

The `uantwerpendocs` classes^{*†}

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2018/05/16

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`) 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`, `masterthesis` and `phdthesis` classes¹ are an extension of the standard L^AT_EX `book` class. They are intended to be used for writing course texts and master's or PhD theses. They provide 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 L^AT_EX `letter` class. It is intended to be used for writing business letters. It is compliant to the house style and allows

^{*}This document corresponds to `uantwerpendocs` 2.0, dated 2018/05/16.

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

¹For 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 (\PDFLaTeX , \LaTeX , \XeLaTeX , \LuaLaTeX , ...) from the major \TeX -distributions (TeTeX, 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 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 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^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 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>}

```

```

\supervisor{i{<put supervisor's name here>}{<affiliation goes here>}}
\supervisor{ii{<put supervisor's name here>}{<affiliation goes here>}}

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

\jurymember{i{<put member's name here>}{<affiliation goes here>}}
\jurymember{ii{<put member's name here>}{<affiliation goes here>}}
\jurymember{iii{<put member's name here>}{<affiliation goes here>}}

\phddegree{<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

\backmatter
\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 examiner 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 / masterthesis / 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 / masterthesis / 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 / masterthesis / 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 / masterthesis / 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, masterthesis, phdthesis classes

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

`\author` [coursetext / masterthesis / 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: TNNNFFFAAA, 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>	[masterthesis / phdthesis] (mandatory) Date of the masterthesis 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>	[masterthesis / phdthesis] (optional) Location of the defense. Defaults to "Antwerpen".
<code>\diploma</code>	[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
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)”).

<code>\programme</code>	[coursetext] (mandatory) This macro takes three arguments (for the time being, only applicable to the faculty of applied engineering): <ul style="list-style-type: none"> • 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 <p>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.</p>
<code>\publisher</code>	[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.
<code>\publishercode</code>	[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.
<code>\subtitle</code>	[coursetext] (optional) This macro sets the title of the document. You may use this <ul style="list-style-type: none"> • to further clarify the title • to indicate the nature of this document <p>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.</p>
<code>\supervisor</code>	[masterthesis / phdthesis] (mandatory) This is the name of the person that promotes/supervises the thesis. Please, use the macros <code>\supervisor<i>i</i></code> , <code>\supervisor<i>ii</i></code> , <code>\supervisor<i>iii</i></code> , <code>\supervisor<i>iv</i></code> .
<code>\title</code>	[coursetext / masterthesis / phdthesis] (mandatory) This macro sets the title of the document. It also sets the <code>pdftitle</code> tag of the hyperref 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.

`\versionyear` [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

`\address` [letter] (mandatory)
Address of the sending unit (or faculty). This can be different from the return address. Newlines are allowed and encouraged.

`\carboncopy` [letter] (optional)
List of persons receiving a copy of this letter. Format at will.

`\closing` [letter] (mandatory)
Closing clause of the letter. E.g. 'Best regards,'.

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

`\email` [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.

- first argument: user name
- second argument: domain name

`\enclosed` [letter] (optional)
List of enclosed documents. Format at will.

`\fax` [letter] (optional)
Probably facsimile is not used anymore, but anyway: fax number of the sending person. See also `\email`.

`\logo` [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.

`\mobile` [letter] (optional)
Mobile phone number of the sending person. See also `\email`.

`\opening` [letter] (mandatory)
Opening address of the letter. E.g. 'Dear X,'.

`\phone` [letter] (optional)
Phone number of the sending person. See also `\email`.

<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"> • first argument: name of the person writing the letter • second argument: title / role of the person <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.
<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 L^AT_EX 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}
\qrttitle{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{2023FTIZZ}{5-Zoekmachines in een zaagperspectief}
\courseii{2045FTIIII}{6-Zaagmachines in \'e\'en zuchtperspectief}
\qrcourseii{6-Zaagmachines in één 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}
\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}

\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]{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}

\supervisor{i}{Prof. dr. ir. Kumulus}{Universiteit Antwerpen}
\supervisor{ii}{Prof. dr. Hilarius Warwinkel}{TNT-Bang, N.V.}
\supervisor{iii}{ing. Piet Pienter}{POM}

\facultyacronym{TI}
\academicyear{2015-2016}
\diploma{MA-IW-EI-ICT}
\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}

\backmatter

```

```

\appendix

\chapter{Symbolen}
\chapter{Referentielijst}

\makefinalpage

\end{document}
</mt-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}
\setmainfont{Times New Roman}
\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}
\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
}

\supervisor{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]

\backmatter
\appendix

```

```

\chapter{Symbolen}

Put your bibliography here using BibTeX

\makefinalpage

\end{document}
</pt-example1>

```

English

```

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

\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}
\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. Dezerooder}{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]

\backmatter
\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 L^AT_EX 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, ask 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{
  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 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.
  \item Op het einde van het examen geef je \emph{alle} bladen weer af
    aan de aanwezige docent.
  \end{enumerate}
  Succes!
}
\studentnr{127}
\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 b\'echamel saus:
\mc{Melk}

```

```

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

\insertsolutionspagepartial{22}

\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{25}
\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]{uantwerpenexam}
\usepackage{newpertext} % demonstration of some fine font packages
\usepackage{newpymath}
\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:
  \begin{enumerate}
\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.
\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.
\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.
\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.
\item Hand in \emph{all} papers to the staff member on duty, at the
  end of the examination.
\end{enumerate}
  Success!
}
{
  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) schrijfgereief, 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 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.
\item Op het einde van het examen geef je \emph{alle} bladen weer af
aan de aanwezige docent.
\end{enumerate}
Succes!
}
}

\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 ingrediënten 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{Kladpapier}
}
\end{document}
</ex-example2>

```

5 Implementation

5.1 Class inheritance

For convenience, we'll derive from the standard L^AT_EX 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 | mt | pt>
8 \newif\if@titlepagenoartwork
9 \DeclareOption{titlepagenoartwork}{\@titlepagenoartworktrue}
10 \newif\if@titlepagetableonly
11 \DeclareOption{titlepagetableonly}{\@titlepagetableonlytrue}
12 </ct | mt | pt>
13 <*ct | mt | pt | le>
14 \newif\if@filled
15 \DeclareOption{filled}{\@filledtrue}
16 </ct | mt | 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 | mt | pt>
22 \ExecuteOptions{a4paper,11pt,final,oneside,openright}
23 \ProcessOptions
24 \LoadClassWithOptions{book}
25 </ct | mt | 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 | mt | pt | le | ex>
40 \setlength{\parindent}{0pt}
41 \addtolength{\parskip}{0.75\baselineskip}
42 \setcounter{secnumdepth}{3}
43 </ct | mt | 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 | mt | pt | ex>
45 \RequirePackage[top=1in, bottom=1in, left=1in, right=1in]{geometry}
46 </ct | mt | 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 | mt | pt | le>
53 % no more font code
54 </ct | mt | pt | le>
```

5.3.3 Boilerplate packages

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

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

```
61 <*ct | mt | pt | le | ex>
62 \RequirePackage{graphicx}
63 \RequirePackage{color}
64 \RequirePackage{tikz}
65 \RequirePackage{eso-pic}
66 </ct | mt | pt | le | ex>
67 <*ct>
68 \if@copyright
69 \RequirePackage[firstpage=false,contents={Copyright University of Antwerp, All Rights Reserved}]
70 \fi
71 </ct>
72 <*pt>
73 \usepackage{ean13isbn}
74 </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^AT_EX compiler. Check your documentation on how to do so!

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

5.3.5 Header/Footer

The de-facto standard for headers and footers:

```
81 <*ct | mt | pt | le | ex>
82 \RequirePackage{fancyhdr}
83 </ct | mt | pt | le | ex>
```

5.4 Colors

```
84 <*ct | mt | pt | le | ex>
85 \definecolor{uacorpbord}{cmyk}{0.00,1.00,0.60,0.37}
86 \definecolor{uacorpblue}{cmyk}{1.00,0.25,0.00,0.50}
87 \definecolor{uacorpflightblue}{cmyk}{1.00,0.00,0.08,0.13}
88 \definecolor{uacorporange}{cmyk}{0.00,0.32,1.00,0.09}
89 \definecolor{uaftifresh}{cmyk}{0.34,1.00,0.00,0.00}
90 \definecolor{uaftisober}{cmyk}{0.10,1.00,0.00,0.49}
91 \definecolor{lightgray}{cmyk}{0.00,0.00,0.00,0.05}
92 \definecolor{darkgray}{cmyk}{0.00,0.00,0.00,0.80}
```



```

93 \definecolor{watermark}{cmyk}      {0.00,0.00,0.00,0.05}
94 </ct | mt | pt | le | ex>

```

5.5 Babel provisions

```

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

```

```

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

```

```

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

```

```

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

```

```

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

```

```

339 \renewcommand{\insiob}{
340 \renewcommand\@faculty{Instituut voor Ontwikkelingsbeleid- en
341 beheer}}
342 \renewcommand{\insoiw}{
343 \renewcommand\@faculty{Instituut voor Onderwijs- en
344 Informatiewetenschappen}}
345 \renewcommand{\asoe}{
346 \renewcommand\@faculty{Antwerp School of Education}}
347 \renewcommand{\faclw}{\renewcommand\@faculty{Faculteit
348 Letteren en Wijsbegeerte}}
349 \renewcommand{\facow}{
350 \renewcommand\@faculty{Faculteit Ontwerpwetenschappen}}
351 \renewcommand{\facsw}{
352 \renewcommand\@faculty{Faculteit Sociale Wetenschappen}}
353 \renewcommand{\facrec}{
354 \renewcommand\@faculty{Faculteit Rechten}}
355 \renewcommand{\factew}{
356 \renewcommand\@faculty{Faculteit Toegepaste Economische
357 Wetenschappen}}
358 \renewcommand{\facti}{
359 \renewcommand\@faculty{Faculteit Toegepaste
360 Ingenieurswetenschappen}}
361 \renewcommand{\facwet}{
362 \renewcommand\@faculty{Faculteit Wetenschappen}}
363 \renewcommand{\weightname}{Peso}
364 }
365 }
366 {}
367 }
368 </ct | mt | 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.

```

369 <*ct | mt | pt | le | ex>
370 \newcommand{\@facultyacronym}{}
371 \newcommand{\facultyacronym}[1]{
372 \renewcommand{\@facultyacronym}{#1}
373 \AtBeginDocument{
374 \ifthenelse{\equal{#1}{CPG}}{\faccpg}{
375 \ifthenelse{\equal{#1}{FBD}}{\facfbd}{
376 \ifthenelse{\equal{#1}{GGW}}{\facggw}{
377 \ifthenelse{\equal{#1}{IOB}}{\insiob}{
378 \ifthenelse{\equal{#1}{IOIW}}{\insoiw}{
379 \ifthenelse{\equal{#1}{ASoE}}{\asoe}{
380 \ifthenelse{\equal{#1}{LW}}{\faclw}{

```

```

381 \ifthenelse{\equal{#1}{OW}}{\facow}{
382 \ifthenelse{\equal{#1}{SW}}{\facsw}{
383 \ifthenelse{\equal{#1}{REC}}{\facrec}{
384 \ifthenelse{\equal{#1}{TEW}}{\factew}{
385 \ifthenelse{\equal{#1}{TI}}{\facti}{
386 \ifthenelse{\equal{#1}{WET}}{\facwet}{
387 \errmessage{Error: wrong faculty acronym; choose one of CPG, FBD, GGW,
388 IOB, IOIW, ASoE, LW, OW, SW, REC, TEW, TI, WET}}}}}}}}}}}}
389 }
390 </ct | mt | pt | le | ex>

```

\title The title tag is native to L^AT_EX. 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^AT_EX accented characters.)

```

391 <*ct>
392 \newcommand{\@qrtitle}{}
393 \renewcommand{\title}[1]{%
394 \renewcommand{\@title{#1}
395 \ifx\@qrtitle\@emptymacro
396 \renewcommand{\@qrtitle{#1}
397 \fi
398 }
399 \newcommand{\qrtitle}[1]{%
400 \renewcommand{\@qrtitle{#1}
401 }
402 </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.

```

403 <*ct>
404 \newcommand{\@subtitle}{}
405 \newcommand{\@qrsubtitle}{}
406 \newcommand{\subtitle}[1]{%
407 \renewcommand{\@subtitle{#1}
408 \ifx\@qrsubtitle\@emptymacro
409 \renewcommand{\@qrsubtitle{#1}
410 \fi
411 }
412 \newcommand{\qrsubtitle}[1]{%
413 \renewcommand{\@qrsubtitle{#1}
414 }
415 </ct>

```

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

```

416 <*ex>
417 \newcommand{\@shorttitle}{}
418 \newcommand{\shorttitle}[1]{%
419   \renewcommand\@shorttitle{#1}
420 }
421 </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.)

```

422 <*ct>
423 \newcommand{\@qrauthor}{}
424 \renewcommand{author}[1]{%
425   \renewcommand\@author{#1}
426   \ifx\@qrauthor\emptymacro
427     \renewcommand\@qrauthor{#1}
428   \fi
429 }
430 \newcommand{\qrauthor}[1]{%
431   \renewcommand\@qrauthor{#1}
432 }
433 </ct>

```

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

```

434 <*ct>
435 \newcommand{\@courseversion}{}
436 \newcommand{\courseversion}[1]{\renewcommand{\@courseversion}{#1}}
437 </ct>

```

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

```

438 <*ct>
439 \newcommand{\@versionyear}{}
440 \newcommand{\versionyear}[1]{\renewcommand{\@versionyear}{#1}}
441 </ct>

```

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

```

442 <*ct>
443 \newcommand{\@publisher}{\uaname\\
444 Cursusdienst en reprografie\\
445 Campus Groenenborger, G.U.027\\

```



```

446 Groenenborgerlaan 171\\
447 2020 Antwerpen\\
448 T +32 3 265 32 15\\
449 F + 32 3 233 32 27\\
450 E cursusdienst.cgb@uantwerpen.be}
451 \newcommand{\publisher}[1]{\renewcommand{\@publisher}{#1}}
452 \ct

```

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

```

453 \ct
454 \newcommand{\@publishercode}{}
455 \newcommand{\publishercode}[1]{\renewcommand{\@publishercode}{#1}}
456 \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 \LaTeX accented characters.)

```

457 \ct
458 \newcommand{\@lectureri}{}
459 \newcommand{\@lecturerii}{}
460 \newcommand{\@lectureriii}{}
461 \newcommand{\@lectureriv}{}
462 \newcommand{\@qrlectureri}{}
463 \newcommand{\@qrlecturerii}{}
464 \newcommand{\@qrlectureriii}{}
465 \newcommand{\@qrlectureriv}{}
466 \newcommand{\lecturer}[1]{
467   \renewcommand{\@lectureri}{#1}
468   \ifx\@qrlectureri\emptymacro
469     \renewcommand{\@qrlectureri}{#1}
470   \fi
471 }
472 \newcommand{\qrlecturer}[1]{
473   \renewcommand{\@qrlectureri}{#1}
474 }
475 \newcommand{\lectureri}[1]{
476   \renewcommand{\@lectureri}{#1}
477   \ifx\@qrlectureri\emptymacro
478     \renewcommand{\@qrlectureri}{#1}
479   \fi
480 }
481 \newcommand{\qrlectureri}[1]{
482   \renewcommand{\@qrlectureri}{#1}
483 }
484 \newcommand{\lecturerii}[1]{

```

```

485 \renewcommand{\@lecturerii}{#1}
486 \ifx\@qrlecturerii\@emptymacro
487 \renewcommand\@qrlecturerii{#1}
488 \fi
489 }
490 \newcommand{\qrlecturerii}[1]{
491 \renewcommand\@qrlecturerii{#1}
492 }
493 \newcommand{\lectureriii}[1]{
494 \renewcommand{\@lectureriii}{#1}
495 \ifx\@qrlectureriii\@emptymacro
496 \renewcommand\@qrlectureriii{#1}
497 \fi
498 }
499 \newcommand{\qrlectureriii}[1]{
500 \renewcommand\@qrlectureriii{#1}
501 }
502 \newcommand{\lectureriv}[1]{
503 \renewcommand{\@lectureriv}{#1}
504 \ifx\@qrlectureriv\@emptymacro
505 \renewcommand\@qrlectureriv{#1}
506 \fi
507 }
508 \newcommand{\qrlectureriv}[1]{
509 \renewcommand\@qrlectureriv{#1}
510 }
511 </ct>

```

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

```

512 <*pt>
513 \newcommand\@affiliation{\errmessage{Please, define the affiliation of
514 the author using the \textbackslash{}affiliation command in the
515 preamble of your document.}}
516 \newcommand\affiliation[1]{\renewcommand\@affiliation{#1}}
517 </pt>

```

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

```

518 <*mt | pt>
519 \newcommand\@supervisor{\errmessage{Please define a supervisor of
520 your thesiswork using the \textbackslash{}supervisor to iv
521 commands} in the preamble of your document.}
522 \newcommand\@supervisoriaff{}
523 \newcommand\@supervisorii{}
524 \newcommand\@supervisoriaff{}
525 \newcommand\@supervisoriii{}
526 \newcommand\@supervisoriiiaff{}

```

```

527 \newcommand\@supervisoriv{}
528 \newcommand\@supervisorivaff{}
529 \newcommand\@supervisorii[2]{\renewcommand\@supervisorii{#1}\renewcommand\@supervisoriiiaff{#2}}
530 \newcommand\@supervisoriii[2]{\renewcommand\@supervisoriii{#1}\renewcommand\@supervisoriiiiaff{#2}}
531 \newcommand\@supervisoriiii[2]{\renewcommand\@supervisoriiii{#1}\renewcommand\@supervisoriiiiiaff{#2}}
532 \newcommand\@supervisoriv[2]{\renewcommand\@supervisoriv{#1}\renewcommand\@supervisorivaff{#2}}
533 \</mt | pt>

```

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

```

534 \< *pt>
535 \newcommand\@jurychairman{\errmessage{Please define a chairman of the jurya
536 using the \textbackslash{}jurychairman command in the preamble of your document.}}
537 \newcommand\@jurychairmanaff{}
538 \newcommand\@jurychairman[2]{\renewcommand\@jurychairman{#1}\renewcommand\@jurychairmanaff{#2}}
539 \</pt>

```

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

```

540 \< *pt>
541 \newcommand\@jurymemberi{\errmessage{Please define jury members
542 using the \textbackslash{}jurymemberi to vi commands in the preamble of your document.}}
543 \newcommand\@jurymemberiaff{}
544 \newcommand\@jurymemberii{}
545 \newcommand\@jurymemberiiaff{}
546 \newcommand\@jurymemberiii{}
547 \newcommand\@jurymemberiiiaff{}
548 \newcommand\@jurymemberiv{}
549 \newcommand\@jurymemberivaff{}
550 \newcommand\@jurymemberv{}
551 \newcommand\@jurymembervaff{}
552 \newcommand\@jurymembervi{}
553 \newcommand\@jurymemberviaff{}
554 \newcommand\@jurymemberi[2]{\renewcommand\@jurymemberi{#1}\renewcommand\@jurymemberiaff{#2}}
555 \newcommand\@jurymemberii[2]{\renewcommand\@jurymemberii{#1}\renewcommand\@jurymemberiiaff{#2}}
556 \newcommand\@jurymemberiii[2]{\renewcommand\@jurymemberiii{#1}\renewcommand\@jurymemberiiiaff{#2}}
557 \newcommand\@jurymemberiv[2]{\renewcommand\@jurymemberiv{#1}\renewcommand\@jurymemberivaff{#2}}
558 \newcommand\@jurymemberv[2]{\renewcommand\@jurymemberv{#1}\renewcommand\@jurymembervaff{#2}}
559 \newcommand\@jurymembervi[2]{\renewcommand\@jurymembervi{#1}\renewcommand\@jurymemberviaff{#2}}
560 \</pt>

```

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

```

561 \< *pt>
562 \newcommand\@phddegree{\errmessage{Please, specify the official PhD
563 degree description using the \textbackslash{}phddegree macro in
564 the preamble of your document.}}
565 \newcommand\phddegree[1]{\renewcommand\@phddegree{#1}}

```

566 \langle /pt \rangle

`\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.

```

567  $\langle$ *ct | pt | ex $\rangle$ 
568 \newcommand{\@programmet}{} % type
569 \newcommand{\@programmec}{} % class
570 \newcommand{\@programmecqr}{} % class for qr code
571 \newcommand{\@programmes}{} % class
572 \newcommand{\@programmeq}{} % qualifier
573 \newcommand{\programme}[3]{%
574     \ifthenelse{\equal{#1}{BA}}{%
575         {\renewcommand{\@programmet}{Bachelor of Science in de }}{%
576         \ifthenelse{\equal{#1}{MA}}{%
577             {\renewcommand{\@programmet}{Master of Science in de }}{%
578             \ifthenelse{\equal{#1}{PHD}}{%
579                 {\renewcommand{\@programmet}{Doctor in de }}{%
580                 \ifthenelse{\equal{#1}{VP}}{%
581                     {\renewcommand{\@programmet}{Voorbereidingsprogramma voor Master of Science in de }}{%
582                     \ifthenelse{\equal{#1}{SP}}{%
583                         {\renewcommand{\@programmet}{Schakelprogramma voor Master of Science in de }}{%
584                         \ifthenelse{\equal{#1}{FREE}}{%
585                             {}{
586                                 \errmessage{Error in 1st arg of macro programme[3]: invalid
587                                     programme type!}}}}}}}%
588                             %
589                             \ifthenelse{\equal{#2}{IW}}{%
590                                 {\renewcommand{\@programmec}{industri\ "ele wetenschappen}
591                                 \renewcommand{\@programmecqr}{industriële wetenschappen}}{
592                                 \ifthenelse{\equal{#2}{}}{
593                                     {}{
594                                         \errmessage{{Error in 2nd arg of macro programme[3]: invalid
595                                             programme class! }}}}%
596                                     %
597                                     \ifthenelse{\equal{#3}{BK}}{%
598                                         {\renewcommand{\@programmeq}{Bouwkunde}}{%
599                                         \ifthenelse{\equal{#3}{CH}}{%
600                                             {\renewcommand{\@programmeq}{Chemie}}{%
601                                             \ifthenelse{\equal{#3}{BCH}}{%
602                                                 {\renewcommand{\@programmeq}{Biochemie}}{%
603                                                 \ifthenelse{\equal{#3}{EM}}{%
604                                                     {\renewcommand{\@programmeq}{Elektromechanica}}{%
605                                                     \ifthenelse{\equal{#3}{EI}}{%
606                                                         {\renewcommand{\@programmeq}{Elektronica-ICT}}{%
607                                                         \ifthenelse{\equal{#3}{}}{
608                                                             {}{%
609                                                                 \ifthenelse{\equal{#1}{FREE}}{

```

```

610     {\renewcommand{\@programmeq}{#3}}{
611     \errmessage{Error in 3rd arg to macro programme[3]: invalid
612     programme qualifier}}}}}}}%
613     %
614     \ifthenelse{\equal{#2}{IW}\and\not\equal{#3}{}}
615     {\renewcommand{\@programmes}{: }}{}
616 }
617 </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.

```

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

```

```

655 \renewcommand{\@qrcourseii}{#2}
656 \fi
657 }
658 \newcommand{\qrcourseii}[1]{
659 \renewcommand{\@qrcourseii}{#1}
660 }
661 \newcommand{\courseiii}[2]{
662 \renewcommand{\@coursecodeiii}{#1}
663 \renewcommand{\@courseiii}{#2}
664 \ifx\@qrcourseiii\emptymacro
665 \renewcommand{\@qrcourseiii}{#2}
666 \fi
667 }
668 \newcommand{\qrcourseiii}[1]{
669 \renewcommand{\@qrcourseiii}{#1}
670 }
671 \newcommand{\courseiv}[2]{
672 \renewcommand{\@coursecodeiv}{#1}
673 \renewcommand{\@courseiv}{#2}
674 \ifx\@qrcourseiv\emptymacro
675 \renewcommand{\@qrcourseiv}{#2}
676 \fi
677 }
678 \newcommand{\qrcourseiv}[1]{
679 \renewcommand{\@qrcourseiv}{#1}
680 }
681 \</ct>
682 % \end{macrocode}
683 % For the |exam| class (assuming that an exam only holds for a
684 % single course), the situation is simple and we assume only a
685 % single coursecode and course name. We also don't need any of the
686 % QR stamp stuff.
687 % \begin{macrocode}
688 \< *ex>
689 \newcommand{\@coursecodei}{}
690 \newcommand{\@coursei}{}
691 \newcommand{\course}[2]{
692 \renewcommand{\@coursecodei}{#1}
693 \renewcommand{\@coursei}{#2}
694 }
695 \</ex>

```

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

```

696 \< *mt | pt>
697 \newcommand{\@diploma}{ERROR}
698 \newcommand{\diploma}[1]{
699 \newcommand{\MoSIW}{Master of Science in de industriële wetenschappen}
700 \newcommand{\MoSTEW}{Master of Science in de toegepaste economische wetenschappen}
701 \renewcommand{\@diploma}{

```

```

702 \ifthenelse{\equal{#1}{MA-IW-BK}}
703         {\MoSIW: bouwkunde}{
704 \ifthenelse{\equal{#1}{MA-IW-BCH}}
705         {\MoSIW: biochemie}{
706 \ifthenelse{\equal{#1}{MA-IW-CH}}
707         {\MoSIW: chemie}{
708 \ifthenelse{\equal{#1}{MA-IW-EI}}
709         {\MoSIW: elektronica-ICT}{
710 \ifthenelse{\equal{#1}{MA-IW-EI-AE}}
711         {\MoSIW:\\elektronica-ICT, afstudeerrichting automotive engineering}{
712 \ifthenelse{\equal{#1}{MA-IW-EI-ICT}}
713         {\MoSIW:\\elektronica-ICT, afstudeerrichting ICT}{
714 \ifthenelse{\equal{#1}{MA-IW-EM-AE}}
715         {\MoSIW:\\elektromechanica, afstudeerrichting automotive engineering}{
716 \ifthenelse{\equal{#1}{MA-IW-EM-AU}}
717         {\MoSIW:\\elektromechanica, afstudeerrichting automatisering}{
718 \ifthenelse{\equal{#1}{MA-IW-EM-EM}}
719         {\MoSIW:\\elektromechanica, afstudeerrichting elektromechanica}{
720 \ifthenelse{\equal{#1}{MA-IW-EM-EN}}
721         {\MoSIW:\\elektromechanica, afstudeerrichting energie}{
722 \ifthenelse{\equal{#1}{MA-TEW-HI}}
723         {\MoSTEW: handelsingenieur}{
724 \ifthenelse{\equal{#1}{MA-TEW-HIBI}}
725         {\MoSTEW:\\handelsingenieur in de beleidsinformatica}{
726 \ifthenelse{\equal{#1}{MA-TEW-EB}}
727         {\MoSTEW: economisch beleid}{
728 \ifthenelse{\equal{#1}{MA-TEW-BK}}
729         {\MoSTEW: bedrijfskunde}
730 {\errmessage{Error in argument to macro diploma: must be one of
731             MA-IW-XXX with XXX one of BCH, CH, EI, EI-AE, EI-ICT, EM-AE,
732             EM-AU, EM-EM, EM-EN, MA-TEW-YYY with YYY one of HI, HIBI, EB, BK! <<}}}}}}}}}}}}}}}}
733 }
734 }
735 </mt | pt>

```

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

```

736 <*mt | pt>
737 \newcommand\@defensedate{ERROR}
738 \newcommand{\defensedate}[1]{\renewcommand\@defensedate{#1}}
739 </mt | pt>

```

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

```

740 <*mt | pt>
741 \newcommand\@defenselocation{Antwerpen}
742 \newcommand{\defenselocation}[1]{\renewcommand\@defenselocation{#1}}
743 </mt | pt>

```

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

```
744 <*pt>
745 \newcommand\@titlepageimage{}
746 \newcommand\titepageimage[1]{\renewcommand\@titlepageimage{#1}}
747 </pt>
```

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

```
748 <*pt>
749 \newcommand{\@isbn}{\errmessage{Please, specify an ISBN number using
750     the \textbackslash{}isbn command in your preamble.}}
751 \newcommand{\isbn}[1]{\renewcommand{\@isbn}{#1}}
752 </pt>
```

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

```
753 <*pt>
754 \newcommand{\@depot}{\errmessage{Please, specify a depot number using
755     the \textbackslash{}depot command in your preamble.}}
756 \newcommand{\depot}[1]{\renewcommand{\@depot}{#1}}
757 </pt>
```

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

```
758 <*ct | mt | ex>
759 \newcommand{\@academicyear}{XXX-YYYY}
760 \newcommand{\academicyear}[1]{\renewcommand{\@academicyear}{#1}}
761 </ct | mt | ex>
```

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

```
762 <*ct>
763 \newcommand{\@copyrightnotices}{}
764 \newcommand{\copyrightnotices}[1]{\renewcommand{\@copyrightnotices}{#1}}
765 </ct>
```

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

```
766 <*le>
767 \newcommand{\@sender}{< Specify sender using
768     \textbackslash{}sender\{name\}\{role\} >}
769 \newcommand{\@senderrole}{~}
770 \newcommand{\sender}[2]{\renewcommand{\@sender}{#1}\renewcommand{\@senderrole}{#2}}
771 </le>
```


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

```
772 <*le | ex>
773 \newcommand{\@logo}{\logoname}
774 \newcommand{\logo}[1]{\renewcommand{\@unit}{#1}}
775 </le | ex>
```

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

```
776 <*le>
777 \newcommand{\@unit}{}
778 \newcommand{\unit}[1]{\renewcommand{\@unit}{#1}}
779 </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.

```
780 <*le>
781 \newcommand{\@emailuser}{}
782 \newcommand{\@emaildomain}{}
783 \newcommand{\email}[2]{\renewcommand{\@emailuser}{#1}\renewcommand{\@emaildomain}{#2}}
784 </le>
```

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

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

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

```
789 <*le>
790 \newcommand{\@fax}{}
791 \newcommand{\fax}[1]{\renewcommand{\@fax}{#1}}
792 </le>
```

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

```
793 <*le>
794 \newcommand{\@mobile}{}
795 \newcommand{\mobile}[1]{\renewcommand{\@mobile}{#1}}
796 </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).

```

797 <*\e>
798 \newcommand{\@returnaddress}{<specify return-address using \textbackslash\{single-
    line-return-address\}>}
799 \renewcommand{\returnaddress}[1]{\renewcommand{\@returnaddress}{#1}}
800 </\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).

```

801 <*\e>
802 \newcommand{\@to}{<Specify addressee using \textbackslash{}to\{name\}>}
803 \renewcommand{\to}[1]{\renewcommand{\@to}{#1}}
804 </\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).

```

805 <*\e>
806 \newcommand{\@toorganization}{<Specify organization using
807   \textbackslash{}toorganization\{>}
808 \newcommand{\toorganization}[1]{\renewcommand{\@toorganization}{#1}}
809 </\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).

```

810 <*\e>
811 \newcommand{\@toaddress}{<Specify (multiline) destination address\\using \textbackslash{}toaddr
812 \newcommand{\toaddress}[1]{\renewcommand{\@toaddress}{#1}}
813 </\e>

```

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

```

814 <*\e>
815 \newcommand{\@subject}{-}
816 \newcommand*\subject[1]{\renewcommand{\@subject}{#1}}
817 </\e>

```

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

```

818 <*\e>
819 \renewcommand*\opening[1]{#1}
820 </\e>

```

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

```

821 <*\e>

```

```

822 \newcommand{\@closing}{<specify a closing formula using \textbackslash{}closing\{\}>}
823 \renewcommand*{\closing}[1]{\renewcommand{\@closing}{#1}}
824 \le

```

\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

```

825 \le
826 \newcommand{\@signature}{\vspace*{8ex}}
827 \renewcommand*{\signature}[1]{\renewcommand{\@signature}{#1}}
828 \le

```

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

```

829 \le
830 \newcommand{\@carboncopy}{}
831 \newcommand{\carboncopy}[1]{\renewcommand{\@carboncopy}{#1}}
832 \le

```

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

```

833 \le
834 \newcommand{\@enclosed}{}
835 \newcommand{\enclosed}[1]{\renewcommand{\@enclosed}{#1}}
836 \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).

```

837 \pt | le
838 \newcommand{\@address}{\errmessage{Please, set your multi-line address
839     and contact details using the \textbackslash{}address\{\} command
840     in the preamble of your document}}
841 \pt | le
842 \le\renewcommand{\address}[1]{\renewcommand{\@address}{#1}}
843 \pt\newcommand{\address}[1]{\renewcommand{\@address}{#1}}
844 % \end{macrocode}
845 % \end{macro}
846 %
847 % \begin{macro}{\exampart}
848 % This macro will set the \@examgropunumber tag that will be used on
849 % the exam title page.
850 % \begin{macrocode}
851 \ex
852 \newcommand{\@exampart}{}
853 \newcommand{\exampart}[1]{\renewcommand{\@exampart}{#1}}
854 \ex

```

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

```
855 <*ex>
856 \newcommand{\@examgroupnumber}{}
857 \newcommand{\examgroupnumber}[1]{\renewcommand{\@examgroupnumber}{#1}}
858 </ex>
```

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

```
859 <*ex>
860 \newcommand{\@examdate}{TBD}
861 \newcommand{\examdate}[1]{\renewcommand{\@examdate}{#1}}
862 </ex>
```

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

```
863 <*ex>
864 \newcommand{\@examlength}{TBD}
865 \newcommand{\examlength}[1]{\renewcommand{\@examlength}{#1}}
866 </ex>
```

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

```
867 <*ex>
868 \newcommand{\@tstart}{TBD}
869 \newcommand{\tstart}[1]{\renewcommand{\@tstart}{#1}}
870 </ex>
```

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

```
871 <*ex>
872 \newcommand{\@tend}{TBD}
873 \newcommand{\tend}[1]{\renewcommand{\@tend}{#1}}
874 </ex>
```

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

```
875 <*ex>
876 \newcommand{\@rooms}{TBD}
877 \newcommand{\rooms}[1]{\renewcommand{\@rooms}{#1}}
878 </ex>
```

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

```
879 <*ex>
```

```

880 \newcommand{\@extrainfo}{TBD}
881 \newcommand{\extrainfo}[1]{\renewcommand{\@extrainfo}{#1}}
882 \end{document}

```

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

```

883 \end{document}
884 \newcommand{\@studentnr}{0}
885 \newcommand{\studentnr}[1]{\renewcommand{\@studentnr}{#1}}
886 \end{document}

```

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:

```

887 \begin{document}
888 \if@twoside
889 \lhead[\thepage]{\slshape\rightmark}
890 \chead[]{}
891 \rhead[\slshape\leftmark]{\thepage}
892 \lfoot[\uaname{} -- \@facultyacronym]{\@courseversion}
893 \cfoot[]{}
894 \rfoot[]{\@title{}\ifdefvoid{\@subtitle}{}{ --- \@subtitle}}
895 \else
896 \lhead[]{\leftmark}
897 \chead[]{}
898 \rhead[]{\thepage}
899 \lfoot[]{\@courseversion}
900 \cfoot[]{\UAntwerpen--\@facultyacronym}
901 \rfoot[]{\@title{}}
902 \fi
903 \end{document}

```

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

```

904 \begin{document}
905 \if@twoside
906 \lhead[\thepage]{\slshape\rightmark}
907 \chead[]{}
908 \rhead[\slshape\leftmark]{\thepage}
909 \lfoot[]{}
910 \cfoot[]{}
911 \rfoot[]{}
912 \else
913 \lhead[]{\leftmark}
914 \chead[]{}
915 \rhead[]{\thepage}

```

```

916 \lfoot[]{}
917 \cfoot[]{}
918 \rfoot[]{}
919 \fi
920 </mt | pt>

```

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

```

921 <*le>
922 \lhead[]{}
923 \chead[]{}
924 \rhead[]{}
925 \lfoot[\small\textcolor{gray}{\@date}]{\textcolor{gray}{\@date}}
926 \cfoot[]{}
927 \rfoot[\small\textcolor{gray}{\pagename~\thepage~\orname~\pageref{lastpage}}]{\small\textcolor{gray}{\@date}}
928 </le>

```

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

```

929 <*ex>
930 \lhead[]{}
931 \chead[]{}
932 \if@examiner
933 \rhead[\small EXAMINER VERSION]{\small EXAMINER VERSION}
934 \AddToShipoutPicture{
935   \put(60,40){\rotatebox{60}{\textcolor{watermark}{
936     \fontfamily{phv}\fontsize{105}{130}\fontseries{m}\fontshape{n}\selectfont Examiner Vers
937   \else
938     \rhead[\small Student nr. \@studentnr]{\small Student nr. \@studentnr}
939   \fi
940   \lfoot[\small \@shorttitle]{\small \@shorttitle}
941   \cfoot[\small \thepage/\pageref{lastpage}]{\small \thepage/\pageref{lastpage}}
942   \rfoot[\small Groep \@examgroupnumber{} ---
943     \@academicyear]{\small Groep \@examgroupnumber{} --- \@academicyear}
944 </ex>

```

Some common code remains:

```

945 <*ct>
946 \setlength{\headheight}{13.7pt}
947 \renewcommand{\headrulewidth}{1pt}
948 \renewcommand{\footrulewidth}{1pt}
949 \pagenumbering{arabic}
950 </ct>
951 <*mt | pt | le>
952 \renewcommand{\headrulewidth}{0pt}
953 \renewcommand{\footrulewidth}{0pt}
954 </mt | pt | le>
955 <*ex>
956 \renewcommand{\headrulewidth}{0pt}
957 \renewcommand{\footrulewidth}{1pt}

```

958 $\langle /ex \rangle$

Remains to take care of filling

```
959  $\langle *ct | mt | pt | le \rangle$ 
960  $\backslash if@filled\else$ 
961  $\backslash raggedright$ 
962  $\backslash fi$ 
963  $\backslash raggedbottom$ 
964  $\backslash onecolumn$ 
965  $\langle /ct | mt | pt | le \rangle$ 
```

5.8 Copyright notice

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

```
966  $\langle *ct \rangle$ 
967  $\backslash newcommand{\@crnotice}\{$ 
968   This document has been typeset using  $\backslash LaTeX\{ \}$  and the
969    $\backslash texttt{uantwerpencoursetext}$  class. $\backslash \backslash$ 
970    $\backslash @copyrightnotices$ 
971
972    $\backslash @courseversion$ 
973
974   CONFIDENTIAL AND PROPRIETARY.
975
976    $\backslash copyright\{ \}$   $\backslash @versionyear\{ \}$  University of Antwerp,  $\backslash arrname.$ 
977  $\}$ 
978  $\langle /ct \rangle$ 
```

5.9 Fancy chapter headers for the phdthesis class

```
979  $\langle *pt \rangle$ 
980  $\backslash def\@makechapterhead#1\{%$ 
981    $\backslash vspace*{1ex}\%$ 
982    $\backslash begin\{flushright\}$ 
983      $\backslash makebox[Opt][l]\{\backslash rule[-0.4em]{10cm}{1.8em}\}\backslash textcolor\{white\}\{\bf\LARGE\~\chaptername\~\raise$ 
984      $2ex\}\backslash baselineskip[Opt]\{$ 
985        $\backslash textcolor\{uacorpblue\}\{\fontsize{72}\{12\}\backslash selectfont\thechapter\}\}\backslash ,\}$ 
986      $\backslash par\backslash nobreak$ 
987      $\backslash vskip 12\p@$ 
988      $\backslash interlinepenalty\@M$ 
989      $\backslash bf\huge\backslash textcolor\{darkgray\}\{\backslash rule[-0.5ex]{0em}{2.6ex}\~\#1\}$ 
990      $\backslash par\backslash nobreak$ 
991    $\backslash end\{flushright\}$ 
992    $\backslash rule\{\textwidth\}\{1pt\}$ 
993    $\backslash vspace{5\p@}\backslash par\backslash nobreak$ 
994  $\}$ 
```

```

994
995 \def\@schapter#1{%
996   \@makeschapterhead{#1}%
997   \@afterheading
998 }
999 \def\@makeschapterhead#1{%
1000   \vspace*{1ex}%
1001   \begin{flushright}
1002     \bf\LARGE\textcolor{darkgray}{\rule[-0.5ex]{0em}{2.6ex}~#1~}
1003   \end{flushright}
1004   \rule{\textwidth}{1pt}
1005   \vspace{5\p@}\par
1006 }
1007 \</pt>

```

5.10 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:

```

1008 \< *ct | mt>
1009 \pgfmathsetmacro{\ua@Wh}{\paperwidth}
1010 \pgfmathsetmacro{\ua@Xh}{0.2\paperheight}
1011 \pgfmathsetmacro{\ua@Yh}{0.125\paperheight}

```



```

1012 \pgfmathsetmacro{\ua@XMYh}{\ua@Xh-\ua@Yh}
1013 \pgfmathsetmacro{\ua@Rh}{0.5*\ua@Wh/\ua@XMYh*\ua@Wh+0.5*\ua@XMYh}
1014 \pgfmathsetmacro{\ua@Qh}{\ua@Rh-\ua@Xh+\paperheight}
1015 \end{tikzpicture}

```

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:

```

1016 \end{tikzpicture}
1017 \pgfmathsetmacro{\ua@Wba}{0.4*\paperwidth}
1018 \pgfmathsetmacro{\ua@Sba}{0.125*\paperheight}
1019 \pgfmathsetmacro{\ua@XMYba}{0.02*\paperheight}
1020 \pgfmathsetmacro{\ua@Rba}{0.5*\ua@Wba/\ua@XMYba*\ua@Wba+0.5*\ua@XMYba}
1021 \pgfmathsetmacro{\ua@Qba}{\ua@Rba+\ua@Sba}
1022 \end{tikzpicture}

```

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

```

1023 \end{tikzpicture}
1024 \pgfmathsetmacro{\ua@Wbb}{0.65*\paperwidth}
1025 \pgfmathsetmacro{\ua@Sbb}{0.14*\paperheight}
1026 \pgfmathsetmacro{\ua@XMYbb}{0.06*\paperheight}
1027 \pgfmathsetmacro{\ua@Rbb}{0.5*\ua@Wbb/\ua@XMYbb*\ua@Wbb+0.5*\ua@XMYbb}
1028 \pgfmathsetmacro{\ua@Qbb}{\ua@Rbb+\ua@Sbb}
1029 \end{tikzpicture}

```

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

```

1030 <*ct | mt>
1031 \pgfmathsetmacro{\ua@ll}{0.15*\paperwidth}
1032 \pgfmathsetmacro{\ua@l}{0.4*\paperwidth}
1033 \pgfmathsetmacro{\ua@d}{0.1in}
1034 \pgfmathsetmacro{\ua@rr}{0.85*\paperwidth}
1035 </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.

```

1036 <*ct>
1037 \newcommand\sprtr{ / }
1038 \newcommand\myqrdata{
1039 I: Universiteit Antwerpen\string\n
1040 F: \@faculty\string\n
1041 P: \@programmet\ \@programmecqr\ \@programmeq\string\n
1042 C: \@coursecodei\ \@qrcoursei
1043 \sprtr
1044 \@coursecodeii\ \@qrcourseii
1045 \sprtr
1046 \@coursecodeiii\ \@qrcourseiii
1047 \sprtr
1048 \@coursecodeiv\ \@qrcourseiv
1049 \string\n
1050 Y: \@academicyear\string\n
1051 T: \@qrtitle\string\n
1052 S: \@qrsubtitle\string\n
1053 A: \@qrauthor\string\n
1054 L: \@qrlectureri
1055 \sprtr
1056 \@qrlecturerii
1057 \sprtr
1058 \@qrlectureriii
1059 \sprtr
1060 \@qrlectureriv}
1061 \newsavebox{\myqrcode}
1062 </ct>

```

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

```

1063 <*ct>
1064 \renewcommand\maketitle{%
1065 \pagestyle{empty}
1066 \if@qr
1067 \savebox{\myqrcode}[2.7in][t]{
1068 \begin{pspicture}(2.7in,2.7in)
1069 \psbarcode{\myqrdata}{width=1.0 height=1.0 encoding=byte ecllevel=M}{qrcode}

```

```

1070 \end{pspicture}
1071 }
1072 \fi
1073 \begin{titlepage}
1074 \if@titlepagetableonly
1075 Dit is een cursustekst van Universiteit Antwerpen.\
1076 Het titelblad dient opgemaakt te worden met de volgende gegevens:
1077 \begin{center}
1078 \begin{tabular}{|l|l|}
1079 \hline
1080 \bfseries I & Universiteit Antwerpen \\\hline
1081 \bfseries F & \@faculty \\\hline
1082 \bfseries P & \parbox[t]{14cm}{\@programmet
1083 \@programme\@programmes \@programmeq} \\\hline
1084 \bfseries C & \parbox[t]{14cm}{
1085 \texttt{\@coursecodei} \@coursei\
1086 \texttt{\@coursecodeii} \@courseii\
1087 \texttt{\@coursecodeiii} \@courseiii\
1088 \texttt{\@coursecodeiv} \@courseiv} \\\hline
1089 \bfseries Y & \@academicyear \\\hline
1090 \bfseries T & \parbox[t]{14cm}{\@title}\\\hline
1091 \bfseries S & \parbox[t]{14cm}{\@subtitle}\\\hline
1092 \bfseries A & \parbox[t]{14cm}{\@author}\\\hline
1093 \bfseries L & \parbox[t]{14cm}{\@lectureri\
1094 \@lecturerii\
1095 \@lectureriii\
1096 \@lectureriv} \\\hline
1097 \end{tabular}
1098 \end{center}
1099 ~\
1100 Waarbij: I = instelleng, F = faculteit, P = programma, C =
1101 cursusmodule, T = titel, S = subtitel, A = auteur(s), L =
1102 lesgever(s)\~\
1103 \if@qr
1104 Deze informatie is ook gecodeerd in de onderstaande QR-code.\
1105 \vspace*{1cm}
1106 \usebox{\myqrcode}
1107 \fi
1108 \else
1109 \begin{tikzpicture}[remember picture,overlay]
1110 \node at (current page.center) {
1111 \begin{tikzpicture}[inner sep=0pt]
1112 \clip (0,0) rectangle(\paperwidth,\paperheight);
1113 \if@titlepagenoartwork\else
1114 \filldraw [uacorpbord] (0.55\paperwidth,\ua@Qba pt) circle (\ua@Rba pt);
1115 \filldraw [white] (0.35\paperwidth,\ua@Qbb pt) circle (\ua@Rbb pt);
1116 \filldraw [uacorpblue] (0,\ua@Qh pt) circle (\ua@Rh pt);
1117 \path
1118 (0.95\paperwidth,0.1\paperheight)
1119 node [anchor=north east] {

```

```

1120         \includegraphics[width=0.25\paperwidth]{\logoname}};
1121     \fi
1122     \path
1123     (\ua@l pt -\ua@d pt,0.77\paperheight)
1124     node [anchor=north east, text width=0.35\paperwidth] {
1125         \begin{flushright}
1126             \uppercase\expandafter{\uaname}\\~\\
1127             \academicyearname{} \@academicyear
1128         \end{flushright}}
1129     (\ua@l pt +\ua@d pt,0.65\paperheight)
1130     node [anchor = north west, text width = 0.55\paperwidth] {
1131         {\large \@faculty{}}\\[0.05\paperheight]
1132         {\huge \bf \@title{}}\\[2ex]
1133         {\Large \bf \@subtitle{}}\\[3ex]
1134         {\Large \bf \@author{}}}
1135     (\ua@l pt +\ua@d pt,0.45\paperheight)
1136     node [anchor = north west, text width = 0.55\paperwidth] {
1137         \@lectureri~\\
1138         \@lecturerii~\\
1139         \@lectureriii~\\
1140         \@lectureriv}
1141     (\ua@l pt +\ua@d pt,0.35\paperheight)
1142     node [anchor = north west, text width = 0.55\paperwidth] {
1143         {\bf \@programmet \\ \@programmec\@programmes \@programmeq}}
1144     (\ua@l pt +\ua@d pt,0.30\paperheight)
1145     node [anchor = north west, text width = 0.55\paperwidth] {
1146         \texttt{\@publishercode}~\\~\\
1147         \texttt{\@coursecodei{}} \@coursei~\\
1148         \texttt{\@coursecodeii{}} \@courseii~\\
1149         \texttt{\@coursecodeiii{}} \@courseiii~\\
1150         \texttt{\@coursecodeiv{}} \@courseiv}
1151     (\ua@l pt - 2\ua@d pt, 0.368\paperheight)
1152     node [anchor = north east, text width = 0.35\paperwidth] {
1153         {\normalsize\begin{flushright}
1154             \@publisher{}
1155             \end{flushright}}};
1156     \end{tikzpicture}
1157 };
1158 \end{tikzpicture}
1159 \fi
1160 \end{titlepage}%
1161 \clearpage
1162 \vspace*{\stretch{1}}
1163 \@crnotice
1164 \clearpage
1165 \setcounter{footnote}{0}%
1166 \global\let\thanks\relax
1167 \global\let\maketitle\relax
1168 \global\let\@thanks\@empty
1169 \global\let\title\relax

```

```

1170 \global\let\author\relax
1171 \global\let\date\relax
1172 \global\let\and\relax
1173 \pagestyle{fancy}
1174 \thispagestyle{empty}
1175 }
1176 </ct>

```

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

```

1177 <*ct>
1178 \newcommand\makefinalpage{
1179 \if@titlepagetableonly
1180 \else
1181 \cleardoublepage
1182 \thispagestyle{empty}
1183 ~% intentionally blank page
1184 \clearpage
1185 \thispagestyle{empty}
1186 \begin{tikzpicture}[remember picture,overlay]
1187 \node at (current page.center) {
1188 \begin{tikzpicture}[inner sep=0pt]
1189 \clip (0,0) rectangle(\paperwidth,\paperheight);
1190 \if@titlepagenoartwork\else
1191 \filldraw [uacorpblue] (\paperwidth,\ua@Qh pt) circle (\ua@Rh pt);
1192 \fi
1193 \path
1194 (0.1\paperwidth,0.1\paperheight)
1195 node [anchor = south west, text width = 0.6\paperwidth] {
1196 CONFIDENTIAL AND PROPRIETARY\\~\\
1197
1198 \copyright{} \@versionyear{} \uaname,
1199 \arrname.}
1200 (0.9\paperwidth,0.1\paperwidth)
1201 node [anchor = south east] {
1202 \usebox{\myqrcode}
1203 };
1204 \end{tikzpicture}
1205 };
1206 \end{tikzpicture}
1207 \fi
1208 }
1209 </ct>

```

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

```

1210 <*mt>
1211 \renewcommand\maketitle{%

```

```

1212 \pagestyle{empty}
1213 \begin{titlepage}
1214   \begin{tikzpicture}[remember picture,overlay]
1215     \node at (current page.center) {
1216       \begin{tikzpicture}[inner sep=0pt]
1217         \clip (0,0) rectangle(\paperwidth,\paperheight);
1218         \if@titlepagenoartwork\else
1219           \filldraw [lightgray] (0.55\paperwidth,\ua@Qba pt) circle (\ua@Rba pt);
1220           \filldraw [white] (0.35\paperwidth,\ua@Qbb pt) circle (\ua@Rbb pt);
1221           \filldraw [lightgray] (0,\ua@Qh pt) circle (\ua@Rh pt);
1222           \path
1223             (0.95\paperwidth,0.1\paperheight)
1224             node [anchor=north east] {
1225               \includegraphics[width=0.25\paperwidth]{\logoname}};
1226           \fi
1227           \path
1228             (\ua@ll pt,0.77\paperheight)
1229             node [anchor=north west, text width=0.7\paperwidth] {
1230               \uppercase\expandafter{\ua name}\~\~\~
1231               \academicyearname{} \@academicyear\~\~\~
1232               {\large \@faculty{}}\~\~\~
1233               \masterthesisname{}\~\~\~[0.05\paperheight]
1234               {\Large \bf \@title{}}}
1235             (\ua@ll pt,0.55\paperheight)
1236             node [anchor = north west, text width = 0.7\paperwidth] {
1237               {\large \bf \@author{}}\~\~\~\~\~\~
1238               \begin{tabular}{@{}p{2.7cm}p{10.8cm}}
1239                 \textbf{\supervisorsname{}}:
1240                 & \@supervisor i \\\
1241                 & \@supervisor ii \\\
1242                 & \@supervisor iii \\\
1243                 & \@supervisor iv
1244               \end{tabular}
1245             }
1246             (\ua@ll pt,0.3\paperheight) node [anchor=north west, text width = 0.7\paperwidth]{%
1247               \mthesisname\~\~\~
1248               \@diploma\~\~\~
1249               \@defenselocation, \@defensedate
1250             };
1251           \end{tikzpicture}
1252         };
1253       \end{tikzpicture}
1254     \end{titlepage}%
1255     \clearpage
1256     \setcounter{footnote}{0}%
1257     \global\let\thanks\relax
1258     \global\let\maketitle\relax
1259     \global\let\@thanks\@empty
1260     \global\let\title\relax
1261     \global\let\author\relax

```

```

1262 \global\let\date\relax
1263 \global\let\and\relax
1264 \pagestyle{fancy}
1265 \thispagestyle{empty}
1266 }
1267 </mt>

```

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

```

1268 <*mt>
1269 \newcommand\makefinalpage{
1270   \cleardoublepage
1271   \thispagestyle{empty}
1272   \begin{tikzpicture}[remember picture,overlay]
1273     \node at (current page.center) {
1274       \begin{tikzpicture}[inner sep=0pt]
1275         \clip (0,0) rectangle(\paperwidth,\paperheight);
1276         \if@titlepagenoartwork\else
1277           \filldraw [lightgray] (\paperwidth,\ua@Qh pt) circle (\ua@Rh pt);
1278         \fi
1279       \end{tikzpicture}
1280     };
1281   \end{tikzpicture}
1282 }
1283 </mt>

```

5.11 Title page for the phdthesis 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

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:

```

1284 <*pt>
1285 \pgfmathsetmacro{\ua@X}{\paperwidth}
1286 \pgfmathsetmacro{\ua@Y}{\paperheight}
1287 \pgfmathsetmacro{\ua@R}{6*\paperwidth}
1288 \pgfmathsetmacro{\ua@B}{(\ua@X+\ua@Y)/15}
1289 \pgfmathsetmacro{\ua@L}{0.25*\ua@X}
1290 \pgfmathsetmacro{\ua@Z}{0.1*\ua@L}
1291 \pgfmathsetmacro{\ua@H}{0.3*\ua@L}
1292 \pgfmathsetmacro{\ua@h}{0.5*(\ua@B-\ua@H)}
1293 </pt>

```

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

```

1294 <*pt>
1295 \renewcommand\maketitle{%
1296   \pagestyle{empty}
1297   \begin{titlepage}
1298     \if@titlepagetableonly
1299       Dit is een cursustekst van Universiteit Antwerpen.\
1300       Het titelblad dient opgemaakt te worden met de volgende gegevens:
1301     \begin{center}
1302       \begin{tabular}{|l|l|}
1303         \hline
1304         \bfseries I & Universiteit Antwerpen \\\hline
1305         \bfseries F & \@faculty \\\hline
1306         \bfseries P & \parbox[t]{14cm}{\@programmet
1307           \@programmec\programmes \@programmeq} \\\hline
1308         \bfseries C & \parbox[t]{14cm}{
1309           \texttt{\@coursecodei} \@coursei\
1310           \texttt{\@coursecodeii} \@courseii\
1311           \texttt{\@coursecodeiii} \@courseiii\
1312           \texttt{\@coursecodeiv} \@courseiv} \\\hline
1313         \bfseries Y & \\\hline
1314         \bfseries T & \parbox[t]{14cm}{\@title}\\\hline
1315         \bfseries S & \parbox[t]{14cm}{SUBTITLE}\\\hline
1316         \bfseries A & \parbox[t]{14cm}{\@author}\\\hline
1317         \bfseries L & \parbox[t]{14cm}{LECTURERS}\\\hline
1318       \end{tabular}
1319     \end{center}
1320     ~\
1321     Waarbij: I = instelleng, F = faculteit, P = programma, C =
1322     cursusmodule, T = titel, S = subtitel, A = auteur(s), L =
1323     lesgever(s)\-~\
1324   \else
1325     \begin{tikzpicture}[remember picture,overlay]
1326       \node at (current page.center) {
1327         \begin{tikzpicture}[inner sep=0pt]
1328           \clip (0,0) rectangle(\paperwidth,\paperheight);
1329
1330           \filldraw[uacorpblue]
1331             (0.5*\ua@X pt,\ua@B+\ua@R pt) circle (\ua@R pt)
1332             (\ua@X pt, 0.25*\ua@Y+\ua@R pt) circle (\ua@R pt);
1333
1334           \node[anchor=south east] at (\ua@X-3*\ua@Z pt,\ua@h pt)
1335             {\includegraphics[width=\ua@L pt]{\logoname}};
1336
1337         \begin{scope}
1338           \clip
1339             (\ua@X pt, 0.25*\ua@Y+\ua@R pt) circle (\ua@R pt)
1340             (0.375*\ua@X pt,\ua@R+0.666*\ua@Y pt) circle (\ua@R pt);

```



```

1341
1342     \node[anchor=south] at (0.5*\ua@X pt, 2.1*\ua@B pt)
1343     {\includegraphics[width=\ua@X pt]{\@titlepageimage}};
1344 \end{scope}
1345
1346 \filldraw[uacorpbord]
1347 (0.375*\ua@X pt,\ua@R+0.666*\ua@Y pt) circle (\ua@R pt);
1348
1349 \filldraw[white]
1350 (0.1*\ua@X pt,\ua@R+0.666*\ua@Y pt) circle (\ua@R pt);
1351
1352 \node[anchor=north west,align=left,font=\large]
1353 at (3*\ua@Z pt, \ua@B - \ua@h pt)
1354 { \textcolor{uacorpblue}{\textsf{\@defenselocation,
1355     \@defensedate}} } };
1356
1357 \node[anchor=south west,text width=\textwidth,align=left,font=\large]
1358 at (3*\ua@Z pt, 1.4*\ua@B pt)
1359 { \textcolor{white}{\textsf{\@affiliation}} } };
1360
1361 \node[anchor=south east,text width=\textwidth,align=right,font=\large]
1362 at (\ua@X - 3*\ua@Z pt, 1.4*\ua@B pt)
1363 { \textcolor{white}{\textsf{
1364     \supervisorsname\\
1365     \@supervisor%
1366     \ifdefvoid{\@supervisorii}{\@supervisorii}%
1367     \ifdefvoid{\@supervisoriii}{\@supervisoriii}%
1368     \ifdefvoid{\@supervisoriv}{\@supervisoriv}}
1369 } };
1370
1371 \node[anchor=north west,text width=\textwidth,align=left,font=\Huge]
1372 at (3*\ua@Z pt,\ua@Y-4*\ua@Z pt)
1373 { \textsf{\textbf{\@title}} } };
1374
1375 \node[anchor=north west,text width=\textwidth,align=left]
1376 at (3*\ua@Z pt,\ua@Y - 11.5*\ua@Z pt)
1377 { \textsf{\pthesisnamei{} \@phddegree{} \pthesisnameii{}} } };
1378
1379 \node[anchor=north west, text width=\textwidth,align=left,font=\LARGE]
1380 at (3*\ua@Z pt, \ua@Y-14.5*\ua@Z pt)
1381 { \textsf{\textbf{\@author}} } };
1382 \end{tikzpicture}
1383 };
1384 \end{tikzpicture}
1385 \fi
1386 \end{titlepage}%
1387 \cleardoublepage
1388 \begin{center}
1389 \includegraphics[width=\ua@L pt]{\logoname}
1390 \vfill

```

```

1391 \@faculty\\
1392 \@programmeq\par
1393 \vfill
1394 \Huge\textsf{\@title}\par
1395 \vfill
1396 \normalsize\pthesisnamei\\
1397 \@phddegree\\
1398 \pthesisnameii\\
1399 \medskip
1400 \textbf{\@author}
1401 \vfill
1402 \begin{minipage}[b]{0.4\textwidth}
1403 \@defenselocation, \@defensedate
1404 \end{minipage}
1405 \hfill
1406 \begin{minipage}[b]{0.4\textwidth}
1407 \flushright
1408 \supervisorsname\\
1409 \@supervisor%
1410 \ifdefvoid{\@supervisorii}{\@supervisorii}%
1411 \ifdefvoid{\@supervisoriii}{\@supervisoriii}%
1412 \ifdefvoid{\@supervisoriv}{\@supervisoriv}
1413 \end{minipage}
1414 \end{center}
1415 \clearpage
1416 \textbf{\juryname}\\
1417 \medskip
1418 \textbf{\jurychairmanname}\\
1419 \@jurychairman{\ifdefvoid{\@jurychairmanaff}{\@jurychairmanaff}}\\
1420 \smallskip
1421 \textbf{\supervisorsname}\\
1422 \ifdefvoid{\@supervisor}{\@supervisor
1423 \ifdefvoid{\@supervisoriaff}{\@supervisoriaff}}\\
1424 \ifdefvoid{\@supervisorii}{\@supervisorii
1425 \ifdefvoid{\@supervisoriiiaff}{\@supervisoriiiaff}}\\
1426 \ifdefvoid{\@supervisoriii}{\@supervisoriii
1427 \ifdefvoid{\@supervisoriiiaff}{\@supervisoriiiaff}}\\
1428 \ifdefvoid{\@supervisoriv}{\@supervisoriv
1429 \ifdefvoid{\@supervisorivaff}{\@supervisorivaff}}\\
1430
1431 \smallskip
1432 \textbf{\jurymembersname}\\
1433 \ifdefvoid{\@jurymember}{\@jurymember
1434 \ifdefvoid{\@jurymemberiaff}{\@jurymemberiaff}}\\
1435 \ifdefvoid{\@jurymemberii}{\@jurymemberii
1436 \ifdefvoid{\@jurymemberiiaff}{\@jurymemberiiaff}}\\
1437 \ifdefvoid{\@jurymemberiii}{\@jurymemberiii
1438 \ifdefvoid{\@jurymemberiiiaff}{\@jurymemberiiiaff}}\\
1439 \ifdefvoid{\@jurymemberiv}{\@jurymemberiv
1440 \ifdefvoid{\@jurymemberivaff}{\@jurymemberivaff}}\\

```

```

1441 \ifdefvoid{\@jurymemberv}{\@jurymemberv
1442   \ifdefvoid{\@jurymembervaff}{\@jurymembervaff\\}}
1443 \ifdefvoid{\@jurymembervi}{\@jurymembervi
1444   \ifdefvoid{\@jurymemberviaff}{\@jurymemberviaff\\}}
1445 \vfill
1446 \textbf{Contact}\\
1447 \smallskip
1448 \@author\\
1449 \@affiliation\\
1450 \@address\\
1451 \vfill
1452 \copyright{} \@defensedate{} \@author\\
1453 \arrname.
1454 \vfill
1455 \begin{minipage}[b]{.5\linewidth}
1456   ISBN \@isbn\\
1457   Wettelijk depot \@depot
1458 \end{minipage}
1459 \hfill
1460 \begin{minipage}[b]{.5\linewidth}
1461   \expandafter\EAN \@isbn
1462 \end{minipage}
1463 \setcounter{footnote}{0}%
1464 \global\let\thanks\relax
1465 \global\let\maketitle\relax
1466 \global\let\@thanks\@empty
1467 \global\let\title\relax
1468 \global\let\author\relax
1469 \global\let\date\relax
1470 \global\let\and\relax
1471 \pagestyle{fancy}
1472 \thispagestyle{empty}
1473 \
1474 }
1475 </pt>

```

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

```

1476 <*pt>
1477 \newcommand\makefinalpage{
1478   \if@titlepagetableonly
1479   \else
1480     \cleardoublepage
1481     \thispagestyle{empty}
1482     ~% intentionally blank page
1483     \clearpage
1484     \thispagestyle{empty}
1485     \begin{tikzpicture}[remember picture,overlay]
1486       \node at (current page.center) {

```

```

1487     \begin{tikzpicture}[inner sep=0pt]
1488         \clip (0,0) rectangle(\paperwidth,\paperheight);
1489         \fill[uacorpblue] (0,0) rectangle(\ua@X pt,\ua@Y pt);
1490         \filldraw [white] (1.2*\ua@X pt,\ua@R+0.125*\ua@Y pt) circle (\ua@R pt);
1491         \filldraw [uacorpbord] (1.375*\ua@X pt,\ua@R+0.666*\ua@Y pt) circle (\ua@R pt);
1492     \end{tikzpicture}
1493 };
1494 \end{tikzpicture}
1495 \fi
1496 }
1497 \</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.

```

1498 \<*\e>
1499 \newcommand\maketitle{%
1500     \pagestyle{fancy}
1501     \thispagestyle{empty}
1502     \begin{tikzpicture}[overlay,remember picture]
1503         \path (current page.north west) +(1.8cm,-1.2cm)
1504         node[anchor=north west] {
1505             \includegraphics[height=1.1cm]{\@logo}
1506         };
1507         \draw (current page.north west)
1508         +(1cm,-98mm) -- +(1.5cm,-98mm);
1509         % 90 x 45
1510         % pos: 20mm van kant, 15mm van onderkant
1511         \path (current page.north east) +(-100mm,-65mm)
1512         node[anchor=west,text width=80mm,align=left] {
1513             \scriptsize\textcolor{gray}{\uline{\@returnaddress}}\<*\>
1514             \normalsize\@to\<*\>
1515             \@toorganization\<*\>
1516             \@toaddress
1517         };
1518     \end{tikzpicture}
1519     \begin{tikzpicture}[overlay,remember picture]
1520         \path (current page.south west) +(0,-0.7cm)
1521         node[anchor=south west,inner sep=0pt, outer sep=0pt]

```

```

1522     {\includegraphics{\footername}};
1523 \end{tikzpicture}
1524 ~\\[3ex]
1525 \textcolor{uacorpblue}{\bf \@sender}
1526 \ifx\@senderrole\emptymacro\\[1.75ex]\else \\*\@senderrole\\[1.75ex]\fi
1527 \@faculty
1528 \ifx\@unit\emptymacro\else\\* \@unit\fi~\\[1.75ex]
1529 \@address\\[1.75ex]
1530 \ifx\@email\emptymacro\else E \@emailuser\tat{}\@emaildomain\\fi
1531 \ifx\@phone\emptymacro\else T \@phone\\fi
1532 \ifx\@fax\emptymacro\else F \@fax\\fi
1533 \ifx\@mobile\emptymacro\else M \@mobile\\fi
1534 ~\\[4ex]
1535 \begin{tikzpicture}[anchor=north west,align=left,outer sep=0,inner sep=0]
1536   \path
1537     (0,0) node { \scriptsize \strut
1538       \textcolor{gray}{\uppercase\expandafter{\datename} } }
1539     (4cm,0) node { \scriptsize \strut
1540       \textcolor{gray}{\uppercase\expandafter{\subjectname} } }
1541     (0,-2.5ex) node { \strut \@date }
1542     (4cm,-2.5ex) node[align=left] { \strut \@subject };
1543 \end{tikzpicture}~\\[4ex]
1544 }
1545 </le>

```

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

```

1546 <*le>
1547 \AtEndDocument{
1548   \@closing\\*[3ex]\@signature~\\[3ex]
1549   \@sender
1550   \ifx\@senderrole\emptymacro\\[8ex]\else\\*\@senderrole\\[8ex]\fi
1551   \setlength{\parskip}{0em}
1552   \ifx\@carboncopy\emptymacro\else CC: \@carboncopy\\[4ex]\fi
1553   \ifx\@enclosed\emptymacro\else ENCL: \@enclosed\fi
1554   \label{lastpage}
1555 }
1556 </le>

```

5.13 Title page for the exam class

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

```

1557 <*ex>
1558 \renewcommand\maketitle{%
1559   \pagestyle{fancy}
1560   \AddToShipoutPicture*{%
1561     \put(0,0){%

```

```

1562 \begin{tikzpicture}[remember picture,overlay]
1563 \node at (current page.center) {
1564 \begin{tikzpicture}
1565 \clip (0,0) rectangle (21,29.7);
1566 \draw
1567 ( 3,9.7) -- ( 3,23.7)
1568 ( 0,23.7) -- (21,23.7)
1569 ( 3,19.7) -- (21,19.7)
1570 ( 3,17.7) -- (21,17.7)
1571 ( 3,15.7) -- (21,15.7)
1572 (14,11.7) -- (14,15.7)
1573 ( 3,13.7) -- (21,13.7)
1574 ( 3,11.7) -- (21,11.7)
1575 ( 0,9.7) -- (21,9.7);
1576
1577 \draw[ultra thick]
1578 ( 3,15.7) +(0,-0.5) -- +(0,0) -- +(0.5,0)
1579 ( 3,13.7) +(0,+0.5) -- +(0,0) -- +(0.5,0)
1580 (14,15.7) +(-0.5,0) -- +(0,0) +(0,-0.5) -- +(0,0) -- +(0.5,0)
1581 (14,13.7) +(-0.5,0) -- +(0,0) +(0,+0.5) -- +(0,0) -- +(0.5,0)
1582 (21,15.7) +(0,-0.5) -- +(0,0) -- +(-0.5,0)
1583 (21,13.7) +(0,+0.5) -- +(0,0) -- +(-0.5,0);
1584
1585 \path
1586 (3,25.2) node[anchor=north west] {
1587 \parbox{14cm}{
1588 \fontfamily{phv}\fontsize{12}{15}\fontseries{b}\selectfont
1589 \@faculty\
1590 \fontfamily{phv}\fontsize{11}{14}\fontseries{m}\selectfont
1591 \@programmet \@programmec\
1592 \ifx\@programmeq\emptymacro\else--- \@programmeq\fi
1593 }
1594 }
1595 (3.3,23.0) node[anchor=north west] {
1596 \parbox{14cm}{
1597 \fontfamily{phv}\fontsize{12}{15}\selectfont
1598 }
1599 }
1600 (3.3,21.9) node[anchor=north west] {
1601 \parbox{16cm}{
1602 \fontfamily{phv}\fontsize{18}{22}\fontseries{b}\fontshape{n}\selectfont
1603 \raggedright \@coursei --- \@exampart
1604 \fontfamily{phv}\fontsize{12}{18}\fontseries{m}\fontshape{n}\selectfont\
1605 Groep \@examgroupnumber{} \hfill \@examdate{} }
1606 }
1607 (3.3,19) node[anchor=north west] {
1608 \parbox{14cm}{
1609 \fontfamily{phv}\fontsize{12}{15}\fontseries{m}\selectfont
1610 \@coursecodei
1611 }

```

```

1612 }
1613 (3.3,17.5) node[anchor=north west] {
1614   \parbox{14cm}{
1615     \fontfamily{phv}\fontsize{12}{18}\fontseries{m}\fontshape{n}\selectfont
1616     \raggedright \ifdef{\dateenglish}{Professor(s) --- }{ }Titularis(sen):\
1617     \fontfamily{phv}\fontsize{14}{20}\fontseries{m}\fontshape{n}\selectfont
1618     \raggedright \@author{ }
1619   }
1620 }
1621 (3.3,15.5) node[anchor=north west] {
1622   \parbox{10cm}{
1623     \fontfamily{phv}\fontsize{12}{15}\fontseries{m}\fontshape{n}\selectfont
1624     \raggedright \ifdef{\dateenglish}{Last name/First name
1625       --- }{ }
1626     Naam/Voornaam:}
1627 }
1628 (14.3,15.5) node[anchor=north west] {
1629   \parbox{5cm}{
1630     \fontfamily{phv}\fontsize{12}{15}\fontseries{m}\fontshape{n}\selectfont
1631     \raggedright \ifdef{\dateenglish}{Registration No. --- }{ }Rolnr.:}
1632 }
1633 (3.3,13.5) node[anchor=north west] {
1634   \parbox{14cm}{
1635     \fontfamily{phv}\fontsize{12}{21}\fontseries{m}\fontshape{n}\selectfont
1636     \raggedright \ifdef{\dateenglish}{Exam duration --- }{ }Duur van het examen: \@e
1637   }
1638 }
1639 (14.3,13.5) node[anchor=north west] {
1640   \parbox{5cm}{
1641     \fontfamily{phv}\fontsize{12}{15}\fontseries{m}\fontshape{n}\selectfont
1642     \raggedright \ifdef{\dateenglish}{Start --- }{ }Begin: \@tstart \\[1ex]
1643     \raggedright \ifdef{\dateenglish}{End --- }{ }Einde~: \@tend
1644   }
1645 }
1646 (3.3,11.5) node[anchor=north west] {
1647   \parbox{14cm}{
1648     \fontfamily{phv}\fontsize{12}{21}\fontseries{m}\fontshape{n}\selectfont
1649     \raggedright \ifdef{\dateenglish}{Room --- }{ }Lokaal: \@rooms
1650   }
1651 }
1652 }
1653 (2,9.5) node[anchor=north west] {
1654   \parbox{19cm}{
1655     \fontfamily{phv}\fontsize{10}{13}\fontseries{m}\fontshape{n}\selectfont
1656     \ifdef{\dateenglish}{\raggedright Extra information: read the back of this page
1657     \raggedright Extra informatie: zie achterkant
1658   }
1659 }
1660 (3,27.7) node[anchor=north west] {
1661   \includegraphics[width=7cm]{\@logo}

```

```

1662         };
1663         \end{tikzpicture}
1664     };
1665     \end{tikzpicture}
1666 }
1667 }
1668 \vspace*{15cm}
1669 \clearpage
1670 \@extrainfo
1671 \clearpage
1672 }
1673 \</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).

```

1674 \<*ex>
1675 \newcounter{question}
1676 \setcounter{question}{0}
1677 \renewcommand\thequestion{\@arabic\c@question}
1678 \newcommand{\question}[1]{
1679     \stepcounter{question}
1680     \thequestion.~#1%
1681 }
1682 \</ex>

```

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

```

1683 \<*ex>
1684 \newcommand{\questionweight}[1]{%
1685     \hspace{\fill}
1686     \begin{tabular}{|c|}
1687         \hline
1688         \small \weightname: #1\\
1689         \hline
1690     \end{tabular}\\
1691 }
1692 \</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.

```

1693 \<*ex>
1694 \newcommand{\engdut}[2]{%
1695     \begin{tabular}{cc}%
1696         \selectlanguage{english}%
1697         \begin{minipage}[t]{0.45\textwidth}%

```



```

1698      #1
1699      \end{minipage}%
1700      &
1701      \selectlanguage{dutch}%
1702      \begin{minipage}[t]{0.45\textwidth}%
1703      #2
1704      \end{minipage}%
1705  \end{tabular}
1706  \selectlanguage{english}%
1707 }
1708 \</ex>

```

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

```

1709 \<*ex>
1710 \newcommand{\mc}[1]{%
1711   \qqquad\begin{tabular}{cc}
1712     $\square$
1713     &
1714     \begin{minipage}[t]{0.8\textwidth}%
1715     #1
1716     \end{minipage}%
1717   \end{tabular}\\
1718 }
1719 \</ex>

```

`\engdutm` 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.

```

1720 \<*ex>
1721 \newcommand{\engdutm}[2]{%
1722   \begin{tabular}{cccc}
1723     $\square$
1724     &
1725     \selectlanguage{english}%
1726     \begin{minipage}[t]{0.4\textwidth}%
1727     #1
1728     \end{minipage}%
1729     &---&
1730     \selectlanguage{dutch}%
1731     \begin{minipage}[t]{0.4\textwidth}%
1732     #2
1733     \end{minipage}%
1734   \end{tabular}
1735   \selectlanguage{english}%
1736 }
1737 \</ex>

```

`\insertsolutionspagepartial` fills the remainder of the page with 'fill-out' squares. as observing/controlling

the current line position in L^AT_EX 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.

```

1738 <*ex>
1739 \newcommand\insertsolutionspagepartial[1]{
1740   \AddToShipoutPicture*{%
1741     \put(0,0){%
1742       \begin{tikzpicture}
1743         \clip (0,0) rectangle (21,#1);
1744         \draw[densely dotted, step=0.5cm,black!20] (0.999,0.990) grid (20,1.5);
1745         \draw[densely dotted, step=0.5cm,black!20] (0.999,1.499) grid (2,2.5);
1746         \draw[densely dotted, step=0.5cm,black!20] (18.999,1.499) grid (20,2.5);
1747
1748         \draw[densely dotted, step=0.5cm,black!20] (0.999,2.499) grid (20,27);
1749         \draw[densely dotted, step=0.5cm,black!20] (0.999,27) grid (16,28);
1750         \draw[densely dotted, step=0.5cm,black!20] (19.499,27) grid (20,28);
1751         \draw[densely dotted, step=0.5cm,black!20] (0.99,27.999) grid
1752           (20,28.5);
1753         \draw[ultra thick] (1,#1) -- (20,#1);
1754       \end{tikzpicture}
1755     }
1756   }%
1757   \clearpage
1758   \relax
1759 }
1760 </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').

```

1761 <*ex>
1762 \newcommand\insertsolutionspage[1]{
1763   \clearpage
1764   \AddToShipoutPicture*{%
1765     \put(0,0){%
1766       \begin{tikzpicture}
1767         \clip (0,0) rectangle (21,29.5);
1768         \draw[densely dotted, step=0.5cm,black!20] (0.999,1.499) grid (2,2.5);
1769         \draw[densely dotted, step=0.5cm,black!20] (18.999,1.499) grid (20,2.5);
1770
1771         \draw[densely dotted, step=0.5cm,black!20] (0.999,2.499) grid (20,28);
1772         \draw[densely dotted, step=0.5cm,black!20] (0.999,28) grid (16,28.5);
1773         \draw[densely dotted, step=0.5cm,black!20] (19.499,28) grid (20,28.5);
1774       \end{tikzpicture}
1775     }
1776     \put(120,150){\rotatebox{60}{\textcolor{watermark}{%
1777       \fontfamily{phv}\fontsize{105}{130}\fontseries{m}\fontshape{n}\selectfont
1778       #1}

```

```

1779     }
1780   }
1781   }%
1782   ~\relax
1783 }
1784 </ex>

```

We add a lastpage label to the final page

```

1785 <*ex>
1786 \AtEndDocument{
1787   \label{lastpage}
1788 }
1789 </ex>
1790 %   \end{macrocode
1791 %
1792 % \subsection{References}
1793 %   \begin{macrocode}
1794 <*ct | mt | pt>
1795 \IfFileExists{varioref.sty}{\RequirePackage{varioref}}{}
1796 </ct | mt | pt>
1797 %
1798 <*ct>
1799 \IfFileExists{hyperref.sty}{
1800   \RequirePackage{hyperref}
1801   \hypersetup{
1802     backref=true,
1803     breaklinks=true,
1804     colorlinks=true,
1805     citecolor=black,
1806     filecolor=black,
1807     hyperindex=true,
1808     linkcolor=black,
1809     pageanchor=true,
1810     pagebackref=true,
1811     pagecolor=black,
1812     pdfpagemode=UseOutlines,
1813     urlcolor=black
1814   }
1815   \AtBeginDocument{
1816     \hypersetup{
1817       pdftitle={\@title},
1818       pdfsubject={\@subtitle},
1819       pdfauthor={\@author}
1820     }
1821   }
1822 }{}
1823 </ct>
1824 %
1825 %

```

```

1826 <*mt | pt>
1827 \IfFileExists{hyperref.sty}{
1828     \RequirePackage{hyperref}
1829     \hypersetup{
1830         backref=true,
1831         breaklinks=true,
1832         colorlinks=true,
1833         citecolor=black,
1834         filecolor=black,
1835         hyperindex=true,
1836         linkcolor=black,
1837         pageanchor=true,
1838         pagebackref=true,
1839         pagecolor=black,
1840         pdfpagemode=UseOutlines,
1841         urlcolor=black
1842     }
1843     \AtBeginDocument{
1844         \hypersetup{
1845             pdftitle={\@title},
1846             pdfsubject={Master's Thesis},
1847             pdfauthor={\@author}
1848         }
1849     }
1850 }{}
1851 </mt | pt>

```

Change History

v1.0	General: Consolidated uacoursetext class and uamasterthesis class 1 Added option qr 29 Added option titlepagenoartwork 29 Added option titlepagetableonly 29	v1.5	<code>\maketitle</code> : Implemented new footer 68 General: Replaced bottom arcs in footer of letter by official PDF versions 1 Removed documentation 68
v1.1	<code>\diploma</code> : Fixed typo on programme's name (e-umlaut) 46 General: Small bugfixes and 'filled' option 1 Added option user documentation 6 Made raggedright conditional on option 'filled', because it can't be undone 54	v1.6	<code>\diploma</code> : Added diploma codes . 46 General: Added diploma codes for Faculty of Applied Economics . 1 Added diploma code documentation 9
v1.2	General: Added lmodern package and increased headheight to 13.7pt to please Fancyhdr 1 Added lmodern package to please MikTeX 31 Increased headheight to please Fancyhdr 54	v1.7	<code>\maketitle</code> : Embedded babel translations of keywords into title page 58, 61 General: Added babel translations of elements of master's thesis title page 1 Added babel tags of elements of master's thesis title page 33
v1.3	<code>\makefinalpage</code> : Changed eso-pic for tikz 61, 63 <code>\maketitle</code> : Changed eso-pic for tikz 61 General: Minor bugfixes, abandonment of a few packages, font freedom 1 Abandoned use of cmbright - no more font dictatorship for theses and courses 31 Added inclusion of background package 32 Changed eso-pic for tikz and background 58	v1.8	<code>\makefinalpage</code> : Inserted blank one but last page 61 <code>\maketitle</code> : Allowed for empty senderrole 68 <code>\signature</code> : Added signature . . . 51 General: Corrected minor typographic mistakes, added signature and solved problems with shell escape 1 Added missing packages ifmtarg and shellest 31 Allowed for empty senderrole . 69
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\maketitle: Implemented title		documentation to incorporate	
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General: Implemented			

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