, use the macros `\lectureri`, `\lecturerii`, `\lectureriii`, `\lectureriv`.

`\phddegree` [phdthesis] (mandatory)  
This is the official degree name (in the appropriate language, possibly mixed “dutch (english)”).

`\programme` [coursetext] (mandatory)  
This macro takes three arguments (for the time being, only applicable to the faculty of applied engineering):

- the type of the programme: BA, SP, VP or MA
- the domain of the programme: IW
- the qualifier of the programme: BK, CH, BCH, EM, EI

If you need more programme classes or qualifiers, ask the author to complete the available codes. Correct usage of the macro will result in error-free descriptions on your title page. You can overrule the standard descriptions, by specifying ‘FREE’ as first argument and a free text description as second, leaving the third one empty. However, we strongly advise against taking this route. Instead, ask the author to complete the available codes.

`\publisher` [coursetext] (mandatory)  
This macro sets the publisher information of the document. It is printed on the front page. It defaults to the repographic service of campus Groenenborger, one of the standard printing services of Universiteit Antwerpen.

`\publishercode` [coursetext] (mandatory)  
This macro sets the publisher code of the document. It is printed on the front page. This is code that the publisher uses for its internal administration. It may be a proprietary code, or an ISBN number.

`\subtitle` [coursetext / phdthesis] (optional)  
This macro sets the title of the document. You may use this

- to further clarify the title
- to indicate the nature of this document

The latter is to be considered when you want to provide multiple documents as parts of the full course text (e.g., Course Notes, Formula Collection, Exercise Book, Solution Book). This macro also sets the `subject` tag of the `hyperref` package, so that the PDF-document meta-information is correct.

`\supervisor` [bamathesis / phdthesis] (mandatory)

This is the name of the person that promotes/supervises the thesis. Please, use the macros `\supervisor`, `\supervisorii`, `\supervisoriii`, `\supervisoriv`.

<code>\title</code>	[coursetext / bamathesis / phdthesis] (mandatory) This macro sets the title of the document. It also sets the <code>pdftitle</code> tag of the <code>hyperref</code> package, so that the PDF-document meta-information is correct.
<code>\titlepageimage</code>	[phdthesis] (optional) This sets the central image on the title page to appear clipped within the curves.
<code>\versionyear</code>	[coursetext] (mandatory) This is to be the year in which you published the current version of the course in the form YYYY.

### 4.3.3 Macros for the letter class

<code>\address</code>	[letter] (mandatory) Address of the sending unit (or faculty). This can be different from the return address. Newlines are allowed and encouraged.
<code>\carboncopy</code>	[letter] (optional) List of persons receiving a copy of this letter. Format at will.
<code>\closing</code>	[letter] (mandatory) Closing clause of the letter. E.g. 'Best regards,'
<code>\date</code>	[letter] (optional) Date of the letter. If not specified today's date (at the time of running <code>L<sup>A</sup>T<sub>E</sub>X</code> ) will be used.
<code>\email</code>	[letter] (optional) E-mail address of the sending person, or the administrative person tracking the letter. This must definitely be someone that can answer questions related to this letter. <ul style="list-style-type: none"><li>• first argument: user name</li><li>• second argument: domain name</li></ul>
<code>\enclosed</code>	[letter] (optional) List of enclosed documents. Format at will.
<code>\fax</code>	[letter] (optional) Probably facsimile is not used anymore, but anyway: fax number of the sending person. See also <code>\email</code> .
<code>\logo</code>	[letter] (optional) file name of an alternative logo to use. The file name must be the name of a file in the search path of type PDF. If this macro is not used, The default logo of the university will be used.

<code>\mobile</code>	[letter] (optional) Mobile phone number of the sending person. See also <code>\email</code> .
<code>\opening</code>	[letter] (mandatory) Opening address of the letter. E.g. 'Dear X,'.
<code>\phone</code>	[letter] (optional) Phone number of the sending person. See also <code>\email</code> .
<code>\returnaddress</code>	[letter] (mandatory) This is a short return address (listed in small font on top of the destination address (such that it is visible in a windowed envelope (European format))). It should fit on a single line. Typically we list an acronym for the unit, a room number, a campus name and address. The goal is to get the undelivered letter back to the person that can take action accordingly.
<code>\sender</code>	[letter] (mandatory) Description of the person writing the letter. <ul style="list-style-type: none"> <li>• first argument: name of the person writing the letter</li> <li>• second argument: title / role of the person</li> </ul> <p>Newlines are not allowed in the arguments.</p>
<code>\signature</code>	[letter] (optional) Add a signature (in between the closing statement of the letter and the sender's name. This might be a text message or a picture of your signature.
<code>\subject</code>	[letter] (mandatory) Short descriptive subject that describes the contents of the letter.
<code>\to</code>	[letter] (mandatory) Name of the addressee. Newlines are allowed. Preferably name and role are split over two lines.
<code>\toaddress</code>	[letter] (mandatory) Address of the addressee. Newlines are allowed. The address should fit on max. 3 lines.
<code>\toorganization</code>	[letter] (optional) Name of the organization that employs the addressee.
<code>\unit</code>	[letter] (optional) Name of the unit to which the person belongs. This can be a research group, a laboratory, an administrative division, etc. Newlines are allowed.

#### 4.3.4 Macros for the exam class

<code>\author</code>	[exam] (mandatory)
----------------------	--------------------

The author of the exam (may be multiple authors, separated by commas). On the title page, these will be labeled as 'Professor(s) - Titularis(sen)'.

<code>\academicyear</code>	[exam] (mandatory) Use this macro to specify the academic year in full, i.e. in the form XXXX-YYYY.
<code>\course</code>	[exam] (mandatory) see description of <code>\course</code> macro on page 8.
<code>\examdate</code>	specifies the date of the exam. We recommend the YYYY-MM-DD format, but you are free to chose your own coding scheme for dates. We advise against using UNIX epoch time, to avoid problems in the first semester exams in 2038.
<code>\examgroupnumber</code>	[exam] mentions the group number (may be empty)
<code>\examlength</code>	specifies the length of the exam in a unit of time, e.g. '4h'
<code>\exampart</code>	[exam] (mandatory) Description of the part of the course the exam covers. Often the evaluation of a course consists of multiple evaluation elements (e.g. a written exam, a portfolio defense and lab reports). Using this macro you can indicate the part this exam covers. E.g. it could be 'Written Exam' (to distinguish from the other parts 'portfolio defense' and 'lab reports').
<code>\extrainfo</code>	specifies the extra information that appears on the back of the title page, regarding the materials that can be used during the examination and cautioning the students not to commit fraude. You can specify an optional first argument 'firstpage', such that your extra info starts on the first page, below the title block. In that case the extra info will also not be terminated with a clearpage (as we assume you want to conserve space).
<code>\programme</code>	[exam] (mandatory) see description of <code>\programme</code> macro on page 11.
<code>\rooms</code>	specifies the rooms in which the exam will take place. This is useless info for the student, but may be of convenience for you as author or supervisor of the exam. Use UAntwerpen standard room designators, e.g. 'G.U.025' for room number 025, on the Groenenborgercampus in the U-building.
<code>\studentnr</code>	specifies the exam copy number. This will appear on every page of the exam, easing the reassembly of pages that do not contain any name. Moreover, it allows for blind correction as the student only writes his name ot he front page.
<code>\tend</code>	specifies the end time of the exam in a format identical to the one chosen for <code>\tstart</code> .
<code>\tstart</code>	specifies the start time of the exam, preferable in the format 'HHhMM', e.g. '08h30'.

## 4.4 Examples

### 4.4.1 uantwerpencoursetext

This example uses the `qr` option (that invokes the `auto-pst-pdf` package) so enable `'write18'` or `'shell-escape'` for your  $\text{\LaTeX}$  compiler.

```
<*ct-example>
\documentclass[a4paper,11pt,oneside,openright,english,qr,copyright]{uantwerpencoursetext}

\usepackage[english,dutch]{babel}
\usepackage{lipsum} % this is just for some dummy text, please remove

\title{Z\'agen, zoeken en zuchten}
\qrtitle{Zágen, zoeken en zuchten}
\subtitle{Cursusnota's}
\author{Walter Daems en Paul Levrie}

\courseversion{1.3}
\versionyear{2016}

\lectureri{Zoltan Zo\"ekers}
\qrlectureri{Zoltan Zoëkers}
\lecturerii{Siana Sigh}
\lectureriii{Zeger de Z\'ager}
\qrlectureriii{Zeger de Záger}

\facultyacronym{TI}
\programme{MA}{IW}{EI}
\coursei{2023FTIZZZ}{5-Zoekmachines in een zaagperspectief}
\courseii{2045FTIIII}{6-Zaagmachines in \'e\'en zucht perspectief}
\qrcourseii{6-Zaagmachines in één zucht perspectief}

\academicyear{2015-2016}

\publisher{Universiteit Antwerpen\\
  Cursusdienst en reprografie\\
  Campus Groenenborger, G.U.027\\
  Groenenborgerlaan 171\\
  2020 Antwerpen\\
  T +32 3 265 32 15\\
  F + 32 3 233 32 27\\
  E cursusdienst.cgb@uantwerpen.be}

\publishercode{C11111102}

\copyrightnotices{
  The graphics in this document have been typeset using \texttt{TikZ}.\}
```

```

    This document has been \TeX-ed on a GNU/Linux workstation.
}

\begin{document}
\selectlanguage{dutch} % or english if your text is in English

\maketitle

\frontmatter

\tableofcontents

\mainmatter
\chapter*{Inleiding}
\lipsum[1]
\chapter{Onzin voor dummies}

\section{Het gebeuren}
\lipsum[2]
\begin{equation}
e^{-j\pi} + 1 = 0
\end{equation}

\lipsum[3]
\section{En waartoe het geleid heeft}

\lipsum[4]

\subsection{Herhaling}

\lipsum[5]

\subsection{Begint vervelend te worden}

\lipsum[6]
\newpage

\subsection{Begint echt vervelend te worden}

\lipsum[7-10]

\chapter{Besluit}

\appendix

\chapter{Symbolen}
\chapter{Romeinse sprekers}
\chapter{Referentielijst}

\makefinalpage

```



```
\end{document}
</ct-example>
```

#### 4.4.2 uantwerpenbamathesis

```
<*bmt-example>
\documentclass[a4paper,11pt,twoside,openright,english]{uantwerpenbamathesis}

\usepackage[english]{babel} % or dutch if your text is in Dutch
\usepackage{lipsum} % this is just for some dummy text, please remove

\title{Minimax optimisatie voor performantieruimtemodellering}
\author{Bert Bibber}

\supervisorI{Prof. dr. ir. Kumulus}{Universiteit Antwerpen}
\supervisorII{Prof. dr. Hilarius Warwinkel}{TNT-Bang, N.V.}
\supervisorIII{ing. Piet Pienter}{POM}

\facultyacronym{TI}
\academicyear{2015-2016}
\diploma{BA-IW-EM}
\defenselocation{Antwerpen}
\defensedate{juni 2016}

\begin{document}

\maketitle

\frontmatter

\tableofcontents

\mainmatter
\chapter*{Inleiding}

\lipsum[1]

\chapter{Onderzoeksvraag}

\section{Het gebeuren}

\lipsum[2]

\begin{equation}
e^{-j\pi} + 1 = 0
\end{equation}
```

```

\lipsum[3]

\chapter{Literatuurstudie}

\chapter{Theoretische achtergrond}

\chapter{Eigen realisatie}

\chapter{Besluit}

\appendix

\chapter{Symbolen}
\chapter{Referentielijst}

\makefinalpage

\end{document}
</bmt-example>

```

#### 4.4.3 uantwerpenphdthesis

##### Dutch

```

<*pt-example1>
\documentclass[b5paper,10pt,twoside,openright,filled]{uantwerpenphdthesis}

  You may want to use common fonts
\usepackage{mathptmx}
\usepackage{fontspec}
\setsansfont{Calibri}

\usepackage[dutch]{babel} % or dutch if your text is in Dutch
\usepackage{lipsum} % this is just for some dummy text, please remove

\title{Harmonische Signaalanalyse\met behulp van Lineaire
  Operatoren}
\subtitle{Waarom moeten titels van doctoraatsthesisen toch altijd
  lang en onverstaanbaar zijn?}
\author{Ing. Theofiel Hoekaff}
\facultyacronym{TI}
\programme{PHD}{IW}{EI}
\affiliation{Universiteit Antwerpen\
  Faculteit Toegepaste Ingenieurswetenschappen\
  Constrained Systems Lab (CoSys-Lab)}
\address{Groenenborgerlaan 171, 2020 Antwerpen, Belgi"e\
  M: theofiel.hoekaff@uantwerpen.be\
  T: +32 265 00 00

```

```

}

\supervisorI{Prof. dr. W. Vlaams}{Universiteit Antwerpen, Belgi\}e}
\supervisorII{Prof. dr. J. Stekker}{Universiteit Antwerpen, Belgi\}e}

\jurychairman{Prof. dr. P. Dalinckx}{Universiteit Antwerpen, Belgi\}e}

\jurymemberI{Prof. dr. J. Dezerooder}{Universiteit Antwerpen, Belgi\}e}
\jurymemberII{Prof. dr. P. De Tollenaere}{Flanders Make, Belgi\}e}
\jurymemberIII{Prof. dr. M. Byr}{IMEC, Nederland}

\phddegree{doctor in de toegepaste ingenieurswetenschappen}
\defenselocation{Antwerpen}
\defensedate{2018}
\titlepageimage{keyboard.jpg}

\isbn{987-90-57285-34-7}
\depot{D/2018/12.293/03}

\begin{document}

\maketitle

\frontmatter

\tableofcontents

\mainmatter
\chapter*{Inleiding}

\lipsum[1]

\chapter{Onderzoeksvraag}

\section{Het gegeven}

\lipsum[2]

\begin{equation}
e^{-j\pi} + 1 = 0
\end{equation}

\lipsum[3-17]

\chapter{Literatuurstudie}

\lipsum[18-19]

\chapter{Theoretische achtergrond}

```

```

\lipsum[20-21]

\chapter{Eigen realisatie}

\lipsum[22-24]

\chapter{Besluit}

\lipsum[25]

\appendix
\chapter{Symbolen}

\chapter{Publicaties}
Put your bibliography here using BibTeX

\makefinalpage

\end{document}
</pt-example1>

```

## English

```

<*pt-example2>
\documentclass[b5paper,10pt,twoside,openright,filled]{uantwerpenphdthesis}

use some fancy font
\usepackage{newpertext}
\usepackage{newpxmath}

\usepackage[english]{babel} % or dutch if your text is in Dutch
\usepackage{lipsum} % this is just for some dummy text, please remove

\title{Harmonic Signal analysis\\based on Linear Operators}
\subtitle{How did Mindy linearly kill Mork's IC signal analyzer?}
\author{Ing. Theodore Edgeoff}
\facultyacronym{TI}
\affiliation{University of Antwerp\\
Faculty of Applied Engineering\\
CoSys-Lab}
\address{Groenenborgerlaan 171, 2020 Antwerpen, Belgi\\"e\\
M: theofiel.hoekaff@uantwerpen.be\\
T: +32 265 00 00
}

\supervisorI{Prof. dr. W. Vlaams}{University of Antwerp, Belgium}
\supervisorII{Prof. dr. J. Stekker}{University of Antwerp, Belgium}

```

```

\jurychairman{Prof. dr. P. Dalinckx}{University of Antwerp, Belgium}

\jurymemberi{Prof. dr. J. Dezeroder}{University of Antwerp, Belgium}
\jurymemberii{Prof. dr. P. De Tollenaere}{Flanders Make, Belgium}
\jurymemberiii{Prof. dr. M. Byr}{IMEC, The Netherlands}

\facultyacronym{TI}
\phddegree{doctor in applied engineering}
\defenselocation{Antwerpen}
\defensedate{2018}
\titlepageimage{keyboard.jpg}

\isbn{987-90-57285-34-7}
\depot{D/2018/12.293/03}

\begin{document}

\maketitle

\frontmatter

\tableofcontents

\mainmatter
\chapter*{Introduction}

\lipsum[1]

\chapter{Research question}

\section{The datum}

\lipsum[2]

\begin{equation}
e^{-j\pi} + 1 = 0
\end{equation}

\lipsum[3-17]

\chapter{Literature review}

\lipsum[18-19]

\chapter{Theoretical background}

\lipsum[20-21]

\chapter{Technical results}

```

```

\lipsum[22-24]

\chapter{Conclusion}

\lipsum[25]

\appendix

\chapter{Symbols}

Put your bibliography here using BibTeX

\makefinalpage

\end{document}
</pt-example2>

```

#### 4.4.4 uantwerpenletter

##### Plain example

```

<*le-example>
\documentclass[a4paper]{uantwerpenletter}

% As a good UAntwerpen citizen, you would use the calibri font.
% As this only works for XeLaTeX or LuaLaTeX, we chose to include
% cmbright instead. So for ease of use, we include:
\usepackage{cmbright}
% But if you have XeLaTeX or LuaLaTeX, use the following instead:
%\usepackage{fontspec}
%\setmainfont{Calibri}

\usepackage[english]{babel}
\usepackage{lipsum} % this is just for some dummy text, please remove

\sender{Prof. Walter Daems}{Senior Lecturer}
\facultyacronym{TI}
\unit{CoSys-Lab}
\address{
  Campus Groenenborger\\
  Groenenborgerlaan 171\\
  B-2020 Antwerpen\\
  BELGIUM}
\email{walter.daems}{uantwerpen.be}
\phone{+32 3 265 98 43}
\mobile{+32 499 355 115}
\returnaddress{FTI - U.301 -- Groenenborgerlaan 171, 2020 Antwerpen, BELGIUM}

```

```

\to{Prof. B. Bonette}
\toorganization{Mumford University}
\toaddress{
  450 Morning Mall\\
  Mumford, DX 94305-2004\\
  USA}

\date{January 3, 2016}
\subject{Congratulations for online video lectures}

\begin{document}
  \maketitle

  \opening{Dear Prof. Bonette,}

  I'd like to congratulate you and the other professors of your
  university on the very instructive video lectures
  provided by your University. They are valued very
  highly.

  You inspired many a professor at our university to provide more
  technical content beyond classical paper courses.
  Based on your inspiring lectures, some students desire to candidate
  themselves for taking an internship at your university. You can find
  their details enclosed.

  Below, you can find a few more paragraphs to illustrate that this
  class can generate multipage letters.

  \lipsum[1-3]

  \closing{Kind regards,}
  % you might want to insert a signature picture or text:
  % \signature{\includegraphics{signature.jpg}}
  \carboncopy{Prof. S. Mariotte, Mumford University}
  \enclosed{
    \begin{enumerate}
      \item list of course numbers that are most fequently viewed at
        our university (1pp)
      \item a list of students desiring to take an internship at
        Mumford University (2pp)
    \end{enumerate}
  }
\end{document}
</le-example>

```

### Example with configuration file

Probably, one has to write many letters. The sender details will be most certainly

valid for many an occasion. Therefore, you might want to consider putting this default setup in a configuration file, e.g. `uantwerpenletter.cfg`:

```
<*le-cfg>
% configuration file for uantwerpenletter class
\usepackage{fontspec} % XeLaTeX/LuaTeX specific, replace by e.g.
\setmainfont{Calibri} % \usepackage{cmbright}
\sender{Prof. Walter Daems}{Senior Lecturer}
\facultyacronym{TI}
\unit{CoSys-Lab}
\address{
  Campus Groenenborger\\
  Groenenborgerlaan 171\\
  B-2020 Antwerpen\\
  BELGIUM}
\email{walter.daems}{uantwerpen.be}
\phone{+32 3 265 98 43}
\mobile{+32 499 355 115}
\returnaddress{FTI - U.301 -- Groenenborgerlaan 171, 2020 Antwerpen, BELGIUM}
</le-cfg>
```

The file can then be loaded in the preamble of your letter:

```
\input{uantwerpenletter.cfg}
```

After loading this configuration file, you may override some elements if this is appropriate.

You may also consider using multiple configuration files in case you have multiple roles in the university. Just make sure they are on your  $\text{\LaTeX}$  search path.

#### 4.4.5 `uantwerpenexam`

Below you can find two examples:

- A single column layout (single language) exam
- A double column layout (English-Dutch) exam

If you require more language combinations, aks the author to implement this.

#### Single column

```
<*ex-example1>
```



```

\documentclass[a4paper,10pt]{uantwerpenexam}
\usepackage{newpxtext} % demonstration of some fine font packages
\usepackage{newpxmath}
\usepackage{enumitem}
\usepackage[dutch]{babel} % last language loaded will
                           % determine logo version (change to
                           % [dutch] for a monolingual version)
\course{19876FTIDUM}{5-Bistrologie}
\author{Walter Daems}
\facultyacronym{TI}
\programme{BA}{IW}{EI}
\academicyear{2017-2018}
\exampart{Schriftelijk Examen}
\examgroupnumber{1 (eerste examenkans-inhaal)}
\examdate{2018-01-29}
\examlength{4h}
\tstart{08h30}
\tend{12h30}
\rooms{G.U.025}
\extrainfo[firstpage]{
  Belangrijke informatie:\\par
  Het volledige Onderwijs- en Examenreglement (OER) is van toepassing
  op dit examen.
  Toch wil ik vooraf nog een aantal regels duidelijk stellen:
  \begin{enumerate}
    \item Mogen op je tafeltje aanwezig zijn:
      (1) schrijfgerief, los d.w.z. \emph{niet} in een pennenzak (geen
      papier; er zit examenpapier bij de opgaven),
      (2) je rekenmachine (zonder alfanumerieke data en zonder
      geheugenkaarten),
      (3) het formularium.
    \item Volledig \emph{verboden te gebruiken}: alle apparatuur met
      geheugen- of communicatiefunctie zoals GSM, smartphone,
      smartwatch, muziekspeler, \ldots
      Je tas staat vooraan in het lokaal. Hang je jas aan de kapstok of
      leg hem bij je tas.
    \item Schrijf je naam op het titelblad van de opgave in het daartoe
      voorziene vak. Op de andere bladen schrijf je je naam
      \emph{niet}. Je examenopgave heeft een uniek nummer dat toelaat het
      te identificeren.
    \item Op het einde van het examen geef je \emph{alle} bladen weer af
      aan de aanwezige docent.
  \end{enumerate}
  Succes!
}
\studentnr{127}
\setmcsymbol{\bigcirc}

\begin{document}
\maketitle

```

```
\question{[VLATOP-BISTRO]}
\questionweight{3}
```

Geef de eerste vijf laureaten van de VLATOP-bistro competitie.

```
\question{[BECHAMEL]}
\questionweight{7}
```

Welk van de onderstaande ingrediënten hoort niet thuis in een béchamel saus:

```
\mc{Melk}
\mc{Boter}
\mc{Bloem}
\mc{Eieren}
\mc{Suiker}
```

```
\insertsolutionspagepartial{2}
```

```
\insertsolutionspage{}
\clearpage
```

```
\question{[BISTROCULTURE-1]}
\questionweight{10}
```

```
\begin{enumerate}[label=\alph*]
\item Bespreek de evolutie van de Noord-Europese bistrocultuur gedurende de laatste vijftig jaar.
\item Breng dit in relatie tot de opkomst van de georganiseerde recensies zoals die van Michelin en Gault-Millau.
\end{enumerate}
```

```
\insertsolutionspagepartial{23}
\foreach \i in {1,2,3} {
  \insertsolutionspage{}
}
\foreach \i in {1,2} {
  \insertsolutionspage{Kladpapier}
}
\end{document}
</ex-example1>
```

## Two columns

```
<*ex-example2>
\documentclass[a4paper,10pt]{uantswerpenexam}
\usepackage{newpctext} % demonstration of some fine font packages
```

```

\usepackage{newpxmath}
\usepackage{enumitem}
\usepackage[dutch,english]{babel} % last language loaded will
                                   % determine logo version (change to
                                   % [dutch] for a monolingual version)
\course{19876FTIDUM}{5-Bistrology}
\author{Walter Daems}
\facultyacronym{TI}
\programme{BA}{IW}{EI}
\academicyear{2017-2018}
\exampart{Written Exam}
\examgroupnumber{1 (eerste examenkans-inhaal)}
\examdate{2018-01-29}
\examlength{4h}
\tstart{08h30}
\tend{12h30}
\rooms{G.U.025}
\extrainfo{
  \engdut{
    Important information:\\\par
    The Education and Examination Regulations (EER) hold for this
    examination in full.
    However, before starting, I'd like to set some rules straight:
  }
  {
    Belangrijke informatie:\\\par
    Het volledige Onderwijs- en Examenreglement (OER) is van toepassing
    op dit examen.
    Toch wil ik vooraf nog een aantal regels duidelijk stellen:
  }
  \engdut{
    \begin{itemize}
      \item \emph{Can be used:} (1) writing gear (\emph{not} in a pencil
        case); you don't need paper; there's plenty of paper in your exam
        copy;
        (2) your calculator (without alphanumerical data and without memory
        cards); (3) the formula collection.
    \end{itemize}
  }
  {
    \begin{itemize}
      \item Mogen op je tafeltje aanwezig zijn:
        (1) schrijfgierief, los d.w.z. \emph{niet} in een pennenzak (geen
        papier; er zit examenpapier bij de opgaven),
        (2) je rekenmachine (zonder alfanumerieke data en zonder
        geheugenkaarten),
        (3) het formularium.
    \end{itemize}
  }
  \engdut{

```

```

\begin{itemize}
\item \emph{May not be used:} all equipment with memory or
communications facilities, like cell phones, smart phones, smart
watches, music players, \ldots
Your bag must be put in the front of the room. Put your coat on the
hallstand or next to your bag.
\end{itemize}
}
{
\begin{itemize}
\item Volledig \emph{verboden te gebruiken}: alle apparatuur met
geheugen- of communicatiefunctie zoals GSM, smartphone,
smartwatch, muziekspeler, \ldots
Je tas staat vooraan in het lokaal. Hang je jas aan de kapstok of
leg hem bij je tas.
\end{itemize}
}
\engdut{
\begin{itemize}
\item Write your name on the title page. Don't write your name on
the subsequent pages. Your copy has a unique number to identify it
as yours.
\end{itemize}
}
{
\begin{itemize}
\item Schrijf je naam op het titelblad van de opgave in het daartoe
voorzien vak. Op de andere bladen schrijf je je naam
\emph{niet}. Je examenopgave heeft een uniek nummer dat toelaat het
te identificeren.
\end{itemize}
}
\engdut{
\begin{itemize}
\item Take your time to \emph{answer all questions in writing}. The
point weights are listed above every question. Be complete in your
answer, but stick to the point. Take into account the available time.
\end{itemize}
}
{
\begin{itemize}
\item Neem je tijd om \emph{alle vragen schriftelijk te
beantwoorden}. Het puntengewicht van een vraag is bovenaan de vraag
op de opgavebladen vermeld. Wees volledig in je antwoord, maar ter
zake. Houd rekening met de beschikbare tijd.
\end{itemize}
}
\engdut{
\begin{itemize}
\item Hand in \emph{all} papers to the staff member on duty, at the

```

```

        end of the examination.
    \end{itemize}
    Success!
}
{
    \begin{itemize}
    \item Op het einde van het examen geef je \emph{alle} bladen weer af
        aan de aanwezige docent.
    \end{itemize}
    Succes!
}
\clearpage
}

\studentnr{29}
\begin{document}
\maketitle
\question{[VLATOP-BISTRO]}
\questionweight{3}

\engdut{
    Write down the first five laureates of the VALTOP-bistro competition.
}
{
    Geef de eerste vijf laureaten van de VLATOP-bistro
    competitie.
}

\question{[BECHAMEL]}
\questionweight{7}

\engdut{
    Which of the ingredients below does not belong in a b\'echamel
    sauce:
}
{
    Welk van de onderstaande ingredi\''enten hoort niet thuis in
    een b\'echamel saus:
}
\engdutmc{Milk}{Melk}
\engdutmc{Butter}{Boter}
\engdutmc{Flower}{Bloem}
\engdutmc{Eggs}{Eieren}
\engdutmc{Sugar}{Suiker}

\insertsolutionspagepartial{20}

\insertsolutionspage{}
\clearpage

```

```

\question{[BISTROCULTURE-1]}
\questionweight{10}

\engdut{
  \begin{enumerate}[label=\alph*]
    \item Discuss the evolution of the Northern European bistro culture during
      the latest fifty years.
    \item Relate this to the rise of organized reviews
      like the ones of Michelin and Gault-Millau.
  \end{enumerate}
}
{
  \begin{enumerate}[label=\alph*]
    \item Bespreek de evolutie van de Noord-Europese bistrocultuur
      gedurende de laatste vijftig jaar.
    \item Breng dit in relatie tot de
      opkomst van de georganiseerde recensies zoals die van Michelin en
      Gault-Millau.
  \end{enumerate}
}

\insertsolutionspagepartial{22.5}
\foreach \i in {1,2,3} {
  \insertsolutionspage{}
}
\foreach \i in {1,2} {
  \insertsolutionspage{Scrap/Klad}
}
\end{document}
</ex-example2>

```

## 5 Implementation

### 5.1 Class inheritance

For convenience, we'll derive from the standard  $\text{\LaTeX}$  book, `letter` and `article` class.

Before loading the class, we provide the extra options.

```

1 <*ct>
2 \newif\if@copyright
3 \DeclareOption{copyright}{\@copyrighttrue}
4 \newif\if@qr
5 \DeclareOption{qr}{\@qrtrue}
6 </ct>

```

```

7 <*ct | bmt | pt>
8 \newif\if@titlepagenoartwork
9 \DeclareOption{titlepagenoartwork}{\@titlepagenoartworktrue}
10 \newif\if@titlepagetableonly
11 \DeclareOption{titlepagetableonly}{\@titlepagetableonlytrue}
12 </ct | bmt | pt>
13 <*ct | bmt | pt | le>
14 \newif\if@filled
15 \DeclareOption{filled}{\@filledtrue}
16 </ct | bmt | pt | le>
17 <*ex>
18 \newif\if@examiner
19 \DeclareOption{examiner}{\@examinertrue}
20 </ex>

```

We execute some standard options: We load the book class for course texts and master theses.

```

21 <*ct | bmt | pt>
22 \ExecuteOptions{a4paper,11pt,final,oneside,openright}
23 \ProcessOptions
24 \LoadClassWithOptions{book}
25 </ct | bmt | pt>
26 % We load the |letter| class for letters
27 <*le>
28 \ExecuteOptions{a4paper,10pt,final,oneside,openright}
29 \ProcessOptions
30 \LoadClassWithOptions{letter}
31 \newcommand\tat{\makeatletter @\makeatother}
32 </le>
33 % We load the |article| class for exams
34 <*ex>
35 \ExecuteOptions{a4paper,twoside,10pt}
36 \ProcessOptions
37 \LoadClassWithOptions{article}
38 </ex>

```

## 5.2 Modern typesetting

Let's force some modern typesetting without paragraph indentation and with a decent paragraph spacing.

```

39 <*ct | bmt | pt | le | ex>
40 \setlength{\parindent}{0pt}
41 \addtolength{\parskip}{0.75\baselineskip}
42 \setcounter{secnumdepth}{3}
43 </ct | bmt | pt | le | ex>

```

## 5.3 Auxiliary packages

Reinventing the wheel is a waste of time, let's preload some appropriate auxiliary packages that have proven their value.

### 5.3.1 Geometry

Let's reduce the margins to 1 inch each.

```
44 <*ct | bmt | pt | ex>
45 \RequirePackage[top=1in, bottom=1in, left=1in, right=1in]{geometry}
46 </ct | bmt | pt | ex>
47 <*le>
48 \RequirePackage[top=1in, bottom=1in, left=1.34in, right=1in]{geometry}
49 \RequirePackage[normalem]{ulem}
50 \RequirePackage{atbegshi}
51 </le>
```

### 5.3.2 Font packages

Note that the use of cmbright is no longer imposed (as of v1.3). Using a good font is now up to the user. The packages 'newpxtext/newpxmath' and 'cmbright' are highly recommended. For writing letters, 'Calibri' is the official font of the University of Antwerp.

```
52 <*ct | bmt | pt | le>
53 % no more font code
54 </ct | bmt | pt | le>
```

### 5.3.3 Boilerplate packages

Some boilerplate packages and an empty macro to test against (using\ifx)

```
55 <*ct | bmt | pt | le | ex>
56 \RequirePackage{xstring}
57 \RequirePackage{etoolbox}
58 \RequirePackage{ifthen}
59 \IfFileExists{shellesc.sty}{\RequirePackage{shellesc}}{}
60 \newcommand{\@emptymacro}{}
61 </ct | bmt | pt | le | ex>
```

### 5.3.4 Graphics packages

Graphics packages that are required for the title page, but may come in handy for regular use as well.



Some packages for coursetext and bamathesis:

```
62 <*ct | bmt | pt | le | ex>
63 \RequirePackage{graphicx}
64 \RequirePackage{color}
65 \RequirePackage{tikz}
66 \usetikzlibrary{positioning}
67 \RequirePackage{eso-pic}
68 </ct | bmt | pt | le | ex>
69 <*ct>
70 \if@copyright
71 \RequirePackage[firstpage=false,contents={Copyright University of Antwerp, All Rights Reserved}]
72 \fi
73 </ct>
74 <*pt>
75 \usepackage{ean13isbn}
76 </pt>
```

In uantwerpencoursetext we also want to generate a qr code. Therefore we load the `pst-barcode` and `auto-pst-pdf` package. In this case you must enable 'write18' or 'shell-escape' for your L<sup>A</sup>T<sub>E</sub>X compiler. Check your documentation on how to do so!

```
77 <*ct>
78 \if@qr
79 \RequirePackage{auto-pst-pdf}
80 \RequirePackage{pst-barcode}
81 \fi
82 </ct>
```

### 5.3.5 Header/Footer

The de-facto standard for headers and footers:

```
83 <*ct | bmt | pt | le | ex>
84 \RequirePackage{fancyhdr}
85 </ct | bmt | pt | le | ex>
```

## 5.4 Colors

```
86 <*ct | bmt | pt | le | ex>
87 \definecolor{uacorpbord}{cmyk}{0.00,1.00,0.60,0.37}
88 \definecolor{uacorpblue}{cmyk}{1.00,0.25,0.00,0.50}
89 \definecolor{uacorplightblue}{cmyk}{1.00,0.00,0.08,0.13}
90 \definecolor{uacorporange}{cmyk}{0.00,0.32,1.00,0.09}
91 \definecolor{uaftifresh}{cmyk}{0.34,1.00,0.00,0.00}
92 \definecolor{uaftisober}{cmyk}{0.10,1.00,0.00,0.49}
93 \definecolor{lightgray}{cmyk}{0.00,0.00,0.00,0.05}
```

```

94 \definecolor{darkgray}{cmyk}      {0.00,0.00,0.00,0.80}
95 \definecolor{watermark}{cmyk}    {0.00,0.00,0.00,0.05}
96 </ct | bmt | pt | le | ex>

```

## 5.5 Babel provisions

```

97 <*ct | bmt | pt | le | ex>
98 \newcommand\uaname{University of Antwerp}
99 \newcommand\logoname{UA_HOR_ENG_CMYK}
100 \newcommand\footername{4E_PMS302_BR_ENG_RGB}
101 \newcommand\arrname{All rights reserved}
102 \newcommand\orname{of}
103 \newcommand\domainname{uantwerp.be}
104 \newcommand\datename{Date}
105 \newcommand\subjectname{Subject}
106 \newcommand\academicyearname{Academic year}
107 \newcommand\masterthesisname{Master's thesis}
108 \newcommand\bachelorthesisname{Bachelor's thesis}
109 \newcommand\supervisorsname{Supervisors}
110 \newcommand\juryname{Jury}
111 \newcommand\jurymembersname{Members}
112 \newcommand\jurychairmanname{Chairman}
113 \newcommand\bmthesisname{Thesis to obtain the degree of}
114 \newcommand\pthesisnamei{Thesis submitted in fulfilment of the
115 requirements for the degree of}
116 \newcommand\pthesisnameii{at University of Antwerp}
117 \newcommand\@faculty{< Specify faculty using \textbackslash{}facultyacronym{ABC} >}
118 \newcommand\facpg{
119 \renewcommand\@faculty{Centre Pieter Gillis}}
120 \newcommand\facfbd{
121 \renewcommand\@faculty{
122 Faculty of Pharmaceutical, Biomedical and Veterinary Sciences}}
123 \newcommand\facggw{
124 \renewcommand\@faculty{Faculty of Medicine and Health Sciences}}
125 \newcommand\insiob{
126 \renewcommand\@faculty{Insitute of Development Policy}}
127 \newcommand\insoiw{
128 \renewcommand\@faculty{Institute of Educations and Information Sciences}}
129 \newcommand\asoe{
130 \renewcommand\@faculty{Antwerp School of Education}}
131 \newcommand\faclw{
132 \renewcommand\@faculty{Faculty of Arts}}
133 \newcommand\facow{
134 \renewcommand\@faculty{Faculty of Design Sciences}}
135 \newcommand\facsw{
136 \renewcommand\@faculty{Faculty of Social Sciences}}
137 \newcommand\facrec{
138 \renewcommand\@faculty{Faculty of Law}}
139 \newcommand\factew{

```

```

140 \renewcommand\@faculty{Faculty of Applied Economics}}
141 \newcommand\facti{
142 \renewcommand\@faculty{Faculty of Applied Engineering}}
143 \newcommand\facwet{
144 \renewcommand\@faculty{Faculty of Science}}
145 \newcommand\weightname{Weight}
146 \AtBeginDocument{
147 \ifpackageloaded{babel}{
148 \addto\captionsdutch{%
149 \renewcommand\uaname{Universiteit Antwerpen}
150 \renewcommand\logoname{UA_HOR_NED_CMYK}
151 \renewcommand\footername{4E_PMS302_BR_NED_RGB}
152 \renewcommand\arrname{Alle rechten voorbehouden}
153 \renewcommand\orname{van}
154 \renewcommand\domainname{uantwerpen.be}
155 \renewcommand\subjectname{Onderwerp}%
156 \renewcommand\datename{Datum}%
157 \renewcommand\academicyearname{Academiejaar}
158 \renewcommand\masterthesisname{Masterproef}
159 \renewcommand\bachelorthesisname{Bachelorproef}
160 \renewcommand\supervisorsname{Promotoren}
161 \renewcommand\jurynome{Jury}
162 \renewcommand\jurymembersname{Leden}
163 \renewcommand\jurychairmanname{Voorzitter}
164 \renewcommand\bmthesisname{Proefschrift tot het behalen van de
165 graad van}
166 \renewcommand\pthesisnamei{Proefschrift voorgelegd tot het
167 behalen van de graad van}
168 \renewcommand\pthesisnameii{aan de \uaname{} te
169 verdedigen door}
170 \renewcommand\facppg{
171 \renewcommand\@faculty{Centrum Pieter Gillis}}
172 \renewcommand\facfbd{
173 \renewcommand\@faculty{
174 Faculteit Farmaceutische, Biomedische en Diergeneeskundige
175 Wetenschappen}}
176 \renewcommand\facggw{
177 \renewcommand\@faculty{Faculteit Geneeskunde en
178 Gezondheidswetenschappen}}
179 \renewcommand\insiob{
180 \renewcommand\@faculty{Instituut voor Ontwikkelingsbeleid- en
181 beheer}}
182 \renewcommand\insoiw{
183 \renewcommand\@faculty{Instituut voor Onderwijs- en
184 Informatiewetenschappen}}
185 \renewcommand\asoe{
186 \renewcommand\@faculty{Antwerp School of Education}}
187 \renewcommand\faclw{\renewcommand\@faculty{Faculteit
188 Letteren en Wijsbegeerte}}
189 \renewcommand\facow{

```

```

190     \renewcommand\@faculty{Faculteit Ontwerpwetenschappen}}
191 \renewcommand\facsw{
192     \renewcommand\@faculty{Faculteit Sociale Wetenschappen}}
193 \renewcommand\facrec{
194     \renewcommand\@faculty{Faculteit Rechten}}
195 \renewcommand\factew{
196     \renewcommand\@faculty{Faculteit Toegepaste Economische
197     Wetenschappen}}
198 \renewcommand\facti{
199     \renewcommand\@faculty{Faculteit Toegepaste
200     Ingenieurswetenschappen}}
201 \renewcommand\facwet{
202     \renewcommand\@faculty{Faculteit Wetenschappen}}
203 \renewcommand\weightname{Gewicht}
204 }
205 \addto\captionsgerman{%
206     \renewcommand\uname{Universit"at Antwerpen}
207     \renewcommand\logoname{UA_HOR_DUI_CMYK}
208     \renewcommand\footername{4E_PMS302_BR_NED_RGB}
209     \renewcommand\arrname{Alle Rechte vorbehalten}
210     \renewcommand\orname{von}
211     \renewcommand\domainname{uantwerpen.be}
212     \renewcommand\subjectname{Betreff}%
213     \renewcommand\datename{Datum}%
214     \renewcommand\academicyearname{Akademisches Jahr}
215     \renewcommand\masterthesisname{Masterdissertation}
216     \renewcommand\bachelorthesisname{Bachelordissertation}
217     \renewcommand\supervisorsname{Veranstalter}
218     \renewcommand\juryname{Jury}
219     \renewcommand\jurymembersname{Mitglieder}
220     \renewcommand\jurychairmanname{Vorsitzender}
221     \renewcommand\bmthesisname{Dissertation zur Erreichung des
222     Grades der}
223     \renewcommand\pthesisnamei{Dissertation zur Erreichung des
224     Grades der}
225     \renewcommand\pthesisnameii{an die \uname}
226 \renewcommand\facpg{
227     \renewcommand\@faculty{Centrum Pieter Gillis}}
228 \renewcommand\facfbd{
229     \renewcommand\@faculty{
230     Faculteit Farmaceutische, Biomedische en Diergeneeskundige
231     Wetenschappen}}
232 \renewcommand\facggw{
233     \renewcommand\@faculty{Faculteit Geneeskunde en
234     Gezondheidswetenschappen}}
235 \renewcommand\insiob{
236     \renewcommand\@faculty{Instituut voor Ontwikkelingsbeleid- en
237     beheer}}
238 \renewcommand\insoiw{
239     \renewcommand\@faculty{Instituut voor Onderwijs- en

```

```

240         Informatiewetenschappen}}
241 \renewcommand\asoe{
242     \renewcommand\@faculty{Antwerp School of Education}}
243 \renewcommand\faclw{\renewcommand\@faculty{Faculteit
244     Letteren en Wijsbegeerte}}
245 \renewcommand\facow{
246     \renewcommand\@faculty{Faculteit Ontwerpwetenschappen}}
247 \renewcommand\facsw{
248     \renewcommand\@faculty{Faculteit Sociale Wetenschappen}}
249 \renewcommand\facrec{
250     \renewcommand\@faculty{Faculteit Rechten}}
251 \renewcommand\factew{
252     \renewcommand\@faculty{Faculteit Toegepaste Economische
253     Wetenschappen}}
254 \renewcommand\facti{
255     \renewcommand\@faculty{Faculteit Toegepaste
256     Ingenieurswetenschappen}}
257 \renewcommand\facwet{
258     \renewcommand\@faculty{Faculteit Wetenschappen}}
259 \renewcommand\weightname{Gewicht}
260 }
261 \addto\captionfrench{%
262     \renewcommand\uaname{Universit'e d'Anvers}
263     \renewcommand\logoname{UA_HOR_FRA_CMYK}
264     \renewcommand\footername{4E_PMS302_BR_ENG_RGB}
265     \renewcommand\arrname{Tous les droits sont r'eserv'es}
266     \renewcommand\orname{de}
267     \renewcommand\domainname{uanvers.be}
268     \renewcommand\subjectname{Objet}%
269     \renewcommand\datename{Date}%
270     \renewcommand\academicyearname{Ann'ee acad'emie}
271     \renewcommand\masterthesisname{Th`ese de master}
272     \renewcommand\bachelorthesisname{Th`ese de baccalaur'eat}
273     \renewcommand\supervisorsname{Promoteurs}
274     \renewcommand\juryname{Jury}
275     \renewcommand\jurymembersname{Membres}
276     \renewcommand\jurychairmanname{Pr'esident}
277     \renewcommand\bmthesisname{Th`ese \`a l'atteinte du degr'e de}
278     \renewcommand\pthesisnamei{Th`ese Doctorale \`a l'atteinte du
279     degr'e de}
280     \renewcommand\pthesisnameii{\`a l'\uaname}
281 \renewcommand\faccp{
282     \renewcommand\@faculty{Centrum Pieter Gillis}}
283 \renewcommand\facfbd{
284     \renewcommand\@faculty{
285     Faculteit Farmaceutische, Biomedische en Diergeneeskundige
286     Wetenschappen}}
287 \renewcommand\facggw{
288     \renewcommand\@faculty{Faculteit Geneeskunde en
289     Gezondheidswetenschappen}}

```

```

290 \renewcommand\insiob{
291   \renewcommand\@faculty{Instituut voor Ontwikkelingsbeleid- en
292     beheer}}
293 \renewcommand\insciw{
294   \renewcommand\@faculty{Instituut voor Onderwijs- en
295     Informatiewetenschappen}}
296 \renewcommand\asoe{
297   \renewcommand\@faculty{Antwerp School of Education}}
298 \renewcommand\faclw{\renewcommand\@faculty{Faculteit
299   Letteren en Wijsbegeerte}}
300 \renewcommand\facow{
301   \renewcommand\@faculty{Faculteit Ontwerpwetenschappen}}
302 \renewcommand\facsw{
303   \renewcommand\@faculty{Faculteit Sociale Wetenschappen}}
304 \renewcommand\facrec{
305   \renewcommand\@faculty{Faculteit Rechten}}
306 \renewcommand\factew{
307   \renewcommand\@faculty{Faculteit Toegepaste Economische
308     Wetenschappen}}
309 \renewcommand\facti{
310   \renewcommand\@faculty{Faculteit Toegepaste
311     Ingenieurswetenschappen}}
312 \renewcommand\facwet{
313   \renewcommand\@faculty{Faculteit Wetenschappen}}
314 \renewcommand\weightname{Poids}
315 }
316 \addto\captionsspanish{%
317   \renewcommand\uaname{Universidad de Amberes}
318   \renewcommand\logoname{UA_HOR_SPA_CMYK}
319   \renewcommand\footername{4E_PMS302_BR_ENG_RGB}
320   \renewcommand\arrname{Todos los derechos reservados}
321   \renewcommand\orname{de}
322   \renewcommand\domainname{uantwerp.be}
323   \renewcommand\subjectname{Asunto}}%
324   \renewcommand\datename{Fecha}}%
325   \renewcommand\academicyearname{A\~no acad\`emico}
326   \renewcommand\masterthesisname{Tesis de maestr\`i{a}}
327   \renewcommand\bachelorthesisname{Tesis de bachiller}
328   \renewcommand\supervisorsname{Promotores}
329   \renewcommand\jurynome{Jurado}
330   \renewcommand\jurymembersname{Miembros}
331   \renewcommand\jurychairmanname{Presidente}
332   \renewcommand\bmthesisname{Disertaci\`on a la consecuci\`on del
333     grado de}
334   \renewcommand\pthesisnamei{Disertaici\`on a la consecuci\`on del
335     grado de}
336   \renewcommand\pthesisnameii{a l'\uaname}
337   \renewcommand\facpg{
338     \renewcommand\@faculty{Centrum Pieter Gillis}}
339   \renewcommand\facfbd{

```

```

340     \renewcommand\@faculty{
341         Faculteit Farmaceutische, Biomedische en Diergeneeskundige
342         Wetenschappen}}
343 \renewcommand\facggw{
344     \renewcommand\@faculty{Faculteit Geneeskunde en
345         Gezondheidswetenschappen}}
346 \renewcommand\insiob{
347     \renewcommand\@faculty{Instituut voor Ontwikkelingsbeleid- en
348         beheer}}
349 \renewcommand\insoiw{
350     \renewcommand\@faculty{Instituut voor Onderwijs- en
351         Informatiewetenschappen}}
352 \renewcommand\asoe{
353     \renewcommand\@faculty{Antwerp School of Education}}
354 \renewcommand\faclw{\renewcommand\@faculty{Faculteit
355         Letteren en Wijsbegeerte}}
356 \renewcommand\facow{
357     \renewcommand\@faculty{Faculteit Ontwerpwetenschappen}}
358 \renewcommand\facsw{
359     \renewcommand\@faculty{Faculteit Sociale Wetenschappen}}
360 \renewcommand\facrec{
361     \renewcommand\@faculty{Faculteit Rechten}}
362 \renewcommand\factew{
363     \renewcommand\@faculty{Faculteit Toegepaste Economische
364         Wetenschappen}}
365 \renewcommand\facti{
366     \renewcommand\@faculty{Faculteit Toegepaste
367         Ingenieurswetenschappen}}
368 \renewcommand\facwet{
369     \renewcommand\@faculty{Faculteit Wetenschappen}}
370 \renewcommand\weightname{Peso}
371 }
372 }
373 {}
374 }
375 </ct | bmt | pt | le | ex>

```

## 5.6 Tags

`\facultyacronym` The `facultyacronym` sets the faculty acronym tag `\@facultyacronym` that is used in the header/footer information. The correct acronym also sets the faculty's name correctly.

```

376 <*ct | bmt | pt | le | ex>
377 \newcommand{\@facultyacronym}{}
378 \newcommand{\facultyacronym}[1]{
379     \renewcommand{\@facultyacronym}{#1}
380     \AtBeginDocument{
381         \ifthenelse{\equal{#1}{CPG}}{\faccpg}{

```

```

382 \ifthenelse{\equal{#1}{FBD}}{\facfbd}{
383 \ifthenelse{\equal{#1}{GGW}}{\facggw}{
384 \ifthenelse{\equal{#1}{IOB}}{\insioib}{
385 \ifthenelse{\equal{#1}{IOIW}}{\insoiw}{
386 \ifthenelse{\equal{#1}{ASoE}}{\asoe}{
387 \ifthenelse{\equal{#1}{LW}}{\faclw}{
388 \ifthenelse{\equal{#1}{OW}}{\facow}{
389 \ifthenelse{\equal{#1}{SW}}{\facsw}{
390 \ifthenelse{\equal{#1}{REC}}{\facrec}{
391 \ifthenelse{\equal{#1}{TEW}}{\factew}{
392 \ifthenelse{\equal{#1}{TI}}{\facti}{
393 \ifthenelse{\equal{#1}{WET}}{\facwet}{
394 \errmessage{Error: wrong faculty acronym; choose one of CPG, FBD, GGW,
395 IOB, IOIW, ASoE, LW, OW, SW, REC, TEW, TI, WET}}}}}}}}}}}}}}}}
396 }
397 </ct | bmt | pt | le | ex>

```

`\title` The title tag is native to L<sup>A</sup>T<sub>E</sub>X. It sets the `\@title` tag that will be used on the title page. However, in view of the qr trouble, we fiddle a little with it. In case the title contains accented characters, you also need to provide a qr version in full unicode (so without the traditional L<sup>A</sup>T<sub>E</sub>X accented characters.)

```

398 <*ct>
399 \newcommand{\@qrtitle}{}
400 \renewcommand{\title}[1]{%
401 \renewcommand{\@title{#1}
402 \ifx\@qrtitle\@emptymacro
403 \renewcommand{\@qrtitle{#1}
404 \fi
405 }
406 \newcommand{\qrtitle}[1]{%
407 \renewcommand{\@qrtitle{#1}
408 }
409 </ct>

```

`\subtitle` This macro sets the `\@subtitle` tag that later will be used on the title page, in the header/footer and to set the appropriate `hyperref` tag.

```

410 <*bmt>
411 \newcommand{\@subtitle}{Master's thesis}
412 </bmt>
413 <*ct | pt>
414 \newcommand{\@subtitle}{~}
415 \newcommand{\@qrsubtitle}{}
416 \newcommand{\subtitle}[1]{%
417 \renewcommand{\@subtitle{#1}
418 \ifx\@qrsubtitle\@emptymacro
419 \renewcommand{\@qrsubtitle{#1}
420 \fi

```



```

421 }
422 \newcommand{\qrsubtitle}[1]{%
423   \renewcommand\@qrsubtitle{#1}
424 }
425 </ct | pt)

```

`\shorttitle` This macro sets the `\@shorttitle` tag that later will be used in the `uantwerpenexam` class.

```

426 <*ex)
427 \newcommand{\@shorttitle}{}
428 \newcommand{\shorttitle}[1]{%
429   \renewcommand\@shorttitle{#1}
430 }
431 </ex)

```

`\author` The `author` tag is native to  $\LaTeX$ . It sets the `\@author` tag that will be used on the title page. However, in view of the qr trouble, we fiddle a little with it for the `uantwerpencoursetext` class. In case the title contains accented characters, you also need to provide a qr version in full unicode (so without the traditional  $\LaTeX$  accented characters.)

```

432 <*ct)
433 \newcommand{\@qrauthor}{}
434 \renewcommand{\author}[1]{%
435   \renewcommand\@author{#1}
436   \ifx\@qrauthor\@emptymacro
437     \renewcommand\@qrauthor{#1}
438   \fi
439 }
440 \newcommand{\qrauthor}[1]{%
441   \renewcommand\@qrauthor{#1}
442 }
443 </ct)

```

`\courseversion` This macro sets the `\@courseversion` tag that later will be used on the title page and in the header/footer.

```

444 <*ct)
445 \newcommand{\@courseversion}{}
446 \newcommand{\courseversion}[1]{\renewcommand{\@courseversion}{#1}}
447 </ct)

```

`\versionyear` This macro sets the `\@versionyear` tag that later will be used on the title page and in the copyright message.

```

448 <*ct)
449 \newcommand{\@versionyear}{}

```

```
450 \newcommand{\versionyear}[1]{\renewcommand{\@versionyear}{#1}}
451 \</ct>
```

`\publisher` This macro sets the `\@publisher` tag that later will be used on the title page.

```
452 \< *ct>
453 \newcommand{\@publisher}{\uaname\\
454 Cursusdienst en reprografie\\
455 Campus Groenenborger, G.U.027\\
456 Groenenborgerlaan 171\\
457 2020 Antwerpen\\
458 T +32 3 265 32 15\\
459 F + 32 3 233 32 27\\
460 E cursusdienst.cgb@uantwerpen.be}
461 \newcommand{\publisher}[1]{\renewcommand{\@publisher}{#1}}
462 \</ct>
```

`\publishercode` This macro sets the `\@publishercode` tag that later will be used on the title page.

```
463 \< *ct>
464 \newcommand{\@publishercode}{}
465 \newcommand{\publishercode}[1]{\renewcommand{\@publishercode}{#1}}
466 \</ct>
```

`\lecturer` This macro sets many `\@lecturer` tags (max. 4) that later will be used on the title page. If there is only one teaching lecturer one can use the convenient shorthand without counter. In case the lecturer's name contains accented characters, you also need to provide a qr version in full unicode (so without the traditional L<sup>A</sup>T<sub>E</sub>X accented characters.)

```
467 \< *ct>
468 \newcommand{\@lectureri}{}
469 \newcommand{\@lecturerii}{}
470 \newcommand{\@lectureriii}{}
471 \newcommand{\@lectureriv}{}
472 \newcommand{\@qrlectureri}{}
473 \newcommand{\@qrlecturerii}{}
474 \newcommand{\@qrlectureriii}{}
475 \newcommand{\@qrlectureriv}{}
476 \newcommand{\lecturer}[1]{
477   \renewcommand{\@lectureri}{#1}
478   \ifx\@qrlectureri\emptymacro
479     \renewcommand\@qrlectureri{#1}
480   \fi
481 }
482 \newcommand{\qrlecturer}[1]{
483   \renewcommand\@qrlectureri{#1}
484 }
485 \newcommand{\lectureri}[1]{
```

```

486 \renewcommand{\@lectureri}{#1}
487 \ifx\@qrlectureri\@emptymacro
488 \renewcommand\@qrlectureri{#1}
489 \fi
490 }
491 \newcommand{\qrlectureri}[1]{
492 \renewcommand\@qrlectureri{#1}
493 }
494 \newcommand{\lecturerii}[1]{
495 \renewcommand{\@lecturerii}{#1}
496 \ifx\@qrlecturerii\@emptymacro
497 \renewcommand\@qrlecturerii{#1}
498 \fi
499 }
500 \newcommand{\qrlecturerii}[1]{
501 \renewcommand\@qrlecturerii{#1}
502 }
503 \newcommand{\lectureriii}[1]{
504 \renewcommand{\@lectureriii}{#1}
505 \ifx\@qrlectureriii\@emptymacro
506 \renewcommand\@qrlectureriii{#1}
507 \fi
508 }
509 \newcommand{\qrlectureriii}[1]{
510 \renewcommand\@qrlectureriii{#1}
511 }
512 \newcommand{\lectureriv}[1]{
513 \renewcommand{\@lectureriv}{#1}
514 \ifx\@qrlectureriv\@emptymacro
515 \renewcommand\@qrlectureriv{#1}
516 \fi
517 }
518 \newcommand{\qrlectureriv}[1]{
519 \renewcommand\@qrlectureriv{#1}
520 }
521 </ct>

```

`\affiliation` The affiliation tag allows to specify the affiliation of the author.

```

522 <*pt>
523 \newcommand\@affiliation{\errmessage{Please, define the affiliation of
524 the author using the \textbackslash{}affiliation command in the
525 preamble of your document.}}
526 \newcommand\affiliation[1]{\renewcommand\@affiliation{#1}}
527 </pt>

```

`\supervisor` This macro sets many `\@supervisor` tags (max. 4) that later will be used on the title page.

```

528 <*bmt | pt>
529 \newcommand\@supervisorii{\errmessage{Please define a supervisor of
530     your thesiswork using the \textbackslash{}supervisorii to iv
531     commands} in the preamble of your document.}
532 \newcommand\@supervisoriiiaff{}
533 \newcommand\@supervisorii{}
534 \newcommand\@supervisoriiiaff{}
535 \newcommand\@supervisoriii{}
536 \newcommand\@supervisoriiiiaff{}
537 \newcommand\@supervisoriv{}
538 \newcommand\@supervisorivaff{}
539 \newcommand{\supervisorii}[2]{\renewcommand\@supervisorii{#1}\renewcommand\@supervisoriiiaff{#2}}
540 \newcommand{\supervisoriii}[2]{\renewcommand\@supervisoriii{#1}\renewcommand\@supervisoriiiiaff{#2}}
541 \newcommand{\supervisoriv}[2]{\renewcommand\@supervisoriv{#1}\renewcommand\@supervisorivaff{#2}}
542 \newcommand{\supervisorv}[2]{\renewcommand\@supervisorv{#1}\renewcommand\@supervisorvaff{#2}}
543 </bmt | pt>

```

\jurychairman This macro sets the \@jurychairman tag that later will be used on the data page.

```

544 <*pt>
545 \newcommand{\@jurychairman}{\errmessage{Please define a chairman of the jurya
546     using the \textbackslash{}jurychairman command in the preamble of your document.}}
547 \newcommand{\@jurychairmanaff}{}
548 \newcommand{\jurychairman}[2]{\renewcommand{\@jurychairman}{#1}\renewcommand{\@jurychairmanaff}{#2}}
549 </pt>

```

\jurymember This macro sets many \@jurymember tags (max. 6) that later will be used on the data page.

```

550 <*pt>
551 \newcommand{\@jurymemberi}{\errmessage{Please define jury members
552     using the \textbackslash{}jurymemberi to vi commands in the preamble of your document.}}
553 \newcommand\@jurymemberiaff{}
554 \newcommand\@jurymemberii{}
555 \newcommand\@jurymemberiiaff{}
556 \newcommand\@jurymemberiii{}
557 \newcommand\@jurymemberiiiiaff{}
558 \newcommand\@jurymemberiv{}
559 \newcommand\@jurymemberivaff{}
560 \newcommand\@jurymemberv{}
561 \newcommand\@jurymembervaff{}
562 \newcommand\@jurymembervi{}
563 \newcommand\@jurymemberviaff{}
564 \newcommand{\jurymemberi}[2]{\renewcommand\@jurymemberi{#1}\renewcommand\@jurymemberiaff{#2}}
565 \newcommand{\jurymemberii}[2]{\renewcommand\@jurymemberii{#1}\renewcommand\@jurymemberiiaff{#2}}
566 \newcommand{\jurymemberiii}[2]{\renewcommand\@jurymemberiii{#1}\renewcommand\@jurymemberiiiiaff{#2}}
567 \newcommand{\jurymemberiv}[2]{\renewcommand\@jurymemberiv{#1}\renewcommand\@jurymemberivaff{#2}}
568 \newcommand{\jurymemberv}[2]{\renewcommand\@jurymemberv{#1}\renewcommand\@jurymembervaff{#2}}
569 \newcommand{\jurymembervi}[2]{\renewcommand\@jurymembervi{#1}\renewcommand\@jurymemberviaff{#2}}
570 </pt>

```

`\phddegree` This macro sets the `\@phddegree` tag that later will be used on the title pages.

```
571 <*pt>
572 \newcommand\@phddegree{\errmessage{Please, specify the official PhD
573     degree description using the \textbackslash{}phddegree macro in
574     the preamble of your document.}}
575 \newcommand\phddegree[1]{\renewcommand\@phddegree{#1}}
576 </pt>
```

`\programme` This macro sets the `\@programme` tags that later will be used on the title page. The involved way of repeatedly calling the `renewcommand` to set the tags is required for inclusion of the data as QR data.

```
577 <*ct | pt | ex>
578 \newcommand{\@programmet}{} % type
579 \newcommand{\@programmec}{} % class
580 \newcommand{\@programmecqr}{} % class for qr code
581 \newcommand{\@programmes}{} % class
582 \newcommand{\@programmeq}{} % qualifier
583 \newcommand{\programme}[3]{%
584     \ifthenelse{\equal{#1}{BA}}{%
585         {\renewcommand{\@programmet}{Bachelor of Science in de }}{%
586         \ifthenelse{\equal{#1}{MA}}{%
587             {\renewcommand{\@programmet}{Master of Science in de }}{%
588             \ifthenelse{\equal{#1}{PHD}}{%
589                 {\renewcommand{\@programmet}{Doctor in de }}{%
590                 \ifthenelse{\equal{#1}{VP}}{%
591                     {\renewcommand{\@programmet}{Vorbereidingsprogramma voor Master of Science in de }}{%
592                     \ifthenelse{\equal{#1}{SP}}{%
593                         {\renewcommand{\@programmet}{Schakelprogramma voor Master of Science in de }}{%
594                         \ifthenelse{\equal{#1}{FREE}}{%
595                             }{
596                             \errmessage{Error in 1st arg of macro programme[3]: invalid
597                                 programme type!}}}}}}}%
598     %
599     \ifthenelse{\equal{#2}{IW}}{%
600         {\renewcommand{\@programmec}{industri\ "ele wetenschappen}
601         \renewcommand{\@programmecqr}{industriële wetenschappen}}{
602         \ifthenelse{\equal{#2}{}}{%
603             }{
604             \errmessage{{Error in 2nd arg of macro programme[3]: invalid
605                 programme class! }}}}%
606     %
607     \ifthenelse{\equal{#3}{BK}}{%
608         {\renewcommand{\@programmeq}{Bouwkunde}}{%
609         \ifthenelse{\equal{#3}{CH}}{%
610             {\renewcommand{\@programmeq}{Chemie}}{%
611             \ifthenelse{\equal{#3}{BCH}}{%
612                 {\renewcommand{\@programmeq}{Biochemie}}{%
```

```

613 \ifthenelse{\equal{#3}{EM}}%
614 {\renewcommand{\@programmeq}{Elektromechanica}}{%
615 \ifthenelse{\equal{#3}{EI}}%
616 {\renewcommand{\@programmeq}{Elektronica-ICT}}{%
617 \ifthenelse{\equal{#3}{}}%
618 {}{%
619 \ifthenelse{\equal{#1}{FREE}}
620 {\renewcommand{\@programmeq}{#3}}{
621 \errmessage{Error in 3rd arg to macro programme[3]: invalid
622 programme qualifier}}}}}}}%
623 %
624 \ifthenelse{\equal{#2}{IW}\and\not\equal{#3}{}}
625 {\renewcommand{\@programmes}{: }}{}
626 }
627 </ct | pt | ex>

```

`\course` Four the `coursetext` class, this macro sets many `\@coursecode` and `\@course` tags (max. 4) that later will be used on the title page. If there is only one course code one can use the convenient shorthand without counter.

```

628 <*ct>
629 \newcommand{\@coursecodei}{}
630 \newcommand{\@coursecodeii}{}
631 \newcommand{\@coursecodeiii}{}
632 \newcommand{\@coursecodeiv}{}
633 \newcommand{\@coursei}{}
634 \newcommand{\@courseii}{}
635 \newcommand{\@courseiii}{}
636 \newcommand{\@courseiv}{}
637 \newcommand{\@qrcoursei}{}
638 \newcommand{\@qrcourseii}{}
639 \newcommand{\@qrcourseiii}{}
640 \newcommand{\@qrcourseiv}{}
641 \newcommand{\course}[2]{
642 \renewcommand{\@coursecodei}{#1}
643 \renewcommand{\@coursei}{#2}
644 \ifx\@qrcoursei\@emptymacro
645 \renewcommand{\@qrcoursei}{#2}
646 \fi
647 }
648 \newcommand{\qrcourse}[1]{
649 \renewcommand{\@qrcoursei}{#1}
650 }
651 \newcommand{\course}[2]{
652 \renewcommand{\@coursecodei}{#1}
653 \renewcommand{\@coursei}{#2}
654 \ifx\@qrcoursei\@emptymacro
655 \renewcommand{\@qrcoursei}{#2}
656 \fi
657 }

```

```

658 \newcommand{\qrcoursei}[1]{
659   \renewcommand{\@qrcoursei}{#1}
660 }
661 \newcommand{\courseii}[2]{
662   \renewcommand{\@coursecodeii}{#1}
663   \renewcommand{\@courseii}{#2}
664   \ifx\@qrcourseii\@emptymacro
665     \renewcommand{\@qrcourseii}{#2}
666   \fi
667 }
668 \newcommand{\qrcourseii}[1]{
669   \renewcommand{\@qrcourseii}{#1}
670 }
671 \newcommand{\courseiii}[2]{
672   \renewcommand{\@coursecodeiii}{#1}
673   \renewcommand{\@courseiii}{#2}
674   \ifx\@qrcourseiii\@emptymacro
675     \renewcommand{\@qrcourseiii}{#2}
676   \fi
677 }
678 \newcommand{\qrcourseiii}[1]{
679   \renewcommand{\@qrcourseiii}{#1}
680 }
681 \newcommand{\courseiv}[2]{
682   \renewcommand{\@coursecodeiv}{#1}
683   \renewcommand{\@courseiv}{#2}
684   \ifx\@qrcourseiv\@emptymacro
685     \renewcommand{\@qrcourseiv}{#2}
686   \fi
687 }
688 \newcommand{\qrcourseiv}[1]{
689   \renewcommand{\@qrcourseiv}{#1}
690 }
691 </ct>
692 %   \end{macrocode}
693 %   For the |exam| class (assuming that an exam only holds for a
694 %   single course), the situation is simple and we assume only a
695 %   single coursecode and course name. We also don't need any of the
696 %   QR stamp stuff.
697 %   \begin{macrocode}
698 <*ex>
699 \newcommand{\@coursecodei}{}
700 \newcommand{\@coursei}{}
701 \newcommand{\course}[2]{
702   \renewcommand{\@coursecodei}{#1}
703   \renewcommand{\@coursei}{#2}
704 }
705 </ex>

```

`\diploma` This macro sets the `\@diplomalevel` and `\@diploma` tags that later will be used on the title page.

```
706 <*bmt | pt>
707 \newcommand{\@diplomalevel}{ERROR}
708 \newcommand{\@diploma}{ERROR}
709 \newcommand{\@diploma}[1]{
710   \newcommand{\MoSIW}{Master of Science in de industri\@ele wetenschappen}
711   \newcommand{\BoSIW}{Bachelor of Science in de industri\@ele wetenschappen}
712   \newcommand{\MoSTEW}{Master of Science in de toegepaste economische wetenschappen}
713   \renewcommand{\@diploma}{
714     \ifthenelse{\equal{#1}{BA-IW-BK}}
715       {\BoSIW: bouwkunde}{
716       \ifthenelse{\equal{#1}{BA-IW-BCH}}
717         {\BoSIW: biochemie}{
718       \ifthenelse{\equal{#1}{BA-IW-CH}}
719         {\BoSIW: chemie}{
720       \ifthenelse{\equal{#1}{BA-IW-EI}}
721         {\BoSIW: elektronica-ICT}{
722       \ifthenelse{\equal{#1}{BA-IW-EM}}
723         {\BoSIW: elektromechanica}{
724       \ifthenelse{\equal{#1}{MA-IW-BK}}
725         {\MoSIW: bouwkunde}{
726       \ifthenelse{\equal{#1}{MA-IW-BCH}}
727         {\MoSIW: biochemie}{
728       \ifthenelse{\equal{#1}{MA-IW-CH}}
729         {\MoSIW: chemie}{
730       \ifthenelse{\equal{#1}{MA-IW-EI}}
731         {\MoSIW: elektronica-ICT}{
732       \ifthenelse{\equal{#1}{MA-IW-EI-AE}}
733         {\MoSIW:\\elektronica-ICT, afstudeerrichting automotive engineering}{
734       \ifthenelse{\equal{#1}{MA-IW-EI-ICT}}
735         {\MoSIW:\\elektronica-ICT, afstudeerrichting ICT}{
736       \ifthenelse{\equal{#1}{MA-IW-EM-AE}}
737         {\MoSIW:\\elektromechanica, afstudeerrichting automotive engineering}{
738       \ifthenelse{\equal{#1}{MA-IW-EM-AU}}
739         {\MoSIW:\\elektromechanica, afstudeerrichting automatisering}{
740       \ifthenelse{\equal{#1}{MA-IW-EM-EM}}
741         {\MoSIW:\\elektromechanica, afstudeerrichting elektromechanica}{
742       \ifthenelse{\equal{#1}{MA-IW-EM-EN}}
743         {\MoSIW:\\elektromechanica, afstudeerrichting energie}{
744       \ifthenelse{\equal{#1}{MA-TEW-HI}}
745         {\MoSTEW: handelsingenieur}{
746       \ifthenelse{\equal{#1}{MA-TEW-HIBI}}
747         {\MoSTEW:\\handelsingenieur in de beleidsinformatica}{
748       \ifthenelse{\equal{#1}{MA-TEW-EB}}
749         {\MoSTEW: economisch beleid}{
750       \ifthenelse{\equal{#1}{MA-TEW-BK}}
751         {\MoSTEW: bedrijfskunde}
752       {\errmessage{Error in argument to macro diploma: must be one of
```



```

753         BA-IW-XXX with XXX one of BK, BCH, CH, EI or EM, or MA-IW-XXX with XXX one of BK, BCH,
AE, EI-ICT, EM-AE, EM-AU, EM-EM, EM-EN, MA-TEW-YYY with YYY one of HI, HIBI, EB, BK! <<}}}}}}}}
754     }
755     \newcommand\thesisname{ERROR}
756     \IfSubStr{#1}{MA-}{\renewcommand\thesisname{\masterthesisname}}{}
757     \IfSubStr{#1}{BA-}{\renewcommand\thesisname{\bachelorthesisname}}{}
758 }
759 </bmt | pt>

```

`\defensedate` This macro sets the `\@defensedate` tags that later will be used on the title page.

```

760 <*bmt | pt>
761 \newcommand\@defensedate{ERROR}
762 \newcommand{\defensedate}[1]{\renewcommand\@defensedate{#1}}
763 </bmt | pt>

```

`\defenselocation` This macro sets the `\@defenselocation` tags that later will be used on the title page.

```

764 <*bmt | pt>
765 \newcommand\@defenselocation{Antwerpen}
766 \newcommand{\defenselocation}[1]{\renewcommand\@defenselocation{#1}}
767 </bmt | pt>

```

`\titeplageimage` This macro sets the `\@titlepageimage` tags that later will be used on the title page, to include the graphics.

```

768 <*pt>
769 \newcommand\@titlepageimage{}
770 \newcommand\titeplageimage[1]{\renewcommand\@titlepageimage{#1}}
771 </pt>

```

`\isbn` This macro sets the `\@isbn` tags that later will be used on the data page. If you don't have an ISBN number, just don't specify one (i.e. don't use this macro).

```

772 <*pt>
773 \newcommand{\@isbn}{}
774 \newcommand{\isbn}[1]{\renewcommand{\@isbn}{#1}}
775 </pt>

```

`\depot` This macro sets the `\@depot` tags that later will be used on the data page.

```

776 <*pt>
777 \newcommand{\@depot}{\errmessage{Please, specify a depot number using
778     the \textbackslash{}depot command in your preamble.}}
779 \newcommand{\depot}[1]{\renewcommand{\@depot}{#1}}
780 </pt>

```

`\academicyear` This macro sets the `\@academicyear` tag that later will be used on the title page.

```
781 <*ct | bmt | ex>
782 \newcommand{\@academicyear}{XXX-YYYY}
783 \newcommand{\academicyear}[1]{\renewcommand{\@academicyear}{#1}}
784 </ct | bmt | ex>
```

`\copyrightnotices` This macro sets the `\@copyrightnotices` tag that later will be used on the back of the title page.

```
785 <*ct>
786 \newcommand{\@copyrightnotices}{}
787 \newcommand{\copyrightnotices}[1]{\renewcommand{\@copyrightnotices}{#1}}
788 </ct>
```

`\sender` This macro sets the `\@sender` and `\@senderrole` tags that will be used in the letter's heading text.

```
789 <*le>
790 \newcommand{\@sender}{< Specify sender using
791 \textbackslash{}sender\{name\}\{role\} >}
792 \newcommand{\@senderrole}{~}
793 \newcommand{\sender}[2]{\renewcommand{\@sender}{#1}\renewcommand{\@senderrole}{#2}}
794 </le>
```

`\logo` This macro sets the `\@logo` tag that will be used to load a graphics file with that name.

```
795 <*le | ex>
796 \newcommand{\@logo}{\logoname}
797 \newcommand{\logo}[1]{\renewcommand{\@unit}{#1}}
798 </le | ex>
```

`\unit` This macro sets the `\@unit` tag that will be used in the letter's heading text.

```
799 <*le>
800 \newcommand{\@unit}{}
801 \newcommand{\unit}[1]{\renewcommand{\@unit}{#1}}
802 </le>
```

`\email` This macro sets the `\@emailuser` and `\@emaildomain` tags that will be used in the letter's heading text. This split construction was used to overcome problems with the @ sign.

```
803 <*le>
804 \newcommand{\@emailuser}{}
805 \newcommand{\@emaildomain}{}
806 \newcommand{\email}[2]{\renewcommand{\@emailuser}{#1}\renewcommand{\@emaildomain}{#2}}
807 </le>
```

`\phone` This macro sets the `\@phone` tag that will be used in the letter's heading text.

```
808 <*\e>
809 \newcommand{\@phone}{}
810 \newcommand{\phone}[1]{\renewcommand{\@phone}{#1}}
811 </\e>
```

`\fax` This macro sets the `\@fax` tag that will be used in the letter's heading text.

```
812 <*\e>
813 \newcommand{\@fax}{}
814 \newcommand{\fax}[1]{\renewcommand{\@fax}{#1}}
815 </\e>
```

`\mobile` This macro sets the `\@mobile` tag that will be used in the letter's heading text.

```
816 <*\e>
817 \newcommand{\@mobile}{}
818 \newcommand{\mobile}[1]{\renewcommand{\@mobile}{#1}}
819 </\e>
```

`\returnaddress` This macro sets the `\@returnaddress` tag that will be used in the letter's heading text (in the area of the envelope's window).

```
820 <*\e>
821 \newcommand{\@returnaddress}{<specify return-address using \textbackslash\{single-
line-return-address\}>}
822 \renewcommand{\returnaddress}[1]{\renewcommand{\@returnaddress}{#1}}
823 </\e>
```

`\to` This macro sets the `\@to` tag that will be used in the letter's heading text (in the area of the envelope's window).

```
824 <*\e>
825 \newcommand{\@to}{<Specify addressee using \textbackslash\{to\}\{name\}>}
826 \renewcommand{\to}[1]{\renewcommand{\@to}{#1}}
827 </\e>
```

`\toorganization` This macro sets the `\@toorganization` tag that will be used in the letter's heading text (in the area of the envelope's window).

```
828 <*\e>
829 \newcommand{\@toorganization}{<Specify organization using
830 \textbackslash\{toorganization\}\}>}
831 \newcommand{\toorganization}[1]{\renewcommand{\@toorganization}{#1}}
832 </\e>
```

`\toaddress` This macro sets the `\@toaddress` tag that will be used in the letter's heading text (in the area of the envelope's window).

```
833 <*\e>
834 \newcommand{\@toaddress}{<Specify (multiline) destination address\\using \textbackslash{}toaddr
835 \newcommand{\toaddress}[1]{\renewcommand{\@toaddress}{#1}}
836 </\e>
```

`\subject` This macro sets the `\@subject` tag that will be used in the letter's heading text.

```
837 <*\e>
838 \newcommand{\@subject}{-}
839 \newcommand*{\subject}[1]{\renewcommand{\@subject}{#1}}
840 </\e>
```

`\opening` This macro is much a do about nothing, but I prefer to do it this way for historic reasons.

```
841 <*\e>
842 \renewcommand*{\opening}[1]{#1}
843 </\e>
```

`\closing` This macro sets the `\@closing` tag that will be used to finish the letter.

```
844 <*\e>
845 \newcommand{\@closing}{<specify a closing formula using \textbackslash{}closing\{\}>}
846 \renewcommand*{\closing}[1]{\renewcommand{\@closing}{#1}}
847 </\e>
```

`\signature` This macro sets the `\@signature` tag that will be used to finish the letter. By default this corresponds to a decent amount of vertical white space

```
848 <*\e>
849 \newcommand{\@signature}{\vspace*{8ex}}
850 \renewcommand*{\signature}[1]{\renewcommand{\@signature}{#1}}
851 </\e>
```

`\carboncopy` This macro will set the `\@carboncopy` tag that will be used in the trailer of the letter.

```
852 <*\e>
853 \newcommand{\@carboncopy}{-}
854 \newcommand{\carboncopy}[1]{\renewcommand{\@carboncopy}{#1}}
855 </\e>
```

`\enclosed` This macro will set the `\@enclosed` tag that will be used in the trailer of the letter.

```

856 <*le>
857 \newcommand{\@enclosed}{}
858 \newcommand{\enclosed}[1]{\renewcommand{\@enclosed}{#1}}
859 </le>

```

`\address` This macro will set the `\@address` tag that will be used in the letter's heading text (in the area of the envelope's window).

```

860 <*pt | le>
861 \newcommand{\@address}{\errmessage{Please, set your multi-line address
862     and contact details using the \textbackslash{}address\{\} command
863     in the preamble of your document}}
864 </pt | le>
865 <le>\renewcommand{address}[1]{\renewcommand{\@address}{#1}}
866 <pt>\newcommand{address}[1]{\renewcommand{\@address}{#1}}
867 %     \end{macrocode}
868 % \end{macro}
869 %
870 % \begin{macro}{\exampart}
871 % This macro will set the |\@examgroupnumber| tag that will be used on
872 % the exam title page.
873 % \begin{macrocode}
874 <*ex>
875 \newcommand{\@exampart}{}
876 \newcommand{\exampart}[1]{\renewcommand{\@exampart}{#1}}
877 </ex>

```

`\examgroupnumber` This macro will set the `\@examgroupnumber` tag that will be used on the exam title page.

```

878 <*ex>
879 \newcommand{\@examgroupnumber}{}
880 \newcommand{\examgroupnumber}[1]{\renewcommand{\@examgroupnumber}{#1}}
881 </ex>

```

`\examdate` This macro will set the `\@examdate` tag that will be used on the exam title page.

```

882 <*ex>
883 \newcommand{\@examdate}{TBD}
884 \newcommand{\examdate}[1]{\renewcommand{\@examdate}{#1}}
885 </ex>

```

`\examlength` This macro will set the `\@examlength` tag that will be used on the exam title page.

```

886 <*ex>
887 \newcommand{\@examlength}{TBD}
888 \newcommand{\examlength}[1]{\renewcommand{\@examlength}{#1}}
889 </ex>

```

`\tstart` This macro will set the `\@tstart` tag that will be used on the exam title page.

```
890 <*ex>
891 \newcommand{\@tstart}{TBD}
892 \newcommand{\tstart}[1]{\renewcommand{\@tstart}{#1}}
893 </ex>
```

`\tend` This macro will set the `\@tend` tag that will be used on the exam title page.

```
894 <*ex>
895 \newcommand{\@tend}{TBD}
896 \newcommand{\tend}[1]{\renewcommand{\@tend}{#1}}
897 </ex>
```

`\rooms` This macro will set the `\@rooms` tag that will be used on the exam title page.

```
898 <*ex>
899 \newcommand{\@rooms}{TBD}
900 \newcommand{\rooms}[1]{\renewcommand{\@rooms}{#1}}
901 </ex>
```

`\extrainfo` This macro will set the `\@extrainfo` tag that will be used on the back of the exam title page. When as (optional) first argument 'firstpage' is given, the extra info will start on the first page below the title block. In that case, we assume that conservation of space is your concern, so the extra info will also not be terminated with a 'clearpage'. If no optional first argument is given (or the default 'separatepage' is given), the extra info will start on a new page and will be terminated by a clearpage.

```
902 <*ex>
903 \newcommand{\@extrainfo}{}
904 \newcommand{\extrainfo}[2][separatepage]{
905   \ifthenelse{\equal{#1}{separatepage}}{
906     % then
907     \renewcommand{\@extrainfo}{\clearpage #2 \clearpage}
908   }
909   {
910     % else
911     \ifthenelse{\equal{#1}{firstpage}}{
912       {
913         \renewcommand{\@extrainfo}{#2}
914       }
915     {
916       \errmessage{Error: '\extrainfo' - first (optional) argument can
917         only be 'separatepage' or 'firstpage'}
918     }
919   }
920 }
921 </ex>
```

`\studentnr` This macro will set the `\@studentnr` tag that will be used in the header of the pages.

```
922 <*ex>
923 \newcommand{\@studentnr}{0}
924 \newcommand{\studentnr}[1]{\renewcommand{\@studentnr}{#1}}
925 </ex>
```

## 5.7 Header and Footer

The `fancyhdr` package is used to make a decent header and footer. The header and footer of the `uantwerpencoursetext` class are defined to be:

```
926 <*ct>
927 \if@twoside
928 \lhead[\thepage]{\slshape\rightmark}
929 \chead[]{}
930 \rhead[\slshape\leftmark]{\thepage}
931 \lfoot[\uaname{} -- \@facultyacronym]{\@courseversion}
932 \cfoot[]{}
933 \rfoot[]{\@title{} \ifdefvoid{\@subtitle}{}{ --- \@subtitle}}
934 \else
935 \lhead[]{\leftmark}
936 \chead[]{}
937 \rhead[]{\thepage}
938 \lfoot[]{\@courseversion}
939 \cfoot[]{\UAntwerpen--\@facultyacronym}
940 \rfoot[]{\@title{}}
941 \fi
942 </ct>
```

The header and footer of the `uantwerpenbamathesis` class are defined to be:

```
943 <*bmt | pt>
944 \if@twoside
945 \lhead[\thepage]{\slshape\rightmark}
946 \chead[]{}
947 \rhead[\slshape\leftmark]{\thepage}
948 \lfoot[]{}
949 \cfoot[]{}
950 \rfoot[]{}
951 \else
952 \lhead[]{\leftmark}
953 \chead[]{}
954 \rhead[]{\thepage}
955 \lfoot[]{}
956 \cfoot[]{}
957 \rfoot[]{}
958 \fi
```

959  $\langle$ /bmt | pt $\rangle$

The header and footer of the `uantwerpenletter` class are defined to be:

```
960  $\langle$ *le $\rangle$ 
961 \lhead[]{}
962 \chead[]{}
963 \rhead[]{}
964 \lfoot[\small\textcolor{gray}{\@date}]{\textcolor{gray}{\@date}}
965 \cfoot[]{}
966 \rfoot[\small\textcolor{gray}{\pagename~\thepage~\orname~\pageref{lastpage}}]{\small\textcolor{
967  $\langle$ /le $\rangle$ 
```

The header and footer of the `uantwerpenexam` class are defined to be:

```
968  $\langle$ *ex $\rangle$ 
969 \lhead[]{}
970 \chead[]{}
971 \if@examiner
972 \rhead[\small EXAMINER VERSION]{\small EXAMINER VERSION}
973 \AddToShipoutPicture{
974   \put(60,40){\rotatebox{60}{\textcolor{watermark}{
975     \fontfamily{phv}\fontsize{105}{130}\fontseries{m}\fontshape{n}\selectfont Examiner Vers
976 \else
977 \rhead[\small Student nr. \@studentnr]{\small Student nr. \@studentnr}
978 \fi
979 \lfoot[\small \@shorttitle]{\small \@shorttitle}
980 \cfoot[\small \thepage/\pageref{lastpage}]{\small \thepage/\pageref{lastpage}}
981 \rfoot[\small Groep \@examgroupnumber{} ---
982 \@academicyear]{\small Groep \@examgroupnumber{} --- \@academicyear}
983  $\langle$ /ex $\rangle$ 
```

Some common code remains:

```
984  $\langle$ *ct $\rangle$ 
985 \setlength{\headheight}{13.7pt}
986 \renewcommand{\headrulewidth}{1pt}
987 \renewcommand{\footrulewidth}{1pt}
988 \pagenumbering{arabic}
989  $\langle$ /ct $\rangle$ 
990  $\langle$ *mt | pt | le $\rangle$ 
991 \renewcommand{\headrulewidth}{0pt}
992 \renewcommand{\footrulewidth}{0pt}
993  $\langle$ /mt | pt | le $\rangle$ 
994  $\langle$ *ex $\rangle$ 
995 \renewcommand{\headrulewidth}{0pt}
996 \renewcommand{\footrulewidth}{1pt}
997  $\langle$ /ex $\rangle$ 
```

Remains to take care of filling



```

998 <*ct | mt | pt | le)
999 \if@filled\else
1000 \raggedright
1001 \fi
1002 \raggedbottom
1003 \onecolumn
1004 </ct | mt | pt | le)

```

## 5.8 Copyright notice

`\@crnotice` This is the standard text that will be used for the `\@crnotice` tag.

```

1005 <*ct)
1006 \newcommand{\@crnotice}{
1007   This document has been typeset using \LaTeX{} and the
1008   \texttt{uantwerpencoursetext} class.\@
1009   \@copyrightnotices
1010
1011   \@courseversion
1012
1013   CONFIDENTIAL AND PROPRIETARY.
1014
1015   \copyright{} \@versionyear{} University of Antwerp, \arrname.
1016 }
1017 </ct)

```

## 5.9 Fancy chapter headers for the phdthesis class

```

1018 <*pt)
1019 \def\@makechapterhead#1{%
1020   \vspace*{1ex}%
1021   \begin{flushright}
1022     \makebox[0pt][l]{\rule[-0.4em]{10cm}{1.8em}}\textcolor{white}{\bf\LARGE~\chaptername~}
1023     \raisebox{-24pt}{
1024       \begin{tikzpicture}
1025         \foreach \theta in {0,5,...,355} {
1026           \node[color=white] at (\theta:0.025)
1027             {\bf\fontsize{72}{12}\selectfont\thechapter};
1028         }
1029         \node[color=uacorpblue] at (0,0) {\bf\fontsize{72}{12}\selectfont\thechapter};
1030       \end{tikzpicture}
1031     }\hspace*{-8pt}
1032     \par\nobreak
1033     \interlinepenalty\@M
1034     \bf\huge\textcolor{darkgray}{\rule[-0.5ex]{0em}{2.6ex}~#1}
1035     \par\nobreak
1036   \end{flushright}

```

```

1037 \rule{\textwidth}{1pt}
1038 \vspace{5\p@}\par\nobreak
1039 }
1040 \def\@schapter#1{%
1041 \@makeschapterhead{#1}%
1042 \@afterheading
1043 }
1044 \def\@makeschapterhead#1{%
1045 \vspace*{1ex}%
1046 \begin{flushright}
1047 \bf\LARGE\textcolor{darkgray}{\rule[-0.5ex]{0em}{2.6ex}~#1}
1048 \end{flushright}
1049 \rule{\textwidth}{1pt}
1050 \vspace{5\p@}\par
1051 }
1052 % overwrite appendix
1053 \def\appendix{
1054 \setcounter{chapter}{0}
1055 \renewcommand*{\thechapter}{\Alph{chapter}}
1056 \renewcommand\chaptername\appendixname
1057 }
1058 </pt>

```

## 5.10 Title page for the masterthesis and coursetext classes

The title page is generated using the `\maketitle` command. As the book class from which we inherit already defines this command, we need to renew it.

The UAntwerpen house style works with large-radius circles. We need some math in order to calculate center points and radiuses

**Header circle:** the blue header-circle on top of the page. We calculate the center point and the radius based on:

- the fact that the center point is above the page's left edge;
- the distance of the intersection points at the left and right edge of the page with respect to the top of the page,  $X$  and  $Y$  respectively;
- the width of the page  $W$ .

Some simple trigonometry leads to the elevation of the center point above the top of the page  $Q$  and the radius  $R$ :

$$R = \frac{W^2 + (X - Y)^2}{2(X - Y)} \quad (1)$$

$$Q = R - X \quad (2)$$

We labeled the variables in the code below with a prefix `ua@` and a suffix `h` (from 'header'). We also took the `paperheight` into account (the page's coordinate system origins at the left bottom. Therefore:

```

1059 <*ct | bmt>
1060 \pgfmathsetmacro{\ua@Wh}{\paperwidth}
1061 \pgfmathsetmacro{\ua@Xh}{0.2\paperheight}
1062 \pgfmathsetmacro{\ua@Yh}{0.125\paperheight}
1063 \pgfmathsetmacro{\ua@XMyh}{\ua@Xh-\ua@Yh}
1064 \pgfmathsetmacro{\ua@Rh}{0.5*\ua@Wh/\ua@XMyh*\ua@Wh+0.5*\ua@XMyh}
1065 \pgfmathsetmacro{\ua@Qh}{\ua@Rh-\ua@Xh+\paperheight}
1066 </ct | bmt>

```

**Bottom circle A:** the bottom circle with the largest radius. We calculate the center point and the radius based on:

- the fact that the center point is at a distance of  $3/5$  page width from the right page edge. We denote that distance by  $W$ ;
- the fact that the horizontal bottom tangent line of the circle is at a specific height above the bottom page edge, labeled  $S$ ;
- the distance of the intersection points at the right edge of the page with respect to the horizontal bottom tangent line of the circle, denoted as  $X - Y$ .

Given these definitions, almost the same equations as for the header circle hold:

$$R = \frac{W^2 + (X - Y)^2}{2(X - Y)} \quad (3)$$

$$Q = R + S \quad (4)$$

with  $R$  the circle's radius, and  $Q$  the elevation of the center point above the page's bottom.

We labeled the variables in the code below with a prefix `ua@` and a suffix `ba` (from 'bottom a'). Therefore:

```

1067 <*ct | bmt>
1068 \pgfmathsetmacro{\ua@Wba}{0.4*\paperwidth}
1069 \pgfmathsetmacro{\ua@Sba}{0.125*\paperheight}
1070 \pgfmathsetmacro{\ua@XMyba}{0.02\paperheight}
1071 \pgfmathsetmacro{\ua@Rba}{0.5*\ua@Wba/\ua@XMyba*\ua@Wba+0.5*\ua@XMyba}
1072 \pgfmathsetmacro{\ua@Qba}{\ua@Rba+\ua@Sba}
1073 </ct | bmt>

```

**Bottom circle B:** the bottom circle with the smallest radius. The same reasoning leads to:

```

1074 <*ct | bmt>
1075 \pgfmathsetmacro{\ua@Wbb}{0.65*\paperwidth}
1076 \pgfmathsetmacro{\ua@Sbb}{0.14*\paperheight}
1077 \pgfmathsetmacro{\ua@XMYbb}{0.06*\paperheight}
1078 \pgfmathsetmacro{\ua@Rbb}{0.5*\ua@Wbb/\ua@XMYbb*\ua@Wbb+0.5*\ua@XMYbb}
1079 \pgfmathsetmacro{\ua@Qbb}{\ua@Rbb+\ua@Sbb}
1080 </ct | bmt>

```

**Text alignment:** The text is aligned around an imaginary vertical line around  $2/5$  page width distance from the left edge.

```

1081 <*ct | bmt>
1082 \pgfmathsetmacro{\ua@ll}{0.15*\paperwidth}
1083 \pgfmathsetmacro{\ua@l}{0.4*\paperwidth}
1084 \pgfmathsetmacro{\ua@d}{0.1in}
1085 \pgfmathsetmacro{\ua@rr}{0.85*\paperwidth}
1086 </ct | bmt>

```

Below, one can find the code for the title page of the `uantwerpencoursetext` class. We start with setting up some things for the (optional) QR mark.

```

1087 <*ct>
1088 \newcommand\sprtr{ / }
1089 \newcommand\myqrdata{
1090 I: Universiteit Antwerpen\string\n
1091 F: \@faculty\string\n
1092 P: \@programmet\ \@programmecqr\ \@programmeq\string\n
1093 C: \@coursecodei\ \@qrcoursei
1094 \sprtr
1095 \@coursecodeii\ \@qrcourseii
1096 \sprtr
1097 \@coursecodeiii\ \@qrcourseiii
1098 \sprtr
1099 \@coursecodeiv\ \@qrcourseiv
1100 \string\n
1101 Y: \@academicyear\string\n
1102 T: \@qrtitle\string\n
1103 S: \@qrsubtitle\string\n
1104 A: \@qrauthor\string\n
1105 L: \@qrlectureri
1106 \sprtr
1107 \@qrlecturerii
1108 \sprtr
1109 \@qrlectureriii
1110 \sprtr
1111 \@qrlectureriv}
1112 \newsavebox{\myqrcode}
1113 </ct>

```

`\maketitle` And finally, here is the `\maketitle` macro:

```
1114 <*ct>
1115 \renewcommand\maketitle{%
1116   \pagestyle{empty}
1117   \if@qr
1118     \savebox{\myqrcode}[2.7in][t]{
1119       \begin{pspicture}(2.7in,2.7in)
1120         \psbarcode{\myqrdata}{width=1.0 height=1.0 encoding=byte elevel=M}{qrcode}
1121       \end{pspicture}
1122     }
1123   \fi
1124   \begin{titlepage}
1125     \if@titlepagetableonly
1126     Dit is een cursustekst van Universiteit Antwerpen.\\
1127     Het titelblad dient opgemaakt te worden met de volgende gegevens:
1128     \begin{center}
1129       \begin{tabular}{|l|l|}
1130         \hline
1131         \bfseries I & Universiteit Antwerpen \\ \hline
1132         \bfseries F & \@faculty \\ \hline
1133         \bfseries P & \parbox[t]{14cm}{\@programmet} \\ \hline
1134         \@programmec & \parbox[t]{14cm}{\@programmeq} \\ \hline
1135         \bfseries C & \parbox[t]{14cm}{
1136           \texttt{\@coursecodei} \@coursei\\
1137           \texttt{\@coursecodeii} \@courseii\\
1138           \texttt{\@coursecodeiii} \@courseiii\\
1139           \texttt{\@coursecodeiv} \@courseiv} \\ \hline
1140         \bfseries Y & \@academicyear \\ \hline
1141         \bfseries T & \parbox[t]{14cm}{\@title} \\ \hline
1142         \bfseries S & \parbox[t]{14cm}{\@subtitle} \\ \hline
1143         \bfseries A & \parbox[t]{14cm}{\@author} \\ \hline
1144         \bfseries L & \parbox[t]{14cm}{\@lectureri\\
1145           \@lecturerii\\
1146           \@lectureriii\\
1147           \@lectureriv} \\ \hline
1148       \end{tabular}
1149     \end{center}
1150     ~\\
1151     Waarbij: I = instelleng, F = faculteit, P = programma, C =
1152     cursusmodule, T = titel, S = subtitel, A = auteur(s), L =
1153     lesgever(s) \\ ~\\
1154     \if@qr
1155     Deze informatie is ook gecodeerd in de onderstaande QR-code.\\
1156     \vspace*{1cm}
1157     \usebox{\myqrcode}
1158     \fi
1159     \else
1160     \begin{tikzpicture}[remember picture,overlay]
1161       \node at (current page.center) {
```

```

1162 \begin{tikzpicture}[inner sep=0pt]
1163 \clip (0,0) rectangle(\paperwidth,\paperheight);
1164 \if@titlepageartwork\else
1165 \filldraw [uacorpbord] (0.55\paperwidth,\ua@Qba pt) circle (\ua@Rba pt);
1166 \filldraw [white] (0.35\paperwidth,\ua@Qbb pt) circle (\ua@Rbb pt);
1167 \filldraw [uacorpblue] (0,\ua@Qh pt) circle (\ua@Rh pt);
1168 \path
1169 (0.95\paperwidth,0.1\paperheight)
1170 node [anchor=north east] {
1171 \includegraphics[width=0.25\paperwidth]{\logoname}};
1172 \fi
1173 \path
1174 (\ua@l pt -\ua@d pt,0.77\paperheight)
1175 node [anchor=north east, text width=0.35\paperwidth] {
1176 \begin{flushright}
1177 \uppercase\expandafter{\uaname}\~\
1178 \academicyearname{} \@academicyear
1179 \end{flushright}}
1180 (\ua@l pt +\ua@d pt,0.65\paperheight)
1181 node [anchor = north west, text width = 0.55\paperwidth] {
1182 {\large \@faculty{}}\}[0.05\paperheight]
1183 {\huge \bf \@title{}}\}[2ex]
1184 {\Large \bf \@subtitle{}}\}[3ex]
1185 {\Large \bf \@author{}}}
1186 (\ua@l pt +\ua@d pt,0.45\paperheight)
1187 node [anchor = north west, text width = 0.55\paperwidth] {
1188 \@lectureri~\
1189 \@lecturerii~\
1190 \@lectureriii~\
1191 \@lectureriv}
1192 (\ua@l pt +\ua@d pt,0.35\paperheight)
1193 node [anchor = north west, text width = 0.55\paperwidth] {
1194 {\bf \@programmet \ \@programmec\@programmes \@programmeq}}
1195 (\ua@l pt +\ua@d pt,0.30\paperheight)
1196 node [anchor = north west, text width = 0.55\paperwidth] {
1197 \texttt{\@publishercode}~\~\
1198 \texttt{\@coursecodei{}} \@coursei~\
1199 \texttt{\@coursecodeii{}} \@courseii~\
1200 \texttt{\@coursecodeiii{}} \@courseiii~\
1201 \texttt{\@coursecodeiv{}} \@courseiv}
1202 (\ua@l pt - 2\ua@d pt, 0.368\paperheight)
1203 node [anchor = north east, text width = 0.35\paperwidth] {
1204 {\normalsize\begin{flushright}
1205 \@publisher{}}
1206 \end{flushright}}};
1207 \end{tikzpicture}
1208 };
1209 \end{tikzpicture}
1210 \fi
1211 \end{titlepage}%

```

```

1212 \clearpage
1213 \vspace*{\stretch{1}}
1214 \@crnotice
1215 \clearpage
1216 \setcounter{footnote}{0}%
1217 \global\let\thanks\relax
1218 \global\let\maketitle\relax
1219 \global\let\@thanks\@empty
1220 \global\let\title\relax
1221 \global\let\author\relax
1222 \global\let\date\relax
1223 \global\let\and\relax
1224 \pagestyle{fancy}
1225 \thispagestyle{empty}
1226 }
1227 </ct>

```

`\makefinalpage` Below, one can find the code for the final page of the `uantwerpencoursetext` class:

```

1228 <*ct>
1229 \newcommand\makefinalpage{
1230 \if@titlepagetableonly
1231 \else
1232 \cleardoublepage
1233 \thispagestyle{empty}
1234 ~% intentionally blank page
1235 \clearpage
1236 \thispagestyle{empty}
1237 \begin{tikzpicture}[remember picture,overlay]
1238 \node at (current page.center) {
1239 \begin{tikzpicture}[inner sep=0pt]
1240 \clip (0,0) rectangle(\paperwidth,\paperheight);
1241 \if@titlepagenoartwork\else
1242 \filldraw [uacorpblue] (\paperwidth,\ua@Qh pt) circle (\ua@Rh pt);
1243 \fi
1244 \path
1245 (0.1\paperwidth,0.1\paperheight)
1246 node [anchor = south west, text width = 0.6\paperwidth] {
1247 CONFIDENTIAL AND PROPRIETARY\~\~\
1248
1249 \copyright{} \@versionyear{} \uaname,
1250 \arrname.}
1251 (0.9\paperwidth,0.1\paperwidth)
1252 node [anchor = south east] {
1253 \usebox{\myqrcode}
1254 };
1255 \end{tikzpicture}
1256 };
1257 \end{tikzpicture}

```

```

1258 \fi
1259 }
1260 </ct>

```

`\maketitle` And next, the code for the title page of the `uantwerpenmasterthesis` class:

```

1261 <*bmt>
1262 \renewcommand\maketitle{%
1263 \pagestyle{empty}
1264 \begin{titlepage}
1265 \begin{tikzpicture}[remember picture,overlay]
1266 \node at (current page.center) {
1267 \begin{tikzpicture}[inner sep=0pt]
1268 \clip (0,0) rectangle(\paperwidth,\paperheight);
1269 \if@titlepage@noartwork\else
1270 \filldraw [lightgray] (0.55\paperwidth,\ua@Qba pt) circle (\ua@Rba pt);
1271 \filldraw [white] (0.35\paperwidth,\ua@Qbb pt) circle (\ua@Rbb pt);
1272 \filldraw [lightgray] (0,\ua@Qh pt) circle (\ua@Rh pt);
1273 \path
1274 (0.95\paperwidth,0.1\paperheight)
1275 node [anchor=north east] {
1276 \includegraphics[width=0.25\paperwidth]{\logoname}};
1277 \fi
1278 \path
1279 (\ua@ll pt,0.77\paperheight)
1280 node [anchor=north west, text width=0.7\paperwidth] {
1281 \uppercase\expandafter{\uaname}\~-\\
1282 \academyearname{} \@academicyear\~-\\
1283 {\large \@faculty{}}\~-\\
1284 \thesisname{}}\@[0.05\paperheight]
1285 {\Large \bf \@title{}}}
1286 (\ua@ll pt,0.55\paperheight)
1287 node [anchor = north west, text width = 0.7\paperwidth] {
1288 {\large \bf \@author{}}\~-\\~-\\
1289 \begin{tabular}{@{}p{2.7cm}p{10.8cm}}
1290 \textbf{\supervisorsname{}}:}
1291 & \@supervisor i \\
1292 & \@supervisor ii \\
1293 & \@supervisor iii \\
1294 & \@supervisor iv
1295 \end{tabular}
1296 }
1297 (\ua@ll pt,0.3\paperheight) node [anchor=north west, text width = 0.7\paperwidth]{%
1298 \bmthesisname\\
1299 \@diploma\\
1300 \@defenselocation, \@defensedate
1301 };
1302 \end{tikzpicture}
1303 };
1304 \end{tikzpicture}

```



```

1305 \end{titlepage}%
1306 \clearpage
1307 \setcounter{footnote}{0}%
1308 \global\let\thanks\relax
1309 \global\let\maketitle\relax
1310 \global\let\@thanks\@empty
1311 \global\let\title\relax
1312 \global\let\author\relax
1313 \global\let\date\relax
1314 \global\let\and\relax
1315 \pagestyle{fancy}
1316 \thispagestyle{empty}
1317 }
1318 </bmt>

```

`\makefinalpage` Below, one can find the code for the final page of the `uantwerpenmasterthesis` class:

```

1319 <*bmt>
1320 \newcommand\makefinalpage{
1321 \cleardoublepage
1322 \thispagestyle{empty}
1323 \begin{tikzpicture}[remember picture,overlay]
1324 \node at (current page.center) {
1325 \begin{tikzpicture}[inner sep=0pt]
1326 \clip (0,0) rectangle(\paperwidth,\paperheight);
1327 \if@titlepagenoartwork\else
1328 \filldraw [lightgray] (\paperwidth,\ua@Qh pt) circle (\ua@Rh pt);
1329 \fi
1330 \end{tikzpicture}
1331 };
1332 \end{tikzpicture}
1333 }
1334 </bmt>

```

## 5.11 Title page for the phdthesis classes

The title page is generated using the `\maketitle` command. As the book class from which we inherit already defines this command, we need to renew it.

The UAntwerpen house style works with large-radius circles. We need some math in order to calculate center points and radiuses

The width and height of the page are labeled  $X$  and  $Y$  in the house style. The radius of the circles equals 6 times  $X$ . Therefore:

```

1335 <*pt>
1336 \pgfmathsetmacro{\ua@X}{\paperwidth}
1337 \pgfmathsetmacro{\ua@Y}{\paperheight}

```

```

1338 \pgfmathsetmacro{\ua@R}{6*\paperwidth}
1339 \pgfmathsetmacro{\ua@B}{(\ua@X+\ua@Y)/15}
1340 \pgfmathsetmacro{\ua@L}{0.25*\ua@X}
1341 \pgfmathsetmacro{\ua@Z}{0.1*\ua@L}
1342 \pgfmathsetmacro{\ua@H}{0.3*\ua@L}
1343 \pgfmathsetmacro{\ua@h}{0.5*(\ua@B-\ua@H)}
1344 \end{code}

```

`\maketitle` Below, one can find the code for the title page of the `uantwerpenphdthesis` class:

```

1345 \begin{code}
1346 \renewcommand\maketitle{%
1347   \pagestyle{empty}
1348   \begin{titlepage}
1349     \if@titlepagetableonly
1350       Dit is een doctoraatsthesis van Universiteit Antwerpen.
1351     \else
1352       \begin{tikzpicture}[remember picture,overlay]
1353         \node at (current page.center) {
1354           \begin{tikzpicture}[inner sep=0pt]
1355             \clip (0,0) rectangle(\paperwidth,\paperheight);
1356
1357             \filldraw[uacorpblue]
1358               (0.5*\ua@X pt,\ua@B+\ua@R pt) circle (\ua@R pt)
1359               (\ua@X pt, 0.25*\ua@Y+\ua@R pt) circle (\ua@R pt);
1360
1361             \node[anchor=south east] at (\ua@X-3*\ua@Z pt,\ua@h pt)
1362               {\includegraphics[width=\ua@L pt]{\logoname}};
1363
1364             \begin{scope}
1365               \clip
1366                 (\ua@X pt, 0.25*\ua@Y+\ua@R pt) circle (\ua@R pt)
1367                 (0.375*\ua@X pt,\ua@R+0.666*\ua@Y pt) circle (\ua@R pt);
1368
1369               \node[anchor=south] at (0.5*\ua@X pt, 2.1*\ua@B pt)
1370                 {\includegraphics[width=\ua@X pt]{\@titlepageimage}};
1371             \end{scope}
1372
1373             \filldraw[uacorpbord]
1374               (0.375*\ua@X pt,\ua@R+0.666*\ua@Y pt) circle (\ua@R pt);
1375
1376             \filldraw[white]
1377               (0.1*\ua@X pt,\ua@R+0.666*\ua@Y pt) circle (\ua@R pt);
1378
1379             \node[anchor=north west,align=left,font=\large]
1380               at (3*\ua@Z pt, \ua@B - \ua@h pt)
1381               { \textcolor{uacorpblue}{\textsf{\@defenselocation,
1382                 \@defensedate}} };
1383

```

```

1384         \node[anchor=south west,text width=\textwidth,align=left,font=\large]
1385         at (3*\ua@Z pt, 1.4*\ua@B pt)
1386         { \textcolor{white}{\textsf{\@affiliation}} };
1387
1388         \node[anchor=south east,text width=\textwidth,align=right,font=\large]
1389         at (\ua@X - 3*\ua@Z pt, 1.4*\ua@B pt)
1390         { \textcolor{white}{\textsf{
1391             \supervisorsname\\
1392             \@supervisorI%
1393             \ifvoid{\@supervisorii}{}\{\@supervisorii}%
1394             \ifvoid{\@supervisoriii}{}\{\@supervisoriii}%
1395             \ifvoid{\@supervisoriv}{}\{\@supervisoriv}}
1396         };
1397
1398         \node[anchor=north west,text
1399         width=\ua@X-6*\ua@Z,align=left,font=\Huge]
1400         (title)
1401         at (3*\ua@Z pt,\ua@Y-4*\ua@Z pt)
1402         { \textsf{\textbf{\@title}} };
1403
1404         \node[anchor=north west,below=2.5ex of title,text width=\ua@X-6*\ua@Z,align=left,font=
1405         { \textsf{\textbf{\@subtitle}} } };
1406
1407         \node[anchor=north west,text width=\ua@X-6*\ua@Z,align=left]
1408         at (3*\ua@Z pt,\ua@Y - 12.5*\ua@Z pt)
1409         { \textsf{\pthesisnamei{} \phddegree{} \pthesisnameii{}} };
1410
1411         \node[anchor=north west, text width=\textwidth,align=left,font=\LARGE]
1412         at (3*\ua@Z pt, \ua@Y-15.5*\ua@Z pt)
1413         { \textsf{\textbf{\@author}} };
1414         \end{tikzpicture}
1415     };
1416     \end{tikzpicture}
1417     \fi
1418 \end{titlepage}%
1419 \cleardoublepage
1420 \begin{center}
1421     \includegraphics[width=\ua@L pt]{\logoname}
1422     \vfill
1423     \@faculty\\
1424     \@programmeq\par
1425     \vfill
1426     \Huge\textsf{\@title}\par
1427     \large\textsf{\@subtitle}\par
1428     \vfill
1429     \normalsize\pthesisnamei\\
1430     \@phddegree\\
1431     \pthesisnameii\\
1432     \medskip
1433     \textbf{\@author}

```

```

1434 \vfill
1435 \begin{minipage}[b]{0.4\textwidth}
1436 \@defenselocation, \@defensedate
1437 \end{minipage}
1438 \hfill
1439 \begin{minipage}[b]{0.4\textwidth}
1440 \flushright
1441 \supervisorsname\\
1442 \@supervisor%
1443 \ifdefvoid{\@supervisorii}{}{\\@supervisorii}%
1444 \ifdefvoid{\@supervisoriii}{}{\\@supervisoriii}%
1445 \ifdefvoid{\@supervisoriv}{}{\\@supervisoriv}
1446 \end{minipage}
1447 \end{center}
1448 \clearpage
1449 \textbf{\juryname}\hfill\par
1450 \textbf{\jurychairmanname}\hfill\break
1451 \@jurychairman{\ifdefvoid{\@jurychairmanaff}{}{, \@jurychairmanaff}}\\
1452 \hfill\break
1453 \textbf{\supervisorsname}\hfill\break
1454 \ifdefvoid{\@supervisor}{}{\@supervisor
1455 \ifdefvoid{\@supervisoriaff}{}{, \@supervisoriaff}}\\
1456 \ifdefvoid{\@supervisorii}{}{\@supervisorii
1457 \ifdefvoid{\@supervisoriiiaff}{}{, \@supervisoriiiaff}}\\
1458 \ifdefvoid{\@supervisoriii}{}{\@supervisoriii
1459 \ifdefvoid{\@supervisoriiiaff}{}{, \@supervisoriiiaff}}\\
1460 \ifdefvoid{\@supervisoriv}{}{\@supervisoriv
1461 \ifdefvoid{\@supervisorivaff}{}{, \@supervisorivaff}}\\
1462 \hfill\break
1463 \textbf{\jurymembersname}\hfill\break
1464 \ifdefvoid{\@jurymemberi}{}{\@jurymemberi
1465 \ifdefvoid{\@jurymemberiaff}{}{, \@jurymemberiaff}}\\
1466 \ifdefvoid{\@jurymemberii}{}{\@jurymemberii
1467 \ifdefvoid{\@jurymemberiiaff}{}{, \@jurymemberiiaff}}\\
1468 \ifdefvoid{\@jurymemberiii}{}{\@jurymemberiii
1469 \ifdefvoid{\@jurymemberiiiaff}{}{, \@jurymemberiiiaff}}\\
1470 \ifdefvoid{\@jurymemberiv}{}{\@jurymemberiv
1471 \ifdefvoid{\@jurymemberivaff}{}{, \@jurymemberivaff}}\\
1472 \ifdefvoid{\@jurymemberv}{}{\@jurymemberv
1473 \ifdefvoid{\@jurymembervaff}{}{, \@jurymembervaff}}\\
1474 \ifdefvoid{\@jurymembervi}{}{\@jurymembervi
1475 \ifdefvoid{\@jurymemberviaff}{}{, \@jurymemberviaff}}\\
1476 \hfill\break
1477 \vfill
1478 \textbf{Contact}\\
1479 \smallskip
1480 \@author\\
1481 \@affiliation\\
1482 \@address\\
1483 \vfill

```

```

1484 \copyright{} \@defensedate{} \@author\\
1485 \arrname.
1486 \vfill
1487 \begin{minipage}[b]{.5\linewidth}
1488   ISBN \@isbn\\
1489   Wettelijk depot \@depot
1490 \end{minipage}
1491 \hfill
1492 \begin{minipage}[b]{.5\linewidth}
1493   \expandafter\EAN \@isbn
1494 \end{minipage}
1495 \setcounter{footnote}{0}%
1496 \global\let\thanks\relax
1497 \global\let\maketitle\relax
1498 \global\let\@thanks\@empty
1499 \global\let\title\relax
1500 \global\let\author\relax
1501 \global\let\date\relax
1502 \global\let\and\relax
1503 \pagestyle{fancy}
1504 \thispagestyle{empty}
1505 \
1506 }
1507 </pt>

```

`\makefinalpage` Below, one can find the code for the final page of the `uantwerpenphdthesis` class:

```

1508 <*pt>
1509 \newcommand\makefinalpage{
1510   \if@titlepagetableonly
1511   \else
1512     \cleardoublepage
1513     \thispagestyle{empty}
1514     ~% intentionally blank page
1515     \clearpage
1516     \thispagestyle{empty}
1517     \begin{tikzpicture}[remember picture,overlay]
1518       \node at (current page.center) {
1519         \begin{tikzpicture}[inner sep=0pt]
1520           \clip (0,0) rectangle(\paperwidth,\paperheight);
1521           \fill[uacorpblue] (0,0) rectangle(\ua@X pt,\ua@Y pt);
1522           \filldraw [white] (1.2*\ua@X pt,\ua@R+0.125*\ua@Y pt) circle (\ua@R pt);
1523           \filldraw [uacorpbord] (1.375*\ua@X pt,\ua@R+0.666*\ua@Y pt) circle (\ua@R pt);
1524         \end{tikzpicture}
1525       };
1526     \end{tikzpicture}
1527   \fi
1528 }
1529 </pt>

```

## 5.12 Title page for the letter class

### 5.12.1 Bottom cords

The graphical footer of the page is provided through PDF/PS includes in a Dutch and a non-dutch version.

### 5.12.2 Title Page

`\maketitle` The top of the letter is generated using the `\maketitle` command.

```
1530 <*\e>
1531 \newcommand\maketitle{%
1532   \pagestyle{fancy}
1533   \thispagestyle{empty}
1534   \begin{tikzpicture}[overlay,remember picture]
1535     \path (current page.north west) +(1.8cm,-1.2cm)
1536     node[anchor=north west] {
1537       \includegraphics[height=1.1cm]{\@logo}
1538     };
1539     \draw (current page.north west)
1540     +(1cm,-98mm) -- +(1.5cm,-98mm);
1541     % 90 x 45
1542     % pos: 20mm van kant, 15mm van onderkant
1543     \path (current page.north east) +(-100mm,-65mm)
1544     node[anchor=west,text width=80mm,align=left] {
1545       \scriptsize\textcolor{gray}{\underline{\@returnaddress}}\}*
1546       \normalsize\@to\}*
1547       \@toorganization\}*
1548       \@toaddress
1549     };
1550   \end{tikzpicture}
1551   \begin{tikzpicture}[overlay,remember picture]
1552     \path (current page.south west) +(0,-0.7cm)
1553     node[anchor=south west,inner sep=0pt, outer sep=0pt]
1554     {\includegraphics{\footername}};
1555   \end{tikzpicture}
1556   ~\}[3ex]
1557   \textcolor{uacorpblue}{\bf \@sender}
1558   \ifx\@senderrole\@emptymacro\}[1.75ex]\else \*\@senderrole\}[1.75ex]\fi
1559   \@faculty
1560   \ifx\@unit\@emptymacro\else\*\@unit\fi-\}[1.75ex]
1561   \@address\}[1.75ex]
1562   \ifx\@email\@emptymacro\else E \@emailuser\tat}\@emaildomain\}\fi
1563   \ifx\@phone\@emptymacro\else T \@phone\}\fi
1564   \ifx\@fax\@emptymacro\else F \@fax\}\fi
1565   \ifx\@mobile\@emptymacro\else M \@mobile\}\fi
1566   ~\}[4ex]
```

```

1567 \begin{tikzpicture}[anchor=north west,align=left,outer sep=0,inner sep=0]
1568   \path
1569     (0,0) node { \scriptsize \strut
1570       \textcolor{gray}{\uppercase\expandafter{\datename} } }
1571     (4cm,0) node { \scriptsize \strut
1572       \textcolor{gray}{\uppercase\expandafter{\subjectname} } }
1573     (0,-2.5ex) node { \strut \@date }
1574     (4cm,-2.5ex) node[align=left] { \strut \@subject };
1575 \end{tikzpicture}~\!\! [4ex]
1576 }
1577 \!e)

```

The trailer of the page is automatically generated at the end of the document:

```

1578 \!e)
1579 \AtEndDocument{
1580   \@closing\!\! [3ex]\@signature~\!\! [3ex]
1581   \@sender
1582   \ifx\@senderrole\@emptymacro\!\! [8ex]\else\!\!*\@senderrole\!\! [8ex]\fi
1583   \setlength{\parskip}{0em}
1584   \ifx\@carboncopy\@emptymacro\else CC: \@carboncopy\!\! [4ex]\fi
1585   \ifx\@enclosed\@emptymacro\else ENCL: \@enclosed\fi
1586   \label{lastpage}
1587 }
1588 \!e)

```

### 5.13 Title page for the exam class

Now Groep has been replaced by Reeks to be consistent with UAntwerpen PC-room nomenclature

`\maketitle` The title page of the exam class is generated using the `\maketitle` command.

```

1589 \!e)
1590 \renewcommand\maketitle{%
1591   \pagestyle{fancy}
1592   \AddToShipoutPicture*{%
1593     \put(0,0){%
1594       \begin{tikzpicture}[remember picture,overlay]
1595         \node at (current page.center) {
1596           \begin{tikzpicture}
1597             \clip (0,0) rectangle (21,29.7);
1598             \draw
1599               ( 3,9.7) -- ( 3,23.7)
1600               ( 0,23.7) -- +(21,0)
1601               ( 3,20.8) -- +(21,0)
1602               ( 3,18.8) -- +(21,0)
1603               ( 3,16.8) -- +(21,0)

```

```

1604 (14,9.7) -- (14,13.7)
1605 ( 3,13.7) -- +(21,0)
1606 ( 3,11.7) -- +(21,0)
1607 ( 0,9.7) -- +(21,0);
1608
1609 \draw[ultra thick]
1610 ( 3,16.8) +(0,-0.5) -- +(0,0) -- +(0.5,0)
1611 ( 3,13.7) +(0,+0.5) -- +(0,0) -- +(0.5,0)
1612 (21,16.8) +(0,-0.5) -- +(0,0) -- +(-0.5,0)
1613 (21,13.7) +(0,+0.5) -- +(0,0) -- +(-0.5,0);
1614 % (14,15.7) +(-0.5,0) -- +(0,0) +(0,-0.5) -- +(0,0) -- +(0.5,0)
1615 % (14,11.7) +(-0.5,0) -- +(0,0) +(0,+0.5) -- +(0,0) -- +(0.5,0)
1616
1617 \foreach \nn in {0,1,...,7} {
1618   \draw (16.5,13.9) ++({0.5*\nn},0) rectangle +(0.5,0.8);
1619 }
1620
1621 \foreach \nn in {0,1,...,33} {
1622   \draw (3.5,15.3) ++({0.5*\nn},0) rectangle +(0.5,0.8);
1623 }
1624 \foreach \nn in {0,1,...,23} {
1625   \draw (3.5,13.9) ++({0.5*\nn},0) rectangle +(0.5,0.8);
1626 }
1627
1628 \path
1629 (3,25.2) node[anchor=north west] {
1630   \parbox{14cm}{
1631     \fontfamily{phv}\fontsize{12}{15}\fontseries{b}\selectfont
1632     \@faculty\\
1633     \fontfamily{phv}\fontsize{11}{14}\fontseries{m}\selectfont
1634     \@programmet \@programmec\
1635     \ifx\@programmeq\@emptymacro\else--- \@programmeq\fi
1636   }
1637 }
1638 (3.3,23) node[anchor=north west] {
1639   \parbox{16cm}{
1640     \fontfamily{phv}\fontsize{18}{22}\fontseries{b}\fontshape{n}\selectfont
1641     \raggedright \@coursei{}
1642     \ifx\@exampart\@emptymacro
1643     \else --- \@exampart\fi
1644     \fontfamily{phv}\fontsize{12}{18}\fontseries{m}\fontshape{n}\selectfont\\
1645     Reeks \@examgroupnumber{} \hfill \@examdate{} }
1646 }
1647 (3.3,20.1) node[anchor=north west] {
1648   \parbox{14cm}{
1649     \fontfamily{phv}\fontsize{12}{15}\fontseries{m}\selectfont
1650     \@coursecodei
1651   }
1652 }
1653 (3.3,18.6) node[anchor=north west] {

```



```

1654         \parbox{14cm}{
1655             \fontfamily{phv}\fontsize{12}{18}\fontseries{m}\fontshape{n}\selectfont
1656             \raggedright \ifdef{\dateenglish}{Professor(s) --- }{}Titularis(sen):\@
1657             \fontfamily{phv}\fontsize{14}{20}\fontseries{m}\fontshape{n}\selectfont
1658             \raggedright \@author{}
1659         }
1660     }
1661     (3.3,16.7) node[anchor=north west] {
1662         \parbox{10cm}{
1663             \fontfamily{phv}\fontsize{12}{15}\fontseries{m}\fontshape{n}\selectfont
1664             \raggedright \ifdef{\dateenglish}{Last name
1665             --- }{}
1666             Naam:}
1667     }
1668     (3.3,15.25) node[anchor=north west] {
1669         \parbox{10cm}{
1670             \fontfamily{phv}\fontsize{12}{15}\fontseries{m}\fontshape{n}\selectfont
1671             \raggedright \ifdef{\dateenglish}{First name
1672             --- }{}
1673             Voornaam:}
1674     }
1675     (16.3,15.25) node[anchor=north west] {
1676         \parbox{5cm}{
1677             \fontfamily{phv}\fontsize{12}{15}\fontseries{m}\fontshape{n}\selectfont
1678             \raggedright \ifdef{\dateenglish}{Docket No. --- }{}Rolnr.:}
1679     }
1680
1681     (3.3,11.5) node[anchor=north west] {
1682         \parbox{14cm}{
1683             \fontfamily{phv}\fontsize{12}{21}\fontseries{m}\fontshape{n}\selectfont
1684             \raggedright \ifdef{\dateenglish}{Exam duration --- }{}Duur van het examen: \@e
1685         }
1686     }
1687     (14.3,11.5) node[anchor=north west] {
1688         \parbox{5cm}{
1689             \fontfamily{phv}\fontsize{12}{15}\fontseries{m}\fontshape{n}\selectfont
1690             \raggedright \ifdef{\dateenglish}{Start --- }{}Begin: \@tstart \@[1ex]
1691             \raggedright \ifdef{\dateenglish}{End --- }{}Einde~: \@tend
1692         }
1693     }
1694     (3.3,13.5) node[anchor=north west] {
1695         \parbox{14cm}{
1696             \fontfamily{phv}\fontsize{12}{21}\fontseries{m}\fontshape{n}\selectfont
1697             \raggedright \ifdef{\dateenglish}{Room --- }{}Lokaal: \@rooms
1698         }
1699     }
1700
1701     (3,27.7) node[anchor=north west] {
1702         \includegraphics[width=7cm]{\@logo}
1703     };

```

```

1704         \end{tikzpicture}
1705     };
1706     \end{tikzpicture}
1707 }
1708 }
1709 \vspace*{17cm}
1710 \ifx\@qrtitle\@emptymacro
1711 \else
1712 \@extrainfo
1713 \fi
1714 }
1715 </ex>

```

## 5.14 Auxiliary functions to typeset exams

`\question` Add a small box with the weight of the question on the current line (right aligned).

```

1716 <*ex>
1717 \newcounter{question}
1718 \setcounter{question}{0}
1719 \renewcommand\thequestion{\@arabic\c@question}
1720 \newcommand{\question}[1]{
1721     \stepcounter{question}
1722     \thequestion.~#1%
1723 }
1724 </ex>

```

`\questionweight` Add a small box with the weight of the question on the current line (right aligned).

```

1725 <*ex>
1726 \newcommand{\questionweight}[1]{%
1727     \hspace{\fill}
1728     \begin{tabular}{|c|}
1729         \hline
1730         \small \weightname: #1\\
1731         \hline
1732     \end{tabular}\\
1733 }
1734 </ex>

```

`\engdut` typesets the question in two columns, the left column taking the English variant of the question and the right column taking the Dutch variant.

```

1735 <*ex>
1736 \newcommand{\engdut}[2]{%
1737     \begin{tabular}{ccc}%
1738         \selectlanguage{english}%
1739         \begin{minipage}[t]{0.45\textwidth}%

```

```

1740     #1
1741     \end{minipage}%
1742     &~~~&
1743     \selectlanguage{dutch}%
1744     \begin{minipage}[t]{0.45\textwidth}%
1745         #2
1746     \end{minipage}%
1747 \end{tabular}
1748 \selectlanguage{english}%
1749 }
1750 </ex>

```

`\setmcsymbol` sets the symbol to be used as multiple choice mark (by default a square).

```

1751 <*ex>
1752 \newcommand\@mcsymbol{\square}
1753 \newcommand\setmcsymbol[1]{\renewcommand\@mcsymbol{#1}}
1754 </ex>

```

`\mc` typesets a multiple choice answer candidate (monolingual, i.e. in a single column).

```

1755 <*ex>
1756 \newcommand\mc[1]{%
1757     \hfill\break\quad\begin{tabular}{cc}
1758         $\@mcsymbol$
1759         &
1760     \begin{minipage}[t]{0.9\textwidth}%
1761         #1
1762     \end{minipage}%
1763 \end{tabular}
1764 }
1765 </ex>

```

`\engdutmc` typesets a multiple choice answer candidate in two columns, the left column taking the English variant of the question and the right column taking the Dutch variant.

```

1766 <*ex>
1767 \newcommand\engdutmc[2]{%
1768     \hfill\break\begin{tabular}{cccc}
1769         $\@mcsymbol$
1770         &
1771         \selectlanguage{english}%
1772     \begin{minipage}[t]{0.42\textwidth}%
1773         #1
1774     \end{minipage}%
1775     &---&
1776     \selectlanguage{dutch}%

```

```

1777 \begin{minipage}[t]{0.42\textwidth}%
1778 #2
1779 \end{minipage}%
1780 \end{tabular}
1781 \selectlanguage{english}%
1782 }
1783 </ex>

```

`\insertsolutionspagepartial` fills the remainder of the page with 'fill-out' squares. as observing/controlling the current line position in L<sup>A</sup>T<sub>E</sub>X is not easy, one has to provide the number of centimeters below the bottom of the page, one wants to start the fill-out squares.

```

1784 <*ex>
1785 \newcommand\insertsolutionspagepartial[1]{
1786 \AddToShipoutPicture*{%
1787 \put(0,0){%
1788 \begin{tikzpicture}
1789 \clip (0,0) rectangle (21,#1);
1790 % \draw[densely dotted, step=0.5cm,black!20] (0.999,0.990) grid (20,1.5);
1791 \draw[densely dotted, step=0.5cm,black!20] (0.999,1.499) grid (2,2.5);
1792 \draw[densely dotted, step=0.5cm,black!20] (18.999,1.499) grid (20,2.5);
1793
1794 \draw[densely dotted, step=0.5cm,black!20] (0.999,2.499) grid (20,27);
1795 \draw[densely dotted, step=0.5cm,black!20] (0.999,27) grid (16,28);
1796 \draw[densely dotted, step=0.5cm,black!20] (19.499,27) grid (20,28);
1797 \draw[densely dotted, step=0.5cm,black!20] (0.99,27.999) grid
1798 (20,28.5);
1799 \draw[ultra thick] (1,#1) -- (20,#1);
1800 \end{tikzpicture}
1801 }
1802 }%
1803 \clearpage
1804 \relax
1805 }
1806 </ex>

```

`\insertsolutionspage` inserts a full solutions page, i.e. flushes the current page and inserts a full page with 'fill-out' squares. The argument allows for specifying a watermark text (e.g. 'Scrap paper').

```

1807 <*ex>
1808 \newcommand\insertsolutionspage[1]{
1809 \clearpage
1810 \AddToShipoutPicture*{%
1811 \put(0,0){%
1812 \begin{tikzpicture}
1813 \clip (0,0) rectangle (21,29.5);
1814 \draw[densely dotted, step=0.5cm,black!20] (0.999,1.499) grid (2,2.5);
1815 \draw[densely dotted, step=0.5cm,black!20] (18.999,1.499) grid (20,2.5);

```

```

1816
1817     \draw[densely dotted, step=0.5cm,black!20] (0.999,2.499) grid (20,28);
1818     \draw[densely dotted, step=0.5cm,black!20] (0.999,28) grid (16,28.5);
1819     \draw[densely dotted, step=0.5cm,black!20] (19.499,28) grid (20,28.5);
1820     \end{tikzpicture}
1821   }
1822   \put(120,150){\rotatebox{60}{\textcolor{watermark}{
1823     \fontfamily{phv}\fontsize{105}{130}\fontseries{m}\fontshape{n}\selectfont
1824     #1}
1825   }
1826   }
1827 }%
1828 ~\relax
1829 }
1830 </ex>

```

We add a lastpage label to the final page

```

1831 <*ex>
1832 \AtEndDocument{
1833   \label{lastpage}
1834 }
1835 </ex>
1836 %   \end{macrocode}
1837 %
1838 % \subsection{References}
1839 %   \begin{macrocode}
1840 <*ct | bmt | pt>
1841 \IfFileExists{varioref.sty}{\RequirePackage{varioref}}{}
1842 </ct | bmt | pt>
1843 %
1844 <*ct>
1845 \IfFileExists{hyperref.sty}{
1846   \RequirePackage{hyperref}
1847   \hypersetup{
1848     backref=true,
1849     breaklinks=true,
1850     colorlinks=true,
1851     citecolor=black,
1852     filecolor=black,
1853     hyperindex=true,
1854     linkcolor=black,
1855     pageanchor=true,
1856     pagebackref=true,
1857     pagecolor=black,
1858     pdfpagemode=UseOutlines,
1859     urlcolor=black
1860   }
1861   \AtBeginDocument{
1862     \hypersetup{

```

```

1863         pdftitle={\@title},
1864         pdfsubject={\@subtitle},
1865         pdfauthor={\@author}
1866     }
1867 }
1868 }{}
1869 </ct>
1870 %
1871 %
1872 <*bmt | pt>
1873 \IfFileExists{hyperref.sty}{
1874     \RequirePackage{hyperref}
1875     \hypersetup{
1876         backref=true,
1877         breaklinks=true,
1878         colorlinks=true,
1879         citecolor=black,
1880         filecolor=black,
1881         hyperindex=true,
1882         linkcolor=black,
1883         pageanchor=true,
1884         pagebackref=true,
1885         pagecolor=black,
1886         pdfpagemode=UseOutlines,
1887         urlcolor=black
1888     }
1889     \AtBeginDocument{
1890         \hypersetup{
1891             pdftitle={\@title},
1892             pdfsubject={\@subtitle},
1893             pdfauthor={\@author}
1894         }
1895     }
1896 }{}
1897 </bmt | pt>

```

## Change History

v1.0	General: Consolidated uacoursetext class and uamasterthesis class . . . . . 1	v1.5	<code>\maketitle</code> : Implemented new footer . . . . . 70
	Added option qr . . . . . 30		General: Replaced bottom arcs in footer of letter by official PDF versions . . . . . 1
	Added option titlepagenoartwork . . . . . 30		Removed documentation . . . . . 70
	Added option titlepagetableonly 30	v1.6	<code>\diploma</code> : Added diploma codes . 48
v1.1	<code>\diploma</code> : Fixed typo on programme's name (e-umlaut) 48		General: Added diploma codes for Faculty of Applied Economics . 1
	General: Small bugfixes and 'filled' option . . . . . 1		Added diploma code documentation . . . . . 9
	Added option user documentation . . . . . 6	v1.7	<code>\maketitle</code> : Embedded babel translations of keywords into title page . . . . . 61, 64
	Made raggedright conditional on option 'filled', because it can't be undone . . . . . 56		General: Added babel translations of elements of master's thesis title page . . . . . 1
v1.2	General: Added lmodern package and increased headheight to 13.7pt to please Fancyhdr . . . . 1		Added babel tags of elements of master's thesis title page . . . . 34
	Added lmodern package to please MikTeX . . . . . 32	v1.8	<code>\makefinalpage</code> : Inserted blank one but last page . . . . . 63
	Increased headheight to please Fancyhdr . . . . . 56		<code>\maketitle</code> : Allowed for empty senderrole . . . . . 70
v1.3	<code>\makefinalpage</code> : Changed eso-pic for tikz . . . . . 63, 65		<code>\signature</code> : Added signature . . . 52
	<code>\maketitle</code> : Changed eso-pic for tikz . . . . . 64		General: Corrected minor typographic mistakes, added signature and solved problems with shell escape . . . . . 1
	General: Minor bugfixes, abandonment of a few packages, font freedom . . . . . 1		Added missing packages ifmtarg and shellest . . . . . 32
	Abandoned use of cmbright - no more font dictatorship for theses and courses . . . . . 32		Allowed for empty senderrole . 71
	Added inclusion of background package . . . . . 33	v1.81	General: Bugfixes for release v1.8 . 1
	Changed eso-pic for tikz and background . . . . . 60		Apparently shellest is still missing from quite a number of installations, therefore, conditional loading . . . . . 32
v1.4	General: Implemented uantwerpenletter class . . . . . 1	v1.9	General: Added ASoE (Antwerp School of Education) . . . . . 8
	Implemented letter class . . . . . 30		Integrated uantwerpenexam class into package . . . . . 1

Added etoolbox for convenience reasons	32	General: Bugfix release after promotion event on research day	1
Implemented uantwerpenexam class	30	Added appropriate \appendix command	57
v2.0		Allow for setting the multiple choice mark symbol	75
\makefinalpage: Implemented final page	69	Corrected erroneous line breaking	75
\maketitle: Implemented title page	66	Corrected spacing in title + exampart	71
General: Implemented uantwerpenphdthesis class into package	1	v2.2	
Implemented uantwerpenphdthesis class	30	General: Improved visibility of chapter numbers by adding a white outline	1
Removed package ifmtarg because unreliable	32	Added white chapter number outline	57
Updated diploma code documentation to incorporate PhD degrees	9	Corrected spacing	57
v2.1		v2.3	
\engdut: Increased intercolumn spacing for engdut	74	\diploma: Added diploma level	48
\extrainfo: Changed default to empty	54	\extrainfo: The command \extrainfo now allows for an extra (optional) first argument 'firstpage'	54
\maketitle: Corrected information page (p4) jury spacing	66	General: Reworked masterthesis to bamathesis and minor bug fixes	1
\subtitle: Added subtitle to phd text	40	2019/03/27	71
Ensured that subtitle is really optional by adding default space value	40	Added boxes to fill out name and docket number	71
		Introduced bachelor level codes to allow for bachelor theses	9



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<b>Symbols</b>	<code>\@courseii</code> . . . . .	<code>\@examlength</code> . . . . .
<code>\"</code> . . . 206, 600, 710, 711	634, 663, 1137, 1199	. . . 887, 888, 1684
<code>\'</code> 262, 265, 270, 272,	<code>\@courseiii</code> . . . . .	<code>\@exampart</code> . . . . .
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