

The `uantwerpendocs` classes^{*†}

Walter Daems (walter.daems@uantwerpen.be)

2016/02/04

1 Introduction

This package implements the house style of Universiteit Antwerpen for course texts, master's theses and letters. Using these class files will make it easy for you to make and keep your course texts and master's theses compliant to this version and future versions of the UAntwerpen house style.

If you think

- there's an error in compliancy w.r.t. the house style,
- there's a feature missing in this class file,
- there's a bug in this class file,

please, contact us through e-mail (walter.daems@uantwerpen.be). We'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 `uantwerpencoursetext` and `uantwerpenmasterthesis` classes are an extension of the standard \LaTeX `book` class. They are intended to be used for writing course texts and master's theses. They provides a title page that is compliant to the UAntwerpen house style, and they also typeset the rest of your document appropriately.

^{*}This document corresponds to `uantwerpendocs` 1.6, dated 2016/02/04.

[†]Thanks to Paul Levrie for testing and proofreading.

The `uantwerpenletter` class is derived from the standard \LaTeX `letter` class. It is intended to be used for writing business letters. It is compliant to the house style and allows for using windowed envelopes of the DL format, with right-aligned window.

They require (and use) the following packages:

- the `ifthen` package
- the `mtarg` package
- the `geometry` package
- the `atbegshi` package
- the `hyperref` package
- the `graphicx` package
- the `background` package
- the `color` package
- the `tikz` package
- the `fancyhdr` package
- the `pst-barcode` package
- the `auto-pst-pdf` 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 ($\text{PDF}\text{\LaTeX}$, \LaTeX , $\text{Xe}\text{\LaTeX}$,...) from the major \TeX -distributions (TeX, TeXLive, MikTeX). If you experience problems, please inform the authors.

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 L^AT_EX 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 6.

4.1.2 uantwerpenmasterthesis class

Use the following harness for your L^AT_EX master's thesis:

```
\documentclass[a4paper]{uantwerpenmasterthesis}

\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 the first supervisor's name(s) here>
\supervisor{ii}<put the first supervisor's name(s) here>
\supervisor{iii}<put the first supervisor's name(s) here>
\supervisor{iv}<put the first supervisor's name(s) 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 6.

4.1.3 uantwerpenletter class

Use the following harness for your L^AT_EX 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 6. You may use lists in the `\carboncopy` and `\enclosed` commands. The spacing will be compact.

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`).

<code>copyright</code>	[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;
<code>filled</code>	[letter / coursetext / masterthesis] 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 <code>\raggedright</code> cannot be undone. The <code>filled</code> option prevents the <code>\raggedright</code> from being issued. However, if you care about the readability of your text, you shouldn't use this option.
<code>titlepagenoartwork</code>	[coursetext / masterthesis] 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;
<code>titlepagetableonly</code>	[coursetext / masterthesis] 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)

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 / masterthesis] (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 authors to complete the list.

The available acronyms are:

Acronym	Faculty name
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 and masterthesis classes

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

`\subtitle` [coursetext] (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.

`\author` [coursetext / masterthesis] (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.

`\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.

`\courseversion` [coursetext] (optional)
This macro indicates which version of the course this is.

`\versionyear` [coursetext] (mandatory)
This is to be the year in which you published the current version of the course in the form YYYY.

`\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`.

`\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 authors 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 authors to complete the available codes.

`\supervisor` [masterthesis] (mandatory)
 This is the name of the person that promotes the thesis. If there are multiple persons, please, use the macros `\supervisori`, `\supervisorii`, `\supervisoriii`, `\supervisoriv`.

`\course` [coursetext] (mandatory)
 Code (first argument) and name (second argument) of the curriculum course this coursematerial 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.

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

`\diploma` [masterthesis] (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	
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
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

<code>\defensedate</code>	[masterthesis] (mandatory) Date of the defense in Dutch, in the form 'month year', e.g. "juni 2012".
<code>\defenselocation</code>	[masterthesis] (optional) Location of the defense. Defaults to "Antwerpen".
<code>\copyrightnotices</code>	[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.

4.3.3 Macros for the letter class

<code>\sender</code>	[letter] (mandatory) Description of the person writing the letter.
----------------------	---

- first argument: name of the person writing the letter
- second argument: title / role of the person

Newlines are not allowed in the arguments.

<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>\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.
<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>\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"> • first argument: user name • second argument: domain name
<code>\phone</code>	[letter] (optional) Phone number of the sending person. See also <code>\email</code> .
<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>\mobile</code>	[letter] (optional) Mobile 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>\to</code>	[letter] (mandatory) Name of the addressee. Newlines are allowed. Preferably name and role are split over two lines.
<code>\toorganization</code>	[letter] (optional) Name of the organization that employs the addressee.

<code>\toaddress</code>	[letter] (mandatory) Address of the addressee. Newlines are allowed. The address should fit on max. 3 lines.
<code>\date</code>	[letter] (optional) Date of the letter. If not specified today's date (at the time of running L ^A T _E X) will be used.
<code>\subject</code>	[letter] (mandatory) Short descriptive subject that describes the contents of the letter.
<code>\opening</code>	[letter] (mandatory) Opening address of the letter. E.g. 'Dear X,'.
<code>\closing</code>	[letter] (mandatory) Closing clause of the letter. E.g. 'Best regards,'.
<code>\carboncopy</code>	[letter] (optional) List of persons receiving a copy of this letter. Format at will.
<code>\enclosed</code>	[letter] (optional) List of enclosed documents. Format at will.

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 L^AT_EX compiler.

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

\usepackage[english,dutch]{babel}

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

\courseversion{1.3}
\versionyear{2016}

\lectureri{Zoltan Zo\ekers}
\qrlectureri{Zoltan Zokers}
\lecturerii{Siana Sigh}
\lectureriii{Zeger de Z\'ager}
\qrlectureriii{Zeger de Zger}
```

```

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

\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}
Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do
eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad
minim veniam, quis nostrud exercitation ullamco laboris nisi ut
aliquip ex ea commodo consequat. Duis aute irure dolor in
reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla
pariatur. Excepteur sint occaecat cupidatat non proident, sunt in
culpa qui officia deserunt mollit anim id est laborum.

\chapter{Onzin voor dummies}

\section{Een beetje Cicero}
Sed ut perspiciatis unde omnis iste natus error sit voluptatem
accusantium doloremque laudantium, totam rem aperiam, eaque ipsa quae

```

ab illo inventore veritatis et quasi architecto beatae vitae dicta sunt explicabo. Nemo enim ipsam voluptatem quia voluptas sit aspernatur aut odit aut fugit, sed quia consequuntur magni dolores eos qui ratione voluptatem sequi nesciunt. Neque porro quisquam est, qui dolorem ipsum quia dolor sit amet, consectetur, adipisci velit, sed quia non numquam eius modi tempora incidunt ut labore et dolore magnam aliquam quaerat voluptatem. Ut enim ad minima veniam, quis nostrum exercitationem ullam corporis suscipit laboriosam, nisi ut aliquid ex ea commodi consequatur? Quis autem vel eum iure reprehenderit qui in ea voluptate velit esse quam nihil molestiae consequatur, vel illum qui dolorem eum fugiat quo voluptas nulla pariatur?

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

At vero eos et accusamus et iusto odio dignissimos ducimus qui blanditiis praesentium voluptatum deleniti atque corrupti quos dolores et quas molestias excepturi sint occaecati cupiditate non provident, similique sunt in culpa qui officia deserunt mollitia animi, id est laborum et dolorum fuga. Et harum quidem rerum facilis est et expedita distinctio. Nam libero tempore, cum soluta nobis est eligendi optio cumque nihil impedit quo minus id quod maxime placeat facere possimus, omnis voluptas assumenda est, omnis dolor repellendus. Temporibus autem quibusdam et aut officiis debitis aut rerum necessitatibus saepe eveniet ut et voluptates repudiandae sint et molestiae non recusandae. Itaque earum rerum hic tenetur a sapiente delectus, ut aut reiciendis voluptatibus maiores alias consequatur aut perferendis doloribus asperiores repellat.

```
\section{En waartoe het geleid heeft}
```

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

```
\subsection{Herhaling}
```

Sed ut perspiciatis unde omnis iste natus error sit voluptatem accusantium doloremque laudantium, totam rem aperiam, eaque ipsa quae ab illo inventore veritatis et quasi architecto beatae vitae dicta sunt explicabo. Nemo enim ipsam voluptatem quia voluptas sit aspernatur aut odit aut fugit, sed quia consequuntur magni dolores eos qui ratione voluptatem sequi nesciunt. Neque porro quisquam est, qui dolorem ipsum quia dolor sit amet, consectetur, adipisci velit, sed quia non numquam eius modi tempora incidunt ut labore et dolore magnam aliquam quaerat voluptatem. Ut enim ad minima veniam, quis nostrum

exercitationem ullam corporis suscipit laboriosam, nisi ut aliquid ex ea commodi consequatur? Quis autem vel eum iure reprehenderit qui in ea voluptate velit esse quam nihil molestiae consequatur, vel illum qui dolorem eum fugiat quo voluptas nulla pariatur?

`\subsection{Begint vervelend te worden}`

At vero eos et accusamus et iusto odio dignissimos ducimus qui blanditiis praesentium voluptatum deleniti atque corrupti quos dolores et quas molestias excepturi sint occaecati cupiditate non provident, similique sunt in culpa qui officia deserunt mollitia animi, id est laborum et dolorum fuga. Et harum quidem rerum facilis est et expedita distinctio. Nam libero tempore, cum soluta nobis est eligendi optio cumque nihil impedit quo minus id quod maxime placeat facere possimus, omnis voluptas assumenda est, omnis dolor repellendus. Temporibus autem quibusdam et aut officiis debitis aut rerum necessitatibus saepe eveniet ut et voluptates repudiandae sint et molestiae non recusandae. Itaque earum rerum hic tenetur a sapiente delectus, ut aut reiciendis voluptatibus maiores alias consequatur aut perferendis doloribus asperiores repellat.

`\newpage`

`\subsection{Begint echt vervelend te worden}`

At vero eos et accusamus et iusto odio dignissimos ducimus qui blanditiis praesentium voluptatum deleniti atque corrupti quos dolores et quas molestias excepturi sint occaecati cupiditate non provident, similique sunt in culpa qui officia deserunt mollitia animi, id est laborum et dolorum fuga. Et harum quidem rerum facilis est et expedita distinctio. Nam libero tempore, cum soluta nobis est eligendi optio cumque nihil impedit quo minus id quod maxime placeat facere possimus, omnis voluptas assumenda est, omnis dolor repellendus. Temporibus autem quibusdam et aut officiis debitis aut rerum necessitatibus saepe eveniet ut et voluptates repudiandae sint et molestiae non recusandae. Itaque earum rerum hic tenetur a sapiente delectus, ut aut reiciendis voluptatibus maiores alias consequatur aut perferendis doloribus asperiores repellat.

`\chapter{Besluit}`

`\backmatter`

`\appendix`

`\chapter{Symbolen}`

`\chapter{Romeinse sprekers}`

`\chapter{Referentielijst}`

`\makefinalpage`

`\end{document}`

```
</ct-example>
```

4.4.2 uantwerpenmasterthesis

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

\usepackage[english,dutch]{babel}

\title{Minimax optimalisatie 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{MA-IW-EI-ICT}
\defenselocation{Antwerpen}
\defensedate{juni 2016}

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

\maketitle

\frontmatter

\tableofcontents

\mainmatter
\chapter*{Inleiding}
Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do
eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad
minim veniam, quis nostrud exercitation ullamco laboris nisi ut
aliquip ex ea commodo consequat. Duis aute irure dolor in
reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla
pariatur. Excepteur sint occaecat cupidatat non proident, sunt in
culpa qui officia deserunt mollit anim id est laborum.

\chapter{Onderzoeksvraag}

\section{Een beetje Cicero}
Sed ut perspiciatis unde omnis iste natus error sit voluptatem
accusantium doloremque laudantium, totam rem aperiam, eaque ipsa quae
ab illo inventore veritatis et quasi architecto beatae vitae dicta
sunt explicabo. Nemo enim ipsam voluptatem quia voluptas sit
```

aspernatur aut odit aut fugit, sed quia consequuntur magni dolores eos qui ratione voluptatem sequi nesciunt. Neque porro quisquam est, qui dolorem ipsum quia dolor sit amet, consectetur, adipisci velit, sed quia non numquam eius modi tempora incidunt ut labore et dolore magnam aliquam quaerat voluptatem. Ut enim ad minima veniam, quis nostrum exercitationem ullam corporis suscipit laboriosam, nisi ut aliquid ex ea commodi consequatur? Quis autem vel eum iure reprehenderit qui in ea voluptate velit esse quam nihil molestiae consequatur, vel illum qui dolorem eum fugiat quo voluptas nulla pariatur?

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

At vero eos et accusamus et iusto odio dignissimos ducimus qui blanditiis praesentium voluptatum deleniti atque corrupti quos dolores et quas molestias excepturi sint occaecati cupiditate non provident, similique sunt in culpa qui officia deserunt mollitia animi, id est laborum et dolorum fuga. Et harum quidem rerum facilis est et expedita distinctio. Nam libero tempore, cum soluta nobis est eligendi optio cumque nihil impedit quo minus id quod maxime placeat facere possimus, omnis voluptas assumenda est, omnis dolor repellendus. Temporibus autem quibusdam et aut officiis debitis aut rerum necessitatibus saepe eveniet ut et voluptates repudiandae sint et molestiae non recusandae. Itaque earum rerum hic tenetur a sapiente delectus, ut aut reiciendis voluptatibus maiores alias consequatur aut perferendis doloribus asperiores repellat.

```
\chapter{Literatuurstudie}
```

```
\chapter{Theoretische achtergrond}
```

```
\chapter{Eigen realisatie}
```

```
\chapter{Besluit}
```

```
\backmatter
```

```
\appendix
```

```
\chapter{Symbolen}
```

```
\chapter{Referentielijst}
```

```
\makefinalpage
```

```
\end{document}
```

```
</mt-example>
```


4.4.3 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}

\sender{Prof. Walter Daems}{Senior Lecturer}
\facultyacronym{TI}
\unit{CoSys-Lab}
\address{
  Campus Groenenborger\\
  Groenenborgerlaan 171\\
  B-202 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.

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

Sed ut perspiciatis unde omnis iste natus error sit voluptatem accusantium doloremque laudantium, totam rem aperiam, eaque ipsa quae ab illo inventore veritatis et quasi architecto beatae vitae dicta sunt explicabo. Nemo enim ipsam voluptatem quia voluptas sit aspernatur aut odit aut fugit, sed quia consequuntur magni dolores eos qui ratione voluptatem sequi nesciunt. Neque porro quisquam est, qui dolorem ipsum quia dolor sit amet, consectetur, adipisci velit, sed quia non numquam eius modi tempora incidunt ut labore et dolore magnam aliquam quaerat voluptatem. Ut enim ad minima veniam, quis nostrum exercitationem ullam corporis suscipit laboriosam, nisi ut aliquid ex ea commodi consequatur? Quis autem vel eum iure reprehenderit qui in ea voluptate velit esse quam nihil molestiae consequatur, vel illum qui dolorem eum fugiat quo voluptas nulla pariatur?

At vero eos et accusamus et iusto odio dignissimos ducimus qui blanditiis praesentium voluptatum deleniti atque corrupti quos dolores et quas molestias excepturi sint occaecati cupiditate non provident, similique sunt in culpa qui officia deserunt mollitia animi, id est laborum et dolorum fuga. Et harum quidem rerum facilis est et expedita distinctio. Nam libero tempore, cum soluta nobis est eligendi optio cumque nihil impedit quo minus id quod maxime placeat facere possimus, omnis voluptas assumenda est, omnis dolor repellendus. Temporibus autem quibusdam et aut officiis debitis aut rerum necessitatibus saepe eveniet ut et voluptates repudiandae sint et molestiae non recusandae. Itaque earum rerum hic tenetur a sapiente delectus, ut aut reiciendis voluptatibus maiores alias consequatur aut perferendis doloribus asperiores repellat.

`\closing{Kind regards,}`

`\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/LaTeX 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-202 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 \LaTeX search path.

5 Implementation

5.1 Class inheritance

For convenience, we'll derive from the standard L^AT_EX `book` and `letter` 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 | mt>
8 \newif\if@titlepageartwork
9 \DeclareOption{titlepageartwork}{\@titlepageartworktrue}
10 \newif\if@titlepagetableonly
11 \DeclareOption{titlepagetableonly}{\@titlepagetableonlytrue}
12 </ct | mt>
13 <*ct | mt | le>
14 \newif\if@filled
15 \DeclareOption{filled}{\@filledtrue}
16 </ct | mt | le>
```

We execute some standard options: We load the `book` class.

```
17 <*le>
18 \ExecuteOptions{a4paper,10pt,final,oneside,openright}
19 \ProcessOptions
20 \LoadClassWithOptions{letter}
21 \newcommand\tat{\makeatletter @\makeatother}
22 \newcommand\tbs{\textbackslash}
23 </le>
24 <*ct | mt>
25 \ExecuteOptions{a4paper,11pt,final,oneside,openright}
26 \ProcessOptions
27 \LoadClassWithOptions{book}
28 </ct | mt>
```

5.2 Modern typesetting

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

```
29 <*ct | mt | le>
30 \setlength{\parindent}{0pt}
```

```

31 \addtolength{\parskip}{0.75\baselineskip}
32 \setcounter{secnumdepth}{3}
33 \</ct | mt | le>

```

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.

```

34 \<*ct | mt>
35 \RequirePackage[top=1in, bottom=1in, left=1in, right=1in]{geometry}
36 \</ct | mt>
37 \*le>
38 \RequirePackage[top=1in, bottom=1in, left=1.34in, right=1in]{geometry}
39 \RequirePackage[normalem]{ulem}
40 \RequirePackage{atbegshi}
41 \</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 'mathpazo' and 'cmbright' are highly recommended. For writing letters, 'Calibri' is the official font of the University of Antwerp.

```

42 \<*ct | mt | le>
43 % no more font code
44 \</ct | mt | le>

```

5.3.3 Boilerplate packages

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

```

45 \<*ct | mt | le>
46 \RequirePackage{ifthen}
47 \newcommand{\@emptymacro}{}
48 \</ct | mt | le>

```

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 masterthesis:

```
49 <*ct | mt | le>
50 \RequirePackage{graphicx}
51 \RequirePackage{color}
52 \RequirePackage{tikz}
53 </ct | mt | le>
54 <*ct>
55 \if@copyright
56 \RequirePackage[firstpage=false,contents={Copyright Universiteit Antwerpen, All Rights Reserved}
57 \fi
58 </ct>
```

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^AT_EX compiler. Check your documentation on how to do so!

```
59 <*ct>
60 \if@qr
61 \RequirePackage{auto-pst-pdf}
62 \RequirePackage{pst-barcode}
63 \fi
64 </ct>
```

5.3.5 Header/Footer

The de-facto standard for headers and footers:

```
65 <*ct | mt | le>
66 \RequirePackage{fancyhdr}
67 </ct | mt | le>
```

5.4 Colors

```
68 <*ct | mt | le>
69 \definecolor{uacorpbord}{cmyk} {0.00,1.00,0.60,0.37}
70 \definecolor{uacorpblue}{cmyk} {1.00,0.25,0.00,0.50}
71 \definecolor{uacorpflightblue}{cmyk}{1.00,0.00,0.08,0.13}
72 \definecolor{uacorpororange}{cmyk} {0.00,0.32,1.00,0.09}
73 \definecolor{uaftifresh}{cmyk} {0.34,1.00,0.00,0.00}
74 \definecolor{uaftisober}{cmyk} {0.10,1.00,0.00,0.49}
75 \definecolor{lightgray}{cmyk} {0.00,0.00,0.00,0.05}
```

76 </ct | mt | le>

5.5 Babel provisions

```
77 <*ct | mt | le>
78 \newcommand{\logoname}{UA_HOR_ENG_CMYK}
79 \newcommand{\footername}{4E_PMS302_BR_ENG_RGB}
80 \newcommand{\orname}{of}
81 \newcommand{\domainname}{uantwerp.be}
82 \newcommand{\datename}{Date}
83 \newcommand{\subjectname}{Subject}
84 \AtBeginDocument{
85   \@ifpackageloaded{babel}{
86     \addto\captionsdutch{%
87       \renewcommand{\logoname}{UA_HOR_NED_CMYK}
88       \renewcommand{\footername}{4E_PMS302_BR_NED_RGB}
89       \renewcommand{\orname}{van}
90       \renewcommand{\domainname}{uantwerpen.be}
91       \renewcommand{\subjectname}{Onderwerp}%
92       \renewcommand{\datename}{Datum}%
93     }
94     \addto\captionsgerman{%
95       \renewcommand{\logoname}{UA_HOR_DUI_CMYK}
96       \renewcommand{\footername}{4E_PMS302_BR_NED_RGB}
97       \renewcommand{\orname}{von}
98       \renewcommand{\domainname}{uantwerpen.be}
99       \renewcommand{\subjectname}{Betreff}%
100      \renewcommand{\datename}{Datum}%
101    }
102    \addto\captionsfrench{%
103      \renewcommand{\logoname}{UA_HOR_FRA_CMYK}
104      \renewcommand{\footername}{4E_PMS302_BR_ENG_RGB}
105      \renewcommand{\orname}{de}
106      \renewcommand{\domainname}{uanvers.be}
107      \renewcommand{\subjectname}{Objet}%
108      \renewcommand{\datename}{Date}%
109    }
110    \addto\captionsspanish{%
111      \renewcommand{\logoname}{UA_HOR_SPA_CMYK}
112      \renewcommand{\footername}{4E_PMS302_BR_ENG_RGB}
113      \renewcommand{\orname}{de}
114      \renewcommand{\domainname}{uantwerp.be}
115      \renewcommand{\subjectname}{Asunto}%
116      \renewcommand{\datename}{Fecha}%
117    }
118  }
119 }
120 }
121 </ct | mt | le>
```

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.

```
122 <*ct | mt | le>
123 \newcommand{\@facultyacronym}{}
124 \newcommand{\@faculty}{< Specify faculty using \tbs{facultyacronym}{ABC\ } >}
125 \newcommand{facultyacronym}[1]{
126   \renewcommand{\@facultyacronym}{#1}
127   \ifthenelse{equal{#1}{CPG}}{\renewcommand{\@faculty}{Centrum
128     Pieter Gillis}}{
129     \ifthenelse{equal{#1}{FBD}}{\renewcommand{\@faculty}{Faculteit
130       Farmaceutische, Biomedische en Diergeneeskundige Wetenschappen}}{
131       \ifthenelse{equal{#1}{GGW}}{\renewcommand{\@faculty}{Faculteit
132         Geneeskunde en Gezondheidswetenschappen}}{
133         \ifthenelse{equal{#1}{IOB}}{\renewcommand{\@faculty}{Instituut
134           voor Ontwikkelingsbeleid- en beheer}}{
135         \ifthenelse{equal{#1}{IOIW}}{\renewcommand{\@faculty}{Instituut
136           voor Onderwijs- en Informatiewetenschappen}}{
137         \ifthenelse{equal{#1}{LW}}{\renewcommand{\@faculty}{Faculteit
138           Letteren en Wijsbegeerte}}{
139         \ifthenelse{equal{#1}{OW}}{\renewcommand{\@faculty}{Faculteit
140           Ontwerpwetenschappen}}{
141         \ifthenelse{equal{#1}{SW}}{\renewcommand{\@faculty}{Faculteit
142           Sociale Wetenschappen}}{
143         \ifthenelse{equal{#1}{REC}}{\renewcommand{\@faculty}{Faculteit
144           Rechten}}{
145         \ifthenelse{equal{#1}{TEW}}{\renewcommand{\@faculty}{Faculteit
146           Toegepaste Economische Wetenschappen}}{
147         \ifthenelse{equal{#1}{TI}}{\renewcommand{\@faculty}{Faculteit
148           Toegepaste Ingenieurswetenschappen}}{
149         \ifthenelse{equal{#1}{WET}}{\renewcommand{\@faculty}{Faculteit
150           Wetenschappen}}{
151         \errmessage{Error: wrong faculty acronym; choose one of FBD, GGW,
152           LW, OW, PSW, REC, TEW, TI, WET}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}
153 </ct | mt | le>
```

`\title` The `title` tag is native to \LaTeX . 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 \LaTeX accented characters.)

```
154 <*ct>
155 \newcommand{\@qrtitle}{}
156 \renewcommand{\title}[1]{%
157   \renewcommand{\@title}{#1}
158   \ifx\@qrtitle\@emptymacro
```



```

159 \renewcommand\@qrttitle{#1}
160 \fi
161 }
162 \newcommand{\qrttitle}[1]{%
163 \renewcommand\@qrttitle{#1}
164 }
165 </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.

```

166 <*ct>
167 \newcommand{\@subtitle}{}
168 \newcommand{\qrs subtitle}{}
169 \newcommand{\subtitle}[1]{%
170 \renewcommand\@subtitle{#1}
171 \ifx\@qrs subtitle\emptymacro
172 \renewcommand\@qrs subtitle{#1}
173 \fi
174 }
175 \newcommand{\qrs subtitle}[1]{%
176 \renewcommand\@qrs subtitle{#1}
177 }
178 </ct>

```

\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. 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.)

```

179 <*ct>
180 \newcommand{\@qrauthor}{}
181 \renewcommand{\author}[1]{%
182 \renewcommand\@author{#1}
183 \ifx\@qrauthor\emptymacro
184 \renewcommand\@qrauthor{#1}
185 \fi
186 }
187 \newcommand{\qrauthor}[1]{%
188 \renewcommand\@qrauthor{#1}
189 }
190 </ct>

```

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

```

191 <*ct>
192 \newcommand{\@courseversion}{}
193 \newcommand{\courseversion}[1]{\renewcommand{\@courseversion}{#1}}

```

194 `</ct>`

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

```
195 <*ct>
196 \newcommand{\@versionyear}{}
197 \newcommand{\versionyear}[1]{\renewcommand{\@versionyear}{#1}}
198 </ct>
```

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

```
199 <*ct>
200 \newcommand{\@publisher}{Universiteit Antwerpen\\
201 Cursusdienst en reprografie\\
202 Campus Groenenborger, G.U.027\\
203 Groenenborgerlaan 171\\
204 2020 Antwerpen\\
205 T +32 3 265 32 15\\
206 F + 32 3 233 32 27\\
207 E cursusdienst.cgb@uantwerpen.be}
208 \newcommand{\publisher}[1]{\renewcommand{\@publisher}{#1}}
209 </ct>
```

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

```
210 <*ct>
211 \newcommand{\@publishercode}{}
212 \newcommand{\publishercode}[1]{\renewcommand{\@publishercode}{#1}}
213 </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^AT_EX accented characters.)

```
214 <*ct>
215 \newcommand{\@lectureri}{}
216 \newcommand{\@lecturerii}{}
217 \newcommand{\@lectureriii}{}
218 \newcommand{\@lectureriv}{}
219 \newcommand{\@qrlectureri}{}
220 \newcommand{\@qrlecturerii}{}
221 \newcommand{\@qrlectureriii}{}
222 \newcommand{\@qrlectureriv}{}
223 \newcommand{\lecturer}[1]{
224 \renewcommand{\@lectureri}{#1}
```

```

225 \ifx\@qrlectureri\@emptymacro
226 \renewcommand\@qrlectureri{#1}
227 \fi
228 }
229 \newcommand{\qrlecturer}[1]{
230 \renewcommand\@qrlectureri{#1}
231 }
232 \newcommand{\lectureri}[1]{
233 \renewcommand{\@lectureri}{#1}
234 \ifx\@qrlectureri\@emptymacro
235 \renewcommand\@qrlectureri{#1}
236 \fi
237 }
238 \newcommand{\qrlecturerii}[1]{
239 \renewcommand\@qrlecturerii{#1}
240 }
241 \newcommand{\lecturerii}[1]{
242 \renewcommand{\@lecturerii}{#1}
243 \ifx\@qrlecturerii\@emptymacro
244 \renewcommand\@qrlecturerii{#1}
245 \fi
246 }
247 \newcommand{\qrlectureriii}[1]{
248 \renewcommand\@qrlectureriii{#1}
249 }
250 \newcommand{\lectureriii}[1]{
251 \renewcommand{\@lectureriii}{#1}
252 \ifx\@qrlectureriii\@emptymacro
253 \renewcommand\@qrlectureriii{#1}
254 \fi
255 }
256 \newcommand{\qrlectureriiii}[1]{
257 \renewcommand\@qrlectureriiii{#1}
258 }
259 \newcommand{\lectureriv}[1]{
260 \renewcommand{\@lectureriv}{#1}
261 \ifx\@qrlectureriv\@emptymacro
262 \renewcommand\@qrlectureriv{#1}
263 \fi
264 }
265 \newcommand{\qrlectureriv}[1]{
266 \renewcommand\@qrlectureriv{#1}
267 }
268 \</ct>

```

`\supervisor` This macro sets many `\@supervisor` tags (max. 4) that later will be used on the title page. If there is only one supervisor one can use the convenient shorthand without counter.

```

269 \< *mt>

```

```

270 \newcommand{\@supervisorI}{}
271 \newcommand{\@supervisorII}{}
272 \newcommand{\@supervisorIII}{}
273 \newcommand{\@supervisorIV}{}
274 \newcommand{\supervisor}[1]{\renewcommand{\@supervisorI}{#1}}
275 \newcommand{\supervisor}[1]{\renewcommand{\@supervisorII}{#1}}
276 \newcommand{\supervisorII}[1]{\renewcommand{\@supervisorII}{#1}}
277 \newcommand{\supervisorIII}[1]{\renewcommand{\@supervisorIII}{#1}}
278 \newcommand{\supervisorIV}[1]{\renewcommand{\@supervisorIV}{#1}}
279 </mt>

```

`\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.

```

280 <*ct>
281 \newcommand{\@programmet}{} % type
282 \newcommand{\@programmec}{} % class
283 \newcommand{\@programmecqr}{} % class for qr code
284 \newcommand{\@programmes}{} % class
285 \newcommand{\@programmeq}{} % qualifier
286 \newcommand{\programme}[3]{%
287   \ifthenelse{\equal{#1}{BA}}{%
288     {\renewcommand{\@programmet}{Bachelor of Science in de }}{%
289     \ifthenelse{\equal{#1}{MA}}{%
290       {\renewcommand{\@programmet}{Master of Science in de }}{%
291       \ifthenelse{\equal{#1}{VP}}{%
292         {\renewcommand{\@programmet}{Voorbereidingsprogramma voor Master of Science in de }}{%
293         \ifthenelse{\equal{#1}{SP}}{%
294           {\renewcommand{\@programmet}{Schakelprogramma voor Master of Science in de }}{%
295           \ifthenelse{\equal{#1}{FREE}}{%
296             {}{
297             \errmessage{Error in 1st arg of macro programme[3]: invalid
298               programme type!}}}}}}%
299           %
300           \ifthenelse{\equal{#2}{IW}}{%
301             {\renewcommand{\@programmec}{industri\ "ele wetenschappen}
302             \renewcommand{\@programmecqr}{industrile wetenschappen}}{
303             \ifthenelse{\equal{#2}{}}{%
304               {}{
305               \errmessage{{Error in 2nd arg of macro programme[3]: invalid
306                 programme class! }}}}}%
307             %
308             \ifthenelse{\equal{#3}{BK}}{%
309               {\renewcommand{\@programmeq}{bouwkunde}}{%
310               \ifthenelse{\equal{#3}{CH}}{%
311                 {\renewcommand{\@programmeq}{chemie}}{%
312                 \ifthenelse{\equal{#3}{BCH}}{%
313                   {\renewcommand{\@programmeq}{biochemie}}{%

```

```

314 \ifthenelse{\equal{#3}{EM}}%
315 {\renewcommand{\@programmeq}{elektromechanica}}{%
316 \ifthenelse{\equal{#3}{EI}}%
317 {\renewcommand{\@programmeq}{elektronica-ICT}}{%
318 \ifthenelse{\equal{#3}{}}%
319 {}{%
320 \ifthenelse{\equal{#1}{FREE}}
321 {\renewcommand{\@programmeq}{#3}}{
322 \errmessage{Error in 3rd arg to macro programme[3]: invalid
323 programme qualifier}}}}}}}%
324 %
325 \ifthenelse{\equal{#2}{IW}\and\not\equal{#3}{}}
326 {\renewcommand{\@programmes}{: }}{}
327 }
328 </ct>

```

`\course` 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.

```

329 <*ct>
330 \newcommand{\@coursecodei}{}
331 \newcommand{\@coursecodeii}{}
332 \newcommand{\@coursecodeiii}{}
333 \newcommand{\@coursecodeiv}{}
334 \newcommand{\@coursei}{}
335 \newcommand{\@courseii}{}
336 \newcommand{\@courseiii}{}
337 \newcommand{\@courseiv}{}
338 \newcommand{\@qrcoursei}{}
339 \newcommand{\@qrcourseii}{}
340 \newcommand{\@qrcourseiii}{}
341 \newcommand{\@qrcourseiv}{}
342 \newcommand{\course}[2]{
343 \renewcommand{\@coursecodei}{#1}
344 \renewcommand{\@coursei}{#2}
345 \ifx\@qrcoursei\@emptymacro
346 \renewcommand{\@qrcoursei}{#2}
347 \fi
348 }
349 \newcommand{\qrcourse}[1]{
350 \renewcommand{\@qrcoursei}{#1}
351 }
352 \newcommand{\course}[2]{
353 \renewcommand{\@coursecodei}{#1}
354 \renewcommand{\@coursei}{#2}
355 \ifx\@qrcoursei\@emptymacro
356 \renewcommand{\@qrcoursei}{#2}
357 \fi
358 }

```

```

359 \newcommand{\qrcoursei}[1]{
360   \renewcommand{\@qrcoursei}{#1}
361 }
362 \newcommand{\courseii}[2]{
363   \renewcommand{\@coursecodeii}{#1}
364   \renewcommand{\@courseii}{#2}
365   \ifx\@qrcourseii\@emptymacro
366   \renewcommand{\@qrcourseii}{#2}
367   \fi
368 }
369 \newcommand{\qrcourseii}[1]{
370   \renewcommand{\@qrcourseii}{#1}
371 }
372 \newcommand{\courseiii}[2]{
373   \renewcommand{\@coursecodeiii}{#1}
374   \renewcommand{\@courseiii}{#2}
375   \ifx\@qrcourseiii\@emptymacro
376   \renewcommand{\@qrcourseiii}{#2}
377   \fi
378 }
379 \newcommand{\qrcourseiii}[1]{
380   \renewcommand{\@qrcourseiii}{#1}
381 }
382 \newcommand{\courseiv}[2]{
383   \renewcommand{\@coursecodeiv}{#1}
384   \renewcommand{\@courseiv}{#2}
385   \ifx\@qrcourseiv\@emptymacro
386   \renewcommand{\@qrcourseiv}{#2}
387   \fi
388 }
389 \newcommand{\qrcourseiv}[1]{
390   \renewcommand{\@qrcourseiv}{#1}
391 }
392 </ct>

```

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

```

393 <*mt>
394 \newcommand{\@diploma}{ERROR}
395 \newcommand{\diploma}[1]{
396   \newcommand{\MoSIW}{Master of Science in de industri"ele wetenschappen}
397   \newcommand{\MoSTEW}{Master of Science in de toegepaste economische wetenschappen}
398   \renewcommand{\@diploma}{
399     \ifthenelse{\equal{#1}{MA-IW-BK}}
400       {\MoSIW: bouwkunde}{
401       \ifthenelse{\equal{#1}{MA-IW-BCH}}
402         {\MoSIW: biochemie}{
403         \ifthenelse{\equal{#1}{MA-IW-CH}}
404           {\MoSIW: chemie}{
405           \ifthenelse{\equal{#1}{MA-IW-EI}}

```

```

406             {\MoSIW: elektronica-ICT}{
407 \ifthenelse{\equal{#1}{MA-IW-EI-AE}}
408             {\MoSIW:\\elektronica-ICT, afstudeerrichting automotive engineering}{
409 \ifthenelse{\equal{#1}{MA-IW-EI-ICT}}
410             {\MoSIW:\\elektronica-ICT, afstudeerrichting ICT}{
411 \ifthenelse{\equal{#1}{MA-IW-EM-AE}}
412             {\MoSIW:\\elektromechanica, afstudeerrichting automotive engineering}{
413 \ifthenelse{\equal{#1}{MA-IW-EM-AU}}
414             {\MoSIW:\\elektromechanica, afstudeerrichting automatisering}{
415 \ifthenelse{\equal{#1}{MA-IW-EM-EM}}
416             {\MoSIW:\\elektromechanica, afstudeerrichting elektromechanica}{
417 \ifthenelse{\equal{#1}{MA-IW-EM-EN}}
418             {\MoSIW:\\elektromechanica, afstudeerrichting energie}{
419 \ifthenelse{\equal{#1}{MA-TEW-HI}}
420             {\MoSTEW: handelsingenieur}{
421 \ifthenelse{\equal{#1}{MA-TEW-HIBI}}
422             {\MoSTEW:\\handelsingenieur in de beleidsinformatica}{
423 \ifthenelse{\equal{#1}{MA-TEW-EB}}
424             {\MoSTEW: economisch beleid}{
425 \ifthenelse{\equal{#1}{MA-TEW-BK}}
426             {\MoSTEW: bedrijfskunde}
427 {\errmessage{Error in argument to macro diploma: must be one of
428             MA-IW-XXX with XXX one of BCH, CH, EI, EI-AE, EI-ICT, EM-AE,
429             EM-AU, EM-EM, EM-EN, MA-TEW-YYY with YYY one of HI, HIBI, EB, BK! <<}}}}}}}}}}}}}}}}}}}}
430 }
431 }
432 </mt>

```

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

```

433 <*mt>
434 \newcommand{\@defensedate}{ERROR}
435 \newcommand{\defensedate}[1]{\renewcommand{\@defensedate}{#1}}
436 </mt>

```

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

```

437 <*mt>
438 \newcommand{\@defenselocation}{Antwerpen}
439 \newcommand{\defenselocation}[1]{\renewcommand{\@defenselocation}{#1}}
440 </mt>

```

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

```

441 <*ct | mt>
442 \newcommand{\@academicyear}{XXX-YYYY}
443 \newcommand{\academicyear}[1]{\renewcommand{\@academicyear}{#1}}
444 </ct | mt>

```

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

```
445 <*ct>
446 \newcommand{\@copyrightnotices}{}
447 \newcommand{\copyrightnotices}[1]{\renewcommand{\@copyrightnotices}{#1}}
448 </ct>
```

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

```
449 <*le>
450 \newcommand{\@sender}{< Specify sender using
451 \tbs{}sender\{name\}\{role\} >}
452 \newcommand{\@senderrole}{~}
453 \newcommand{\sender}[2]{\renewcommand{\@sender}{#1}\renewcommand{\@senderrole}{#2}}
454 </le>
```

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

```
455 <*le>
456 \newcommand{\@logo}{\logoname}
457 \newcommand{\logo}[1]{\renewcommand{\@unit}{#1}}
458 </le>
```

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

```
459 <*le>
460 \newcommand{\@unit}{}
461 \newcommand{\unit}[1]{\renewcommand{\@unit}{#1}}
462 </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.

```
463 <*le>
464 \newcommand{\@emailuser}{}
465 \newcommand{\@emaildomain}{}
466 \newcommand{\email}[2]{\renewcommand{\@emailuser}{#1}\renewcommand{\@emaildomain}{#2}}
467 </le>
```

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

```
468 <*le>
469 \newcommand{\@phone}{}
470 \newcommand{\phone}[1]{\renewcommand{\@phone}{#1}}
471 </le>
```


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

```
472 <*le>
473 \newcommand{\@fax}{}
474 \newcommand{\fax}[1]{\renewcommand{\@fax}{#1}}
475 </le>
```

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

```
476 <*le>
477 \newcommand{\@mobile}{}
478 \newcommand{\mobile}[1]{\renewcommand{\@mobile}{#1}}
479 </le>
```

`\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).

```
480 <*le>
481 \newcommand{\@returnaddress}{<specify return-address using \tbs\{single-line-return-address\}>}
482 \renewcommand{\returnaddress}[1]{\renewcommand{\@returnaddress}{#1}}
483 </le>
```

`\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).

```
484 <*le>
485 \newcommand{\@to}{<Specify addressee using \tbs to\{name\}>}
486 \renewcommand{\to}[1]{\renewcommand{\@to}{#1}}
487 </le>
```

`\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).

```
488 <*le>
489 \newcommand{\@toorganization}{<Specify organization using
490 \tbs toorganization\{\}>}
491 \newcommand{\toorganization}[1]{\renewcommand{\@toorganization}{#1}}
492 </le>
```

`\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).

```
493 <*le>
494 \newcommand{\@toaddress}{<Specify (multiline) destination address\\using \tbs toaddress\{\}>}
495 \newcommand{\toaddress}[1]{\renewcommand{\@toaddress}{#1}}
496 </le>
```

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

```
497 <*le>
498 \newcommand{\@subject}{-}
499 \newcommand*{\subject}[1]{\renewcommand{\@subject}{#1}}
500 </le>
```

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

```
501 <*le>
502 \renewcommand*{\opening}[1]{#1}
503 </le>
```

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

```
504 <*le>
505 \newcommand{\@closing}{<specify a closing formula using \tbs closing\{\}>}
506 \renewcommand*{\closing}[1]{\renewcommand{\@closing}{#1}}
507 </le>
```

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

```
508 <*le>
509 \newcommand{\@carboncopy}{}
510 \newcommand{\carboncopy}[1]{\renewcommand{\@carboncopy}{#1}}
511 </le>
```

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

```
512 <*le>
513 \newcommand{\@enclosed}{}
514 \newcommand{\enclosed}[1]{\renewcommand{\@enclosed}{#1}}
515 </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).

```
516 <*le>
517 \newcommand{\@address}{< Put your multi-line address here\\using
518 \tbs address\{\} >}
519 \renewcommand{\address}[1]{\renewcommand{\@address}{#1}}
520 </le>
```

`\address` [uantwerpenletter] (mandatory)

Address of the sending unit (or faculty). This can be different from the return address. Newlines are allowed and encouraged.

`\date` [uantwerpenletter] (optional)
Date of the letter. If not specified today's date (at the time of running L^AT_EX) will be used.

5.7 Header and Footer

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

```
521 <*ct>
522 \if@twoside
523 \lhead[\thepage]{\slshape\rightmark}
524 \chead[]{}
525 \rhead[\slshape\leftmark]{\thepage}
526 \lfoot[Universiteit Antwerpen -- \@facultyacronym]{\@courseversion}
527 \cfoot[]{}
528 \rfoot[]{\@title{}}\ifmtarg{\@subtitle}{}{ --- \@subtitle}}
529 \else
530 \lhead[]{\leftmark}
531 \chead[]{}
532 \rhead[]{\thepage}
533 \lfoot[]{\@courseversion}
534 \cfoot[]{UAntwerpen--\@facultyacronym}
535 \rfoot[]{\@title{}}
536 \fi
537 </ct>
```

The header and footer of the `uantwerpenmasterthesis` package are defined to be:

```
538 <*mt>
539 \if@twoside
540 \lhead[\thepage]{\slshape\rightmark}
541 \chead[]{}
542 \rhead[\slshape\leftmark]{\thepage}
543 \lfoot[Universiteit Antwerpen -- \@facultyacronym]{}
544 \cfoot[]{}
545 \rfoot[]{\@title{}}
546 \else
547 \lhead[]{\leftmark}
548 \chead[]{}
549 \rhead[]{\thepage}
550 \lfoot[]{}
551 \cfoot[]{UAntwerpen--\@facultyacronym}
552 \rfoot[]{\@title{}}
553 \fi
```

```
554 </mt>
```

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

```
555 <*le>
556 \lhead[]{}
557 \chead[]{}
558 \rhead[]{}
559 \lfoot[\small\textcolor{gray}{\@date}]{\textcolor{gray}{\@date}}
560 \cfoot[]{}
561 \rfoot[\small\textcolor{gray}{\pagename~\thepage~\orname~\pageref{lastpage}}]{\small\textcolor{
562 </le>
```

Some common code remains:

```
563 <*ct | mt>
564 \setlength{\headheight}{13.7pt}
565 \renewcommand{\headrulewidth}{1pt}
566 \renewcommand{\footrulewidth}{1pt}
567 \pagenumbering{arabic}
568 </ct | mt>
569 <*le>
570 \renewcommand{\headrulewidth}{0pt}
571 \renewcommand{\footrulewidth}{0pt}
572 </le>
```

Remains to take care of filling

```
573 <*ct | mt | le>
574 \if@filled\else
575   \raggedright
576 \fi
577 \raggedbottom
578 \onecolumn
579 </ct | mt | le>
```

5.8 Copyright notice

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

```
580 <*ct>
581 \newcommand{\@crnotice}{
582   This document has been typeset using \LaTeX{} and the
583   \texttt{uantwerpencoursetext} class.\
584   \@copyrightnotices
585
586   \@courseversion
587
588   CONFIDENTIAL AND PROPRIETARY.
```

```

589
590 \copyright{} \@versionyear{} Universiteit Antwerpen, All rights reserved.
591 }
592 </ct>

```

5.9 Title page for the masterthesis and coursetext clases

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:

```

593 <*ct | mt>
594 \pgfmathsetmacro{\ua@Wh}{\paperwidth}
595 \pgfmathsetmacro{\ua@Xh}{0.2\paperheight}
596 \pgfmathsetmacro{\ua@Yh}{0.125\paperheight}
597 \pgfmathsetmacro{\ua@XMyh}{\ua@Xh-\ua@Yh}
598 \pgfmathsetmacro{\ua@Rh}{0.5*\ua@Wh/\ua@XMyh*\ua@Wh+0.5*\ua@XMyh}
599 \pgfmathsetmacro{\ua@Qh}{\ua@Rh-\ua@Xh+\paperheight}
600 </ct | mt>

```

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:

```
601 <*ct | mt>
602 \pgfmathsetmacro{\ua@Wba}{0.4*\paperwidth}
603 \pgfmathsetmacro{\ua@Sba}{0.125*\paperheight}
604 \pgfmathsetmacro{\ua@XMYba}{0.02*\paperheight}
605 \pgfmathsetmacro{\ua@Rba}{0.5*\ua@Wba/\ua@XMYba*\ua@Wba+0.5*\ua@XMYba}
606 \pgfmathsetmacro{\ua@Qba}{\ua@Rba+\ua@Sba}
607 </ct | mt>
```

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

```
608 <*ct | mt>
609 \pgfmathsetmacro{\ua@Wbb}{0.65*\paperwidth}
610 \pgfmathsetmacro{\ua@Sbb}{0.14*\paperheight}
611 \pgfmathsetmacro{\ua@XMYbb}{0.06*\paperheight}
612 \pgfmathsetmacro{\ua@Rbb}{0.5*\ua@Wbb/\ua@XMYbb*\ua@Wbb+0.5*\ua@XMYbb}
613 \pgfmathsetmacro{\ua@Qbb}{\ua@Rbb+\ua@Sbb}
614 </ct | mt>
```

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

```
615 <*ct | mt>
616 \pgfmathsetmacro{\ua@l1}{0.15*\paperwidth}
617 \pgfmathsetmacro{\ua@l}{0.4*\paperwidth}
618 \pgfmathsetmacro{\ua@d}{0.1in}
619 \pgfmathsetmacro{\ua@rr}{0.85*\paperwidth}
620 </ct | mt>
```

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.

```

621 <*ct>
622 \newcommand\sprtr{ / }
623 \newcommand\myqrdata{
624 I: Universiteit Antwerpen\string\n
625 F: \@faculty\string\n
626 P: \@programmet\ \@programmecqr\ \@programmeq\string\n
627 C: \@coursecodei\ \@qrcoursei
628 \sprtr
629 \@coursecodeii\ \@qrcourseii
630 \sprtr
631 \@coursecodeiii\ \@qrcourseiii
632 \sprtr
633 \@coursecodeiv\ \@qrcourseiv
634 \string\n
635 Y: \@academicyear\string\n
636 T: \@qrtitle\string\n
637 S: \@qrsubtitle\string\n
638 A: \@qrauthor\string\n
639 L: \@qrlectureri
640 \sprtr
641 \@qrlecturerii
642 \sprtr
643 \@qrlectureriii
644 \sprtr
645 \@qrlectureriv}
646 \newsavebox{\myqrcode}
647 </ct>

```

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

```

648 <*ct>
649 \renewcommand\maketitle{%
650 \pagestyle{empty}
651 \if@qr
652 \savebox{\myqrcode}[2.7in][t]{
653 \begin{pspicture}(2.7in,2.7in)
654 \psbarcode{\myqrdata}{version=22 encoding=byte elevel=M}{qrcode}
655 \end{pspicture}
656 }
657 \fi
658 \begin{titlepage}
659 \if@titlepagetableonly
660 Dit is een cursustekst van Universiteit Antwerpen.\
661 Het titelblad dient opgemaakt te worden met de volgende gegevens:
662 \begin{center}
663 \begin{tabular}{|l|l|}
664 \hline

```

```

665     \bfseries I & Universiteit Antwerpen \\ \hline
666     \bfseries F & \@faculty \\ \hline
667     \bfseries P & \parbox[t]{14cm}{\@programmet
668       \@programmec\@programmes \@programmeq} \\ \hline
669     \bfseries C & \parbox[t]{14cm}{
670       \texttt{\@coursecodei} \@coursei\\
671       \texttt{\@coursecodeii} \@courseii\\
672       \texttt{\@coursecodeiii} \@courseiii\\
673       \texttt{\@coursecodeiv} \@courseiv} \\ \hline
674     \bfseries Y & \@academicyear \\ \hline
675     \bfseries T & \parbox[t]{14cm}{\@title} \\ \hline
676     \bfseries S & \parbox[t]{14cm}{\@subtitle} \\ \hline
677     \bfseries A & \parbox[t]{14cm}{\@author} \\ \hline
678     \bfseries L & \parbox[t]{14cm}{\@lectureri\\
679       \@lecturerii\\
680       \@lectureriii\\
681       \@lectureriv} \\ \hline
682   \end{tabular}
683 \end{center}
684 ~\
685 Waarbij: I = instelleng, F = faculteit, P = programma, C =
686 cursusmodule, T = titel, S = subtitel, A = auteur(s), L =
687 lesgever(s) \\ ~\
688 \if@qr
689 Deze informatie is ook gecodeerd in de onderstaande QR-code. \\
690 \vspace*{1cm}
691 \usebox{\myqrcode}
692 \fi
693 \else
694 \begin{tikzpicture}[remember picture,overlay]
695   \node at (current page.center) {
696     \begin{tikzpicture}[inner sep=0pt]
697       \clip (0,0) rectangle(\paperwidth,\paperheight);
698       \if@titlepagenoartwork\else
699         \filldraw [uacorpbord] (0.55\paperwidth,\ua@Qba pt) circle (\ua@Rba pt);
700         \filldraw [white] (0.35\paperwidth,\ua@Qbb pt) circle (\ua@Rbb pt);
701         \filldraw [uacorpblue] (0,\ua@Qh pt) circle (\ua@Rh pt);
702         \path
703           (0.95\paperwidth,0.1\paperheight)
704           node [anchor=north east] {
705             \includegraphics[width=0.25\paperwidth]{\logoname}};
706         \fi
707         \path
708           (\ua@l pt -\ua@d pt,0.77\paperheight)
709           node [anchor=north east, text width=0.35\paperwidth] {
710             \begin{flushright}
711               UNIVERSITEIT ANTWERPEN \\ ~\
712               Academiejaar \@academicyear
713             \end{flushright}}
714           (\ua@l pt +\ua@d pt,0.65\paperheight)

```



```

715     node [anchor = north west, text width = 0.55\paperwidth] {
716         {\large \@faculty{}}\}[0.05\paperheight]
717         {\huge \bf \@title{}}\}[2ex]
718         {\Large \bf \@subtitle{}}\}[3ex]
719         {\Large \bf \@author{}}}
720     (\ua@l pt +\ua@d pt,0.45\paperheight)
721     node [anchor = north west, text width = 0.55\paperwidth] {
722         \@lectureri~\
723         \@lecturerii~\
724         \@lectureriii~\
725         \@lectureriv}
726     (\ua@l pt +\ua@d pt,0.35\paperheight)
727     node [anchor = north west, text width = 0.55\paperwidth] {
728         {\bf \@programmet \ \@programmec\@programmes \@programmeq}}
729     (\ua@l pt +\ua@d pt,0.30\paperheight)
730     node [anchor = north west, text width = 0.55\paperwidth] {
731         \texttt{\@publishercode}~\~\
732         \texttt{\@coursecodei{}} \@coursei~\
733         \texttt{\@coursecodeii{}} \@courseii~\
734         \texttt{\@coursecodeiii{}} \@courseiii~\
735         \texttt{\@coursecodeiv{}} \@courseiv}
736     (\ua@l pt - 2\ua@d pt, 0.368\paperheight)
737     node [anchor = north east, text width = 0.35\paperwidth] {
738         {\normalsize\begin{flushright}
739             \@publisher{
740                 \end{flushright}}};
741     \end{tikzpicture}
742 };
743 \end{tikzpicture}
744 \fi
745 \end{titlepage}%
746 \clearpage
747 \vspace*{\stretch{1}}
748 \@crnotice
749 \clearpage
750 \setcounter{footnote}{0}%
751 \global\let\thanks\relax
752 \global\let\maketitle\relax
753 \global\let\@thanks\@empty
754 \global\let\title\relax
755 \global\let\author\relax
756 \global\let\date\relax
757 \global\let\and\relax
758 \pagestyle{fancy}
759 \thispagestyle{empty}
760 }
761 </ct>

```

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

class:

```
762 <*ct>
763 \newcommand\makefinalpage{
764   \if@titlepagetableonly
765   \else
766   \cleardoublepage
767   \thispagestyle{empty}
768   \begin{tikzpicture}[remember picture,overlay]
769     \node at (current page.center) {
770       \begin{tikzpicture}[inner sep=0pt]
771         \clip (0,0) rectangle(\paperwidth,\paperheight);
772         \if@titlepagenoartwork\else
773         \filldraw [uacorpblue] (\paperwidth,\ua@Qh pt) circle (\ua@Rh pt);
774         \fi
775         \path
776         (0.1\paperwidth,0.1\paperheight)
777         node [anchor = south west, text width = 0.6\paperwidth] {
778           CONFIDENTIAL AND PROPRIETARY\~\
779
780           \copyright{} \@versionyear{} Universiteit Antwerpen,
781           All rights reserved.}
782         (0.9\paperwidth,0.1\paperwidth)
783         node [anchor = south east] {
784           \usebox{\myqrcode}
785         };
786       \end{tikzpicture}
787     };
788   \end{tikzpicture}
789   \fi
790 }
791 </ct>
```

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

```
792 <*mt>
793 \renewcommand\maketitle{%
794   \pagestyle{empty}
795   \begin{titlepage}
796     \begin{tikzpicture}[remember picture,overlay]
797       \node at (current page.center) {
798         \begin{tikzpicture}[inner sep=0pt]
799           \clip (0,0) rectangle(\paperwidth,\paperheight);
800           \if@titlepagenoartwork\else
801           \filldraw [lightgray] (0.55\paperwidth,\ua@Qba pt) circle (\ua@Rba pt);
802           \filldraw [white] (0.35\paperwidth,\ua@Qbb pt) circle (\ua@Rbb pt);
803           \filldraw [lightgray] (0,\ua@Qh pt) circle (\ua@Rh pt);
804           \path
805           (0.95\paperwidth,0.1\paperheight)
806           node [anchor=north east] {
```

```

807         \includegraphics[width=0.25\paperwidth]{\logoname}};
808     \fi
809     \path
810     (\ua@ll pt,0.77\paperheight)
811     node [anchor=north west, text width=0.7\paperwidth] {
812         UNIVERSITEIT ANTWERPEN\~\
813         Academiejaar \@academicyear\~\
814         {\large \@faculty{}}\~\
815         Masterproef\@[0.05\paperheight]
816         {\Large \bf \@title{}}}
817     (\ua@ll pt,0.55\paperheight)
818     node [anchor = north west, text width = 0.7\paperwidth] {
819         {\large \bf \@author{}}\~\~\
820         \begin{tabular}{@{}p{2.5cm}p{11cm}}
821             \textbf{Promotoren:}
822             & \@supervisorii \
823             & \@supervisoriii \
824             & \@supervisoriv \
825             & \@supervisoriv
826         \end{tabular}
827     }
828     (\ua@ll pt,0.3\paperheight) node [anchor=north west, text width = 0.7\paperwidth]{%
829         Proefschrift tot het behalen van de graad van\
830         \@diploma\
831         \@defenselocation, \@defensedate
832     };
833     \end{tikzpicture}
834 };
835 \end{tikzpicture}
836 \end{titlepage}%
837 \clearpage
838 \setcounter{footnote}{0}%
839 \global\let\thanks\relax
840 \global\let\maketitle\relax
841 \global\let\@thanks\@empty
842 \global\let\title\relax
843 \global\let\author\relax
844 \global\let\date\relax
845 \global\let\and\relax
846 \pagestyle{fancy}
847 \thispagestyle{empty}
848 }
849 \end{document}

```

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

```

850 \newcommand*{
851 \makefinalpage{
852 \cleardoublepage

```

```

853 \thispagestyle{empty}
854 \begin{tikzpicture}[remember picture,overlay]
855   \node at (current page.center) {
856     \begin{tikzpicture}[inner sep=0pt]
857       \clip (0,0) rectangle(\paperwidth,\paperheight);
858       \if@titlepagenoartwork\else
859         \filldraw [lightgray] (\paperwidth,\ua@Qh pt) circle (\ua@Rh pt);
860       \fi
861     \end{tikzpicture}
862   };
863 \end{tikzpicture}
864 }
865 </mt>

```

5.10 Letter

5.10.1 Bottom cords

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

5.10.2 Title Page

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

```

866 < *e>
867 \newcommand\maketitle{%
868   \pagestyle{fancy}
869   \thispagestyle{empty}
870   \begin{tikzpicture}[overlay,remember picture]
871     \path (current page.north west) +(1.8cm,-1.2cm)
872     node[anchor=north west] {
873       \includegraphics[height=1.1cm]{\@logo}
874     };
875     \draw (current page.north west)
876     +(1cm,-98mm) -- +(1.5cm,-98mm);
877     % 90 x 45
878     % pos: 20mm van kant, 15mm van onderkant
879     \path (current page.north east) +(-100mm,-65mm)
880     node[anchor=west,text width=80mm,align=left] {
881       \scriptsize\textcolor{gray}{\underline{\@returnaddress}}\}*
882       \normalsize\@to\}*
883       \@toorganization\}*
884       \@toaddress
885     };
886 \end{tikzpicture}
887 \begin{tikzpicture}[overlay,remember picture]

```

```

888 \path (current page.south west) +(0,-0.7cm)
889 node[anchor=south west,inner sep=0pt, outer sep=0pt]
890 {\includegraphics{\footername}};
891 \end{tikzpicture}
892 ~\{3ex}
893 \textcolor{uacorpblue}{\bf \@sender}\}
894 \@senderrole\}[1.75ex]
895 \@faculty
896 \ifx\@unit\@emptymacro\else\* \@unit\fi~\}[1.75ex]
897 \@address\}[1.75ex]
898 \ifx\@email\@emptymacro\else E \@emailuser\tat{}\@emaildomain\\\fi
899 \ifx\@phone\@emptymacro\else T \@phone\\\fi
900 \ifx\@fax\@emptymacro\else F \@fax\\\fi
901 \ifx\@mobile\@emptymacro\else M \@mobile\\\fi
902 ~\{4ex}
903 \begin{tikzpicture}[anchor=north west,align=left,outer sep=0,inner sep=0]
904 \path
905 (0,0) node { \scriptsize \strut
906 \textcolor{gray}{\uppercase\expandafter{\datename} } }
907 (4cm,0) node { \scriptsize \strut
908 \textcolor{gray}{\uppercase\expandafter{\subjectname} } }
909 (0,-2.5ex) node { \strut \@date }
910 (4cm,-2.5ex) node[align=left] { \strut \@subject };
911 \end{tikzpicture}~\{4ex}
912 }
913 </le>

```

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

```

914 <*\e>
915 \AtEndDocument{
916 \@closing\}[12ex]
917 \@sender\}
918 \@senderrole
919 \setlength{\parskip}{0em}
920 \ifx\@carboncopy\@emptymacro\else ~\{4ex} CC: \@carboncopy\fi
921 \ifx\@enclosed\@emptymacro\else ~\{4ex} ENCL: \@enclosed\fi
922 \label{lastpage}
923 }
924 </le>

```

5.11 References

```

925 <*\ct | mt>
926 \IfFileExists{varioref.sty}{\RequirePackage{varioref}}{}
927 </ct | mt>
928 %
929 <*\ct>
930 \IfFileExists{hyperref.sty}{

```

```

931 \RequirePackage{hyperref}
932 \hypersetup{
933     backref=true,
934     breaklinks=true,
935     colorlinks=true,
936     citecolor=black,
937     filecolor=black,
938     hyperindex=true,
939     linkcolor=black,
940     pageanchor=true,
941     pagebackref=true,
942     pagecolor=black,
943     pdfpagemode=UseOutlines,
944     urlcolor=black
945 }
946 \AtBeginDocument{
947     \hypersetup{
948         pdftitle={\@title},
949         pdfsubject={\@subtitle},
950         pdfauthor={\@author}
951     }
952 }
953 }{}
954 </ct>
955 %
956 %
957 <*mt>
958 \IfFileExists{hyperref.sty}{
959     \RequirePackage{hyperref}
960     \hypersetup{
961         backref=true,
962         breaklinks=true,
963         colorlinks=true,
964         citecolor=black,
965         filecolor=black,
966         hyperindex=true,
967         linkcolor=black,
968         pageanchor=true,
969         pagebackref=true,
970         pagecolor=black,
971         pdfpagemode=UseOutlines,
972         urlcolor=black
973     }
974     \AtBeginDocument{
975         \hypersetup{
976             pdftitle={\@title},
977             pdfsubject={Master's Thesis},
978             pdfauthor={\@author}
979         }
980     }

```

981 }{}
982 </mt>

Change History

v1.0	General: Consolidated uacourse- text class and uamasterthesis class	1	freedom	1
	Added option qr	20	Abandoned use of cmbright - no more font dictatorship for the- ses and courses	21
	Added option titlepagenoart- work	20	Added inclusion of background package	22
	Added option titlepagetableonly	20	Changed eso-pic for tikz and background	39
v1.1	General: Small bugfixes and 'filled' option	1	<code>\makefinalpage</code> : Changed eso-pic for tikz	42, 43
	Added option user documenta- tion	5	<code>\maketitle</code> : Changed eso-pic for tikz	42
	Made raggedright conditional on option 'filled', because it can't be undone	36	v1.4	
	<code>\diploma</code> : Fixed typo on pro- gramme's name (e-umlaut) . .	30	General: Implemented uantwerpen- letter class	1
v1.2	General: Added lmodern pack- age and increased headheight to 13.7pt to please Fancyhdr	1	Implemented letter class	20
	Added lmodern package to please MikTeX	21	v1.5	
	Increased headheight to please Fancyhdr	36	General: Replaced bottom arcs in footer of letter by official PDF versions	1
v1.3	General: Minor bugfixes, abandon- ment of a few packages, font		Removed documentation	44
			<code>\maketitle</code> : Implemented new footer	44
			v1.6	
			General: Added diploma codes for Faculty of Applied Economics . .	1
			Added diploma code documenta- tion	8
			<code>\diploma</code> : Added diploma codes .	30

Index

Numbers written in *italic* refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; numbers in *roman* refer to the code lines where the entry is used.

Symbols	<code>\@emailuser</code> 464, 466, 898	<code>\@programmes</code>
<code>\"</code> 301, 396	<code>\@empty</code> 753, 841	. 284, 326, 668, 728
<code>\@academicyear</code>	<code>\@emptymacro</code>	<code>\@programmet</code> .. 281,
. 442, 443,	. . 47, 158, 171,	288, 290, 292,
635, 674, 712, 813	183, 225, 234,	294, 626, 667, 728
<code>\@address</code> . 517, 519, 897	243, 252, 261,	<code>\@publisher</code> 200, 208, 739
<code>\@author</code> .. 182, 677,	345, 355, 365,	<code>\@publishercode</code> . . .
719, 819, 950, 978	375, 385, 896,	. . . . . 211, 212, 731
<code>\@carboncopy</code>	898–901, 920, 921	<code>\@qrauthor</code> . . . 180,
. 509, 510, 920	<code>\@enclosed</code> 513, 514, 921	183, 184, 188, 638
<code>\@closing</code> . 505, 506, 916	<code>\@faculty</code> . 124, 127,	<code>\@qrcoursei</code> . . . 338,
<code>\@copyrightnotices</code> .	129, 131, 133,	345, 346, 350,
. 446, 447, 584	135, 137, 139,	355, 356, 360, 627
<code>\@copyrighttrue</code> 3	141, 143, 145,	<code>\@qrcourseii</code> .. 339,
<code>\@coursecodei</code>	147, 149, 625,	365, 366, 370, 629
. 330, 343,	666, 716, 814, 895	<code>\@qrcourseiii</code> . 340,
353, 627, 670, 732	<code>\@facultyacronym</code> . .	375, 376, 380, 631
<code>\@coursecodeii</code> 331,	. . . . . 123, 126,	<code>\@qrcourseiv</code> .. 341,
363, 629, 671, 733	526, 534, 543, 551	385, 386, 390, 633
<code>\@coursecodeiii</code> 332,	<code>\@fax</code> 473, 474, 900	<code>\@qrlectureri</code> . 219,
373, 631, 672, 734	<code>\@filledtrue</code> 15	225, 226, 230,
<code>\@coursecodeiv</code> 333,	<code>\@ifmtarg</code> 528	234, 235, 239, 639
383, 633, 673, 735	<code>\@ifpackageloaded</code> . 85	<code>\@qrlecturerii</code> 220,
<code>\@coursei</code> 334,	<code>\@lectureri</code> 215,	243, 244, 248, 641
344, 354, 670, 732	224, 233, 678, 722	<code>\@qrlectureriii</code> 221,
<code>\@courseii</code>	<code>\@lecturerii</code>	252, 253, 257, 643
. 335, 364, 671, 733	. 216, 242, 679, 723	<code>\@qrlectureriv</code> 222,
<code>\@courseiii</code>	<code>\@lectureriii</code>	261, 262, 266, 645
. 336, 374, 672, 734	. 217, 251, 680, 724	<code>\@qrsubtitle</code> .. 168,
<code>\@courseiv</code>	<code>\@lectureriv</code>	171, 172, 176, 637
. 337, 384, 673, 735	. 218, 260, 681, 725	<code>\@qrtitle</code> 155,
<code>\@courseversion</code> 192,	<code>\@logo</code> 456, 873	158, 159, 163, 636
193, 526, 533, 586	<code>\@mobile</code> .. 477, 478, 901	<code>\@qrtrue</code> 5
<code>\@crnotice</code> . . . <u>580</u> , 748	<code>\@phone</code> . . . 469, 470, 899	<code>\@returnaddress</code> . . .
<code>\@date</code> 559, 909	<code>\@programmec</code> . . . . .	. . . . . 481, 482, 881
<code>\@defensedate</code> . . . . .	. 282, 301, 668, 728	<code>\@sender</code>
. 434, 435, 831	<code>\@programmecqr</code> . . . . .	. 450, 453, 893, 917
<code>\@defenselocation</code> .	. . . . . 283, 302, 626	<code>\@senderrole</code>
. 438, 439, 831	<code>\@programmeq</code> . . . . .	. 452, 453, 894, 918
<code>\@diploma</code> . 394, 398, 830	. 285, 309, 311,	<code>\@subject</code> . 498, 499, 910
<code>\@email</code> 898	313, 315, 317,	<code>\@subtitle</code> 167, 170,
<code>\@emaildomain</code>	321, 626, 668, 728	528, 676, 718, 949
. 465, 466, 898		

<code>\@supervisor</code>	<code>\addto</code> . . 86, 94, 102, 110	<code>\DeclareOption</code>
. 270, 274, 275, 822	<code>\addtolength</code> 31	. . . . . 3, 5, 9, 11, 15
<code>\@supervisorii</code>	<code>\and</code> 325, 757, 845	<code>\defensedate</code> <u>433</u>
. 271, 276, 823	<code>\AtBeginDocument</code>	<code>\defenselocation</code> . . <u>437</u>
<code>\@supervisoriii</code> . . . . .	. . . . . 84, 946, 974	<code>\definecolor</code> 69–75
. 272, 277, 824	<code>\AtEndDocument</code> 915	<code>\diploma</code> <u>393</u>
<code>\@supervisoriv</code>	<code>\author</code> . . . <u>179</u> , 755, 843	<code>\domainname</code>
. 273, 278, 825		81, 90, 98, 106, 114
<code>\@thanks</code> 753, 841	B	<code>\draw</code> 875
<code>\@title</code> 157, 528, 535,	<code>\baselineskip</code> 31	
545, 552, 675,	<code>\begin</code> 653, 658, 662,	E
717, 816, 948, 976	663, 694, 696,	<code>\else</code> 529,
<code>\@titlepagenoartworktrue</code>	710, 738, 768,	546, 574, 693,
. 9	770, 795, 796,	698, 765, 772,
<code>\@titlepagetableonlytrue</code>	798, 820, 854,	800, 858, 896,
. 11	856, 870, 887, 903	898–901, 920, 921
<code>\@to</code> 485, 486, 882	<code>\bf</code> 717–719,	<code>\email</code> <u>463</u>
<code>\@toaddress</code> 494, 495, 884	728, 816, 819, 893	<code>\enclosed</code> <u>512</u>
<code>\@toorganization</code>	<code>\bfseries</code> . 665–667,	<code>\end</code> . . 655, 682, 683,
. 489, 491, 883	669, 674–678	713, 740, 741,
<code>\@unit</code> 457, 460, 461, 896		743, 745, 786,
<code>\@versionyear</code>	C	788, 826, 833,
. 196, 197, 590, 780	<code>\captionsdutch</code> 86	835, 836, 861,
<code>\@</code> 200–206, 408,	<code>\captionsfrench</code> . . . 102	863, 886, 891, 911
410, 412, 414,	<code>\captionsgerman</code> . . . 94	<code>\equal</code> 127,
416, 418, 422,	<code>\captionsspanish</code> . . 110	129, 131, 133,
494, 517, 583,	<code>\carboncopy</code> <u>508</u>	135, 137, 139,
660, 665, 666,	<code>\cfoot</code> 527,	141, 143, 145,
668, 670–681,	534, 544, 551, 560	147, 149, 287,
684, 687, 689,	<code>\thead</code> 524,	289, 291, 293,
711, 716–718,	531, 541, 548, 557	295, 300, 303,
722–724, 728,	<code>\cleardoublepage</code>	308, 310, 312,
731–734, 778,	. . . . . 766, 852	314, 316, 318,
812–815, 819,	<code>\clearpage</code> 746, 749, 837	320, 325, 399,
822–824, 829,	<code>\clip</code> . 697, 771, 799, 857	401, 403, 405,
830, 881–883,	<code>\closing</code> <u>504</u>	407, 409, 411,
892–894,	<code>\copyright</code> . . . 590, 780	413, 415, 417,
896–902, 911,	<code>\copyrightnotices</code> . <u>445</u>	419, 421, 423, 425
916, 917, 920, 921	<code>\course</code> <u>329</u>	<code>\errmessage</code> . . . 151,
<code>\{</code> 124, 451, 481, 485,	<code>\coursei</code> 352	297, 305, 322, 427
490, 494, 505, 518	<code>\courseii</code> 362	<code>\ExecuteOptions</code> . 18, 25
<code>\}</code> 124, 451, 481, 485,	<code>\courseiii</code> 372	<code>\expandafter</code> . . 906, 908
490, 494, 505, 518	<code>\courseiv</code> 382	
<code>_</code> 626, 627, 629, 631, 633	<code>\courseversion</code> <u>191</u>	F
		<code>\facultyacronym</code> . . . <u>122</u>
A	D	<code>\fax</code> <u>472</u>
<code>\academicyear</code> <u>441</u>	<code>\date</code> 756, 844	<code>\fi</code> 57, 63, 160,
<code>\address</code> <u>516</u>	<code>\datename</code> . . . 82, 92,	173, 185, 227,
	100, 108, 116, 906	236, 245, 254,
		263, 347, 357,

367, 377, 387,	<code>\ifx</code> 158, 171,	<code>\newif</code> 2, 4, 8, 10, 14
536, 553, 576,	183, 225, 234,	<code>\newsavebox</code> 646
657, 692, 706,	243, 252, 261,	<code>\node</code> 695, 769, 797, 855
744, 774, 789,	345, 355, 365,	<code>\normalsize</code> 738, 882
808, 860, 896,	375, 385, 896,	<code>\not</code> 325
898–901, 920, 921	898–901, 920, 921	
<code>\filldraw</code> 699–701,	<code>\includegraphics</code>	O
773, 801–803, 859	. . . . . 705, 807, 873, 890	<code>\onecolumn</code> 578
<code>\footername</code> 79,		<code>\opening</code> 501
88, 96, 104, 112, 890		<code>\orname</code> 80,
<code>\footrulewidth</code> 566, 571		89, 97, 105, 113, 561
	L	
G	<code>\label</code> 922	P
<code>\global</code> 751–757, 839–845	<code>\Large</code> 718, 719, 816	<code>\pagename</code> 561
	<code>\large</code> 716, 814, 819	<code>\pagenumbering</code> 567
	<code>\LaTeX</code> 582	<code>\pageref</code> 561
	<code>\lecturer</code> 214	<code>\pagestyle</code> 650,
H	<code>\lectureri</code> 232	758, 794, 846, 868
<code>\headheight</code> 564	<code>\lecturerii</code> 241	<code>\paperheight</code>
<code>\headrulewidth</code> 565, 570	<code>\lectureriii</code> 250	. . . . . 595, 596, 599,
<code>\hline</code> 664–666,	<code>\lectureriv</code> 259	603, 604, 610,
668, 673–677, 681	<code>\leftmark</code>	611, 697, 703,
<code>\huge</code> 717	. . . . . 525, 530, 542, 547	708, 714, 716,
<code>\hypersetup</code>	<code>\let</code> 751–757, 839–845	720, 726, 729,
. 932, 947, 960, 975	<code>\lfoot</code> 526,	736, 771, 776,
	533, 543, 550, 559	799, 805, 810,
I	<code>\lhead</code> 523,	815, 817, 828, 857
<code>\if@copyright</code> 2, 55	530, 540, 547, 556	<code>\paperwidth</code> 594,
<code>\if@filled</code> 14, 574	<code>\LoadClassWithOptions</code>	602, 609, 616,
<code>\if@qr</code> 4, 60, 651, 688	. . . . . 20, 27	617, 619, 697,
<code>\if@titlepagenoartwork</code>	<code>\logo</code> 455	699, 700, 703,
. 8,	<code>\logoname</code>	705, 709, 715,
698, 772, 800, 858	78, 87, 95, 103,	721, 727, 730,
<code>\if@titlepagetableonly</code>	111, 456, 705, 807	737, 771, 773,
. 10, 659, 764		776, 777, 782,
<code>\if@twoside</code> 522, 539	M	799, 801, 802,
<code>\IfFileExists</code>	<code>\makeatletter</code> 21	805, 807, 811,
. 926, 930, 958	<code>\makeatother</code> 21	818, 828, 857, 859
<code>\ifthenelse</code> 127,	<code>\makefinalpage</code> 762 , 850	<code>\parbox</code> 667, 669, 675–678
129, 131, 133,	<code>\maketitle</code> 648 , 792 , 866	<code>\parindent</code> 30
135, 137, 139,	<code>\mobile</code> 476	<code>\parskip</code> 31, 919
141, 143, 145,	<code>\MoSIW</code> 396,	<code>\path</code> 702, 707,
147, 149, 287,	400, 402, 404,	775, 804, 809,
289, 291, 293,	406, 408, 410,	871, 879, 888, 904
295, 300, 303,	412, 414, 416, 418	<code>\pgfmathsetmacro</code>
308, 310, 312,	<code>\MoSTEW</code> 397,	. . . . . 594–599,
314, 316, 318,	420, 422, 424, 426	602–606,
320, 325, 399,	<code>\myqrcode</code>	609–613, 616–619
401, 403, 405,	. . . . . 646, 652, 691, 784	<code>\phone</code> 468
407, 409, 411,	<code>\myqrdata</code> 623, 654	<code>\ProcessOptions</code> 19, 26
413, 415, 417,		
419, 421, 423, 425	N	
	<code>\n</code> 624–626, 634–638	

V \vspace 690, 747
\versionyear 195