

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

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## 1 Introduction

This package implements the house style of Universiteit Antwerpen (version 2021) for letters, course texts, master/PhD theses, reports and slides (beamer). It also implements a class to format exams. 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 or theme file, or (3) there's a bug in this package, please, contact me through e-mail ([walter.daems@uantwerpen.be](mailto:walter.daems@uantwerpen.be)) about the issue. I'll provide you with an answer and if (and as soon as) possible with a solution to the problem you spotted.

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

## 2 Synopsis

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

The `report` class is derived from the standard  $\LaTeX$  `report` class. It is intended for writing generic (e.g. research or educational) reports. The `letter` class is derived from the standard  $\LaTeX$  `letter` class. It is intended to be used for writing business letters. It is compliant to the house style and allows for using windowed envelopes of the DL format, with right-aligned window.

The `exam` class is derived from the standard  $\LaTeX$  `article` class.

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<sup>\*</sup>This document corresponds to `uantwerpendocs` 4.7, dated 2024/06/24.

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

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

The slides come under the form of a custom beamer theme.

The documentation of the class files for letters, course texts theses, and exams can be found in this document.  
The documentation for the beamer theme is embedded in the demo/user-guide presentation `beamerthemeuantwerpenuserguide.pdf`.  
Template files for all of the formats can be found below in section [6.1](#).

Using this package, requires the following packages:

- the `adjustbox` package
- the `babel` package
- the `background` package
- the `color` package
- the `environ` package
- the `eso-pic` package
- the `etooblox` package
- the `expl3` package
- the `fancyhdr` package
- the `geometry` package
- the `graphicx` package
- the `graphbox` package
- the `iftex` package
- the `ifthen` package
- the `tikz` package
- the `ulem` package
- the `xparse` package

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

You will notice that as of version 4.0 `expl3` and `xparse` are part of the game. Indeed, the `uantwpendocs` package will be slowly refactored to  $\text{\LaTeX}3$  to prepare for a package that is easier to maintain. However, the  $\text{\LaTeX}3$  constructs are never exposed to the user of the classes. So: don't worry about it!

### 3 A note on fonts

The house style of the University of Antwerp recommends using

- Prenton RP Pro for the logos and sublogos; all the logoware is included in this package, so nothing to worry about.
- ITC Officina Sans for posters, titlepages, cards a.s.o.  
This font is not a part of the  $\LaTeX$  standard fonts. It is also not provided with this package. I cannot do this without incurring legal problems (the font is not free). However, if you have a valid license, for this font, I can help you to set it up, such that you can typeset proper title pages for course texts, PhD theses and the like. Just send me an e-mail.
- Calibri for office-like documents. Just load the `\fontspec` package and issue a `\setmainfont{Calibri}` and you're all set.

Adhering to these fonts is recommended, but not enforced. Personally, I always use a Palatine serif font for my courses. I did not find any better (free) font yet. My second favorite is still the original computer modern font by Donald E. Knuth. You are reading it right now.

### 4 Portability

These class files should be ready to use with all common modern  $\LaTeX$  compilers (XeLaTeX, Lua $\LaTeX$ , ...) from the major  $\TeX$ -distributions (TeXeX, TeXLive, MikTeX). However, using an old  $\LaTeX$  + dvips setup or PDF $\LaTeX$ , is likely to get you into font problems. Advice: ditch the route via dvi and abandon the old PDF $\LaTeX$  compiler. If you experience other problems, please inform the author.

### 5 Organization of this docstrip documentation

In the first part, we will describe the classes intended to produce paper documents:

- coursetext class
- bachelor and master thesis classes
- phd thesis class
- letter class
- report class
- exam class

In the second part, we will describe the uantwerpen beamer theme that can be used to make PDF slides.

# Part I. The paper classes

## 6 Usage

### 6.1 Basic Usage

As of v5.6 of this document, this section has been stripped from contents, as it turns out that documentation in a working example is more appreciated by the users of this package. Therefore, check out the examples in section ??.

A good modus operandi is to start from one of the examples and to adapt them gradually for your needs.

### 6.2 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).

`xx(x)` [letter / coursetext / bamathesis / phdthesis / report / beamertheme]

Option	Faculty
<code>be</code>	Faculty of Business and Economics Faculteit Bedrijfswetenschappen en Economie
<code>fbd</code>	Faculty of Pharmaceutical, Biomedical and Veterinary Sciences Faculteit Farmaceutische, Biomedische en Diergeneeskundige Wetenschappen
<code>ggw</code>	Faculty of Medicine and Health Sciences Faculteit Geneeskunde en Gezondheidswetenschappen
<code>lw</code>	Faculty of Arts Faculteit Letteren en Wijsbegeerte
<code>ow</code>	Faculty of Design Sciences Faculteit Ontwerpwetenschappen
<code>re</code>	Faculty of Law Faculteit Rechten
<code>sw</code>	Faculty of Social Sciences Faculteit Sociale Wetenschappen
<code>ti</code>	Faculty of Applied Engineering Faculteit Toegepaste Ingenieurswetenschappen
<code>we</code>	Faculty of Science Faculteit Wetenschappen
<code>iob</code>	Institute of Development Policy Instituut voor Ontwikkelingsbeleid- en beheer

`cameraready` [`phdthesis/coursetext`]

For the `phdthesis` class, this option forces the book format to be printed on A4 with bleed space. This accomodates what your printshop requires you to provide as a camera-ready copy.

For the `coursetext` class, this options removes the colored areas and the logo from the titlepage (and removes the finalpage altogether) to allow for universitas to print the text of your titlepage on a standard sheet that contains these colored areas and the logo (pre-printed).

`bare` [`phdthesis`]

For the `phdthesis` class, this option removes the title page and the back page from the file, such that you can give a 'bare' version to your printshop.

`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 / bamathesis / phdthesis / report`]

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.

`nofoldline` [`letter`]

This option suppresses the fold line on a letter.

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): `a4paper`
- to make a camera-ready coursetext (for printing at universitas): `a4paper`, `cameraready`
- 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: `twoside`, `openright` and (optionally) `filled`
- to make a camera-ready PhD text: `twoside`, `openright`, `cameraready` and (optionally) `filled`
- to make a bare version of your PhD text for the Nieuwe Mediadienst: `twoside`, `openright`, `bare` and (optionally) `filled`
- to make a report: `twoside`, `openright` and (optionally) `filled`

## 6.3 The macros explained

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

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

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

`\copyrightnotices` [coursetext / report] (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: TNNNFFAAA, 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.

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

`\defensedate` [phdthesis] (mandatory)  
Only the year should be mentioned.

`\defenselocation` [phdthesis] (optional)  
Location of the defense. Defaults to "Antwerpen".

`\diploma` [bamathesis] (discontinued)  
This macro is no longer used. Use `\degree{}` instead.

`\lecturer` [coursetext] (mandatory)  
You can add one or more lecturers to the course notes (in Dutch: titularis). If there are multiple persons, please, use the macro multiple times.

`\phddegree` [phdthesis] (discontinued)  
This macro is no longer used. Use `\degree{}` instead.

`\degree` [bamathesis,phdthesis,coursetext] (mandatory)  
This is the official degree name (in the appropriate language, possibly mixed "dutch (english)"). Specify the official title of your diploma. This must be the

official title. For bachelor and master programmes in Dutch, it must be the Dutch title. For programmes in English it may be the English title. For PhD degrees, language constraints are less strict.

Consult <https://www.hogeronderwijsregister.be> for correct bachelor and master degree titles. Consult the Doctoral bylaws of the university for correct PhD degree titles. Students of FTI and FWET, can use the `\bamadegree` command instead.

`\bamadoctype` [bamadocument] (mandatory)

This allows to set the nature of the thesis. The proper values of the argument are listed below. Don't use this macro when you are using the `\bamadegree` macro (see below), unless you want to change the document type to 'project'.

This data comes from `uantwerpendocs-doctype.data`

---

argument	
nl-ba	Bachelorproef
nl-ma	Masterproef
nl-pr	Projectverslag
en-ba	Bachelor's thesis
en-ma	Master's thesis
en-pr	Project report

---

`\bamadegree` [bamathesis] (mandatory)

This allows to specify the official degree through an abbreviation. Using this abbreviation

This data comes from `uantwerpendocs-degree.data`

---

argument	degree
ti-nl-ba-bk	Bachelor of Science in de industriële wetenschappen: bouwkunde
ti-nl-ba-ch	Bachelor of Science in de industriële wetenschappen: chemie
ti-nl-ba-em	Bachelor of Science in de industriële wetenschappen: elektromechanica

ti-nl-ba-ei	Bachelor of Science in de industriële wetenschappen: elektronica-ICT
ti-en-ba-bk	Bachelor of Science in de industriële wetenschappen: bouwkunde
ti-en-ba-ch	Bachelor of Science in de industriële wetenschappen: chemie
ti-en-ba-em	Bachelor of Science in de industriële wetenschappen: elektromechanica
ti-en-ba-ei	Bachelor of Science in de industriële wetenschappen: elektronica-ICT
ti-nl-ma-bk	Master of Science in de industriële wetenschappen: bouwkunde
ti-nl-ma-bch	Master of Science in de industriële wetenschappen: bio-chemie
ti-nl-ma-ch	Master of Science in de industriële wetenschappen: chemie
ti-nl-ma-em	Master of Science in de industriële wetenschappen: elektromechanica
ti-nl-ma-ei	Master of Science in de industriële wetenschappen: elektronica-ICT
ti-en-ma-ei	Master of Science in Electronics and ICT Engineering Technology
ti-nl-eduma-wtstem	Educatieve master of Science in de wetenschappen en technologie: STEM
we-nl-eduma-wtstem	Educatieve master of Science in de wetenschappen en technologie: STEM
we-nl-eduma-wtbchbt	Educatieve master of Science in de wetenschappen en technologie: biochemie en biotechnologie
we-nl-eduma-wtbio	Educatieve master of Science in de wetenschappen en technologie: biologie
we-nl-eduma-wtch	Educatieve master of Science in de wetenschappen en technologie: chemie
we-nl-eduma-wtfy	Educatieve master of Science in de wetenschappen en technologie: fysica
we-nl-eduma-wtinf	Educatieve master of Science in de wetenschappen en technologie: informatica
we-nl-eduma-wtwi	Educatieve master of Science in de wetenschappen en technologie: wiskunde
we-nl-ba-bircg	Bachelor of Science in de bio-ingenieurswetenschappen: cel- en genbiotechnologie
we-nl-ba-birvt	Bachelor of Science in de bio-ingenieurswetenschappen: chemie en voedingstechnologie
we-nl-ba-birlb	Bachelor of Science in de bio-ingenieurswetenschappen: land- en bosbeheer
we-nl-ba-birmt	Bachelor of Science in de bio-ingenieurswetenschappen: milieutechnologie
we-nl-ba-bio	Bachelor of Science in de biologie
we-nl-ma-bioeg	Master of Science in de biologie: evolutie en gedragsbiologie



we-en-ma-biocr	Master of Science in biology: biodiversity, conservation and restoration
we-en-ma-biogcb	Master of Science in biology: global change biology
we-en-ma-biomb	Master of Science in molecular biology
we-nl-ba-ch	Bachelor of Science in de chemie
we-en-ma-ch	Master of Science in chemistry
we-nl-ba-inf	Bachelor of Science in de informatica
we-en-ma-infcn	Master of Science in computer science: computer networks
we-en-ma-infdsai	Master of Science in computer science: data science and artificial intelligence
we-en-ma-infse	Master of Science in computer science: software engineering
we-nl-ma-infcn	Master of Science in de informatica: computernetwerken
we-nl-ma-infdsai	Master of Science in de informatica: data science en artificiële intelligentie
we-nl-ma-infse	Master of Science in de informatica: software engineering
we-nl-ba-fy	Bachelor of Science in de fysica
we-nl-ma-fy	Master of Science in de fysica
we-en-ma-fy	Master of Science in physics
we-nl-ba-wi	Master of Science in wiskunde
we-nl-ma-wifw	Master of Science in wiskunde: fundamentele wiskunde
we-nl-ma-wifw	Master of Science in wiskunde: financiële en toegepaste wiskunde

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`\programme` [coursetext] (discontinued)

`\publisher` This macro is no longer used. Use `\degree{}` instead. [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. Separate the different fields (name, address, a.s.o) using a pipe symbol.

`\publishercode` [coursetext] (mandatory)

This macro sets the publisher code of the document. It is printed on the front page. This is code that the publisher uses for its internal administration. It may be a proprietary code, or an ISBN number.

`\subtitle` [coursetext / phdthesis / report] (optional)

This macro sets the title of the document. You may use this

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

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

`\supervisor` [bamathesis / phdthesis] (mandatory)  
Specifies the person(s) that promote(s)/supervise(s) the thesis. Please, use the macro multiple times if needed.

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

`\titlepageimage` [phdthesis / report] (optional)  
This sets the filename of the central image on the title page to appear clipped within the curves. For PhD theses this is highly advised. For course texts, this is optional. If the image is not set, a flat colored area will appear. This is part of the house style.

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

### 6.3.2 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

You can specify multiple email addresses by using the command multiple times.

`\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`. You can specify multiple fax addresses by using the command multiple times.
- `\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 or your faculty/institute will be used.
- `\mobile` [letter] (optional)  
Mobile phone number of the sending person. See also `\email`. You can specify multiple mobile phone numbers by using the command multiple times.
- `\opening` [letter] (mandatory)  
Opening address of the letter. E.g. 'Dear X,'.
- `\phone` [letter] (optional)  
Phone number of the sending person. See also `\email`. You can specify multiple phone numbers by using the command multiple times.
- `\returnaddress` [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.
- `\sender` [letter] (mandatory)  
Description of the person writing the letter.
- first argument: name of the person writing the letter
  - second argument: title / role of the person
- Newlines are not allowed in the arguments.
- `\signature` [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.
- `\subject` [letter] (mandatory)  
Short descriptive subject that describes the contents of the letter.
- `\to` [letter] (mandatory)  
Name of the addressee. Newlines are allowed. Preferably name and role are split over two lines.
- `\toaddress` [letter] (optional)  
Address of the addressee. Newlines are allowed. The address should fit on max. 3 lines.
- `\toorganization` [letter] (optional)  
Name of the organization that employs the addressee.
- `\unit` [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.

### 6.3.3 Macros for the exam class

- `\author` [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)'.
- `\academicyear` [exam] (mandatory)  
Use this macro to specify the academic year in full, i.e. in the form XXXX-YYYY.
- `\course` [exam] (mandatory)  
see description of `\course` macro on page 6.
- `\degree` [exam] (mandatory)  
This is the official degree name (in the appropriate language, possibly mixed "dutch (english)"). Specify the official title of your diploma. This must be the official title. For bachelor and master programmes in Dutch, it must be the Dutch title. For programmes in English it may be the English title. For PhD degrees, language constraints are less strict.  
Consult <https://www.hogeronderwijsregister.be> for correct bachelor and master degree titles. Consult the Doctoral bylaws of the university for correct PhD degree titles.
- `\examdate` specifies the date of the exam. We recommend the YYYY-MM-DD format, but you are free to choose your own coding scheme for dates. We advise against using UNIX epoch time, to avoid problems in the first semester exams in 2038.
- `\examgroupnumber` [exam]  
mentions the group number (may be empty)
- `\examlength` specifies the length of the exam in a unit of time, e.g. '4h'
- `\exampart` [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').
- `\extrainfo` specifies the extra information that appears on the back of the title page, regarding the materials that can be used during the examination and cautioning the students not to commit fraude. You can specify an optional first argument 'firstpage', such that your extra info starts on the first page, below the title block. In that case the extra info will also not be terminated with a clearpage (as we assume you want to conserve space).
- `\lecturer` [exam] (mandatory)  
You can add one or more lecturers to the course notes (in Dutch: titularis). If there are multiple persons, please, use the macro multiple times.
- `\programme` [exam] (discontinued)  
This macro is no longer used. Use `\degree{}` instead.

- `\room` 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. If your exam is taken in multiple rooms, just specify multiple `\room{}` commands.
- `\studentnr` 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 on the front page.
- `\tend` specifies the end time of the exam in a format identical to the one chosen for `\tstart`.
- `\tstart` specifies the start time of the exam, preferable in the format 'HHhMM', e.g. '08h30'.

## 6.4 Examples

Below you can find an example for every class. They also serve as their quickstart documentation.

Remember to

- use modern compiler: no pdf $\LaTeX$ , use Lua $\LaTeX$  instead!
- compile your source file twice.

Especially in the beamer theme some features require to run  $\LaTeX$  twice in order to get the position of some elements correct.

In many of the classes, you need to specify a faculty option. The available faculty options are listed in a table on page 4.

### 6.4.1 uantwerpencoursetext

```
<*ct-example>
\documentclass[ti,a4paper,11pt,oneside,openright,ameraready,filled]{uantwerpencoursetext}

% ti           specifies the department, change to the letter combination of
%             your department
% a4paper      specifies the paper format
% 11pt        sets the font size to 11pt, i.e. a good average
% oneside     if you want a one-sided document, change to twoside if you
%             want a recto verso document
% openright    causes you chapters to start on a right-hand page when
%             your document is twosided
% cameraready removes the graphical elements from the title and final
%             page, as they will be typeset by universitas (in color)
% filled      causes left and right filling (which - by the way - is
%             not helpful for easy reading; remove for a left-filled
%             document)w
```

```

% make paragraphs indent
\setlength\parindent{1in}
% provide a space of 1ex between paragraphs
\setlength\parskip{0ex}

% load the proper language(s) (last language will trigger the language
% of the logo a.o.)
\usepackage[english,dutch]{babel}
% You can then use \selectlanguage{english} to start a piece of text
% in english, and \selectlanguage{dutch} to start a piece of text in
% dutch. This will cause the correct hypernation patterns to be
% loaded.
% To keep a consistent naming of the chapters (a.o.) make sure you
% switch back to the document's overall language!

% this is just for some dummy text, please remove in your copy
\usepackage{kantlipsum}

% set title, subtitle and author
\title{Z'agen, zoeken en zuchten}
\subtitle{Cursusnota's}
\author{Walter Daems en Paul Levrie}

% better keep track of the different versions (and the corresponding
% publication year) of your course
\courseversion{1.3}
\versionyear{2023}

% mention who lectures the course (can be different from the author)
\lecturer{Zoltan Zo\"ekers}
\lecturer{Siana Sigh}
\lecturer{Zeger de Z'ager}

% you can use two ways to specify a degree:
% (1) explicitly with text
%     e.g. \degree{Master of Science in de industri\"ele wetenschappen:
%           elektronica-ICT}
% (2) by specifying the correct code, to fetch the text from a table
%     with correct degree mentions
\bamadegree{ti-en-ma-ei}
% you can even add multiple degrees and mix the two ways!

% you can specify multiple courses:
% - first argument is the course number
% - second argument is the course name
\course{2023FTIZZZ}{5-Zoekmachines in een zaagperspectief}
\course{2045FTIIII}{6-Zaagmachines in \"e\"en zuchtperspectief}

% for which academic year the course is intended
\academicyear{2023-2024}

% leave this as is if you use Universitas as print shop
\publisher{Universitas Cursusdienst |
Prinsesstraat 16 |

```

```

2000 Antwerpen |
T +32 3 233 23 73 |
E info@cursusdienst.be}

% universitas will provide you with a code, that you can provide on
% your PDF copy (if you distribute any to your students. If not, just omit.
\publishercode{C11111102}

% you can specify additional copyright notices on the copyright page
% (i.e. the back of the title page)
\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}

% creates the title page, remove if you don't want any
\maketitle

% causes the first pages to be roman numbered
\frontmatter

% sets the table of contents (automatically for you)
\tableofcontents

% changes the numbering system to arabic and restart from 1
\mainmatter

% a non-numbered chapter
\chapter*{Inleiding}

% some automatically generated bogus text: remove in your copy
\kant[1]

% a first numbered chapter
\chapter{Onzin voor dummies}

% a first numbered section
\section{Het gebeuren}

\kant[2]
\begin{equation}
  e^{-j\pi} + 1 = 0
\end{equation}

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

\kant[4]

\subsection{Herhaling}

\kant[5]

```

```

\subsection{Begint vervelend te worden}

\kant[6]

\clearpage

\subsection{Begint echt vervelend te worden}

\kant[7-10]

\chapter{Besluit}

% changes the chapter numbering to letters and uses 'Appendix' or
% 'Bijlage' (in dutch) as chapter name.
% !! do not use \backmatter before \appendix: it is broken!
\appendix

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

% typeset the final page with some graphic material on it
\makefinalpage

\end{document}
</ct-example>

```

#### 6.4.2 uantwerpenbamathesis

```

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

% ti          specifies the department, change to the letter combination of
%            your department - currently only ti (for FTI) and we
%            for (FWET) are supported
% a4paper     specifies the paper format
% 11pt        sets the font size to 11pt, i.e. a good average
% twoside     if you want a two-sided document, change to oneseid if you
%            want a recto only document
% openright   causes you chapters to start on a right-hand page when
%            your document is twosided
% for two-sided theses, specify 'twoside' and 'openright' as options
% for one-sided theses, specify 'oneseid' and 'openany' as options

% load the proper language(s) (last language will trigger the language
% of the logo a.o.)
\usepackage[english]{babel}

% this is just for some dummy text, please remove in your copy
\usepackage{kantlipsum}

```



```

% this package allows to generate a PDF with clickable links
\usepackage[backref,hyperindex=true,pagebackref=true]{hyperref}
% you must load the hyperref package yourself, to allow putting it
% in the correct order with the other packages you load!

% as an example - loading some fonts, feel free to change
\usepackage{mathptmx}
\iftutex
% Just an example of font-scheme: this is in no way a recommended font
% scheme!
\usepackage{fontspec}
\setmainfont
[UprightFont = *,
BoldFont = *b,
ItalicFont = *i,
BoldItalicFont = *z,
]
{calibri}
\usepackage{sansmathaccent}
\fi

% Use this package if you need to provide a twocolumn summary at the
% start of your document.
\usepackage{multicol}

% specify your degree
\bamadegree{ti-en-ba-em}
% You can specify your degree manually here, using \degree{}
% if you don't trust 'the system'

% set title, subtitle and author
\title{Minimax optimisatie voor performantie-
ruimtemodellering} %% either don't split titles, or do so with hyphen
%% and a newline
\subtitle{Deze subtitel mag je weglaten}
\author{Bert Bibber}

% you can specify multiple supervisors, cosupervisors and external supervisors
% in Dutch: promotoren, copromotoren (dagelijkse begeleiders) en
% bedrijfspromotoren
\supervisor{prof. dr. ir. P. Kumulus}{UAntwerpen}
\supervisor{prof. dr. ir. E. Snuffel}{UAntwerpen}
\cosupervisor{ing. P. Pienter}{Cosys, UAntwerpen}
\extsupervisor{prof. dr. H. Warwinkel}{TNT-Bang, N.V.}

% set the academic year: keep the spaces around the dash!
\academicyear{2023 - 2024}

% you can specify a company logo
%\companylogo{\includegraphics[width=4.5cm,height=2.5cm,keepaspectratio]{companylogo.jpg}}

\begin{document}

% creates the title page, remove if you don't want any

```

```

\maketitle

% causes the first pages to be roman numbered
\frontmatter

% sets the table of contents (automatically for you)
\tableofcontents

% changes the numbering system to arabic and restart from 1
\mainmatter

% Use this template if you need to provide a twocolumn summary at the
% start of your document. Remove it if you don't need it.
\pagestyle{empty}
\thispagestyle{empty}
\begin{multicols}{2}
[
\begin{center}
\textbf{
\Large Samenvatting\}[1ex]
\@title-\}[1ex]
\large \@subtitle\}[0.5ex]}
\@author
\end{center}
]

\kant[11]

\kant[12]

\kant [13]

\kant [14]

\kant [15]

\end{multicols}
\pagestyle{fancy}

% An even better suggestion is to create your twocolumns summary as a
% separate document (using a dedicated paper-writing class e.g. the
% IEEETran class) and load the individual pdf pages using the pdfpages
% package (https://ctan.org/pkg/pdfpages).

% a first numbered chapter
\chapter{Inleiding}

% some fancy typeset text (see the PDF yourself)
\insettext{Bene vixit qui bene latuit!}

% some dummy text: remove in your copy
\kant[1]

% a second numbered chapter

```

```

\chapter{Onderzoeksvraag}

\insetquote{As any dedicated reader can clearly see, the Ideal of
  practical reason is a representation of
  as far as I know, the things themselves, a vast overexaggeration.}

% a first numbered section
\section{Het gebeuren}

\kant[2]

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

\kant[3]

\kant[4]

\kant[5]

\kant[6]

\kant[7]

\kant[8]

\kant[9]

\kant[10]

\chapter{Literatuurstudie}

\chapter{Theoretische achtergrond}

\chapter{Eigen realisatie}

\chapter{Besluit}

% changes the chapter numbering to letters and uses 'Appendix' or
% 'Bijlage' (in dutch) as chapter name.
% !! do not use \backmatter before \appendix: it is broken!
\appendix

\chapter{Symbolen}
\chapter{Referentielijst}

\end{document}
</bmt-example>

```

### 6.4.3 uantwerpenphdthesis

#### Dutch

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

% ti          specifies the department, change to the letter combination of
%            your department
% 10pt       sets the font size, 10pt is ok for a phd manuscript
% twoside    if you want a two-sided document, change to oneside if you
%            want a recto only document
% openright  causes you chapters to start on a right-hand page when
%            your document is twosided
% for two-sided theses, specify 'twoside' and 'openright' as options
% for one-sided theses, specify 'oneside' and 'openany' as options
% filled     causes left and right filling (which - by the way - is
%            not helpful for easy reading; remove for a left-filled
%            document)
% cameraready this option will change the paper format from B4 to A4
%            and trigger alignment marks and cut-lines for you
%            printing service - check with them whether they want
%            this.
% bare       this option removes title page and final page. Many
%            print services required this format and they will
%            typeset the title page and final page for you.

% You may want to use common fonts
\usepackage{mathptmx}
\iftutex
% Just an example of font-scheme: this is in no way a recommended font
% scheme!
\usepackage{cmbright}
\usepackage{fontspec}
\setmainfont
[UprightFont = *,
BoldFont = *b,
ItalicFont = *i,
BoldItalicFont = *z,
]
{calibri}
\usepackage{sansmathaccent}
\fi

% load the proper language(s) (last language will trigger the language
% of the logo a.o.)
\usepackage[dutch]{babel} %% or english if your text is in English

% this is just for some dummy text, please remove in your copy
\usepackage{kantlipsum}

% this package allows to generate a PDF with clickable links
\usepackage[backref,hyperindex=true,pagebackref=true]{hyperref}
% you must load the hyperref package yourself, to allow putting it
```

```

% in the correct order with the other packages you load!

% set title, subtitle and author and his/her/their affiliation and
% address
\title{Harmonische Signaalanalyse\met behulp van Lineaire
  Operatoren}
\subtitle{Waarom moeten titels van doctoraatsthesisen toch altijd
  lang en onverstaanbaar zijn?}
\author{Ing. Theofiel Hoekaff}
\affiliation{Universiteit Antwerpen\
  Faculteit Toegepaste Ingenieurswetenschappen\
  Co-design of Cyber-Physical Systems (Cosys-Lab)}
\address{Groenenborgerlaan 171, 2020 Antwerpen, Belgi\`e\
  M: theofiel.hoekaff@uantwerpen.be\
  T: +32 265 00 00
}

% specify your supervisors and their affiliation
\supervisor{prof. dr. W. Vlaams}{Universiteit Antwerpen, Belgi\`e}
\supervisor{prof. dr. J. Stekker}{Universiteit Antwerpen, Belgi\`e}

% specify the chairman of the jury and his/her/their affiliation
\jurychair{prof. dr. P. Dalinckx}{Universiteit Antwerpen, Belgi\`e}

% specify the memers of the jury and their affiliations
\jurymember{prof. dr. J. Dezerooder}{Universiteit Antwerpen, Belgi\`e}
\jurymember{prof. dr. P. De Tollenaere}{Flanders Make, Belgi\`e}
\jurymember{prof. dr. M. Byr}{IMEC, Nederland}

% specify your degree (manually) and where and when you obtain your degree
\degree{doctor in de toegepaste ingenieurswetenschappen}
\defenselocation{Antwerpen}
\defensedate{2024}

% specify a fancy photo for your titlepage (if you don't want a dull one)
\titlepageimage{Images/uantwerpen-keyboard.jpg}

% some data about your manuscript
% \isbn{987-90-57285-34-7} %% only secify one if you have obtained one!
% \depot{D/2024/12.293/03} %% idem

\begin{document}

% creates the title page, remove if you don't want any
\maketitle

% causes the first pages to be roman numbered
\frontmatter

% sets the table of contents (automatically for you)
\tableofcontents

% changes the numbering system to arabic and restart from 1
\mainmatter

```

```

% a first unnumbered chapter
\chapter*{Inleiding}

% some dummy text, remove in your copy
\kant[1]

% a first numbered chapter
\chapter{Onderzoeksvraag}

% a first numbered section
\section{Het gegeven}

\kant[2]

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

\kant[3-17]

\chapter{Literatuurstudie}

\kant[18-19]

\chapter{Theoretische achtergrond}

\kant[20-21]

\chapter{Eigen realisatie}

\kant[22-24]

\chapter{Besluit}

\kant[25]

% change the chapter numbering to letters and uses 'Appendix' or
% 'Bijlage' (in dutch) as chapter name.
% !! do not use \backmatter before \appendix: it is broken!
\appendix

\chapter{Symbolen}

\chapter{Publicaties}
% Put your bibliography here using BibTeX

% typeset the final page with some graphic material on it
\makefinalpage

\end{document}
</pt-example1>

```

## English

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

% ti          specifies the department, change to the letter combination of
%            your department
% 10pt       sets the font size, 10pt is ok for a phd manuscript
% twoside    if you want a two-sided document, change to oneside if you
%            want a recto only document
% openright  causes you chapters to start on a right-hand page when
%            your document is twosided
% for two-sided theses, specify 'twoside' and 'openright' as options
% for one-sided theses, specify 'oneside' and 'openany' as options
% filled     causes left and right filling (which - by the way - is
%            not helpful for easy reading; remove for a left-filled
%            document)
% cameraready this option will change the paper format from B4 to A4
%            and trigger alignment marks and cut-lines for you
%            printing service - check with them whether they want
%            this.
% bare       this option removes title page and final page. Many
%            print services required this format and they will
%            typeset the title page and final page for you.

% use some fancy fonts: just an example!
\usepackage{newpxtext}
\usepackage{newpxmath}

% load the proper language(s) (last language will trigger the language
% of the logo a.o.)
\usepackage[english]{babel} %% or dutch if your text is in Dutch

% this is just for some dummy text, please remove in your copy
\usepackage{kantlipsum} %% this is just for some dummy text, please remove

% this package allows to generate a PDF with clickable links
\usepackage[backref,hyperindex=true,pagebackref=true]{hyperref}
% you must load the hyperref package yourself, to allow putting it
% in the correct order with the other packages you load!

% set title, subtitle
\title{Harmonic Signal analysis \\based on Linear Operators}
\subtitle{How did Mindy linearly kill Mork's IC signal analyzer?}

% trigger the generation of a secondary title page in Dutch by
% specifying a \titel (and optionally a \subtitel).
\titel{Harmonische Signaalanalyse\\met behulp van Lineaire
Operatoren}
\subtitel{Waarom moeten titels van doctoraatsthesisen toch altijd
lang en onverstaanbaar zijn?}

% specify the author and his/her/their affiliation and address
\author{Ing. Theodore Edgeoff}
```

```

\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
}

% specify your supervisors and their affiliation
\supervisor{prof. dr. W. Vlaams}{University of Antwerp, Belgium}
\supervisor{prof. dr. J. Stekker}{University of Antwerp, Belgium}

% specify the chairman of the jury and his/her/their affiliation
\jurychair{prof. dr. P. Dalinckx}{University of Antwerp, Belgium}

% specify the memers of the jury and their affiliations
\jurymember{prof. dr. J. Dezerooder}{University of Antwerp, Belgium}
\jurymember{prof. dr. P. De Tollenaere}{Flanders Make, Belgium}
\jurymember{prof. dr. M. Byr}{IMEC, The Netherlands}

% specify your degree (manually) and where and when you obtain your degree
\degree{doctor in applied engineering}
\defenselocation{Antwerpen}
\defensedate{2024}

% specify a fancy photo for your titlepage (if you don't want a dull one)
\titlepageimage{Images/uantwerpen-keyboard.jpg}

% some data about your manuscript
% \isbn{987-90-57285-34-7} %% only secify one if you have obtained one!
% \depot{D/2024/12.293/03} %% idem

\begin{document}

% creates the title page, remove if you don't want any
\maketitle

% causes the first pages to be roman numbered
\frontmatter

% sets the table of contents (automatically for you)
\tableofcontents

% changes the numbering system to arabic and restart from 1
\mainmatter

% a first unnumbered chapter
\chapter*{Introduction}

% some dummy text, remove in your copy
\kant[1]

% a first numbered chapter
\chapter{Research question}

```



```

% a first numbered section
\section{The datum}

\kant[2]

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

\kant[3-17]

\chapter{Literature review}

\kant[18-19]

\chapter{Theoretical background}

\kant[20-21]

\chapter{Technical results}

\kant[22-24]

\chapter{Conclusion}

\kant[25]

% change the chapter numbering to letters and uses 'Appendix' or
% 'Bijlage' (in dutch) as chapter name.
% !! do not use \backmatter before \appendix: it is broken!
\appendix

\chapter{Symbols}

% Put your bibliography here using BibTeX

% typeset the final page with some graphic material on it
\makefinalpage

\end{document}
</pt-example2>

```

#### 6.4.4 uantwerpenreport

```

<*rp-example>
\documentclass[10pt,twoside,openright,filled]{uantwerpenreport}

% 10pt          sets the font size, 10pt is ok for a phd manuscript
% twoside       if you want a two-sided document, change to oneside if you
%               want a recto only document
%               want a recto only document
% openright     causes you chapters to start on a right-hand page when

```

```

%           your document is twosided
% for two-sided theses, specify 'twoside' and 'openright' as options
% for one-sided theses, specify 'oneside' and 'openany' as options
% filled           causes left and right filling (which - by the way - is
%                 not helpful for easy reading; remove for a left-filled
%                 document)

% You may want to use common fonts
\usepackage{mathptmx}
\iftutex
% Just an example of font-scheme: this is in no way a recommended font
% scheme!
\usepackage{cmbright}
\usepackage{fontspec}
\setmainfont
[UprightFont = *,
 BoldFont = *b,
 ItalicFont = *i,
 BoldItalicFont = *z,
]
{calibri}
\usepackage{sansmathaccent}
\fi

% load the proper language(s) (last language will trigger the language
% of the logo a.o.)
\usepackage[dutch]{babel} %% or english if your text is in Dutch

% this is just for some dummy text, please remove in your copy
\usepackage{kantlipsum}

% this package allows to generate a PDF with clickable links
\usepackage[backref,hyperindex=true,pagebackref=true]{hyperref}
% you must load the hyperref package yourself, to allow putting it
% in the correct order with the other packages you load!

% set title, subtitle and author and his/her/their affiliation and
% address
\title{De toepassing van roomijs-derivaten in beton}
\subtitle{Het belang van een smaakvolle architectuur}
\author{Ing. Jan Bouwblauw}
\affiliation{Universiteit Antwerpen | Building Research Group}
\address{Groenenborgerlaan 171, 2020 Antwerpen, Belgi\`e\\
M: jan.bouwblauw@uantwerpen.be\\
T: +32 265 00 00
}

% provide some extra data (a mention on the title page on what type of
% report this is)
\extra{Onderzoeksrapport}

% year in which the report appears
\versionyear{2023}

```

```

% specify a fancy photo for your titlepage (if you don't want a dull one)
\titlepageimage{Images/uantwerpen-keyboard.jpg}

\begin{document}

% creates the title page, remove if you don't want any
\maketitle

% causes the first pages to be roman numbered
\frontmatter

% sets the table of contents (automatically for you)
\tableofcontents

% changes the numbering system to arabic and restart from 1
\mainmatter

% a first unnumbered chapter
\chapter*{Inleiding}

% some dummy text, remove in your copy
\kant[1]

% a first numbered chapter
\chapter{Smaken en smaakpapillen}

% a first numbered section
\section{Het gegeven}

\kant[2]

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

\kant[3-17]

\chapter{Experimentele setup}

\kant[18-19]

\chapter{Resulaten}

\kant[20-21]

\chapter{Conclusie}

\kant[22-24]

\chapter{Advies}

\kant[25]

% change the chapter numbering to letters and uses 'Appendix' or

```

```

% 'Bijlage' (in dutch) as chapter name.
% !! do not use \backmatter before \appendix: it is broken!
\appendix

\chapter{Symbolen}

\chapter{Publicaties}
% Put your bibliography here using BibTeX

% typeset the final page with some graphic material on it
\makefinalpage

\end{document}
</rp-example>

```

### 6.4.5 uantwerpenletter

#### Plain example

```

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

% ti            specifies the department, change to the letter combination of
%              your department
% a4paper       specifies the paper format
% nofoldline    this suppresses the foldline
%
% As a good UAntwerpen citizen, you would use the calibri font.
% As this only works for XeLaTeX or LuaLaTeX, we chose to include
% cmbright in any other case.
\iftutex
\usepackage{cmbright}
\usepackage{fontspec}
\setmainfont
[UprightFont = *,
 BoldFont = *b,
 ItalicFont = *i,
 BoldItalicFont = *z,
]
{calibri}
\usepackage{sansmathaccent}
\fi

% load the proper language(s) (last language will trigger the language
% of the logo a.o.)
\usepackage[english]{babel}

% this is just for some dummy text, please remove in your copy
\usepackage{kantlipsum}

% provide info on who sends the letter, you can put this in a
% configuration file, see the documentation of the letter class!

```

```

\sender{prof. Walter Daems}{Senior Lecturer}
\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}

% set a return address - if you want to avoid the infernal anger of
% the UAntwerp internal post service
\returnaddress{FTI - U.301 -- Groenenborgerlaan 171, 2020 Antwerpen, BELGIUM}

% provide some details on who you want to write to
\to{prof. B. Bonette}
\toorganization{Mumford University}
\toaddress{
  450 Morning Mall\\
  Mumford, DX 94305-2004\\
  USA}

% a proper letter mentions a date of writing and a subject
\date{January 3, 2016}
\subject{Congratulations for online video lectures}

\begin{document}
% This puts all logo's / address / subject where it needs to be
\maketitle

% be polite when starting a letter, and address your audience
\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 dummy paragraphs to illustrate that
% this class can generate multipage letters.
\kant[1-3]

% time to say goodbye
\closing{Kind regards,}

% you might want to insert a signature picture or text:
% \signature{\includegraphics{signature.jpg}}

```

```

% mention who receives a copy of this letter if needed
\carboncopy{prof. S. Mariotte, Mumford University}

% specify what extras can be found in the envelope if needed
\enclosed{
  \begin{enumerate}
    \item list of course numbers that are most frequently 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

% you can put your font setup in the configuration file!
\iftutex
\usepackage{cmbright}
\usepackage{fontspec}
\setmainfont
[UprightFont = *,
 BoldFont = *b,
 ItalicFont = *i,
 BoldItalicFont = *z,
]
{calibri}
\usepackage{sansmathaccent}
\fi

% as you probably will always be the sender of your letters,
% put this info in the configuration file too.
\sender{prof. Walter Daems}{Senior Lecturer}
\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 as follows:

```
\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<sup>A</sup>T<sub>E</sub>X search path (most often this search path can be set with an environment variable TEXINPUTS).

#### 6.4.6 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[ti,a4paper,10pt]{uantwerpenexam}

% ti          specifies the department, change to the letter combination of
%            your department
% a4paper     specifies the paper format
% 10pt       students have good eyes, they still can read 10pt fonts

% select a font you like
\usepackage{newpertext}
\usepackage{newpymath}

% this package eases numbering of subquestions
\usepackage{enumitem}

% load the proper language(s) (last language will trigger the language
% of the logo a.o.)
\usepackage[dutch]{babel}

% some data about your course and the authors/lecturers
\course{1876FTIDUM}{5-Bistrologie}
\author{Walter Daems}      %% can be omitted if 'lecturers' are sufficient
```

```

\lecturer{Walter Daems}

% specify the degree of the program the course fits in
\degree{Bachelor of Science in de industri\"ele wetenschappen -
elektronica-ICT}

% specify the academic year
\academicyear{2017-2018}

% specify the particular examination form
\exampart{Schriftelijk Examen}

% specify the group
\examgroupnumber{1 (eerste examenkans-inhaal)}

% specify import time-related info about the exam - this will help
% supervisors to hand-out the correct exam copies!
\examdate{2018-01-29}
\examlength{4h}
\tstart{08h30}
\tend{12h30}

% same for the room(s), you may specify multiple!
\room{G.U.024}
\room{G.U.025}

% instruct your students about important details.
% 'firstpage' puts in on the first page, if omitted the extra info is
% printed on the back of the first page
\extrainfo[firstpage]{
  Belangrijke informatie:\\par
  Het volledige Onderwijs- en Examenreglement (OER) is van toepassing
  op dit examen.
  Toch wil ik vooraf nog een aantal regels duidelijk stellen:
  \begin{enumerate}
  \item Mogen op je tafeltje aanwezig zijn:
    (1) schrijfgerief, los d.w.z. \emph{niet} in een pennenzak (geen
    papier; er zit examenpapier bij de opgaven),
    (2) je rekenmachine (zonder alfanumerieke data en zonder
    geheugenkaarten),
    (3) het formularium.
  \item Volledig \emph{verboden te gebruiken}: alle apparatuur met
    geheugen- of communicatiefunctie zoals GSM, smartphone,
    smartwatch, muziekspeler, \ldots
    Je tas staat vooraan in het lokaal. Hang je jas aan de kapstok of
    leg hem bij je tas.
  \item Schrijf je naam op het titelblad van de opgave in het daartoe
    voorziene vak. Op de andere bladen schrijf je je naam
    \emph{niet}. Je examenopgave heeft een uniek nummer dat toelaat het
    te identificeren.
  \item Op het einde van het examen geef je \emph{alle} bladen weer af
    aan de aanwezige docent.
  \end{enumerate}
  Succes!

```



```

}

% if you make a copy per student, you can provide a number on the copy
\studentnr{127}

% set the multiple choice symbol you fancy
\setmcsymbol{\bigcirc}

\begin{document}

% set the title page of the exam
\maketitle

% a first question (with an identifier that can help you remember which
% question it is out of your huge database)
\question{[VLATOP-BISTRO]}

% give some idea to the student about the importance of the question
\questionweight{3}

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

% a second question
\question{[BECHAMEL]}
\questionweight{7}

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

% this is how you specify the multiple choice answering options
\mc{Melk}
\mc{Boter}
\mc{Bloem}
\mc{Eieren}
\mc{Suiker}

% you can insert some pages for the student to write his/her answers
% on.
% a. below the question, in this case for the remaining 2cm on the page
\insertsolutionspagepartial{2}

% b. a full page
\insertsolutionspage{}
\clearpage

% a third question
\question{[BISTROCULTURE-1]}
\questionweight{10}

% the option of the enumerate environment is thanks to the enumitem package
\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}

% you can insert some pages for the student to write his/her answers
% on.
% a. below the question, in this case for the remaining 23cm on the page
\insertsolutionspagepartial{23}

% b. full pages: 3 in this case
\foreach \i in {1,2,3} {
  \insertsolutionspage{}
}

% c. special 'scrap' pages with a watermark on them: two in this case
\foreach \i in {1,2} {
  \insertsolutionspage{Kladpapier}
}
\end{document}
</ex-example1>

```

**Two columns** This might be of use to professors that teach courses in English in a Dutch program, you then can make a bilingual exam. This makes you 100% compliant to the very restrictive Flemish language legislation.

```

<*ex-example2>
\documentclass[ti,a4paper,10pt]{uantwerpenexam}

% ti          specifies the department, change to the letter combination of
%            your department
% a4paper     specifies the paper format
% 10pt       students have good eyes, they still can read 10pt fonts

% select a font you like
\usepackage{newpertext}
\usepackage{newpymath}

% this package eases numbering of subquestions
\usepackage{enumitem}

% load the proper language(s) (last language will trigger the language
% of the logo a.o.)
\usepackage[dutch,english]{babel}

% some data about your course and the authors/lecturers
\course{1876FTIDUM}{5-Bistrology}
\lecturer{Walter Daems}
\lecturer{Paul Levrie}

% specify the degree of the program the course fits in

```

```

\degree{Bachelor of Science in de industri\"ele wetenschappen - elektronica-
ICT}

% specify the academic year
\academicyear{2017-2018}

% specify the particular examination form
\exampart{Written Exam}

% specify the group
\examgroupnumber{1 (eerste examenkans-inhaal)}

% specify import time-related info about the exam - this will help
% supervisors to hand-out the correct exam copies!
\examdate{2018-01-29}
\examlength{4h}
\tstart{08h30}
\tend{12h30}

% same for the room(s)
\room{G.U.025}
\room{G.U.026}

% instruct your students about important details.
% 'firstpage' puts in on the first page, if omitted the extra info is
% printed on the back of the first page
\extrainfo{
%% the engdut command allows you to specify a left column in english
%% and right column in dutch
%% use multiple engdut-environments to keep the page flow synchronized
\engdut{
    Important information:\\\par
    The Education and Examination Regulations (EER) hold for this
    examination in full.
    However, before starting, I'd like to set some rules straight:
}
{
    Belangrijke informatie:\\\par
    Het volledige Onderwijs- en Examenreglement (OER) is van toepassing
    op dit examen.
    Toch wil ik vooraf nog een aantal regels duidelijk stellen:
}
\engdut{
    \begin{itemize}
    \item \emph{Can be used:} (1) writing gear (\emph{not} in a pencil
        case); you don't need paper; there's plenty of paper in your exam
        copy;
        (2) your calculator (without alphanumerical data and without memory
        cards); (3) the formula collection.
    \end{itemize}
}
{
    \begin{itemize}
    \item Mogen op je tafeltje aanwezig zijn:

```

```

(1) 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.
\end{itemize}
}
\engdut{
\begin{itemize}
\item \emph{May not be used:} all equipment with memory or
communications facilities, like cell phones, smart phones, smart
watches, music players, \ldots
Your bag must be put in the front of the room. Put your coat on the
hallstand or next to your bag.
\end{itemize}
}
{
\begin{itemize}
\item Volledig \emph{verboden te gebruiken}: alle apparatuur met
geheugen- of communicatiefunctie zoals GSM, smartphone,
smartwatch, muziekspeler, \ldots
Je tas staat vooraan in het lokaal. Hang je jas aan de kapstok of
leg hem bij je tas.
\end{itemize}
}
\engdut{
\begin{itemize}
\item Write your name on the title page. Don't write your name on
the subsequent pages. Your copy has a unique number to identify it
as yours.
\end{itemize}
}
{
\begin{itemize}
\item Schrijf je naam op het titelblad van de opgave in het daartoe
voorzien vak. Op de andere bladen schrijf je je naam
\emph{niet}. Je examenopgave heeft een uniek nummer dat toelaat het
te identificeren.
\end{itemize}
}
\engdut{
\begin{itemize}
\item Take your time to \emph{answer all questions in writing}. The
point weights are listed above every question. Be complete in your
answer, but stick to the point. Take into account the available time.
\end{itemize}
}
{
\begin{itemize}
\item Neem je tijd om \emph{alle vragen schriftelijk te
beantwoorden}. Het puntengewicht van een vraag is bovenaan de vraag
op de opgavebladen vermeld. Wees volledig in je antwoord, maar ter
zake. Houd rekening met de beschikbare tijd.
\end{itemize}
}

```

```

}
\engdut{
  \begin{itemize}
    \item Hand in \emph{all} papers to the staff member on duty, at the
      end of the examination.
    \end{itemize}
    Success!
  }
  {
    \begin{itemize}
      \item Op het einde van het examen geef je \emph{alle} bladen weer af
        aan de aanwezige docent.
      \end{itemize}
      Succes!
    }
  \clearpage
}

% if you make a copy per student, you can provide a number on the copy
\studentnr{29}

\begin{document}

% set the title page of the exam
\maketitle

% a first question (with an identifier that can help you remember wich
% question it is out of your huge database)
\question{[VLATOP-BISTRO]}

% give some idea to the student about the importance of the question
\questionweight{3}

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

% a second question
\question{[BECHAMEL]}
\questionweight{7}

\engdut{
  Which of the ingredients below does not belong in a b\`echamel
  sauce:
}
{
  Welk van de onderstaande ingredi\`enten hoort niet thuis in
  een b\`echamel saus:
}

```

```

% this is how you specify multipel choice answering options in two languages
\engdutmc{Milk}{Melk}
\engdutmc{Butter}{Boter}
\engdutmc{Flower}{Bloem}
\engdutmc{Eggs}{Eieren}
\engdutmc{Sugar}{Suiker}

% you can insert some pages for the studen to write his/her answers
% on.
% a. below the question, in this case for the remaining 20cm on the page
\insertsolutionspagepartial{20}

% b. a full page
\insertsolutionspage{}

\clearpage

% a third questoin
\question{[BISTROCULTURE-1]}
\questionweight{10}

\engdut{
% the option of the enumerate environment is thanks to the enumitem package
\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}
}

% you can insert some pages for the studen to write his/her answers
% on.
% a. below the question, in this case for the remaining 22.5cm on the page
\insertsolutionspagepartial{22.5}

% b. full pages: 3 in this case
\foreach \i in {1,2,3} {
\insertsolutionspage{}
}

% c. special 'scrap' pages with a watermark on them: two in this case
\foreach \i in {1,2} {
\insertsolutionspage{Scrap/Klad}
}

```

```

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

```

## 7 Implementation of the classes

### 7.1 Common options

Colors appear in any document, so let's define them in common in a separate package

```

1 <*clo>
2 \newif\if@neutralcolors
3 \@neutralcolorsfalse
4 \DeclareOption{neutralcolors}{\@neutralcolorstrue}
5
6 \newcommand*\colormodel{rgb}
7 \newif\if@cmymk
8 \@cmymkfalse
9 \DeclareOption{cmymk}{\renewcommand*\colormodel{cmymk}\@cmymktrue}
10 \DeclareOption{rgb}{\renewcommand*\colormodel{rgb}\@cmymkfalse}
11
12 \newcommand*\facinenglish[1]{\renewcommand*\@faculty{#1}}
13 \newcommand*\facindutch[1]{
14   \AtBeginDocument{
15     \makeatother
16     \ifpackageloaded{babel}{
17       \addto\captionsdutch{\renewcommand*\@faculty{#1}}
18     }{}
19     \makeatletter
20   }
21 }
22 \newcommand*\fselector{ua}
23 \newcommand*\lselector{en}
24 \newlength\logounitheight
25 \setlength\logounitheight{0.8cm}
26
27 \newcommand*\@faculty{~}
28 \DeclareOption{be}{
29   \renewcommand*\fselector{be}
30   \setlength\logounitheight{1cm}
31   \facinenglish{Faculty of Business and Economics}
32   \facindutch{Faculteit Bedrijfswetenschappen en Economie}
33 }
34 \DeclareOption{fbd}{
35   \renewcommand*\fselector{fbd}
36   \setlength\logounitheight{1cm}
37   \facinenglish{Faculty of Pharmaceutical, Biomedical and Veterinary Sciences}
38   \facindutch{Faculteit Farmaceutische, Biomedische en Diergeneeskundige
39     Wetenschappen}
40 }

```

```

41 \DeclareOption{ggw}{
42   \renewcommand*\fselector{ggw}
43   \setlength\logounitheight{1cm}
44   \facinenglish{
45     Faculty of Medicine and Health Sciences}
46   \facindutch{Faculteit Geneeskunde en Gezondheidswetenschappen}
47 }
48 \DeclareOption{lw}{
49   \renewcommand*\fselector{lw}
50   \setlength\logounitheight{1cm}
51   \facinenglish{Faculty of Arts}
52   \facindutch{Faculteit Letteren en Wijsbegeerte}
53 }
54 \DeclareOption{ow}{
55   \renewcommand*\fselector{ow}
56   \setlength\logounitheight{1cm}
57   \facinenglish{Faculty of Design Sciences}
58   \facindutch{Faculteit Ontwerpwetenschappen}
59 }
60 \DeclareOption{re}{
61   \renewcommand*\fselector{re}
62   \setlength\logounitheight{1cm}
63   \facinenglish{Faculty of Law}
64   \facindutch{Faculteit Rechten}
65 }
66 \DeclareOption{sw}{
67   \renewcommand*\fselector{sw}
68   \setlength\logounitheight{1cm}
69   \facinenglish{Faculty of Social Sciences}
70   \facindutch{Faculteit Sociale Wetenschappen}
71 }
72 \DeclareOption{ti}{
73   \renewcommand*\fselector{ti}
74   \setlength\logounitheight{1cm}
75   \facinenglish{Faculty of Applied Engineering}
76   \facindutch{Faculteit Toegepaste Ingenieurswetenschappen}
77 }
78 \DeclareOption{we}{
79   \renewcommand*\fselector{we}
80   \setlength\logounitheight{1cm}
81   \facinenglish{Faculty of Science}
82   \facindutch{Faculteit Wetenschappen}
83 }
84 \DeclareOption{iob}{
85   \renewcommand*\fselector{iob}
86   \setlength\logounitheight{1cm}
87   \facinenglish{Institute of Development Policy}
88   \facindutch{Instituut voor Ontwikkelingsbeleid- en beheer}
89 }
90 \newcommand*\@facultyacronym{\expandafter\uppercase\expandafter{\fselector}}
91
92 \AtBeginDocument{
93   \makeatother
94   \ifpackageloaded{babel}{

```



```

95 \addto\captionsdutch{
96 \renewcommand*\lselector{nl}
97 }{}
98 }
99 \makeatletter
100
101 \newcommand*\logopos{Logos/logo-uantwerpen-\fselector-\lselector-\colormodel-
pos}
102 \newcommand*\logoposua{Logos/logo-uantwerpen-ua-\lselector-\colormodel-
pos}
103 \newcommand*\logoneg{Logos/logo-uantwerpen-\fselector-\lselector-\colormodel-
neg}
104 \newcommand*\logonegua{Logos/logo-uantwerpen-ua-\lselector-\colormodel-
neg}
105 \newcommand*\logomonowhite{Logos/logo-uantwerpen-\fselector-\lselector-
\colormodel-mono-white}
106 \newcommand*\logomonowhiteua{Logos/logo-uantwerpen-ua-\lselector-\colormodel-
mono-white}
107 \newcommand*\iconfile{Logos/icon-uantwerpen-\fselector-\colormodel}
108 \newcommand*\iconfileua{Logos/icon-uantwerpen-ua-\colormodel}
109 }
110 </clo>

```

## 7.2 Color scheme

```

111 <*cls>
112 \if@cmyk
113 %% UAntwerpen
114 \definecolor{uauamain}{cmyk}{0.00,0.96,0.82,0.01}
115 \definecolor{uauaside}{cmyk}{1.00,0.71,0.00,0.51}
116 %% Faculteit Bedrijfswetenschappen en Economie
117 \definecolor{uabemain}{cmyk}{0.58,0.00,1.00,0.04}
118 \definecolor{uabeside}{cmyk}{0.29,0.04,0.41,0.00}
119 %% Faculteit Farmaceutische, Biomedische en Diergeneeskundige Wetenschappen
120 \definecolor{uafbdmain}{cmyk}{0.65,0.03,0.00,0.00}
121 \definecolor{uafbdside}{cmyk}{0.33,0.03,0.00,0.00}
122 %% Faculteit Geneeskunde en Gezondheidswetenschappen
123 \definecolor{uaggwmain}{cmyk}{0.61,0.55,0.00,0.00}
124 \definecolor{uaggwside}{cmyk}{0.21,0.27,0.03,0.00}
125 %% Faculteit Letteren en Wijsbegeerte
126 \definecolor{ualwmain}{cmyk}{0.00,0.27,0.85,0.00}
127 \definecolor{ualwside}{cmyk}{0.00,0.16,0.51,0.00}
128 %% Faculteit Ontwerpwetenschappen
129 \definecolor{uaowmain}{cmyk}{0.53,0.25,0.26,0.05}
130 \definecolor{uaowside}{cmyk}{0.25,0.08,0.16,0.00}
131 %% Faculteit Rechten
132 \definecolor{uaremain}{cmyk}{0.10,1.00,0.90,0.05}
133 \definecolor{uareside}{cmyk}{0.04,0.45,0.36,0.00}
134 %% Faculteit Sociale Wetenschappen
135 \definecolor{uaswmain}{cmyk}{0.08,0.00,1.00,0.26}
136 \definecolor{uaswside}{cmyk}{0.20,0.11,0.50,0.00}
137 %% Faculteit Toegepaste Ingenieurswetenschappen
138 \definecolor{uatimain}{cmyk}{0.31,1.00,0.00,0.01}

```

```

139 \definecolor{uatiside}{cmyk}{0.11,0.30,0.02,0.00}
140 %% Faculteit Wetenschappen
141 \definecolor{uawemain}{cmyk}{1.00,0.20,0.00,0.25}
142 \definecolor{uaweside}{cmyk}{0.40,0.08,0.00,0.10}
143 %% IOB
144 \definecolor{uaiobmain}{cmyk}{0.05,0.75,1.00,0.00}
145 \definecolor{uaiobside}{cmyk}{0.40,0.08,0.00,0.10}
146 \else
147 %% UAntwerpen
148 \definecolor{uauamain}{RGB}{234,44,56}
149 \definecolor{uauaside}{RGB}{0,46,101}
150 %% Faculteit Bedrijfswetenschappen en Economie
151 \definecolor{uabemain}{RGB}{101,168,18}
152 \definecolor{uabeside}{RGB}{185,213,169}
153 %% Faculteit Farmaceutische, Biomedische en Diergeneeskundige Wetenschappen
154 \definecolor{uafbdmain}{RGB}{68,184,243}
155 \definecolor{uafbdside}{RGB}{181,221,247}
156 %% Faculteit Geneeskunde en Gezondheidswetenschappen
157 \definecolor{uaggwmain}{RGB}{117,117,203}
158 \definecolor{uaggwside}{RGB}{198,182,210}
159 %% Faculteit Letteren en Wijsbegeerte
160 \definecolor{ualwmain}{RGB}{241,181,61}
161 \definecolor{ualwside}{RGB}{255,218,145}
162 %% Faculteit Ontwerpwetenschappen
163 \definecolor{uaowmain}{RGB}{130,161,173}
164 \definecolor{uaowside}{RGB}{200,217,216}
165 %% Faculteit Rechten
166 \definecolor{uaremain}{RGB}{210,8,36}
167 \definecolor{uareside}{RGB}{237,157,144}
168 %% Faculteit Sociale Wetenschappen
169 \definecolor{uaswmain}{RGB}{173,165,0}
170 \definecolor{uaswside}{RGB}{215,211,148}
171 %% Faculteit Toegepaste Ingenieurswetenschappen
172 \definecolor{uatimain}{RGB}{177,0,151}
173 \definecolor{uatiside}{RGB}{221,184,210}
174 %% Faculteit Wetenschappen
175 \definecolor{uawemain}{RGB}{0,108,169}
176 \definecolor{uaweside}{RGB}{151,192,223}
177 %% IOB
178 \definecolor{uaiobmain}{RGB}{230,98,8}
179 \definecolor{uaiobside}{RGB}{151,192,223}
180 \fi
181 %%
182 \if@neutralcolors
183 \colorlet{maincolor}{uauaside}
184 \colorlet{sidecolor}{uauamain}
185 \colorlet{basecolor}{uauaside}
186 \else
187 \colorlet{maincolor}{ua\selector main}
188 \colorlet{sidecolor}{ua\selector side}
189 \colorlet{basecolor}{uauaside}
190 \fi
191 \end{document}

```

### 7.3 Class inheritance

For convenience, we'll derive from the standard L<sup>A</sup>T<sub>E</sub>X book, `letter` and `article` class.

Before loading the class, we provide the extra options.

```
192 <*ct>
193 \newif\if@modern
194 \@modernfalse
195 \DeclareOption{modern}{\@modernttrue}
196 </ct>
197 <*ct | rp>
198 \newif\if@copyright
199 \DeclareOption{copyright}{\@copyrighttrue}
200 </ct | rp>
201 %
202 <*ct | bmt | pt | rp | le>
203 \newif\if@filled
204 \DeclareOption{filled}{\@filledtrue}
205 </ct | bmt | pt | rp | le>
206 %
207 <*ex>
208 \newif\if@examiner
209 \DeclareOption{examiner}{\@examinertrue}
210 </ex>
211 <*ct | pt>
212 \newif\if@cameraready
213 \DeclareOption{cameraready}{\@camerareadytrue}
214 </ct | pt>
215 <*pt>
216 \newif\if@bare
217 \DeclareOption{bare}{\@baretrue}
218 </pt>
219 <*le>
220 \newif\if@nofoldline
221 \DeclareOption{nofoldline}{\@nofoldlinetrue}
222 </le>
```

We execute some standard options: We load the `book` class for course texts, reports and PhD theses, and the `scrbook` class for bachelor and master theses.

```
223 <*ct | bmt | pt | rp>
224 \input{uantwerpencommonoptions.clo}
225 \ExecuteOptions{a4paper,11pt,final,oneside,openright}
226 \ProcessOptions\relax
227 </ct | bmt | pt | rp>
228 <ct | pt | rp>\LoadClassWithOptions{book}
229 <bmt>\LoadClassWithOptions{scrbook}
230 % We load the |letter| class for letters
231 <*le>
232 \input{uantwerpencommonoptions.clo}
233 \ExecuteOptions{a4paper,10pt,final,oneside,openright}
234 \ProcessOptions
```

```

235 \LoadClassWithOptions{letter}
236 \newcommand*\tat{\makeatletter @\makeatother}
237 \le
238 % We load the |article| class for exams
239 \ex
240 \input{uantwerpencommonoptions.clo}
241 \ExecuteOptions{a4paper,twoside,10pt}
242 \ProcessOptions
243 \LoadClassWithOptions{article}
244 \ex

```

## 7.4 Modern typesetting

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

```

245 \ct | bmt | pt | rp | le | ex
246 \setlength{\parindent}{0pt}
247 \addtolength{\parskip}{0.75\baselineskip}
248 \setcounter{secnumdepth}{3}
249 \ct | bmt | pt | rp | le | ex

```

## 7.5 Auxiliary packages

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

### 7.5.1 Geometry

Let's reduce the margins to 1 inch each for the documents that are unlikely to be glue bound:

```

250 \ct | rp | ex
251 \RequirePackage[top=2.5cm, bottom=2.5cm, left=2.5cm, right=2.5cm]{geometry}
252 \ct | rp | ex
253 % Let's follow the instructions by ADS for the (marginal(!) glue provision):
254 \pt
255 \RequirePackage[paperwidth=180mm,paperheight=260mm,
256 top=2.5cm,bottom=2.5cm,left=2.6cm,right=1.8cm,twoside]
257 {geometry}
258 \pt
259 % Also, let's follow the office templates for the bachelor's and
260 % master's theses:
261 \bmt
262 \RequirePackage[top=2.6cm, bottom=2.5cm, left=3.5cm, right=1.6cm]{geometry}
263 \bmt
264 % Letters are a little bit different:
265 \le
266 \RequirePackage[top=1in, bottom=1in, left=1.34in, right=1in]{geometry}
267 \RequirePackage[normalem]{ulem}
268 \le

```

## 7.5.2 Preparing for L<sup>A</sup>T<sub>E</sub>X3

Let's make things a bit easier for me.

```
269 <*ct | bmt | pt | rp | le | ex>
270 \RequirePackage{expl3}
271 %\RequirePackage[check-declarations]{expl3} % I use this during debug phase
272 \RequirePackage{xparse}
273 </ct | bmt | pt | rp | le | ex>
```

## 7.5.3 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 'newpertext/newpymath' and 'cmbright' are highly recommended. For writing letters, 'Calibri' is the official font of the University of Antwerp.

```
274 <*ct | bmt | pt | rp | le>
275 % no more font code
276 </ct | bmt | pt | rp | le>
```

## 7.5.4 Boilerplate packages

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

```
277 <*ct | bmt | pt | rp | le | ex>
278 \RequirePackage{iftex}
279 \RequirePackage{xstring}
280 \RequirePackage{etoolbox}
281 \RequirePackage{ifthen}
282 \IfFileExists{shellesc.sty}{\RequirePackage{shellesc}}{}
283 </ct | bmt | pt | rp | le | ex>
```

## 7.5.5 Graphics packages

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

Some packages for coursetext and bamathesis:

```
284 <*ct | bmt | pt | rp | le | ex>
285 \RequirePackage{graphicx}
286 \RequirePackage{graphbox}
287 \RequirePackage{soul}
288 \RequirePackage[export]{adjustbox}
289 \RequirePackage{color}
290 \RequirePackage{tikz}
291 \usetikzlibrary{positioning,calc}
292 \RequirePackage{eso-pic}
293 </ct | bmt | pt | rp | le | ex>
294 <*ct | rp>
```

```

295 \if@copyright
296 \RequirePackage[contents={},color=lightgray,scale=3]{background}
297 \fi
298 </ct | rp>
299 <*pt>
300 \usepackage{ean13isbn}
301 </pt>

```

### 7.5.6 UAntwerpen color and logo scheme

```

302 <*ct | bmt | pt | rp | le | ex>
303 \RequirePackage{uantwerpencolorlogoscheme}
304 </ct | bmt | pt | rp | le | ex>

```

### 7.5.7 Header/Footer

The de-facto standard for headers and footers:

```

305 <*ct | bmt | pt | rp | le | ex>
306 \RequirePackage{fancyhdr}
307 </ct | bmt | pt | rp | le | ex>

```

## 7.6 Colors

```

308 <*ct | bmt | pt | rp | le | ex>
309 \definecolor{lightgray}{cmyk} {0.00,0.00,0.00,0.05}
310 \definecolor{darkgray}{cmyk} {0.00,0.00,0.00,0.80}
311 \definecolor{watermark}{cmyk} {0.00,0.00,0.00,0.05}
312 </ct | bmt | pt | rp | le | ex>

```

## 7.7 Fancy highlighting

Though I'm not keen on highlighting, the style gurus have decided to put highlighting in the titles of the bachelor's and master's theses. The macro blow highlights a token sequence using white text on the main color.

```

313 <*bmt>
314 \newcommand\@uantwerpenocshl[1]{\begin{lrbox}{\@tempboxa}\end{lrbox}\@uantwerpenocshlbox}
315 \newcommand{\@uantwerpenocshlbox}[1]{%
316   \tikz{%
317     \pgfpathrectangle{\pgfpoint{1pt}{0pt}}{\pgfpoint{\wd #1}{\ht #1}}%
318     \pgfusepath{use as bounding box}%
319     \node[anchor=base
320       west,align=center,fill=maincolor,text=white,outer sep=0pt,inner
321       xsep=5pt, inner ysep=0pt,minimum height=\ht\strutbox+1pt]{\raisebox{1pt}{\strut}\strut\@}
322   }%
323 }
324 </bmt>

```

## 7.8 Fancy inset texts and quotes

```

325 <*bmt | pt | ct | rp>
326 \newcommand\insettext[1]{
327   \textcolor{basecolor}{
328     \begin{tabular}{@{\hskip3ex\textcolor{maincolor}{\vrule width 2.5pt}\hskip3ex\large\bfseries
329       \strut #1
330     \end{tabular}
331   }
332 }
333 \newcommand\insetquote[1]{
334   \insettext{
335     \begin{tikzpicture}[scale=0.65]
336       \fill[green!60!black] (0.4,0) -- (0.5,0) -- (0.75,-0.15) -- (0.75,0) --
337       (0.9,0) arc(-90:0:0.1) -- (1,0.65) arc(0:90:0.1) -- (0.1,0.75) arc
338       (90:180:0.1) -- (0,0.1) arc(-180:-90:0.1) -- cycle;
339       \foreach \x in {0.35,0.7} {
340         \begin{scope}[shift={(\x,0.425)},scale=0.25]
341           \fill[white] (0,0) circle[radius=0.5];
342           \fill[white] (0.5,0) arc(0:-90:1) --
343           (-0.5,-0.725) arc(-90:0:0.725) -- cycle;
344         \end{scope}
345       }
346     \end{tikzpicture}}\
347     #1
348   }
349 }
350 </bmt | pt | ct | rp>

```

## 7.9 Camera-ready version

For the course texts, this means printing no artwork (as universitas prints your front page on a pre-printed color page) This is taken care of by the titlepage and finalpage environments, so no extra code is needed here.

For PhD texts, this means providing bleed space. We implemented this using the very fine crop package.

```

351 <*pt>
352 \if@cameraready
353 \RequirePackage[cam,center,width=21truecm,height=29.7truecm]{crop}
354 \fi
355 </pt>

```

## 7.10 Data dictionary and parser

Let's start by defining our dictionary:

```

356 <*ct | bmt | pt | rp | le | ex>
357 \ExplSyntaxOn
358 \prop_new:N \g_@@_data_prop
359 </ct | bmt | pt | rp | le | ex>%

```

The dictionary can be accessed using the following document command:

```

360 <*ct | bmt | pt | rp | le | ex>
361 \NewDocumentCommand{\uantwerpendocsprop}{m}{
362   \prop_item:Nn \g_@@_data_prop{#1}
363 }
364 \NewDocumentCommand{\uantwerpendocsPROP}{m}{
365   \str_uppercase:f { \prop_item:Nn \g_@@_data_prop{#1} }
366 }
367 </ct | bmt | pt | rp | le | ex>%

```

To this end, we use the following parsing infrastructure:

```

368 <*ct | bmt | pt | rp | le | ex>
369 \NewDocumentCommand{\uantwerpendocspropread}{m}{
370   \@@_datareader:n { #1 }
371 }
372 \cs_generate_variant:Nn \prop_gput:Nnn{ Nxx }
373 \cs_new_nopar:Npn \@@_dataparser:w #1 = #2!! {
374   \tl_set:Nn \l_tmpa_tl {#1}
375   \tl_set:Nn \l_tmpb_tl {#2}
376   \tl_trim_spaces:N \l_tmpa_tl
377   \tl_trim_spaces:N \l_tmpb_tl
378   \prop_gput:Nxx \g_@@_data_prop { \l_tmpa_tl } { \l_tmpb_tl }
379 }
380 </ct | bmt | pt | rp | le | ex>

```

invoked by the following data file reader:

```

381 <*ct | bmt | pt | rp | le | ex>
382 \ior_new:N \l_@@_data_ior
383 \cs_new_nopar:Nn \@@_datareader:n {
384   \ior_open:Nn \l_@@_data_ior { uantwerpendocs-#1.data }
385   \ior_str_map_inline:Nn \l_@@_data_ior {
386     \regex_match:nnTF {=} {##1} {
387       \@@_dataparser:w ##1!!
388     }
389   }
390 }
391 \ior_close:N \l_@@_data_ior
392 }
393 </ct | bmt | pt | rp | le | ex>

```

By default, we load the generic (not yet!) and the english data file:

```

394 <*ct | bmt | pt | rp | le | ex>
395 \clist_map_inline:nn {en} {
396   \@@_datareader:n { #1 }
397 }
398 %\prop_show:N \g_@@_data_prop
399 \ExplSyntaxOff
400 </ct | bmt | pt | rp | le | ex>

```



## 7.11 Babel provisions

We will fill the dictionary from the generic data file (for elements that should not be translated, currently empty) and the language specific data files (for elements that can be translated).

```
401 <*ct | bmt | pt | rp | le | ex>
402 \newcommand*\@logo{\logopos}
403 \AtBeginDocument{
404   \makeatother
405   \@ifpackageloaded{babel}{
406     \addto\captionenglish{%
407       \uantwerpendocspropread{en}
408     }
409     \addto\captionsdutch{%
410       \uantwerpendocspropread{nl}
411     }
412   }
413 {}
414 \uantwerpendocspropread{degree}
415 \uantwerpendocspropread{doctype}
416 \makeatletter
417 }
418 </ct | bmt | pt | rp | le | ex>
```

The English data can be found below:

```
419 <*endata>
420 org-be = Faculty of Business and Economics
421 org-fbd = Faculty of Pharmaceutical, Biomedical and Veterinary Sciences
422 org-ggw = Medicine and Health Sciences
423 org-lw = Faculty of Arts
424 org-ow = Faculty of Design Sciences
425 org-re = Faculty of Law
426 org-sw = Faculty of Social Sciences
427 org-ti = Faculty of Applied Engineering
428 org-we = Faculty of Science
429 org-iob = Institute of Development Policy
430 org-ua = University of Antwerp
431 arr = All rights reserved
432 of = of
433 domainname = uantwerp.be
434 datename = Date
435 subjectname = Subject
436 acyearname = Academic year
437 baname = Bachelor of Science
438 spname = Switching Programme
439 vpname = Preparatory Programme
440 maname = Master of Science
441 phdname = PhD
442 thesisname = Thesis
443 mthesisname = Master's thesis
444 bthesisname = Bachelor's thesis
445 lecturername = Lecturer
```

```

446 lecturersname      = Lecturers
447 supervisorname     = Supervisor
448 supervisorsname    = Supervisors
449 cosupervisorname   = Cosupervisor
450 cosupervisorsname  = Cosupervisors
451 extsupervisorname  = External supervisor
452 extsupervisorsname = External supervisors
453 examname           = Exam --- Examen
454 seriesname         = Series
455 lastname           = Last name --- Naam
456 firstname          = First name --- Voornaam
457 docketname         = Docket No. --- Rolnr.
458 roomname           = Room --- Lokaal
459 roomsname          = Rooms --- Lokalen
460 examstartname      = Start --- Begin
461 examendname        = End --- Einde
462 examdurationname   = Exam duration --- Duur van het examen
463 juryname           = Jury
464 jurymembersname    = Members
465 jurychairname      = Chair
466 bmthesisname       = Thesis to obtain the degree of
467 pthesisnamei       = Thesis submitted in fulfilment of the requirements for the degree of
468 pthesisnameii      = at the University of Antwerp
469 weightname         = Weight
470 </endata>

```

The Dutch data can be found below:

```

471 <*nldata>
472 org-be      = Faculteit Bedrijfswetenschappen en Economie
473 org-fbd     = Faculteit Farmaceutische, Biomedische en Diergeneeskundige Wetenschappen
474 org-ggw     = Faculteit Geneeskunde en Gezondheidswetenschappen
475 org-lw      = Faculteit Letteren en Wijsbegeerte
476 org-ow      = Faculteit Ontwerpwetenschappen
477 org-re      = Faculteit Rechten
478 org-sw      = Faculteit Sociale Wetenschappen
479 org-ti      = Faculteit Toegepaste Ingenieurswetenschappen
480 org-we      = Faculteit Wetenschappen
481 org-iob     = Instituut voor Ontwikkelingsbeleid- en beheer
482 org-ua      = Universiteit Antwerpen
483 arr         = Alle rechten voorbehouden
484 of          = van
485 domainname  = uantwerpen.be
486 datename    = Onderwerp
487 subjectname = Datum
488 acyearname  = Academiejaar
489 baname      = Bachelor of Science
490 spname      = Schakelprogramma
491 vpname      = Voorbereidingsprogramma
492 maname      = Master of Science
493 phdname     = Doctoraat
494 thesisname  = Afstudeerproef
495 mthesisname = Masterproef
496 bthesisname = Bachelorproef

```

```

497 lecturername      = Titularis
498 lecturersname     = Titularissen
499 supervisorname    = Promotor
500 supervisorsname   = Promotoren
501 cosupervisorname  = Copromotor
502 cosupervisorsname = Copromotoren
503 extsupervisorname = Externe Promotor
504 extsupervisorsname = Externe Promotoren
505 examname          = Examen
506 seriesname       = Reeks
507 lastname         = Naam
508 firstname        = Voornaam
509 docketname       = Rolnr.
510 roomname         = Lokaal
511 roomsname        = Lokalen
512 examstartname    = Begin
513 examendname       = Einde
514 examdurationname = Duur van het examen
515 juryname         = Jury
516 jurymembersname  = Leden
517 jurychairname    = Voorzitter
518 bmthesisname     = Proefschrift tot het behalen van de graad van
519 pthesisnamei     = Proefschrift voorgelegd tot het behalen van de graad van
520 pthesisnameii    = aan de Universiteit Antwerpen te verdedigen door
521 weightname       = Gewicht
522 </nldata>

```

## 7.12 Bachelor and Master document types

```

523 <*doctypedata>
524 nl-ba = Bachelorproef
525 nl-ma = Masterproef
526 nl-pr = Projectverslag
527 en-ba = Bachelor's thesis
528 en-ma = Master's thesis
529 en-pr = Project report
530 </doctypedata>

531 <*bmt | ct | pt | ex>
532 \ExplSyntaxOn
533 \cs_generate_variant:Nn \prop_item:Nn{ Nx }
534 \NewDocumentCommand{\uantwerpendocsdoctype}{m}{
535   \prop_item:Nx \g_@_data_prop { #1 }
536 }
537 \ExplSyntaxOff
538 </bmt | ct | pt | ex>

```

## 7.13 Bachelor and Master disclaimers

```

539 <*bmt>
540 \newcommand\disclaimer[1]{
541   Disclaimer #1\newline\newline
542   This document is an examination document that has not been

```

```

543 corrected for any errors identified. Without prior written
544 permission of both the supervisor(s) and the author(s), any copying,
545 copying, using or realizing this publication or parts thereof
546 is prohibited. For requests for information regarding the copying
547 and/or use and/or realisation of parts of this publication, please
548 contact to the university at which the author is registered.
549 \newline\newline
550 Prior written permission from the supervisor(s) is also
551 required for the use for industrial or commercial utility of the
552 (original) methods, products, circuits and programs described in this
553 thesis, and for the submission of this publication for participation
554 in scientific prizes or competitions.
555 \newline\newline
556 This document is in accordance with the faculty regulations related to this
557 examination document and the Code of Conduct. The text has been reviewed
558 by the supervisor and the attendant.
559 }
560 \AtBeginDocument{
561   \makeatother
562   \ifpackageloaded{babel}{
563     \addto\captionsdutch{%
564       \renewcommand\disclaimer[1]{
565         Disclaimer #1\newline\newline
566         Dit document is een examendocument dat niet werd gecorrigeerd voor
567         eventueel vastgestelde fouten. Zonder voorafgaande schriftelijke
568         toestemming van zowel de promotor(en) als de auteur(s) is overnemen,
569         kopiëren, gebruiken of realiseren van deze uitgave of gedeelten ervan
570         verboden. Voor aanvragen tot of informatie i.v.m. het overnemen en/of
571         gebruik en/of realisatie van gedeelten uit deze publicatie, wendt u
572         tot de universiteit waaraan de auteur is ingeschreven.
573         \newline\newline
574         Voorafgaande schriftelijke toestemming van de promotor(en) is eveneens
575         vereist voor het aanwenden van de in dit afstudeerwerk beschreven
576         (originele) methoden, producten, schakelingen en programma's voor
577         industrieel of commercieel nut en voor de inzending van deze
578         publicatie ter deelname aan wetenschappelijke prijzen of wedstrijden.
579         \newline\newline
580         Dit document is in overeenstemming met het facultair reglement
581         gerelateerd aan dit examendocument en de gedragscode. De tekst werd
582         nagekeken door de promotor en de begeleider.
583       }
584     }
585   }{}
586   \makeatletter
587 }
588 </bmt>

```

## 7.14 Educational degrees

```

589 <*degreedata>
590 ti-nl-ba-bk = Bachelor of Science in de industriële wetenschappen: bouwkunde
591 ti-nl-ba-ch = Bachelor of Science in de industriële wetenschappen: chemie
592 ti-nl-ba-em = Bachelor of Science in de industriële wetenschappen: elektromechanica
593 ti-nl-ba-ei = Bachelor of Science in de industriële wetenschappen: elektronica-

```

ICT

594 ti-en-ba-bk = Bachelor of Science in de industriële wetenschappen: bouwkunde

595 ti-en-ba-ch = Bachelor of Science in de industriële wetenschappen: chemie

596 ti-en-ba-em = Bachelor of Science in de industriële wetenschappen: elektromechanica

597 ti-en-ba-ei = Bachelor of Science in de industriële wetenschappen: elektronica-  
ICT

598 ti-nl-ma-bk = Master of Science in de industriële wetenschappen: bouwkunde

599 ti-nl-ma-bch = Master of Science in de industriële wetenschappen: biochemie

600 ti-nl-ma-ch = Master of Science in de industriële wetenschappen: chemie

601 ti-nl-ma-em = Master of Science in de industriële wetenschappen: elektromechanica

602 ti-nl-ma-ei = Master of Science in de industriële wetenschappen: elektronica-  
ICT

603 ti-en-ma-ei = Master of Science in Electronics and ICT Engineering Technology

604 ti-nl-eduma-wtstem = Educatieve master of Science in de wetenschappen en technologie: STEM

605 we-nl-eduma-wtstem = Educatieve master of Science in de wetenschappen en technologie: STEM

606 we-nl-eduma-wtbchbt = Educatieve master of Science in de wetenschappen en technologie: biochemie

607 we-nl-eduma-wtbio = Educatieve master of Science in de wetenschappen en technologie: biologie

608 we-nl-eduma-wtch = Educatieve master of Science in de wetenschappen en technologie: chemie

609 we-nl-eduma-wtfy = Educatieve master of Science in de wetenschappen en technologie: fysica

610 we-nl-eduma-wtinf = Educatieve master of Science in de wetenschappen en technologie: informatica

611 we-nl-eduma-wtwi = Educatieve master of Science in de wetenschappen en technologie: wiskunde

612 we-nl-ba-bircg = Bachelor of Science in de bio-ingenieurswetenschappen: cel- en genbiotechnologie

613 we-nl-ba-birvt = Bachelor of Science in de bio-ingenieurswetenschappen: chemie en voedingstechnologie

614 we-nl-ba-birlb = Bachelor of Science in de bio-ingenieurswetenschappen: land- en bosbeheer

615 we-nl-ba-birmt = Bachelor of Science in de bio-ingenieurswetenschappen: milieutechnologie

616 we-nl-ba-bio = Bachelor of Science in de biologie

617 we-nl-ma-bioeg = Master of Science in de biologie: evolutie en gedragsbiologie

618 we-en-ma-biocr = Master of Science in biology: biodiversity, conservation and restoration

619 we-en-ma-biogcb = Master of Science in biology: global change biology

620 we-en-ma-biomb = Master of Science in molecular biology

621 we-nl-ba-ch = Bachelor of Science in de chemie

622 we-en-ma-ch = Master of Science in chemistry

623 we-nl-ba-inf = Bachelor of Science in de informatica

624 we-en-ma-infcn = Master of Science in computer science: computer networks

625 we-en-ma-infdsai = Master of Science in computer science: data science and artificial intelligence

626 we-en-ma-infse = Master of Science in computer science: software engineering

627 we-nl-ma-infcn = Master of Science in de informatica: computernetwerken

628 we-nl-ma-infdsai = Master of Science in de informatica: data science en artificiële intelligentie

629 we-nl-ma-infse = Master of Science in de informatica: software engineering

630 we-nl-ba-fy = Bachelor of Science in de fysica

631 we-nl-ma-fy = Master of Science in de fysica

632 we-en-ma-fy = Master of Science in physics

633 we-nl-ba-wi = Master of Science in wiskunde

634 we-nl-ma-wifw = Master of Science in wiskunde: fundamentele wiskunde

635 we-nl-ma-wiftw = Master of Science in wiskunde: financiële en toegepaste wiskunde

636 </degreedata>

637 <\*bmt | ct | pt | ex>

638 \ExplSyntaxOn

639 \NewDocumentCommand{\uantwerpendocsdegree}{m}{

640 \prop\_item:Nx \g\_@@\_data\_prop { #1 }

641 }

642 \ExplSyntaxOff

643 </bmt | ct | pt | ex>

## 7.15 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.

```
644 <*ct | bmt | pt | rp | le | ex>
645 \newcommand*\facultyacronym}[1]{
646   \PackageError{uantwerpendocs}
647   {The '\protect\facultyacronym{' macro is no longer available. Use
648     your faculty abbreviation in lowercase as class options instead}
649   {The interface of uantwerpendocs 4.0 has been changed. See
650     the uantwerpendocs manual under section '5.2 The class options explained'}
651 }
652 </ct | bmt | pt | rp | le | ex>
```

`\department` The `department` sets the department's name tag `\@department` that is used in the title page information.

```
653 <*ct | bmt | pt>
654 \newcommand*\@department{}
655 \newcommand*\department}[1]{
656   \renewcommand*\@department{#1}
657 }
658 </ct | bmt | pt>
```

`\title` The `title` tag is native to L<sup>A</sup>T<sub>E</sub>X. It sets the `\@title` tag that will be used on the title page.

`\titel` This macro sets the `\@titel` tag that later will be used on the Dutch translation of the title page. Moreover, using this tag, will trigger the generation of a secondary Dutch title page. Only use this tag in an English thesis!

```
659 <*pt>
660 \newcommand*\@titel{}
661 \newcommand*\titel}[1]{%
662   \renewcommand*\@titel{#1}
663 }
664 </pt>
```

`\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 (if it is loaded).

```
665 <*ct | pt | rp>
666 \newcommand*\@subtitle{}
667 \newcommand*\subtitle}[1]{%
668   \renewcommand*\@subtitle{#1}
669 }
670 </ct | pt | rp>
```

`\subtitel` This macro sets the `\@subtitel` tag that later will be used on the Dutch translation of the title page. It will not trigger the generation of a secondary Dutch title

page. That can only be done by using the `\tittel` command. Only use this tag in an English thesis!

```
671 <*pt>
672 \newcommand*\@subtitel{}
673 \newcommand*\subtitel[1]{%
674   \renewcommand*\@subtitel{#1}
675 }
676 </pt>
```

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

```
677 <*ex>
678 \newcommand*\@shorttitle{}
679 \newcommand*\shorttitle[1]{%
680   \renewcommand*\@shorttitle{#1}
681 }
682 </ex>
```

`\author` The author tag is native to L<sup>A</sup>T<sub>E</sub>X. It sets the `\@author` tag that will be used on the title page.

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

```
683 <*ct>
684 \newcommand*\@courseversion{}
685 \newcommand*\courseversion[1]{\renewcommand*\@courseversion{#1}}
686 </ct>
```

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

```
687 <*ct | rp>
688 \newcommand*\@versionyear{}
689 \newcommand*\versionyear[1]{\renewcommand*\@versionyear{#1}}
690 </ct | rp>
```

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

```
691 <*ct>
692 \newcommand*\@publisher{Universitas Cursusdienst |
693   Prinsesstraat 16 |
694   2000 Antwerpen |
695   T +32 3 233 23 73 |
696   E info@cursusdienst.be}
697 \newcommand*\publisher[1]{\renewcommand*\@publisher{#1}}
698 </ct>
```

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

```
699 <*ct>
```

```

700 \newcommand*{\@publishercode}{}
701 \newcommand*{\publishercode}[1]{\renewcommand*{\@publishercode}{#1}}
702 \</ct>

```

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

```

703 \< *bmt>
704 \newcommand*{\@companylogo}{}
705 \newcommand*{\companylogo}[1]{\renewcommand*{\@companylogo}{#1}}
706 \< /bmt>

```

`\lecturer` This macro adds lecturers (Dutch: titularissen) to the course notes. Use the macro multiple times for multiple lecturers. The order will be preserved. Note that as of v4.0 all lecturers are specified using the same macro!

```

707 \< *ct | ex>
708 \ExplSyntaxOn
709 \seq_new:N \g_@@_lecturers
710 \cs_new:Nn \@@_addlecturer:n {
711   \seq_gpush:Nn \g_@@_lecturers { #1 }
712 }
713 \NewDocumentCommand{\lecturer}{m}{
714   \@@_addlecturer:n { #1 }
715 }
716 \NewDocumentCommand{\jointlecturers}{m}{
717   \seq_use:Nn \g_@@_lecturers { #1 }
718 }
719 \NewDocumentCommand{\lecturersname}{}{
720   \if_int_compare:w \seq_count:N \g_@@_lecturers > 1
721     \uantwerpendocsprop{lecturersname}
722   \else:
723     \if_int_compare:w \seq_count:N \g_@@_lecturers > 0
724     \uantwerpendocsprop{lecturername}
725   \fi
726   \fi:
727 }
728 \AtBeginDocument{
729   \seq_greverse:N \g_@@_lecturers
730 }
731
732 \ExplSyntaxOff
733 \< /ct | ex>

```

`\extra` The `extra` tag allows to specify some extra comment (e.g. the nature of the document) in the bottom bar on the title page).

```

734 \< *rp>
735 \newcommand\@extra{}
736 \newcommand\extra[1]{\renewcommand\@extra{#1}}
737 \< /rp>

```

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



```

738 <*pt | rp>
739 \newcommand\@affiliation{
740   \PackageError{uantwerpendocs}
741   {Please, define the affiliation of the author using the
742   '\protect\affiliation{ }' command in the preamble of your
743   document.}
744   {See the uantwerpendocs manual}
745 }
746 \newcommand\affiliation[1]{\renewcommand\@affiliation{#1}}
747 </pt | rp>

```

**\supervisor** This macro allows to specify one or more supervisors with their affiliation. This can be done by invoking the macro as many times as needed. Note that as of v4.0 all supervisors are specified using the same macro!

```

748 <*bmt | pt>
749 \ExplSyntaxOn
750 \seq_new:N \g_@@_supervisors
751 \seq_new:N \g_@@_supervisorswithaffiliation
752 \cs_new:Nn \@@_addsupervisor:nn {
753   \seq_gpush:Nn \g_@@_supervisors { #1 }
754   \seq_gpush:Nn \g_@@_supervisorswithaffiliation { #1,~#2 }
755 }
756 \NewDocumentCommand{\supervisor}{mm}{
757   \@@_addsupervisor:nn { #1 } { #2 }
758 }
759 \NewDocumentCommand{\jointssupervisors}{mm}{
760   \seq_use:Nnnn \g_@@_supervisors { #2 } { #1 } { #2 }
761 }
762 \NewDocumentCommand{\jointssupervisorswithaffiliation}{mm}{
763   \seq_use:Nnnn \g_@@_supervisorswithaffiliation { #2 } { #1 } { #2 }
764 }
765 \NewDocumentCommand{\supervisorsname}{m}{
766   \if_int_compare:w \seq_count:N \g_@@_supervisors > 2
767   \uantwerpendocsprop{supervisorsname} #1
768   \else:
769   \if_int_compare:w \seq_count:N \g_@@_supervisors = 2
770   \uantwerpendocsprop{supervisorname} #1
771   \else:
772   \fi:
773   \fi:
774 }
775 </bmt | pt>
776 <*bmt>
777 \seq_new:N \g_@@_cosupervisors
778 \seq_new:N \g_@@_cosupervisorswithaffiliation
779 \cs_new:Nn \@@_addcosupervisor:nn {
780   \seq_gpush:Nn \g_@@_cosupervisors { #1 }
781   \seq_gpush:Nn \g_@@_cosupervisorswithaffiliation { #1,~#2 }
782 }
783 \NewDocumentCommand{\cosupervisor}{mm}{
784   \@@_addcosupervisor:nn { #1 } { #2 }
785 }
786 \NewDocumentCommand{\jointcosupervisors}{mm}{

```

```

787 \seq_use:Nnnn \g_@@_cosupervisors { #2 } { #1 } { #2 }
788 }
789 \NewDocumentCommand{\jointcosupervisorswithaffiliation}{mm}{
790 \seq_use:Nnnn \g_@@_cosupervisorswithaffiliation { #2 } { #1 } { #2 }
791 }
792 \NewDocumentCommand{\cosupervisorsname}{m}{
793 \if_int_compare:w \seq_count:N \g_@@_cosupervisors > 2
794 \uantwerpendocsprop{cosupervisorsname} #1
795 \else:
796 \if_int_compare:w \seq_count:N \g_@@_cosupervisors = 2
797 \uantwerpendocsprop{cosupervisorname} #1
798 \else:
799 \fi:
800 \fi:
801 }
802 \seq_new:N \g_@@_extsupervisors
803 \seq_new:N \g_@@_extsupervisorswithaffiliation
804 \cs_new:Nn \@@_addextsupervisor:nn {
805 \seq_gpush:Nn \g_@@_extsupervisors { #1 }
806 \seq_gpush:Nn \g_@@_extsupervisorswithaffiliation { #1,~#2 }
807 }
808 \NewDocumentCommand{\extsupervisor}{mm}{
809 \@@_addextsupervisor:nn { #1 } { #2 }
810 }
811 \NewDocumentCommand{\jointextsupervisors}{mm}{
812 \seq_use:Nnnn \g_@@_extsupervisors { #2 } { #1 } { #2 }
813 }
814 \NewDocumentCommand{\jointextsupervisorswithaffiliation}{mm}{
815 \seq_use:Nnnn \g_@@_extsupervisorswithaffiliation { #2 } { #1 } { #2 }
816 }
817 \NewDocumentCommand{\extsupervisorsname}{m}{
818 \if_int_compare:w \seq_count:N \g_@@_extsupervisors > 2
819 \uantwerpendocsprop{extsupervisorsname} #1
820 \else:
821 \if_int_compare:w \seq_count:N \g_@@_extsupervisors = 2
822 \uantwerpendocsprop{extsupervisorname} #1
823 \else:
824 \fi:
825 \fi:
826 }
827 </bmt>
828 <*pt>
829 \AtBeginDocument{
830 \seq_gpush:Nn \g_@@_supervisors {}
831 \seq_greverse:N \g_@@_supervisors
832 \seq_gpush:Nn \g_@@_supervisorswithaffiliation {}
833 \seq_greverse:N \g_@@_supervisorswithaffiliation
834 }
835 </pt>
836 <*bmt>
837 \AtBeginDocument{
838 \seq_gpush:Nn \g_@@_supervisors {}
839 \seq_greverse:N \g_@@_supervisors
840 \seq_gpush:Nn \g_@@_supervisorswithaffiliation {}

```

```

841 \seq_greverse:N \g_@@_supervisorswithaffiliation
842 \seq_gpush:Nn \g_@@_cosupervisors {}
843 \seq_greverse:N \g_@@_cosupervisors
844 \seq_gpush:Nn \g_@@_cosupervisorswithaffiliation {}
845 \seq_greverse:N \g_@@_cosupervisorswithaffiliation
846 \seq_gpush:Nn \g_@@_extsupervisors {}
847 \seq_greverse:N \g_@@_extsupervisors
848 \seq_gpush:Nn \g_@@_extsupervisorswithaffiliation {}
849 \seq_greverse:N \g_@@_extsupervisorswithaffiliation
850 }
851 </bmt>
852 <*bmt | pt>
853 \ExplSyntaxOff
854 </bmt | pt>

```

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

```

855 <*pt>
856 \newcommand*{\@jurychair}{
857   \PackageError{uantwerpendocs}
858   {Please, define a chair of the jury using the
859     '\protect\jurychair{' command in the preamble of your
860     document.}
861   {See the uantwerpendocs manual}
862 }
863 \newcommand*{\@jurychairaff}{}
864 \newcommand*{\jurychair}[2]{
865   \renewcommand*{\@jurychair}{#1}\renewcommand*{\@jurychairaff}{#2}
866 </pt>

```

`\jurymember` This macro allows for the registration of jury members and their affiliation. This can be done by invoking the macro as many times as needed. Note that as of v4.0 all jurymembers are specified using the same macro!

```

867 <*pt>
868 \ExplSyntaxOn
869 \seq_new:N \g_@@_jurymemberswithaffiliation
870 \cs_new:Nn \@@_addjurymember:nn {
871   \seq_gpush:Nn \g_@@_jurymemberswithaffiliation { #1,~#2 }
872 }
873 \NewDocumentCommand{\jurymember}{mm}{
874   \@@_addjurymember:nn { #1 } { #2 }
875 }
876 \NewDocumentCommand{\jointjurymembers}{m}{
877   \seq_use:Nn \g_@@_jurymemberswithaffiliation { #1 }
878 }
879 \AtBeginDocument{
880   \seq_greverse:N \g_@@_jurymemberswithaffiliation
881 }
882 \ExplSyntaxOff
883 </pt>

```

`\phddegree` This macro has been discontinued. Use `\degree` instead.

```

884 <*pt>
885 \newcommand*\phddegree{
886   \PackageError{uantwerpendocs}
887   {The '\protect\phddegree{' macro is no longer available. Use
888     '\protect\degree{' instead}
889   {The interface of uantwerpendocs 4.0 has been changed. Use the
890     '\protect\degree' macro to specify your degree in full text (see
891     the uantwerpendocs manual)'}
892 }
893 </pt>
894 %
895 %
896 % \begin{macro}{\degree}
897 %   This macro sets the |\@degree| tag that later will
898 %   be used on the title pages.
899 %   The theses allow for a single degree (as multiple is physically
900 %   impossible), while a course text and an exam allow for multiple
901 %   degrees (to be specified in the desired order).
902 %   \begin{macrocode}
903 <*bmt | pt>
904 \newcommand*\@degree{
905   \PackageError{uantwerpendocs}
906   {Please, specify the official degree description using
907     the '\protect\degree{' macro in the preamble of your document.}
908   {See the uantwerpendocs manual}
909 }
910 \newcommand*\degree[1]{\renewcommand*\@degree{#1}}
911 </bmt | pt>
912 %
913 % \changes{v4.6}{-}{Allowed for specification of multiple degrees for
914 % course texts and exams}
915 <*ct | ex>
916 \ExplSyntaxOn
917 \seq_new:N \g_@@_degrees
918 \cs_new:Nn \@@_adddegree:n {
919   \seq_gpush:Nn \g_@@_degrees { #1 }
920 }
921 \NewDocumentCommand{\degree}{m}{
922   \@@_adddegree:n { #1 }
923 }
924 \NewDocumentCommand{\jointdegrees}{mm}{
925   \seq_use:Nnnn \g_@@_degrees { #2 } { #1 } { #2 }
926 }
927 \AtBeginDocument{
928   \seq_greverse:N \g_@@_degrees
929   \let\degree\relax
930 }
931 \ExplSyntaxOff
932 </ct | ex>
933

```

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

```

934 <*bmt | pt | ct | ex>

```

```

935 \newcommand*\@bamadoctype{
936   \PackageError{uantwerpendocs}
937   {Please, specify the official document type, either using
938    the '\protect\bamadoctype{' macro or the '\protect\bamadegree{'
939    macro in the preamble of your document.}
940   {See the uantwerpendocs manual}}
941 \newcommand*\bamadoctype[1]{
942   \renewcommand*\@bamadoctype{\uantwerpendocsdoctype{#1}}
943 }
944 </bmt | pt | ct | ex>

```

`\bamadegree` This macro sets the `\@bamadoctype` and `\@degree` tags that later will be used on the title pages.

```

945 <*bmt | pt | ct | ex>
946 \ExplSyntaxOn
947 \seq_new:N \g_@@_degreechunks
948 \NewDocumentCommand{\bamadegree}{m}{
949   \regex_extract_all:nnN { [^-]+ } { #1 } \g_@@_degreechunks
950   \bamadoctype{\seq_item:Nn \g_@@_degreechunks {2} - \seq_item:Nn \g_@@_degreechunks {3}}
951   \degree{\uantwerpendocsdegree{#1}}
952 }
953 \ExplSyntaxOff
954 </bmt | pt | ct | ex>

```

`\programme` This macro is no longer in use.

```

955 <*ct | pt | ex>
956 \newcommand*\programme}[3]{
957   \PackageError{uantwerpendocs}
958   {The '\protect\programme{}{}{}' macro is no longer available. Use
959    '\protect\degree{}' instead}
960   {The interface of uantwerpendocs 4.0 has been changed. Use the
961    '\protect\degree' macro to specify your degree in full text (see
962    the uantwerpendocs manual)'}
963 }
964 </ct | pt | ex>

```

`\course` For the `coursetext` class, this macro sets one or more courses. and `\@course` tags that later will be used on the title page. Note that as of v4.0 all courses are specified using the same macro!

```

965 <*ct>
966 \newcommand*\coursei[2]{
967   \PackageError{uantwerpendocs}
968   {The '\protect\coursei{}' macro is no longer available. Use
969    '\protect\course{}' instead (multiple times if you need to)}
970   {The interface of uantwerpendocs 4.0 has been changed. Use the
971    '\protect\course macro instead of the \protect\coursei,
972    \protect\courseii, \protect\courseiii and \protect\courseiv macros
973    that existed earlier (see
974    the uantwerpendocs manual)'}
975 }

```

```

976 \ExplSyntaxOn
977 \seq_new:N \g_@@_courseswithcodes
978 \cs_new:Nn \@@_addcourse:nn {
979   \seq_gpush:Nn \g_@@_courseswithcodes{ \texttt{#1}~#2 }
980 }
981 \NewDocumentCommand{\course}{mm}{
982   \@@_addcourse:nn { #1 } { #2 }
983 }
984 \NewDocumentCommand{\jointcourseswithcodes}{m}{
985   \seq_use:Nn \g_@@_courseswithcodes { #1 }
986 }
987 \AtBeginDocument{
988   \seq_greverse:N \g_@@_courseswithcodes
989 }
990 \ExplSyntaxOff
991 </ct>

```

For the `exam` class (assuming that an exam only holds for a single course), the situation is simple and we assume only a single coursecode and course name.

```

992 <*ex>
993 \newcommand*{\@coursecode}{}
994 \newcommand*{\@course}{}
995 \newcommand*{\course}[2]{
996   \renewcommand*{\@coursecode}{#1}
997   \renewcommand*{\@course}{#2}
998 }
999 </ex>

```

`\diploma` This macro sets the official diploma description into the `\@diploma` tag that later will be used on the title page.

```

1000 <*bmt | pt>
1001 \newcommand*{\diploma}[1]{
1002   \PackageError{uantwerpendocs}
1003   {The '\protect\diploma{ }' macro is no longer available. Use
1004     '\protect\degree{ }' instead}
1005   {The interface of uantwerpendocs 4.0 has been changed. Use the
1006     '\protect\degree' macro to specify your degree in full text (see
1007     the uantwerpendocs manual).'}
1008 }
1009 </bmt | pt>

```

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

```

1010 <*pt>
1011 \newcommand*\@defensedate{ERROR}
1012 \newcommand*{\defensedate}[1]{\renewcommand*\@defensedate{#1}}
1013 </pt>

```

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

```

1014 <*pt>
1015 \newcommand*\@defenselocation{Antwerpen}
1016 \newcommand*\@defenselocation[1]{\renewcommand*\@defenselocation{#1}}
1017 </pt>

```

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

```

1018 <*ct | pt | rp>
1019 \newcommand*\@titlepageimage{}
1020 \newcommand*\@titlepageimage[1]{\renewcommand*\@titlepageimage{#1}}
1021 </ct | pt | rp>

```

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

```

1022 <*pt>
1023 \newcommand*\@isbn{}
1024 \newcommand*\@isbn[1]{\renewcommand*\@isbn{#1}}
1025 </pt>

```

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

```

1026 <*pt>
1027 \newcommand*\@depot{}
1028 \newcommand*\@depot[1]{\renewcommand*\@depot{#1}}
1029 </pt>

```

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

```

1030 <*ct | bmt | ex>
1031 \newcommand*\@academicyear{XXX-YYYY}
1032 \newcommand*\@academicyear[1]{\renewcommand*\@academicyear{#1}}
1033 </ct | bmt | ex>

```

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

```

1034 <*ct | rp>
1035 \newcommand{\@copyrightnotices}{}
1036 \newcommand{\@copyrightnotices}[1]{\renewcommand{\@copyrightnotices}{#1}}
1037 </ct | rp>
1038 <*bmt>
1039 \newcommand{\@copyrightnotices}{\disclaimer{\@bamadoctype}}
1040 </bmt>

```

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

```

1041 <*le>
1042 \newcommand*\@sender{< Specify sender using

```

```

1043 \textbackslash{}sender\{name}\{role\} >}
1044 \newcommand*{\@senderrole}{~}
1045 \newcommand*{\sender}[2]{\renewcommand*{\@sender}{#1}\renewcommand*{\@senderrole}{#2}}
1046 </le>

```

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

```

1047 < *le | ex >
1048 \newcommand*{\logo}[1]{\renewcommand*{\@logo}{#1}}
1049 </le | ex >

```

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

```

1050 < *le >
1051 \newcommand*{\@unit}{}
1052 \newcommand*{\unit}[1]{\renewcommand*{\@unit}{#1}}
1053 </le >

```

**\email** This macro allows for the registration of contact email addresses for a letter. This can be done by invoking the macro as many times as needed (as of v4.2)

```

1054 < *le >
1055 \ExplSyntaxOn
1056 \seq_new:N \g_@@_emailaddresses
1057 \cs_new:Nn \@_addemailaddress:nn {
1058   \seq_gpush:Nn \g_@@_emailaddresses {#1\tat{}}#2}
1059 }
1060 \NewDocumentCommand{\email}{mm}{
1061   \@_addemailaddress:nn { #1 } { #2 }
1062 }
1063 \NewDocumentCommand{\jointemails}{m}{
1064   \seq_use:Nn \g_@@_emailaddresses { #1 }
1065 }
1066 \NewDocumentCommand{\ifemails}{m}{
1067   \seq_if_empty:NTF \g_@@_emailaddresses {} {#1}
1068 }
1069 \AtBeginDocument{
1070   \seq_greverse:N \g_@@_emailaddresses
1071 }
1072 \ExplSyntaxOff
1073 </le >

```

**\phone** This macro allows for the registration of contact phone numbers for a letter. This can be done by invoking the macro as many times as needed (as of v4.2)

```

1074 < *le >
1075 \ExplSyntaxOn
1076 \seq_new:N \g_@@_phonenumber
1077 \cs_new:Nn \@_addphonenumber:n {
1078   \seq_gpush:Nn \g_@@_phonenumber {#1}
1079 }
1080 \NewDocumentCommand{\phone}{m}{

```



```

1081 \@@_addphonenumber:n { #1 }
1082 }
1083 \NewDocumentCommand{\jointphones}{m}{
1084 \seq_use:Nn \g_@@_phonenumber { #1 }
1085 }
1086 \NewDocumentCommand{\ifphones}{m}{
1087 \seq_if_empty:NTF \g_@@_phonenumber {} {#1}
1088 }
1089 \AtBeginDocument{
1090 \seq_greverse:N \g_@@_phonenumber
1091 }
1092 \ExplSyntaxOff
1093 </le>

```

`\fax` This macro allows for the registration of contact fax numbers for a letter. This can be done by invoking the macro as many times as needed (as of v4.2)

```

1094 <*le>
1095 \ExplSyntaxOn
1096 \seq_new:N \g_@@_faxnumbers
1097 \cs_new:Nn \@@_addfaxnumber:n {
1098 \seq_gpush:Nn \g_@@_faxnumbers {#1}
1099 }
1100 \NewDocumentCommand{\fax}{m}{
1101 \@@_addfaxnumber:n { #1 }
1102 }
1103 \NewDocumentCommand{\jointfaxes}{m}{
1104 \seq_use:Nn \g_@@_faxnumbers { #1 }
1105 }
1106 \NewDocumentCommand{\iffaxes}{m}{
1107 \seq_if_empty:NTF \g_@@_faxnumbers {} {#1}
1108 }
1109 \AtBeginDocument{
1110 \seq_greverse:N \g_@@_faxnumbers
1111 }
1112 \ExplSyntaxOff
1113 </le>

```

`\mobile` This macro allows for the registration of contact mobile numbers for a letter. This can be done by invoking the macro as many times as needed (as of v4.2)

```

1114 <*le>
1115 \ExplSyntaxOn
1116 \seq_new:N \g_@@_mobilenumbers
1117 \cs_new:Nn \@@_addmobilenumber:n {
1118 \seq_gpush:Nn \g_@@_mobilenumbers {#1}
1119 }
1120 \NewDocumentCommand{\mobile}{m}{
1121 \@@_addmobilenumber:n { #1 }
1122 }
1123 \NewDocumentCommand{\jointmobiles}{m}{
1124 \seq_use:Nn \g_@@_mobilenumbers { #1 }
1125 }

```

```

1126 \NewDocumentCommand{\ifmobiles}{m}{
1127   \seq_if_empty:NTF \g_@@_mobilenumbers {} {#1}
1128 }
1129 \AtBeginDocument{
1130   \seq_greverse:N \g_@@_mobilenumbers
1131 }
1132 \ExplSyntaxOff
1133 \</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).

```

1134 \<le>
1135 \newcommand*\@returnaddress{<specify return-address using \textbackslash\single-
   line-return-address>}
1136 \renewcommand*\@returnaddress[1]{\renewcommand*\@returnaddress{#1}}
1137 \</le>

```

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

```

1138 \<le>
1139 \newcommand*\@to{<Specify addressee using \textbackslash{}to\{name\}>}
1140 \renewcommand*\@to[1]{\renewcommand*\@to{#1}}
1141 \</le>

```

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

```

1142 \<le>
1143 \newcommand*\@toorganization{}
1144 \newcommand*\@toorganization[1]{\renewcommand*\@toorganization{#1}}
1145 \</le>

```

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

```

1146 \<le>
1147 \newcommand*\@toaddress{}
1148 \newcommand*\@toaddress[1]{\renewcommand*\@toaddress{#1}}
1149 \</le>

```

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

```

1150 \<le>
1151 \newcommand*\@subject{-}
1152 \newcommand*\@subject[1]{\renewcommand*\@subject{#1}}
1153 \</le>

```

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

```

1154 <*le>
1155 \renewcommand*\opening}[1]{#1}
1156 </le>

```

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

```

1157 <*le>
1158 \newcommand*\closing{<specify a closing formula using
1159 \textbackslash{}closing\{\}>}
1160 \renewcommand*\closing}[1]{\renewcommand*\closing}{#1}}
1161 </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

```

1162 <*le>
1163 \newcommand*\signature{\vspace*{8ex}}
1164 \renewcommand*\signature}[1]{\renewcommand*\signature}{#1}}
1165 </le>

```

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

```

1166 <*le>
1167 \newcommand*\@carboncopy{}
1168 \newcommand*\carboncopy}[1]{\renewcommand*\@carboncopy}{#1}}
1169 </le>

```

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

```

1170 <*le>
1171 \newcommand*\@enclosed{}
1172 \newcommand*\enclosed}[1]{\renewcommand*\@enclosed}{#1}}
1173 </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).

```

1174 <*pt | rp | le>
1175 \newcommand*\@address{
1176   \PackageError{uantwerpendocs}
1177   {Please, set your multi-line address and contact details using the
1178    '\protect\address{}' command in the preamble of your document}
1179   {See the uantwerpendocs manual}
1180 }
1181 </pt | rp | le>
1182 %
1183 <pt | rp>\newcommand*\address}[1]{\renewcommand*\@address}{#1}}
1184 <le>\renewcommand*\address}[1]{\renewcommand*\@address}{#1}}
1185 %   \end{macrocode}
1186 % \end{macro}
1187 %

```

```

1188 % \begin{macro}{\exampart}
1189 %   This macro will set the |\@examgroupnumber| tag that will be used on
1190 %   the exam title page.
1191 %   \begin{macrocode}
1192 <*ex>
1193 \newcommand*{\@exampart}{}
1194 \newcommand*{\exampart}[1]{\renewcommand*{\@exampart}{#1}}
1195 </ex>

```

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

```

1196 <*ex>
1197 \newcommand*{\@examgroupnumber}{}
1198 \newcommand*{\examgroupnumber}[1]{\renewcommand*{\@examgroupnumber}{#1}}
1199 </ex>

```

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

```

1200 <*ex>
1201 \newcommand*{\@examdate}{TBD}
1202 \newcommand*{\examdate}[1]{\renewcommand*{\@examdate}{#1}}
1203 </ex>

```

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

```

1204 <*ex>
1205 \newcommand*{\@examlength}{TBD}
1206 \newcommand*{\examlength}[1]{\renewcommand*{\@examlength}{#1}}
1207 </ex>

```

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

```

1208 <*ex>
1209 \newcommand*{\@tstart}{TBD}
1210 \newcommand*{\tstart}[1]{\renewcommand*{\@tstart}{#1}}
1211 </ex>

```

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

```

1212 <*ex>
1213 \newcommand*{\@tend}{TBD}
1214 \newcommand*{\tend}[1]{\renewcommand*{\@tend}{#1}}
1215 </ex>

```

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

```

1216 <*ex>
1217 \ExplSyntaxOn
1218 \seq_new:N \g_@@_rooms
1219 \cs_new:Nn \@@_addroom:n {
1220   \seq_gpush:Nn \g_@@_rooms { #1 }

```

```

1221 }
1222 \NewDocumentCommand{\room}{m}{
1223   \@@_addrroom:n { #1 }
1224 }
1225 \NewDocumentCommand{\jointrooms}{m}{
1226   \seq_use:Nn \g_@@_rooms { #1 }
1227 }
1228 \NewDocumentCommand{\roomsname}{}{
1229   \if_int_compare:w \seq_count:N \g_@@_rooms > 1
1230   \uantwerpendocsprop{roomsname}
1231   \else:
1232   \uantwerpendocsprop{roomname}
1233   \fi:
1234 }
1235 \AtBeginDocument{
1236   \seq_greverse:N \g_@@_rooms
1237 }
1238
1239 \ExplSyntaxOff
1240 </ex>

```

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

```

1241 <*ex>
1242 \newcommand{\@extrainfo}{}
1243 \newcommand\extrainfo[2][separatepage]{
1244   \ifthenelse{\equal{#1}{separatepage}}{
1245     % then
1246     \renewcommand{\@extrainfo}{\clearpage #2 \clearpage}
1247   }
1248   {
1249     % else
1250     \ifthenelse{\equal{#1}{firstpage}}
1251     {
1252       \renewcommand{\@extrainfo}{#2}
1253     }
1254     {
1255       \PackageError{uantwerpendocs}
1256       {The first (optional) argument of '\protect\extrainfo' can
1257        only be 'separatepage' or 'firstpage'}
1258       {See the uantwerpendocs manual}'
1259     }
1260   }
1261 }
1262 </ex>

```

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

pages.

```
1263 <*ex>
1264 \newcommand*{\@studentnr}{0}
1265 \newcommand*{\studentnr}[1]{\renewcommand*{\@studentnr}{#1}}
1266 </ex>
```

## 7.16 Dirty reverse video tricks

Try not to throw up in your mouth...

```
1267 <*bmt>
1268 \ExplSyntaxOn
1269 \seq_new:N \l_title_seq
1270 \cs_generate_variant:Nn \seq_set_split:Nnn { Nnf }
1271 \cs_new_nopar:Npn \@@_reversevideo:f #1
1272 {
1273   \seq_set_split:Nnf \l_title_seq {~} { #1 }
1274   \seq_set_map:NNn \l_title_seq \l_title_seq {\@uantwerpendocshl{##1}}
1275   \seq_use:Nnnn \l_title_seq { ~ } { ~ } { ~ }
1276 }
1277 \NewDocumentCommand{\reversevideo}{m}{
1278   \@@_reversevideo:f { #1 }
1279 }
1280 \ExplSyntaxOff
1281 </bmt>
```

## 7.17 Header and Footer

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

```
1282 <*ct>
1283 \if@twoside
1284 \lhead[\thepage]{\slshape\rightmark}
1285 \chead[]{}
1286 \rhead[\slshape\leftmark]{\thepage}
1287 \lfoot[\uantwerpendocsprop{org-ua} -- \@facultyacronym]{\courseversion}
1288 \cfoot[]{}
1289 \rfoot[]{\@title{} \ifdefvoid{\@subtitle}{}{ --- \@subtitle}}
1290 \else
1291 \lhead[]{\leftmark}
1292 \chead[]{}
1293 \rhead[]{\thepage}
1294 \lfoot[]{\courseversion}
1295 \cfoot[]{UAntwerpen--\@facultyacronym}
1296 \rfoot[]{\@title{}}
1297 \fi
1298 </ct>
```

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

```

1299 <*bmt>
1300 \AtBeginDocument{
1301   \setlength{\headheight}{13.7pt}
1302   \renewcommand*\headrulewidth{0pt}
1303   \renewcommand*\footrulewidth{0pt}
1304   \newsavebox\smallogo
1305   \savebox\smallogo{\raisebox{-1ex}{\includegraphics[width=2.5cm]{\logopos}}}
1306   \if@twoside
1307     \lhead[]{\footnotesize\slshape\rightmark}
1308     \chead[]{}
1309     \rhead[\footnotesize\slshape\leftmark]{}
1310     \lfoot[\footnotesize\thepage~\textcolor{maincolor}{\textbf{}}]{\usebox\smallogo}
1311     \cfoot[\footnotesize@bamadoctype]{\footnotesize@bamadoctype}
1312     \rfoot[\usebox\smallogo]{\footnotesize\textcolor{maincolor}{\textbf{}}~\thepage}
1313   \else
1314     \lhead[]{\footnotesize\slshape\leftmark}
1315     \chead[]{}
1316     \rhead[]{}
1317     \lfoot[]{\usebox\smallogo}
1318     \cfoot[]{\footnotesize@bamadoctype}
1319     \rfoot[]{\footnotesize\textcolor{maincolor}{\textbf{}}~\thepage}
1320   \fi
1321   \fancypagestyle{plain}{\pagestyle{fancy}}
1322   % \patchcmd{\chapter}{\thispagestyle{plain}}{\thispagestyle{fancy}}{}{}
1323 }
1324 </bmt>

```

The header and footer of the `phdthesis` and `report` are defined to be:

```

1325 <*pt | rp>
1326 \if@twoside
1327   \lhead[\thepage]{\slshape\rightmark}
1328   \chead[]{}
1329   \rhead[\slshape\leftmark]{\thepage}
1330   \lfoot[]{}
1331   \cfoot[]{}
1332   \rfoot[]{}
1333 \else
1334   \lhead[]{\leftmark}
1335   \chead[]{}
1336   \rhead[]{\thepage}
1337   \lfoot[]{}
1338   \cfoot[]{}
1339   \rfoot[]{}
1340 \fi
1341 </pt | rp>

```

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

```

1342 <*le>
1343 \lhead[]{}
1344 \chead[]{}
1345 \rhead[]{}
1346 \lfoot[\small\textcolor{gray}{\@date}]{\textcolor{gray}{\@date}}
1347 \cfoot[]{}

```

```

1348 \rfoot[\small\textcolor{gray}{\pagename~\thepage~\uantwerpendocsprop{of}~\pageref{lastpage}}]
1349   {\small\textcolor{gray}{\pagename~\thepage~\uantwerpendocsprop{of}~\pageref{lastpage}}}
1350 \le)

```

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

```

1351 <*ex)
1352 \lhead[]{}
1353 \chead[]{}
1354 \cfoot[\small \thepage/\pageref{lastpage}]{\small\thepage/\pageref{lastpage}}
1355 \if@examiner
1356 \rhead[\small EXAMINER VERSION]{\small EXAMINER VERSION}
1357 \AddToShipoutPicture{
1358   \put(60,40){\rotatebox{60}{\textcolor{watermark}{
1359     \fontsize{105}{130}\selectfont Examiner Version}}}}
1360 \else
1361 \rhead[\small Student nr. \@studentnr]{\small Student nr. \@studentnr}
1362 \fi
1363 </ex)

```

Some common code remains:

```

1364 <*ct)
1365 \setlength{\headheight}{13.7pt}
1366 \renewcommand*{\headrulewidth}{1pt}
1367 \renewcommand*{\footrulewidth}{1pt}
1368 \pagenumbering{arabic}
1369 </ct)
1370 <*pt | rp | le)
1371 \setlength{\headheight}{13.7pt}
1372 \renewcommand*{\headrulewidth}{0pt}
1373 \renewcommand*{\footrulewidth}{0pt}
1374 </pt | rp | le)
1375 <*ex)
1376 \setlength{\headheight}{13.7pt}
1377 \renewcommand*{\headrulewidth}{0pt}
1378 </ex)

```

Remains to take care of filling

```

1379 <*ct | mt | pt | rp | le)
1380 \if@filled\else
1381   \raggedright
1382 \fi
1383 \raggedbottom
1384 \onecolumn
1385 </ct | mt | pt | rp | le)

```

## 7.18 Copyright notice

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

```

1386 <*ct | rp)
1387 \newcommand{\@crnotice}{

```



```

1388 {
1389   \setlength\parindent{0em}
1390   This document has been typeset using \LaTeX{} and the
1391   \texttt{uantwerpendocs} package.\
1392   \@copyrightnotices
1393
1394 \</ct | rp>
1395 \<ct>   \@courseversion
1396 \<*ct | rp>
1397
1398   CONFIDENTIAL AND PROPRIETARY.
1399
1400   \copyright{} \@versionyear{} \uantwerpendocsprop{org-ua},
1401   \uantwerpendocsprop{arr}.
1402 }
1403 }
1404 \</ct | rp>
1405 \<*bmt>
1406 \newcommand{\@crnotice}{
1407   \@copyrightnotices
1408 }
1409 \</bmt>

```

## 7.19 Fancy chapter headers for the phdthesis and report class

```

1410 \<*pt | rp>
1411 \def\@makechapterhead#1{%
1412   \vspace*{1ex}%
1413   \begin{flushright}
1414     \makebox[Opt][l]{\rule[-0.4em]{10cm}{1.8em}}\textcolor{white}
1415     {\LARGE\textbf{~\chaptername~}}
1416     \raisebox{-24pt}{
1417       \begin{tikzpicture}
1418         \foreach \theta in {0,5,...,355} {
1419           \node[color=white] at (\theta:0.025)
1420             {\fontsize{72}{12}\selectfont\textbf{\thechapter}};
1421         }
1422         \node[color=gray] at (0,0)
1423           {\fontsize{72}{12}\selectfont\textbf{\thechapter}};
1424       \end{tikzpicture}
1425     }\hspace*{-8pt}
1426     \par\nobreak
1427     \interlinepenalty\@M
1428     \huge\textbf{\textcolor{darkgray}{\rule[-0.5ex]{0em}{2.6ex}~#1}}
1429     \par\nobreak
1430   \end{flushright}
1431   \rule{\textwidth}{1pt}
1432   \vspace{5\p@}\par\nobreak
1433 }
1434 \def\@schapter#1{%
1435   \@makeschapterhead{#1}%
1436   \@afterheading

```

```

1437 }
1438 \def\@makeschapterhead#1{%
1439   \vspace*{1ex}%
1440   \begin{flushright}
1441     \LARGE\textbf{\textcolor{darkgray}{\rule[-0.5ex]{0em}{2.6ex}~#1}}
1442   \end{flushright}
1443   \rule{\textwidth}{1pt}
1444   \vspace{5\p@}\par
1445 }
1446 % overwrite appendix
1447 \def\appendix{
1448   \setcounter{chapter}{0}
1449   \renewcommand*{\thechapter}{\Alph{chapter}}
1450   \renewcommand*{\chaptername}{appendixname}
1451 }
1452 </pt | rp>

```

## 7.20 Fancy chapter headers for the bamathesis class

```

1453 <*bmt>
1454 \addtokomafont{section}{\color{basecolor}}
1455 \addtokomafont{chapter}{\color{basecolor}}
1456 </bmt>

```

## 7.21 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.

`\maketitle` The macro for the coursetext class:

```

1457 <*ct>
1458 \renewcommand\maketitle{%
1459   \pagestyle{empty}
1460   \begin{titlepage}
1461     \AddToShipoutPicture*{%
1462       \put(0,0){%
1463         \if@modern
1464           \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1465             \clip (0,0) rectangle(\paperwidth,\paperheight);
1466
1467             \begin{scope}
1468               \clip (2.125,20.192) rectangle (\paperwidth,6);
1469               \fill[sidecolor]
1470                 (2.125,20.192) rectangle (\paperwidth,6);
1471               \node[anchor=south west]
1472                 at (2.125,6)
1473                 {\ifx\@titlepageimage\@empty
1474                  \else
1475                  \includegraphics[keepaspectratio,
1476                    scale=0.01,
1477                    min size={18.875cm}{14.192cm}]{\@titlepageimage}
1478                  \fi};

```

```

1479     \end{scope}
1480
1481
1482     \node
1483     [anchor=west,text width=13.75cm,align=left,font=\Huge,uauaside]
1484     at (2.125,27)
1485     {
1486     \textsf{\textbf{\@title}}
1487     };
1488
1489     \node
1490     [anchor=west,text width=13.75cm,align=left,font=\Large,uauaside]
1491     at (2.125,25.5)
1492     {
1493     \textsf{\textbf{\@subtitle}}
1494     };
1495
1496     \node
1497     [anchor=base west,maincolor,text width=13.75cm,align=left,font=\LARGE]
1498     at (2.125,24)
1499     {\textsf{\textbf{\@author}}};
1500
1501
1502     \node
1503     [anchor=west,text width=13.75cm,align=left,font=\large,uauaside]
1504     at (2.125,22)
1505     {\textsf{\jointcourseswithcodes{\}}};
1506
1507     \fill[maincolor] (2.125,6)
1508     -- (\paperwidth,6)
1509     -- (\paperwidth,2.625)
1510     -- (2.55,2.625)
1511     arc (-90:-180:0.425)
1512     -- cycle;
1513
1514     \node[white,anchor=west,align=left,font=\large]
1515     (SN) at (2.55,5.1)
1516     {
1517     \begin{tabular}{@{}l@{~\},p{14.5cm}}
1518     \textsf{\lecturersname}
1519     & \textsf{\textbf{\jointlecturers{ | }}}
1520     \end{tabular}
1521     };
1522
1523     \node[white,anchor=west,text width=17.5cm,align=left,font=\small]
1524     at (2.55,3.7)
1525     {\textsf{\jointdegrees{\}}{\}}\
1526     \textsf{\textbf{\@faculty{ } \ifx\@department\empty\else |
1527     \@department{ } \fi | \@academicyear \hfill
1528     \@publishercode}}}\
1529     \textsf{\@publisher}};
1530
1531     \node[anchor=west] at (2.125,1.313)
1532     {\includegraphics[width=4.75cm]{\logopos}};

```

```

1533 \end{tikzpicture}
1534 \else
1535 \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1536 \clip (0,0) rectangle(\paperwidth,\paperheight);
1537 \if@cameraready
1538 \else
1539 \fill[uauamain] (0,29.7) -- (2.2,29.7) -- (2.2,21.435) arc
1540 (0:-90:0.235) -- (0,21.2) -- cycle;
1541 \node[anchor=west] at (2.2,1.8)
1542 {\includegraphics[width=5.2cm]{\logoposua}};
1543 \fi
1544
1545 \node
1546 [anchor=north west,text width=14.75cm,align=left]
1547 at (5,27.1)
1548 {
1549 \fontsize{16}{20}\selectfont\textsf{\textbf{\uantwerpendocsprop{acyearname}}}\[
1550 \fontsize{16}{20}\selectfont\textsf{\@academicyear}
1551 };
1552
1553 \node
1554 [anchor=north west,text width=14.75cm,align=left]
1555 at (5,22.7)
1556 {
1557 \fontsize{16}{20}\selectfont\textsf{\@faculty{}}
1558 \ifx\@department\empty\else | \@department{} \fi}
1559 };
1560
1561 \node
1562 [anchor=north west,text width=14.75cm,align=left] (title)
1563 at (5,20.9)
1564 {
1565 \fontsize{24}{30}\selectfont\textsf{\textbf{\@title}}\|[1ex]
1566 \fontsize{18}{24}\selectfont\textsf{\@subtitle}
1567 };
1568
1569 \node
1570 [anchor=north west,below=of title,
1571 text width=14.75cm,align=left,
1572 yshift=-0.5cm,color=uauamain] (author)
1573 {
1574 \fontsize{18}{24}\selectfont\textsf{\@author}}
1575 };
1576
1577 \node
1578 [anchor=north west,below=of author,
1579 text width=14.75cm,align=left,
1580 yshift=-0.5cm]
1581 {
1582 \fontsize{12}{15}\selectfont\textsf{\jointdegrees{\}\{\\}}
1583 };
1584
1585 \node
1586 [anchor=north west,text width=14.75cm,align=left] (title)

```

```

1587         at (5,13.3)
1588         {
1589             \fontsize{12}{15}\selectfont\textsf{\textbf{\jointlecturers{\}}}
1590         };
1591
1592         \node
1593         [anchor=north west,text width=14.75cm,align=left] (title)
1594         at (5,10)
1595         {
1596             \fontsize{12}{15}\selectfont\textsf{\jointcourseswithcodes{\}}
1597         };
1598
1599         \node[anchor=east]
1600         at (19,1.8)
1601         {
1602             \fontsize{12}{15}\selectfont\textsf{\@publishercode}
1603         };
1604
1605         \end{tikzpicture}
1606     \fi
1607 }
1608 }
1609 \end{titlepage}%
1610 ~\par\relax
1611 \clearpage
1612 \if@copyright
1613 \backgroundsetup{contents={Copyright University of Antwerp, All
1614     Rights Reserved}}
1615 \fi
1616 \vspace*{\stretch{1}}
1617 \@crnotice
1618 \clearpage
1619 \setcounter{footnote}{0}%
1620 \global\let\thanks\relax
1621 \global\let\maketitle\relax
1622 \global\let\@thanks\@empty
1623 \global\let\title\relax
1624 \global\let\author\relax
1625 \global\let\date\relax
1626 \global\let\and\relax
1627 \pagestyle{fancy}
1628 \thispagestyle{empty}
1629 }
1630 \</ct>

```

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

```

1631 \<*ct>
1632 \newcommand\makefinalpage{
1633     \if@cameraready
1634     \else
1635     \cleardoublepage
1636     \thispagestyle{empty}
1637     \if@copyright\NoBgThispage\fi

```

```

1638 ~% intentionally blank page
1639 \clearpage
1640 \thispagestyle{empty}
1641 \if@copyright\NoBgThispage\fi
1642 \AddToShipoutPicture*{%
1643   \put(0,0){%
1644     \if@modern
1645       \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1646         \clip (0,0) rectangle(\paperwidth,\paperheight);
1647         \fill[sidecolor] (0,0) rectangle (2.125cm,2.625cm);
1648       \end{tikzpicture}
1649     \else
1650       \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1651         \clip (0,0) rectangle(\paperwidth,\paperheight);
1652         \fill[uauamain] (0,21.2) rectangle (21,29.7);
1653       \end{tikzpicture}
1654     \fi
1655   }
1656 }
1657 ~
1658 \fi
1659 }
1660 </ct>

```

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

```

1661 <*bmt>
1662 \renewcommand\maketitle{%
1663   \pagestyle{empty}
1664   \begin{titlepage}
1665     \AddToShipoutPicture*{%
1666       \put(0,0){%
1667         \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1668           \clip (0,0) rectangle(\paperwidth,\paperheight);
1669           \node
1670             [anchor=north east,align=right]
1671             at (\paperwidth-1.6cm,\paperheight-2.6cm)
1672             {\bfseries\large
1673              \uantwerpendocsprop{acyearname}\[.75ex]\Large\@academicyear};
1674           \node (title)
1675             [anchor=north west,align=left,
1676             text width=\paperwidth-5.1cm,font=\Huge,text=white,
1677             xshift=1pt]
1678             at (3.5cm,\paperheight-6.4cm)
1679             {\sethlcolor{maincolor}%
1680              \textsf{\textbf{\reversevideo{\@title}}}}%
1681              \ifx\@subtitle\empty\else\\textsf{\reversevideo{\@subtitle}}\fi};
1682           \node
1683             [anchor=north west,font=\LARGE,yshift=-1cm,xshift=-1pt]
1684             at (title.south west)
1685             {%
1686              \textsf{\textbf{\@author}}
1687             };
1688         }

```

```

1689     \node
1690     [anchor=west,align=left,
1691     text width={\paperwidth-5.1cm},font=\normalsize]
1692     at (3.5cm,12cm)
1693     {\textsf{\@bamadotype}\%
1694     \textsf{\textbf{\@degree}}
1695     };
1696
1697     \node
1698     [anchor=west,align=left,
1699     text width={\paperwidth-5.1cm},font=\normalsize]
1700     at (3.5cm,7.5cm)
1701     {\supervisorsname{\}
1702     \textbf{\joint supervisors with affiliation{\}{-~-}}%
1703     \cosupervisorsname{\}
1704     \textbf{\joint cosupervisors with affiliation{\}{-~-}}%
1705     \extsupervisorsname{\}
1706     \textbf{\joint extsupervisors with affiliation{\}{}}}
1707     };
1708
1709     \ifx\@companylogo\@empty
1710     \else
1711     \node[anchor=south east] at
1712     (\pagewidth-1.6cm,1.5cm)
1713     {\@companylogo};
1714     \fi
1715
1716
1717     \node[anchor=south west] at
1718     (1.6cm,1.5cm)
1719     {\includegraphics[width=6.2cm]{\logopos}};
1720     \end{tikzpicture}
1721   }
1722 }
1723 \end{titlepage}%
1724 ~\par\relax
1725 \clearpage
1726 \vspace*{\stretch{1}}
1727 \@crnotice
1728 \clearpage
1729 \setcounter{footnote}{0}%
1730 \global\let\thanks\relax
1731 \global\let\maketitle\relax
1732 \global\let\@thanks\@empty
1733 \global\let\title\relax
1734 \global\let\author\relax
1735 \global\let\date\relax
1736 \global\let\and\relax
1737 \pagestyle{fancy}
1738 \thispagestyle{empty}
1739 }
1740 </bmt>

```

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

```
1741 <*bmt>
1742 \newcommand\makefinalpage{
1743 }
1744 </bmt>
```

## 7.22 Title page for the `phdthesis` classes

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

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

```
1745 <*pt>
1746 \renewcommand\maketitle{%
1747   \pagestyle{empty}
1748   \if@bare\else
1749   \begin{titlepage}
1750     \AddToShipoutPicture*{%
1751       \put(0,0){%
1752         \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1753           \useasboundingbox (0,0) rectangle(\paperwidth,\paperheight);
1754           \fill[lightgray]
1755             (2.125,19) rectangle (\paperwidth+3mm,6);
1756           \begin{scope}
1757             \clip (2.125,19) rectangle (\paperwidth+3mm,6);
1758             \node[anchor=south west]
1759               at (2.125,6)
1760               {\ifx\@titlepageimage\@empty
1761                \else
1762                 \includegraphics[keepaspectratio,
1763                  scale=0.01,
1764                  min size={16.175cm}{13cm}]{\@titlepageimage}
1765                \fi};
1766           \end{scope}
1767
1768           \node
1769             [anchor=west,text width=13.75cm,align=left,font=\Huge,uauaside]
1770             at (2.125,23.5)
1771             {
1772               \textsf{\textbf{\@title}}
1773             };
1774
1775           \node
1776             [anchor=west,text width=13.75cm,align=left,font=\Large,uauaside]
1777             at (2.125,21.5)
1778             {
1779               \textsf{\textbf{\@subtitle}}
1780             };
1781
1782           \node
1783             [anchor=base west,maincolor,
```



```

1784         text width=13.75cm,align=left,font=\LARGE]
1785         at (2.125,20)
1786         {\textsf{\textbf{\@author}}};
1787
1788         \fill[maincolor] (2.125,6)
1789         -- (\paperwidth+3mm,6)
1790         -- (\paperwidth+3mm,2.625)
1791         -- (2.55,2.625)
1792         arc (-90:-180:0.425)
1793         -- cycle;
1794
1795         \node[white,anchor=west,align=left,font=\large]
1796         (SN) at (2.55,4.9)
1797         {
1798         \begin{tabular}{@{}l@{-\,},p{11.5cm}}
1799         \textsf{\superscriptname{}}
1800         & \textsf{\textbf{\jointsupervisors{ | }}}}
1801         \end{tabular}
1802         };
1803
1804
1805         \node[white,anchor=west,text width=14.5cm,align=left,font=\small]
1806         at (2.55,3.7)
1807         {\textsf{\uantwerpendocsprop{pthesisnamei}
1808         \@degree{}}\}
1809         \textsf{\textbf{\@faculty{}} \ifx\@department\empty\else |
1810         \@department{ } \fi | \@defenselocation, \@defensedate}}};
1811
1812         \node[anchor=west] at
1813         (2.125,1.313)
1814         {\includegraphics[width=4.75cm]{\logoposua}};
1815         \end{tikzpicture}
1816     }
1817 }
1818 \end{titlepage}%
1819 ~\par\relax
1820 \cleardoublepage
1821 \fi
1822 \begin{center}
1823 \includegraphics[width=4.75cm]{\logoposua}
1824 \vfill
1825 \@faculty\
1826 \@department\par
1827 \vfill
1828 \Huge\textsf{\@title}\par
1829 \large\textsf{\@subtitle}\par
1830 \vfill
1831 \normalsize\uantwerpendocsprop{pthesisnamei}\
1832 \@degree\
1833 \uantwerpendocsprop{pthesisnameii}\
1834 \medskip
1835 \textbf{\@author}
1836 \vfill
1837 \begin{minipage}[b]{0.4\textwidth}

```

```

1838     \@defenselocation, \@defensedate
1839     \end{minipage}
1840     \hfill
1841     \begin{minipage}[b]{0.4\textwidth}
1842         \flushright
1843         \supervisorsname{\}
1844         \jointssupervisors{\}{\}
1845     \end{minipage}
1846 \end{center}
1847 \clearpage
1848 \noindent\textbf{\uantwerpendocsprop{juryname}}\hfill\[\lex]
1849 \textit{\uantwerpendocsprop{jurychairname}}\hfill\break
1850 \@jurychair{\}\ifdefvoid{\@jurychairaff}{\}, \@jurychairaff\
1851 \hfill\break
1852 \textit{\supervisorsname{}}\hfill\break
1853 \jointssupervisorswithaffiliation{\}{\}
1854 \hfill\break
1855 \textit{\uantwerpendocsprop{jurymembersname}}\hfill\break
1856 \jointjurymembers{\}
1857 \hfill\break
1858 \vfill
1859 \noindent\textbf{Contact}\
1860 \smallskip
1861 \@author\
1862 \@affiliation\
1863 \@address\
1864 \vfill
1865 \noindent\copyright{\} \@defensedate{\} \@author\
1866 \uantwerpendocsprop{arr}.
1867 \vfill
1868 \noindent\begin{minipage}[b]{.5\linewidth}
1869     \ifdefempty{\@isbn}{\}{ISBN \@isbn}~\
1870     \ifdefempty{\@depot}{\}{Wettelijk depot \@depot}~\
1871 \end{minipage}
1872 \hfill
1873 \ifdefempty{\@isbn}{\}{
1874     \begin{minipage}[b]{.5\linewidth}
1875         \expandafter\EAN \@isbn
1876     \end{minipage}
1877 }
1878 \thispagestyle{empty}
1879 \ifx\@titel\empty
1880 \else
1881 \clearpage
1882 \begin{center}
1883     \vfill
1884     ~
1885     \vfill
1886     Dutch title:
1887     \vfill
1888     \Huge\textsf{\@titel}\par
1889     \large\textsf{\@subtitel}\par
1890     \vfill
1891     ~

```

```

1892   \vfill
1893 \end{center}
1894 \fi
1895 \setcounter{footnote}{0}%
1896 \global\let\thanks\relax
1897 \global\let\maketitle\relax
1898 \global\let\@thanks\@empty
1899 \global\let\title\relax
1900 \global\let\author\relax
1901 \global\let\date\relax
1902 \global\let\and\relax
1903 \clearpage
1904 \pagestyle{fancy}
1905 \thispagestyle{empty}
1906 }
1907 </pt>

```

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

```

1908 <*pt>
1909 \newcommand\makefinalpage{
1910   \if@bare\else
1911   \cleardoublepage
1912   \thispagestyle{empty}
1913   ~% intentionally blank page
1914   \clearpage
1915   \thispagestyle{empty}
1916   \AddToShipoutPicture*{%
1917     \put(0,0){%
1918       \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1919         \useasboundingbox (0,0) rectangle (\paperwidth,\paperheight);
1920         \fill[sidecolor] (-3mm,-3mm) rectangle (2.125cm,2.625cm);
1921       \end{tikzpicture}
1922     }
1923   }
1924   ~
1925   \fi
1926 }
1927 </pt>

```

## 7.23 Title page for the report classes

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

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

```

1928 <*rp>
1929 \renewcommand\maketitle{%
1930   \pagestyle{empty}
1931   \begin{titlepage}
1932     \AddToShipoutPicture*{%

```

```

1933 \put(0,0){%
1934 \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
1935 \clip (0,0) rectangle(\paperwidth,\paperheight);
1936 \fill[lightgray]
1937 (2.125,20.192) rectangle (\paperwidth,6);
1938 \begin{scope}
1939 \clip (2.125,20.192) rectangle (\paperwidth,6);
1940 \node[anchor=south west]
1941 at (2.125,6)
1942 {\ifx\@titlepageimage\@empty
1943 \else
1944 \includegraphics[keepaspectratio,
1945 scale=0.01,
1946 min size={18.875cm}{14.192cm}]{\@titlepageimage}
1947 \fi};
1948 \end{scope}
1949
1950 \node
1951 [anchor=west,text width=17cm,align=left,font=\Huge,uauaside]
1952 at (2.125,\paperheight-3cm)
1953 {
1954 \textsf{\textbf{\@title}}}
1955 };
1956
1957 \node
1958 [anchor=west,text width=17cm,align=left,font=\Large,uauaside]
1959 at (2.125,\paperheight-5cm)
1960 {
1961 \textsf{\textbf{\@subtitle}}}
1962 };
1963
1964 \node
1965 [anchor=base west,maincolor,
1966 text width=17cm,align=left,font=\LARGE]
1967 at (2.125,\paperheight-6.5cm)
1968 {\textsf{\textbf{\@author}}};
1969
1970 \fill[maincolor] (2.125,6)
1971 -- (\paperwidth,6)
1972 -- (\paperwidth,2.625)
1973 -- (2.55,2.625)
1974 arc (-90:-180:0.425)
1975 -- cycle;
1976
1977 \node[white,anchor=west,text width=17cm,align=left,font=\small]
1978 at (2.55,5.3)
1979 {\textsf{\textbf{\@extra}}};
1980
1981 \node[white,anchor=west,text width=17cm,align=left,font=\small]
1982 at (2.55,4)
1983 {\textsf{\textbf{\@affiliation{}}
1984 | \@versionyear}}\
1985 \@address}};
1986

```

```

1987         \node[anchor=west] at
1988             (2.125,1.313)
1989             {\includegraphics[width=4.75cm]{\logopos}};
1990     \end{tikzpicture}
1991 }
1992 }
1993 \end{titlepage}%
1994 ~\par\relax
1995 \cleardoublepage
1996 \begin{center}
1997     \includegraphics[width=4.75cm]{\logopos}
1998     \vfill
1999     \@affiliation\\
2000     \@extra\par
2001     \vfill
2002     \Huge\textsf{\@title}\par
2003     \large\textsf{\@subtitle}\par
2004     \vfill
2005     \textbf{\@author}
2006     \vfill
2007 \end{center}
2008 \clearpage
2009 \vfill
2010 \textbf{Contact}\\
2011 \smallskip
2012 \@author\\
2013 \@affiliation\\
2014 \@address\\
2015 \vfill
2016 \copyright{} \@versionyear{} \@author\\
2017 \uantwerpendocsprop{arr}.
2018 \vfill
2019 \setcounter{footnote}{0}%
2020 \global\let\thanks\relax
2021 \global\let\maketitle\relax
2022 \global\let\@thanks\@empty
2023 \global\let\title\relax
2024 \global\let\author\relax
2025 \global\let\date\relax
2026 \global\let\and\relax
2027 \pagestyle{fancy}
2028 \thispagestyle{empty}
2029 \
2030 }
2031 </rp>

```

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

```

2032 <rp>
2033 \newcommand\makefinalpage{
2034     \cleardoublepage
2035     \thispagestyle{empty}
2036     ~% intentionally blank page
2037     \clearpage

```

```

2038 \thispagestyle{empty}
2039 \begin{tikzpicture}[remember picture,overlay]
2040   \node at (current page.center) {
2041     \begin{tikzpicture}[inner sep=0pt]
2042       \clip (0,0) rectangle(\paperwidth,\paperheight);
2043       \fill[sidecolor] (0,0) rectangle (2.125cm,2.625cm);
2044     \end{tikzpicture}
2045   };
2046 \end{tikzpicture}
2047 }
2048 </rp>

```

## 7.24 Title page for the letter class

### 7.24.1 Title Page

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

```

2049 <*\e>
2050 \newcommand\maketitle{%
2051   \pagestyle{fancy}
2052   \thispagestyle{empty}
2053   \AddToShipoutPicture*{%
2054     \put(0,0){%
2055       \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
2056         \clip (0,0) rectangle(\paperwidth,\paperheight);
2057         \path (current page.north west) +(1.8cm,-1.2cm)
2058         node[anchor=north west] {
2059           \includegraphics[height=1.1cm]{\@logo}
2060         };
2061         \if@nofoldline\else
2062         \draw (current page.north west)
2063         +(1cm,-98mm) -- +(1.5cm,-98mm);
2064         \fi
2065         % 90 x 45
2066         % pos: 20mm van kant, 15mm van onderkant
2067         \path (current page.north east) +(-100mm,-65mm)
2068         node[anchor=west,text width=80mm,align=left] {
2069           \scriptsize\textcolor{gray}{\uline{\@returnaddress}}\*\
2070           \normalsize\@to\*\
2071           \ifx\@toorganization\@empty\else\@toorganization\*\fi\
2072           \@toaddress
2073         };
2074       \end{tikzpicture}
2075     }
2076   }
2077   ~\[\[3ex]
2078   \textcolor{uauaside}{\textbf{\@sender}}
2079   \ifx\@senderrole\@empty\[\[1.75ex]\else \*\@senderrole\[\[1.75ex]\fi
2080   \@faculty{}
2081   \ifx\@unit\@empty\else\*\ @unit\fi~\[\[1.75ex]
2082   \@address\[\[1.75ex]
2083   \ifemails{E~\jointemails{\phantom{E~}}\}

```

```

2084 \ifphones{T~\jointphones{\phantom{T}}}\}
2085 \iffaxes{F~\jointfaxes{\phantom{F}}}\}
2086 \ifmobiles{M~\jointmobiles{\phantom{M}}}\}
2087 ~\}[4ex]
2088 \begin{tikzpicture}[anchor=north west,align=left,outer sep=0,inner sep=0]
2089   \path
2090     (0,0) node { \scriptsize \strut
2091       \textcolor{gray}{\uppercase\expandafter{\uantwerpenocsp{datename}} } }
2092     (4cm,0) node { \scriptsize \strut
2093       \textcolor{gray}{\uppercase\expandafter{\uantwerpenocsp{subjectname}} } }
2094     (0,-2.5ex) node { \strut \@date }
2095     (4cm,-2.5ex) node[align=left] { \strut \@subject };
2096 \end{tikzpicture}~\}[4ex]
2097 }
2098 \le

```

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

```

2099 \*le
2100 \AtEndDocument{
2101   \@closing\*[3ex]\@signature~\}[3ex]
2102   \@sender
2103   \ifx\@senderrole\@empty\}[8ex]\else\*\@senderrole\}[8ex]\fi
2104   \setlength{\parskip}{0em}
2105   \ifx\@carboncopy\@empty\else CC: \@carboncopy\}[4ex]\fi
2106   \ifx\@enclosed\@empty\else ENCL: \@enclosed\fi
2107   \label{lastpage}
2108 }
2109 \le

```

## 7.25 Title page for the exam class

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

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

```

2110 \*ex
2111 \renewcommand\maketitle{%
2112   \pagestyle{fancy}
2113   \AddToShipoutPicture*{%
2114     \put(0,0){%
2115       \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
2116         \clip (0,0) rectangle(\paperwidth,\paperheight);
2117         \fill[lightgray]
2118           (2.125,{\paperheight-7cm}) rectangle (\paperwidth,6);
2119       \end{tikzpicture}
2120     \node
2121       [anchor=west,text width={\paperwidth-5cm},align=left]
2122       at (2.125,{\paperheight-3cm})
2123       {%
2124         \fontsize{18}{22}\selectfont%

```

```

2125     \textsf{\textbf{\@course{}}}}
2126     \ifx\@exampart\@empty
2127     \else \textsf{\textbf{ --- \@exampart}}\fi
2128 };
2129 \node
2130 [anchor=west,text width={\paperwidth-5cm},align=left]
2131 at (2.125,{\paperheight-4cm})
2132 {%
2133     \fontsize{12}{18}\selectfont%
2134     \textsf{\@coursecode}
2135 };
2136
2137 \node
2138 [anchor=west,text width={\paperwidth-5cm},align=left,font=\large]
2139 at (2.125,{\paperheight-5cm})
2140 {%
2141     \fontsize{12}{18}\selectfont%
2142     \textsf{\uantwerpendocsprop{seriesname} \@examgroupnumber{} \hfill \@examdate{}}
2143 };
2144
2145 \node[anchor=south west,align=left,inner sep=0pt] at (3,21)
2146 {%
2147     \fontsize{14}{19}\selectfont%
2148     \textsf{\uantwerpendocsprop{examname}}
2149 };
2150
2151 \node[anchor=south west,align=left,inner sep=0pt] at (3,19)
2152 {%
2153     \fontsize{12}{18}\selectfont%
2154     \textsf{\uantwerpendocsprop{lastname}}
2155 };
2156 \foreach \nn in {0,1,...,33} {
2157     \draw[fill=white] (3,18) ++({0.5*\nn},0) rectangle +(0.5,0.8);
2158 }
2159
2160 \node[anchor=south west,align=left,inner sep=0pt] at (3,17)
2161 {%
2162     \fontsize{12}{18}\selectfont%
2163     \textsf{\uantwerpendocsprop{firstname}}
2164 };
2165
2166 \foreach \nn in {0,1,...,23} {
2167     \draw[fill=white] (3,16) ++({0.5*\nn},0) rectangle +(0.5,0.8);
2168 }
2169
2170 \node[anchor=south west,align=left,inner sep=0pt] at (16,17)
2171 {%
2172     \fontsize{12}{18}\selectfont%
2173     \textsf{\uantwerpendocsprop{docketname}}
2174 };
2175 \foreach \nn in {0,1,...,7} {
2176     \draw[fill=white] (16,16) ++({0.5*\nn},0) rectangle +(0.5,0.8);
2177 }
2178

```



```

2179 \node[anchor=south west,align=left,inner sep=0pt,text width=17cm]
2180 at (3,14)
2181 {%
2182 \fontsize{12}{21}\selectfont%
2183 \textsf{\uantwerpendocsprop{examdurationname}: \@examlength}
2184 };
2185 \node[anchor=south west,align=left,inner sep=0pt,text width=17cm]
2186 at (3,11)
2187 {%
2188 \fontsize{12}{15}\selectfont%
2189 \textsf{\begin{tabular}{@{}l@{}l}%
2190 \uantwerpendocsprop{examstartname}& : & \@tstart\\
2191 \uantwerpendocsprop{examendname} & : & \@tend
2192 \end{tabular}}
2193 };
2194
2195 \node[anchor=south west,align=left,inner sep=0pt,text width=17cm]
2196 at (3,8)
2197 {%
2198 \fontsize{12}{21}\selectfont%
2199 \textsf{\roomsname: \jointrooms{, }}
2200 };
2201
2202 \node
2203 [anchor=base west,uauamain,
2204 text width=(\paperwidth-5cm),align=left,font=\LARGE]
2205 at (2.125,{\paperheight-6.5cm})
2206 {\textsf{\textbf{\@author}}};
2207
2208 \fill[gray] (2.125,6)
2209 -- (\paperwidth,6)
2210 -- (\paperwidth,2.625)
2211 -- (2.55,2.625)
2212 arc (-90:-180:0.425)
2213 -- cycle;
2214
2215 \node[white,anchor=west,align=left,font=\large]
2216 (SN) at (2.55,4.9)
2217 {
2218 \begin{tabular}{@{}l@{}~\,}p{14.5cm}}
2219 \textsf{\lecturersname}
2220 & \textsf{\textbf{\jointlecturers{ | }}}
2221 \end{tabular}
2222 };
2223
2224 \node[white,anchor=west,text width=17.5cm,align=left,font=\small]
2225 at (2.55,3.7)
2226 {\textsf{\jointdegrees{\}\{\}\}\}
2227 \textsf{\textbf{\@faculty{}}}};
2228
2229 \node[anchor=west] at (2.125,1.313)
2230 {\includegraphics[width=4.75cm]{\logopos}};
2231 \end{tikzpicture}
2232 }

```

```

2233 }
2234 ~\par\relax
2235 \clearpage
2236 \lfoot[\small \@shorttitle]{\small \@shorttitle}
2237 \rfoot[\small Groep \@examgroupnumber{} ---
2238 \@academicyear]{\small Groep \@examgroupnumber{} --- \@academicyear}
2239 \renewcommand*{\footrulewidth}{1pt}
2240 \@extrainfo{}
2241 }
2242 </ex>

```

## 7.26 Auxiliary functions to typeset exams

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

```

2243 <*ex>
2244 \newcounter{question}
2245 \setcounter{question}{0}
2246 \renewcommand*\thequestion{\@arabic\c@question}
2247 \newcommand{\question}[1]{
2248   \stepcounter{question}
2249   \thequestion.~#1%
2250 }
2251 </ex>

```

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

```

2252 <*ex>
2253 \newcommand*\questionweight[1]{%
2254   \hspace{\fill}
2255   \begin{tabular}{|c|}
2256     \hline
2257     \small \antwerpendocsprop{weightname}: #1\
2258     \hline
2259   \end{tabular}\
2260 }
2261 </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.

```

2262 <*ex>
2263 \newcommand{\engdut}[2]{%
2264   \begin{tabular}{ccc}%
2265     \selectlanguage{english}%
2266     \begin{minipage}[t]{0.45\textwidth}%
2267       #1
2268     \end{minipage}%
2269     &~~~&
2270     \selectlanguage{dutch}%
2271     \begin{minipage}[t]{0.45\textwidth}%
2272       #2

```

```

2273         \end{minipage}%
2274     \end{tabular}
2275     \selectlanguage{english}%
2276 }
2277 </ex>

```

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

```

2278 <*ex>
2279 \newcommand*\@mcsymbol{\square}
2280 \newcommand*\setmcsymbol[1]{\renewcommand\@mcsymbol{#1}}
2281 </ex>

```

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

```

2282 <*ex>
2283 \newcommand\mc[1]{%
2284     \hfill\break\quad\begin{tabular}{cc}
2285         & $\@mcsymbol$
2286         & &
2287         \begin{minipage}[t]{0.9\textwidth}%
2288             #1
2289         \end{minipage}%
2290     \end{tabular}
2291     }
2292 </ex>

```

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

```

2293 <*ex>
2294 \newcommand{\engdutmc}[2]{%
2295     \hfill\break\begin{tabular}{cccc}
2296         & $\@mcsymbol$
2297         & & &
2298         \selectlanguage{english}%
2299         \begin{minipage}[t]{0.42\textwidth}%
2300             #1
2301         \end{minipage}%
2302         &---&
2303         \selectlanguage{dutch}%
2304         \begin{minipage}[t]{0.42\textwidth}%
2305             #2
2306         \end{minipage}%
2307     \end{tabular}
2308     \selectlanguage{english}%
2309     }
2310 </ex>

```

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

```

2311 <*ex>
2312 \newcommand\insertsolutionspagepartial[1]{
2313   ~\relax
2314   \AddToShipoutPicture*{%
2315     \put(0,0){%
2316       \begin{tikzpicture}
2317         \clip (0,0) rectangle (21,#1);
2318 % \draw[densely dotted, step=0.5cm,black!20] (0.999,0.990) grid (20,1.5);
2319 \draw[densely dotted, step=0.5cm,black!20] (0.999,1.499) grid (2,2.5);
2320 \draw[densely dotted, step=0.5cm,black!20] (18.999,1.499) grid (20,2.5);
2321
2322 \draw[densely dotted, step=0.5cm,black!20] (0.999,2.499) grid (20,27);
2323 \draw[densely dotted, step=0.5cm,black!20] (0.999,27) grid (16,28);
2324 \draw[densely dotted, step=0.5cm,black!20] (19.499,27) grid (20,28);
2325 \draw[densely dotted, step=0.5cm,black!20] (0.99,27.999) grid
2326 (20,28.5);
2327 \draw[ultra thick] (1,#1) -- (20,#1);
2328 \end{tikzpicture}
2329 }
2330 }%
2331 \clearpage
2332 \relax
2333 }
2334 </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').

```

2335 <*ex>
2336 \newcommand\insertsolutionspage[1]{
2337   \clearpage
2338   \AddToShipoutPicture*{%
2339     \put(0,0){%
2340       \begin{tikzpicture}
2341         \clip (0,0) rectangle (21,29.5);
2342         \draw[densely dotted, step=0.5cm,black!20] (0.999,1.499) grid (2,2.5);
2343         \draw[densely dotted, step=0.5cm,black!20] (18.999,1.499) grid (20,2.5);
2344
2345         \draw[densely dotted, step=0.5cm,black!20] (0.999,2.499) grid (20,28);
2346         \draw[densely dotted, step=0.5cm,black!20] (0.999,28) grid (16,28.5);
2347         \draw[densely dotted, step=0.5cm,black!20] (19.499,28) grid (20,28.5);
2348       \end{tikzpicture}
2349     }
2350     \put(120,150){\rotatebox{60}{\textcolor{watermark}{
2351       \fontsize{105}{130}\selectfont\textsf{#1}}}
2352     }
2353   }
2354 }%
2355 ~\relax

```

```
2356 }
2357 </ex>
```

We add a lastpage label to the final page

```
2358 <*ex>
2359 \AtEndDocument{
2360   \label{lastpage}
2361 }
2362 </ex>
2363 % \end{macrocode
2364 %
2365 % \subsection{References}
2366 %   \begin{macrocode}
2367 <*ct | bmt | pt | rp>
2368 \AtBeginDocument{
2369   \@ifpackageloaded{hyperref}{
2370     \hypersetup{
2371       breaklinks=true,
2372       colorlinks=true,
2373       citecolor=black,
2374       filecolor=black,
2375       linkcolor=black,
2376       pageanchor=true,
2377       pdfpagemode=UseOutlines,
2378       urlcolor=black,
2379       pdftitle={\@title},
2380       pdfsubject={\@subtitle},
2381       pdfauthor={\@author}
2382     }
2383   }{}
2384 }
2385 </ct | bmt | pt | rp>
```

## Part II. The beamer theme

### 8 User guide

```
<*bmrug>
\documentclass[aspectratio=1610]{beamer}
\usetheme[ti]{uantwerpen}
\usepackage[english]{babel}
```

The packages below are for demonstration purpose only.  
They are not required for the template to work

```
\usepackage{metalogo}
\usepackage{kantlipsum}
\usepackage{pgfplots}
\usepackage{booktabs}
```

```

some stuff to typeset code
\newcommand*\command[1]{\tt \textbackslash #1}
\NewEnviron{codesnippet}[1][0.8\textwidth]{
  \scriptsize
  \quad\framebox[#1][l]{\texttt{
    \setlength\textwidth{#1}
    \begin{minipage}{0.9\textwidth}
      \BODY
    \end{minipage}
  }}
}
}
\newcommand*\ind[1][2ex]{\hspace*{#1}}
\newcommand*\bframe[1] [] {\command{begin}\{#1frame\}}
\newcommand*\eframe[1] [] {\command{end}\{#1frame\}}

\title{This is your \texttt{\textbackslash}title{}}
\subtitle[my short title]{This is your \texttt{\textbackslash}subtitle{}}
\date[my short date]{This is your \texttt{\textbackslash}date{}}
\author[my short author]{This is your \texttt{\textbackslash}author{}}

\begin{document}

\begin{frame}[negativefill]
  \maketitle
\end{frame}

\begin{frame}
  \maketitle
\end{frame}

\begin{frame}[negative]
  \maketitle
\end{frame}

\begin{frame}
  {What's on the menu?}
  {Bon app\`etit!}
  ~\
  \tableofcontents
\end{frame}

\section{Loading the theme and theme options}

\begin{frame}[negative]
  \sectionpage
\end{frame}

\begin{frame}
  {Using our beamer theme}

  The \texttt{uantwerpen} beamer theme is distributed by CTAN. It
  should be installed with your \TeX{} distribution by default.

```

You can load the package in your preamble as:

```
\begin{codesnippet}
  \command{documentclass}[aspectratio=1610]\{beamer\}\}
  \command{usetheme}[theme-options-go-here]\{uantwerpen\}\}
  \command{usepackage}[english]\{babel\}
\end{codesnippet}

\heading{Remarks}
\begin{itemize}
\item The theme behaves well for all supported beamer aspect
      ratios.
\item $16\times 10$ is currently your best option to maximize your
      slide size given a modern LCD-projector!
\item Only \texttt{dutch} and \texttt{english} are supported.
      The correct logoware is selected using the babel language option!
\end{itemize}
\end{frame}

\begin{l3qframe}[t,rqgraphic={
  \begin{minipage}{0.35\textwidth}
    \footnotesize
    \begin{center}
      \begin{tabular}{c}
        \toprule
        \bfseries option\\
        \midrule
        \tt be \\
        \tt fbd \\
        \tt ggw \\
        \tt lw \\
        \tt ow \\
        \tt re \\
        \tt sw \\
        \tt ti \\
        \tt we \\
        \tt iob \\
        \bottomrule
      \end{tabular}
    \end{center}
  \end{minipage}
}]
{Theme options}{
The following theme options may come in handy:
\begin{description}
\item[\tt X] to invoke your own faculty's colors and logos,
      with X one of the options in the table on the right\\
      (I assume you know your faculty abbreviation)
\item[\tt nofonts] disables font loading, so you can load your own fonts
\item[\tt rgb] to select RGB color encoding (best for projecting, default)
\item[\tt cmyk] to select CMYK color encoding (best for printing)
\item[\tt neutralcolors] to disable your faculty colors and use the
      standard UAntwerpen colors
\end{description}
```

```

\medskip

The defaults of the theme are:
\begin{itemize}
\item no faculty option ( $\rightarrow$  standard UAntwerpen logos)
\item \texttt{rgb}
\end{itemize}

\end{l3qframe}

\begin{frame}[t]
{A note on the compiler you are using}
{Fonts galore}

Depending on the type of compiler you use, a different font scheme
is loaded:
\begin{description}
\item[\LaTeX] --- ancient compiler - no support\\
Don't use!
\item[pdf\LaTeX] --- very old school compiler - no OTF/TTF support\\
Computer Modern Sans Serif is used as font
\item[\XeLaTeX] --- old school compiler - the first to have OTF/TTF
support\\
Calibri is used as font (with cmbright math fonts)
\item[\LuaLaTeX] --- current compiler - your best option\\
Calibri is used as font (with cmbright math fonts)
\end{description}

\end{frame}

\section{Title slides}

\begin{frame}[negative]
\sectionpage
\end{frame}

\begin{frame}[t]
{Title slides}
\heading{Contents} ---
The contents of the title slide can be set in your preamble
using the classical \LaTeX{} commands:
\begin{itemize}
\item \command{title}\{\}
\item \command{subtitle}\{\}
\item \command{author}\{\}
\item \command{date}\{\}
\end{itemize}
We don't specify an institute, as the logos do so.

\heading{Code} --- The titleslide is easily typeset as:\\
\begin{codesnippet}
\bframe[] [option]\\
\ind\command{maketitle}\\
\eframe

```



```

\end{codesnippet}

with no option, or one of: \texttt{normal}, \texttt{negative},
\texttt{negativefill}.
\end{frame}

\section{Regular slides}

\subsection{Bare}

\begin{frame}[negative]
\sectionpage
\end{frame}

\begin{frame}[negative]
\subsectionpage
\end{frame}

\begin{frame}[t]
{Frame titles}
{And subtitles}
\heading{How to specify them!}\
Titles are specified using \command{frametitle\{\}} or
\command{framesubtitle\{\}} or even easier as first and second argument
to the \texttt{frame} environment (or their derived versions).

\begin{codesnippet}
\bframe[] [options go here, comma separated]\
\ind\{first argument\}\
\ind\{second argument\}\
\ind frame contents \
\eframe
\end{codesnippet}
\bigskip

\heading{Don't need them?}\
If you need a slide without titles: just don't specify them!

\heading{Want to get rid of the footer as well?}\
Specify the \texttt{plain} option to the frame.

\end{frame}

\begin{frame}[t]
{The canvas}

\heading{Flavors} --- The canvas of the slide has four flavors:
\begin{description}
\item[normal]
the ordinary white background slide
\item[negativefill]
a reverse video slide on a background (in maincolor) without white
margins
\item[negative]

```

```

    a reverse video slide on a bakcground (in maincolor) with white
    margins
\item[graphicfill]
    a graphic canvas without white margins (graphic can be photo,
    graph, \ldots)
\item[graphic] a graphic canvas with white margins (graphic can be
    anything)
\end{description}
They are specified as options to the frame environment (or its
derivatives).

\heading{Remarks}
\begin{itemize}
\item You don't need to specify the normal canvas, it is the
    default.
\item In handout mode the negative and negativefill canvas will be
    typeset as normal canvas (to allow for easy printing).
\item The graphic option has many variants that we will discuss later.
\end{itemize}
\end{frame}

\begin{frame}[negativefill]
    {A negativefill slide}
    {with a subtle subtitle}
    \kant[1]
\end{frame}

\begin{frame}[negative,t]
    {A negative slide}
    {with a subtle subtitle}
    Don't do this! Don't use a title and subtitle, nor straight text
    but put material on this slide that does not touch or cross the
    edges of the background!\\
    E.g., the graph on the bottom right
    \place[anchor=south east] at (0.9,0.1) {
        \begin{tikzpicture}[white]
            \begin{axis}
                [width=4cm,height=5cm,grid=both,font=\footnotesize]
                \addplot[white] {x^2};
            \end{axis}
        \end{tikzpicture}
    }
    The best advice is not to reserve this canvas for title frames and
    intermission slides.
\end{frame}

\begin{frame}[t]
    {Vertical alignment}

    You can easily specify the vertical alignment of your frame
    contents, using the options
    \begin{description}
    \item[\texttt{t}] for top
    \item[\texttt{c}] for center

```

```

\item[\texttt{b}] for bottom
\end{description}

Example:\\[1ex]
\begin{codesnippet}
  \bframe[] [t]\\
  \ind\{Title\}\\
  \ind\{Subtitle\}\\
  \ind frame contents\\
  \eframe
\end{codesnippet}

\end{frame}

\begin{frame}[t]
{Colors}
{What a wonderful world}

\heading{Standard colors}\\
You can select the theme colors using:\\
\textcolor{maincolor}{Main color}:
can be specified as \LaTeX-color \emph{maincolor}\\
\textcolor{sidecolor}{Side color}:
can be specified as \LaTeX-color \emph{sidecolor}\\
\textcolor{basecolor}{Base color}:
can be specified as \LaTeX-color
\emph{basecolor}

\heading{Advice}\\
\begin{itemize}
\item Stick to the standard colors or use grayscale tints!
\item Only use color when functional (e.g. in graphs)
\end{itemize}

\heading{Alert}
You can use \alert{\command{alert{}}} to grab the attention of the
user. It will typeset your content in \alert{red}.

\heading{Not taking any advice?}\\
You can fiddle with the colors, but do so in smart way.
Use \command{setbeamercolor}. You can see how it is used in the
\texttt{beamercolorthemeuantwerpen.sty} file.
\end{frame}

\begin{frame}[t]
{Logo demo}

The logo's can be used as follows (but you should not need them):
\begin{itemize}
\item \command{includegraphics[width=3cm]{\command{logopos}}}\
  \begin{center}
    \begin{tikzpicture}
      \draw[fill,white] (0,0) rectangle node
        {\includegraphics[width=3cm]{logopos}} (4,1.25);
    \end{tikzpicture}
  \end{center}
\end{itemize}

```

```

\end{tikzpicture}
\end{center}
\item \command{includegraphics[width=3cm]{\command{logoneg}\}}\
\begin{center}
\begin{tikzpicture}
\draw[fill] (0,0) rectangle node
{\includegraphics[width=3cm]{\logoneg}} (4,1.25);
\end{tikzpicture}
\end{center}
\item \command{includegraphics[width=3cm]{\command{logomonowhite}\}}\
\begin{center}
\begin{tikzpicture}
\draw[fill] (0,0) rectangle node
{\includegraphics[width=3cm]{\logomonowhite}} (4,1.25);
\end{tikzpicture}
\end{center}
\end{itemize}
\end{frame}

\subsection{With graphic eye candy}

\begin{frame}[negative]
\subsectionpage
\end{frame}

\begin{frame}[t]
{Basic idea}

\heading{The idea} --- put support material (photo or graph) on the
slide next to the frame content.
This is done by
\begin{itemize}
\item specifying an appropriate canvas
\item using an appropriate frame derivative
\end{itemize}

\heading{Good combinations}
\begin{center}\small
\begin{tabular}{ccc}
\toprule
\bfseries frame option & \bfseries graphic on frame
& \bfseries corresponding frame derivative\
\midrule
lqgraphic & left quarter & r3qframe \
rqgraphic & right quarter & l3qframe \
lhgraphic & left half & rhframe \
rhgraphic & right half & lhframe \
thgraphic & top half & bhframe \
bhgraphic & bottom half & thframe\
\bottomrule
\end{tabular}
\end{center}
\end{frame}

```

```

\begin{l3qframe}[rqgraphic]
  {Some Random Title}
  {Please, adapt!}

  \small
  The slide has been typeset as:\\
  \begin{codesnippet}[\textwidth]
    \bframe[l3q][rqgraphic=\{<load photo here>\}]\
    \ind\{Title\}\
    \ind\{Subtitle\}\
    \ind frame contents\
    \eframe[l3q]
  \end{codesnippet}
  \smallskip

  \subheading{Remarks}
  \begin{itemize}
  \item Load photo as:\\
    \command{includegraphics}[width=0.25\command{paperwidth}, min height=\command{textheight}]
    \{image.jpg\}
  \item If \texttt{rqgraphic} is specified without argument, a standard photo
    is loaded.
  \item Note: you can avoid rounding the corner using the
    frame option \texttt{noround} (may be useful when not using a photo)
  \end{itemize}
\end{l3qframe}

\begin{r3qframe}[lqgraphic,t]
  {Some Random Title}
  {Please, adapt!}

  \small
  The slide has been typeset as:\\
  \begin{codesnippet}[\textwidth]
    \bframe[r3q][lqgraphic=\{<load photo here>\}]\
    \ind\{Title\}\
    \ind\{Subtitle\}\
    \ind frame contents\
    \eframe[r3q]
  \end{codesnippet}
  \smallskip

  \subheading{Remarks}
  \begin{itemize}
  \item Load photo as:\\
    \command{includegraphics}[width=0.25\command{paperwidth}, min height=\command{textheight}]
    \{image.jpg\}
  \item If \texttt{rqgraphic} is specified without argument, a standard photo
    is loaded.
  \item Note: you can avoid rounding the corner using the
    frame option \texttt{noround} (may be useful when not using a photo)
  \end{itemize}
\end{r3qframe}

```

```

\begin{lhframe}[rhgraphic]
  {Some Random Title}

  \small
  The slide has been typeset as:\\
  \begin{codesnippet}[\textwidth]
    \bframe[lh][rhgraphic=\{<load photo here>\}\} \\
    \ind\{Title\}\} \\
    \ind\{Subtitle\}\} \\
    \ind frame contents \\
    \eframe[lh]
  \end{codesnippet}
  \smallskip

  \subheading{Remarks}
  \begin{itemize}
  \item Load photo as:\\
    \command{includegraphics}[min
      width=0.5\command{paperwidth}, min height=\command{textheight}]
      \{image.jpg\}
  \item If \texttt{rqgraphic} is specified without argument, a standard photo
    is loaded.
  \item Note: avoid rounding the corner using \texttt{noround}
  \end{itemize}
\end{lhframe}

\begin{rhframe}[lhgraphic,t]
  {Some Random Title}

  \small
  The slide has been typeset as:\\
  \begin{codesnippet}[\textwidth]
    \bframe[rh][lhgraphic=\{<load photo here>\}\} \\
    \ind\{Title\}\} \\
    \ind\{Subtitle\}\} \\
    \ind frame contents \\
    \eframe[rh]
  \end{codesnippet}
  \smallskip

  \subheading{Remarks}
  \begin{itemize}
  \item Load photo as:\\
    \command{includegraphics}[min
      width=0.5\command{paperwidth}, min height=\command{textheight}]
      \{image.jpg\}
  \item If \texttt{rqgraphic} is specified without argument, a standard photo
    is loaded.
  \item Note: avoid rounding the corner using \texttt{noround}
  \end{itemize}
\end{rhframe}

\begin{bhframe}[thgraphic,t]

```

```

{Some Random Title}{Please, adapt!}
\small
The slide has been typeset as:
\begin{codesnippet}[\textwidth]
  \bframe[bh][thgraphic=\{<load photo here>\}\}
  \ind\{Title\}\}
  \ind\{Subtitle\}\}
  \ind frame contents\}
  \eframe[bh]
\end{codesnippet}
\end{bhframe}

\begin{thframe}[bhgraphic,t]
{Some Random Title}
{Please, adapt!}
\small
The slide has been typeset as:
\begin{codesnippet}[\textwidth]
  \bframe[th][bhgraphic=\{<load photo here>\}\}
  \ind\{Title\}\}
  \ind\{Subtitle\}\}
  \ind frame contents\}
  \eframe[th]
\end{codesnippet}
\end{thframe}

\section{Intermission slides}

\begin{frame}[negative]
  \sectionpage
\end{frame}

\subsection{Standard section slides}

\begin{frame}[negative]
  \subsectionpage
\end{frame}

\begin{frame}[t]
{Basic idea}

You can select any of the canvas templates: negative, negativefill,
graphic, graphicfill and normal, and combine it with:
\begin{description}
\item[\command{sectionpage}]
\item[\command{subsectionpage}]
\end{description}

Example:\}[1ex]
\begin{codesnippet}[0.8\textwidth]
  \bframe[] [negative]\}
  \ind \command{sectionpage}\}
  \eframe\}\}
  \bframe[] [negative]\}

```

```

\ind \command{subsectionpage}\
\eframe
\end{codesnippet}\[1ex]
(this how the previous two slide were generated)
\end{frame}

\subsection{Custom intermission slides}

\begin{frame}[negative]
\subsectionpage
\end{frame}

\begin{frame}[t]
{Basic idea}

If you are a fan of graphic material in slideware, you can use a
\texttt{graphic} or \texttt{graphicfill} canvas in combination with
small snippets you put on the slide using\[1ex]
\quad\command{place[node options] at (x,y) \{<material>\}}\[1ex]
with
\begin{itemize}
\item  $(x,y)=(0,0)$  the bottom left of the slide and  $(1,1)$  the top
right of the slide
\item \texttt{node options} any options you want to hand over to the
tikz node that is used to position the material.
\end{itemize}
\medskip

E.g., the next slide was created using:\[1ex]
\begin{codesnippet}[0.8\textwidth]
\bframe[] [graphic,t]\
\ind\command{place} at (0.5,0.5) \{\command{untwerpenicon[scale=0.8]}\}\
\eframe
\end{codesnippet}
\medskip

You will have to run \LaTeX{} twice in order for the position to be correct!
\end{frame}

\begin{frame}[graphic,t]
\place at (0.5,0.5) {\untwerpenicon[scale=0.8]}
\end{frame}

\begin{frame}[t]
{Shading photographs}

Often you need make a photograph a little bit more opaque in order
for the (white) text to readable.

To this end you can use the following command\[1ex]
\quad\command{darken[s]\{<material>\}}\[1ex]
with  $s$  a value between 0 and 1 to specify the level of darkening.

E.g., the next slide was created using:

```





```

    \unantwerpencallout[fill opacity=0.5]{4.5}{2.5}{
      \bfseries I'll be back!\[1ex]
      Arnold Schwarzenegger}
  }
\end{frame}

\section{Demo of some inner theme parts}

\begin{frame}[negative]
  \sectionpage
\end{frame}

\begin{frame}[t]
  {Headings}
  {on two levels}
  You can set headings on two levels, by using
  \begin{itemize}
    \item\command{heading\{\}}
    \item\command{subheading\{\}}
  \end{itemize}
  \heading{Main subject}~\
  blabla
  \subheading{Subtopic 1}~\
  blabla
  \subheading{Subtopic 2}~\
  blabla
  \heading{Next main subject}~\
  blabla
\end{frame}

\newcommand\listdemo[1][itemize]{
  \begin{#1}
    \item First level
      \begin{#1}
        \item Second level
          \begin{#1}
            \item Third level
          \end{#1}
        \end{#1}
      \end{#1}
  \end{#1}
}

\begin{frame}[t]
  {Itemize / enumerations}
  {Different styles}
  Usage:\
  Set them (in your preamble) using: \command{setbeamertemplate\{itemize items\}[triangle]}\
  The default of the unantwerpen beamer template is set to \texttt{square} to be
  similar to our logo.
  \medskip

  \begin{columns}
    \column[T]{0.3\textwidth}

```

```

\alert{default}
\setbeamertemplate{itemize items}[default]
\listdemo
\column[T]{0.3\textwidth}
\alert{triangle}
\setbeamertemplate{itemize items}[triangle]
\listdemo
\column[T]{0.3\textwidth}
\alert{circle}
\setbeamertemplate{itemize items}[circle]
\listdemo
\end{columns}~\
\bigskip

\begin{columns}
\column[T]{0.3\textwidth}
\alert{ball}
\setbeamertemplate{itemize items}[ball]
\listdemo
\column[T]{0.3\textwidth}
\alert{square}
\setbeamertemplate{itemize items}[square]
\listdemo
\column[T]{0.3\textwidth}
\alert{enumeration}
\setbeamertemplate{itemize items}[circle]
\listdemo[enumerate]
\end{columns}
\end{frame}

\begin{frame}[t]
{Block material}
{Nothing special}

\vfill
\begin{block}{This is a block}
  Lorem ipsum dolor sit amet, consectetur adipiscing elit. Morbi ac
  arcu est, vel posuere velit. In congue erat vel lorem ornare pretium.
\end{block}
\vfill
\begin{exampleblock}{This is an example block}
  Lorem ipsum dolor sit amet, consectetur adipiscing elit. Morbi ac
  arcu est, vel posuere velit. In congue erat vel lorem ornare pretium.
\end{exampleblock}
\vfill
\begin{alertblock}{This is an alert block}
  Lorem ipsum dolor sit amet, consectetur adipiscing elit. Morbi ac
  arcu est, vel posuere velit. In congue erat vel lorem ornare pretium.
\end{alertblock}
\vfill
\end{frame}
\section{Advanced material}

\begin{frame}[negative]

```

```

\sectionpage
\end{frame}

\begin{frame}[t]
  {Customizing the template}

  If you want to override logos/colors to create a template for your
  own research group or department:
  renew the commands below. The redefinitions must be put just after
  the \command{begin\{document\}} statement.\\
  The construction below allows you to put the stuff in a style file
  that you must load after (!) the \command{usetheme} command.\\[1ex]
  \begin{codesnippet}[0.95\textwidth]
    \command{AtBeginDocument\{ }\}
    \ind\command{renewcommand*}\command{logopos\{your-pos-logo-filename-here\}}\\
    \ind\command{renewcommand*}\command{logoneg\{your-negative-logo-filename-
  here\}}\\
    \ind\command{renewcommand*}\command{logomonowhite\{your-mono-logo-filename-
  here\}}\\
    \ind\command{renewcommand*}\command{iconfile\{your-icon-filename-here\}}\\
    \ind\command{colorlet\{maincolor\}\{your-favorite-color\}}\\
    \ind\command{colorlet\{sidecolor\}\{your-secondfavorite-color\}}\\
    \ind\command{colorlet\{basecolor\}\{some-solid-color\}}\\
    \}
  \end{codesnippet}-\\[1ex]
\end{frame}

\begin{frame}
  {Some genuine advice}
  \small

  Dear user,

  Candy slides are nice for PR, but bad for conveying a message.

  Beamer is a tool to typeset technical presentations. Need more
  animation and eye candy? Use other tools. They are much easier in
  ruining your audiences' day.

  Effective slides are simple slides.\\
  Go by cognitive consonance, flirt with cognitive dissonance, but
  stay away from cognitive cacophony.
  This presentation is i.m.ho. a bad one, as it shows the
  cacophony of possibilities. But hey, you were the one asking for it.

  A lot of effort has gone into this template. I hope you like it.
  If you have good suggestions, e-mail me. If you have questions, I
  might even help you.

  Cheers!

  Walter Daems\\
  (April 2024)

```

```

\end{frame}

\end{document}
</bmrug>

```

## 9 Implementation

### 9.0.1 Main beamer theme

```

2386 ⟨*bmr⟩
2387 % Copyright 2024 by Walter Daems <walter.daems@uantwerpen.be>
2388 %
2389 % This file may be distributed and/or modified
2390 %
2391 % 1. under the LaTeX Project Public License and/or
2392 % 2. under the GNU Public License.
2393 %
2394 % See the file doc/licenses/LICENSE for more details.
2395
2396 \newif\if@nofonts
2397 \@nofontsfalse
2398 \DeclareOption{nofonts}{\@nofontstrue}
2399
2400 \input{uantwerpencommonoptions.clo}
2401
2402 \ProcessOptions
2403
2404 \RequirePackage{uantwerpencolorlogoscheme}
2405
2406 \AtBeginDocument{
2407   \def\appropriatelogo{\logos}
2408   \def\appropriateslidenumber{%
2409     \usebeamercolor{pageno in head/foot}%
2410     \insertframenumber/\inserttotalframenumber}%
2411 }
2412
2413 \mode<presentation>
2414
2415 \RequirePackage{tikz}
2416 \RequirePackage{graphicx}
2417 \RequirePackage{graphbox}
2418 \RequirePackage[export]{adjustbox}
2419 \RequirePackage{environ}
2420
2421 \setbeamersize{
2422   text margin left=.8cm,
2423   text margin right=.8cm
2424 }
2425
2426 \usecolortheme{uantwerpen}
2427 \usefonttheme{uantwerpen}

```

```

2428 \useinnertheme{uantwerpen}
2429 \useoutertheme{uantwerpen}
2430
2431 \setbeamertheme{navigation symbols}{}
2432 \setbeamertheme{blocks}[rounded][shadow=true]
2433
2434 \mode
2435 <all>
2436 \bmr

```

## 9.0.2 Beamer color theme

```

2437 (*bmrcolor)
2438 % Copyright 2024 by Walter Daems <walter.daems@uantwerpen.be>
2439 %
2440 % This file may be distributed and/or modified
2441 %
2442 % 1. under the LaTeX Project Public License and/or
2443 % 2. under the GNU Public License.
2444 %
2445 % See the file doc/licenses/LICENSE for more details.
2446
2447 \mode<presentation>
2448
2449 \RequirePackage{uantwerpencolorlogoscheme}
2450
2451 %% define main color
2452 \setbeamercolor{palette primary}{fg=maincolor}
2453 \setbeamercolor{palette secondary}{fg=sidecolor}
2454 \setbeamercolor{palette tertiary}{fg=uauaside}
2455 \setbeamercolor{palette quaternary}{fg=uauamain}
2456
2457 \setbeamercolor{normal text}{fg=basecolor}
2458 \setbeamercolor{inverse normal text}{fg=white!95!maincolor}
2459 \setbeamercolor{alerted text}{fg=uauamain}
2460 \setbeamercolor{example text}{}
2461
2462 \setbeamercolor{heading}{fg=basecolor}
2463 \setbeamercolor{subheading}{fg=basecolor}
2464 \setbeamercolor{inverse heading}{fg=white}
2465 \setbeamercolor{inverse subheading}{fg=white!75!maincolor}
2466
2467 \setbeamercolor{block body}{bg=black!4}
2468 \setbeamercolor{block title}{bg=black!8,fg=maincolor}
2469 \setbeamercolor{block body example}{bg=black!4}
2470 \setbeamercolor{block title example}{bg=black!8}
2471 \setbeamercolor{block body alerted}{bg=black!4}
2472 \setbeamercolor{block title alerted}{bg=black!8}
2473
2474 \setbeamercolor{itemize item}{parent=normal text}
2475 \setbeamercolor{enumerate item}{parent=normal text}
2476 \setbeamercolor{itemize subitem}{parent=normal text}
2477 \setbeamercolor{enumerate subitem}{parent=normal text}
2478 \setbeamercolor{itemize subsubitem}{parent=normal text}

```

```

2479 \setbeamercolor{enumerate subsubitem}{parent=normal text}
2480
2481 \setbeamercolor{frametitle}{fg=maincolor}
2482 \setbeamercolor{framesubtitle}{fg=sidecolor}
2483 \setbeamercolor{inverse frametitle}{fg=white}
2484 \setbeamercolor{inverse framesubtitle}{fg=white!80!maincolor}
2485
2486 \setbeamercolor{title in title page}{fg=maincolor}
2487 \setbeamercolor{subtitle in title page}{fg=sidecolor}
2488 \setbeamercolor{author in title page}{fg=maincolor}
2489 \setbeamercolor{date in title page}{fg=sidecolor}
2490 \setbeamercolor{inverse title in title page}{fg=white}
2491 \setbeamercolor{inverse subtitle in title page}{fg=white!75!maincolor}
2492 \setbeamercolor{inverse author in title page}{fg=white}
2493 \setbeamercolor{inverse date in title page}{fg=white!75!maincolor}
2494
2495 \setbeamercolor{pageno in head/foot}{fg=basecolor}
2496 \setbeamercolor{inverse pageno in head/foot}{fg=white}
2497
2498 \setbeamercolor{section in toc}{fg=basecolor}
2499 \setbeamercolor{subsection in toc}{fg=basecolor}
2500 \setbeamercolor{section number projected}{fg=white,bg=basecolor}
2501 \setbeamercolor{subsection number projected}{fg=white,bg=basecolor}
2502
2503 \setbeamercolor{section title}{fg=maincolor}
2504 \setbeamercolor{section name}{fg=maincolor}
2505 \setbeamercolor{inverse section title}{fg=white}
2506 \setbeamercolor{inverse section name}{fg=white}
2507
2508 \setbeamercolor{subsection title}{fg=sidecolor}
2509 \setbeamercolor{subsection name}{fg=sidecolor}
2510 \setbeamercolor{inverse subsection title}{fg=white!75!maincolor}
2511 \setbeamercolor{inverse subsection name}{fg=white!75!maincolor}
2512 \mode
2513 <all>
2514 </bmrcolor>

```

### 9.0.3 Beamer font theme

```

2515 <*bmrfont>
2516 %      Copyright 2024 by Walter Daems
2517 %
2518 %      This file may be distributed and/or modified
2519 %
2520 %      1. under the LaTeX Project Public License and/or
2521 %      2. under the GNU Public License.
2522 %
2523 %      See the file doc/licenses/LICENSE for more details.
2524
2525 \usetikzlibrary{calc}
2526
2527 \if@nofonts
2528 \else
2529 \RequirePackage{iftex}

```

```

2530 % Uncomment the following line if in MiKTeX you get the error
2531 % message that \ifluatex is already defined.
2532 % You first option is to update all your packages both in user as in
2533 % admin mode to fix your setup.
2534 % Your second option is to avoid the warning uncommenting the
2535 % following line:
2536 % \let\ifluatex\relax
2537 \iftutex
2538   \usepackage{cmbright}
2539   \usefonttheme{serif}
2540   \usepackage{fontspec}
2541   \setmainfont
2542   [UprightFont = *,
2543    BoldFont = *b,
2544    ItalicFont = *i,
2545    BoldItalicFont = *z,
2546   ]
2547   {calibri}
2548   \usepackage{sansmathaccent}
2549   \fi
2550 \fi
2551 \usepackage{bm}
2552
2553 \mode<presentation>
2554
2555 \setbeamerfont{normal text}{} % ignored currently
2556 \setbeamerfont{alerted text}{}
2557 \setbeamerfont{example text}{}
2558
2559 \setbeamerfont{structure}{}
2560 \setbeamerfont{tiny structure}{size=\tiny}
2561
2562 \setbeamerfont{title}{size=\large,parent=structure}
2563 \setbeamerfont{title in head/footer}{}
2564 \setbeamerfont{title in sidebar}{size=\tiny}
2565
2566 \setbeamerfont{pageno in head/footer}{size=\tiny}
2567
2568 \setbeamerfont{subtitle}{size=\small,parent=title}
2569
2570 \setbeamerfont{author}{}
2571 \setbeamerfont{author in head/footer}{}
2572 \setbeamerfont{author in sidebar}{size=\tiny}
2573
2574 \setbeamerfont{date}{}
2575 \setbeamerfont{date in head/footer}{}
2576 \setbeamerfont{date in sidebar}{}
2577
2578 \setbeamerfont{part name}{size=\LARGE}
2579 \setbeamerfont{part title}{size=\LARGE,parent=title}
2580
2581 \setbeamerfont{section name}{size=\Large}
2582 \setbeamerfont{section title}{size=\Large,parent=title}
2583

```



```

2584 \setbeamerfont{section in toc}{parent=structure}
2585 \setbeamerfont{section in toc shaded}{parent=section in toc}
2586 \setbeamerfont{section in head/footer}{}
2587 \setbeamerfont{section in sidebar}{size=\tiny}
2588 \setbeamerfont{section number projected}
2589   {size=\small,parent={section in toc,projected text}}
2590
2591 \setbeamerfont{subsection name}{size=\large}
2592 \setbeamerfont{subsection title}{size=\large,parent=title}
2593
2594 \setbeamerfont{subsection in toc}{}
2595 \setbeamerfont{subsection in toc shaded}{parent=subsection in toc}
2596 \setbeamerfont{subsection in head/footer}{}
2597 \setbeamerfont{subsection in sidebar}{}
2598
2599 \setbeamerfont{subsubsection in toc}{size=\footnotesize}
2600 \setbeamerfont{subsubsection in toc shaded}{parent=subsubsection in toc}
2601 \setbeamerfont{subsubsection in head/footer}{}
2602 \setbeamerfont{subsubsection in sidebar}{}
2603
2604 \setbeamerfont{headline}{parent={tiny structure}}
2605 \setbeamerfont{footline}{parent={tiny structure}}
2606
2607 \setbeamerfont{frametitle}
2608   {parent=structure,size=\renewcommand*{\baselinestretch}{0.85}\LARGE\bfseries}
2609 \setbeamerfont{framesubtitle}{parent=frametitle,size=\normalsize\bfseries}
2610
2611 \setbeamerfont{caption}{size=\small}
2612 \setbeamerfont{caption name}{parent={structure,caption}}
2613
2614 \setbeamerfont{button}{size=\tiny}
2615
2616 \setbeamerfont{block body}{size=\scriptsize}
2617 \setbeamerfont{block body alerted}{parent={block body}}
2618 \setbeamerfont{block body example}{parent={block body}}
2619 \setbeamerfont{block title}{size=\small,series=\bfseries,parent={structure,block body}}
2620 \setbeamerfont{block title alerted}{parent={block title>alerted text}}
2621 \setbeamerfont{block title example}{parent={block title,example text}}
2622
2623 \setbeamerfont{item}{parent=structure}
2624 \setbeamerfont{subitem}{parent=item}
2625 \setbeamerfont{subsubitem}{parent=subitem}
2626
2627 \setbeamerfont{item projected}{size=\tiny,parent={item,projected text}}
2628 \setbeamerfont{subitem projected}{parent=item projected}
2629 \setbeamerfont{subsubitem projected}{parent=subitem projected}
2630
2631 \setbeamerfont{itemize item}{parent=item}
2632 \setbeamerfont{itemize subitem}{parent=subitem}
2633 \setbeamerfont{itemize subsubitem}{parent=subsubitem}
2634
2635 \setbeamerfont{enumerate item}{parent=item}
2636 \setbeamerfont{enumerate subitem}{parent=subitem}
2637 \setbeamerfont{enumerate subsubitem}{parent=subsubitem}

```

```

2638
2639 \setbeamerfont{itemize/enumerate body}{}
2640 \setbeamerfont{itemize/enumerate subbody}{size=\small}
2641 \setbeamerfont{itemize/enumerate subsubbody}{size=\footnotesize}
2642
2643 \setbeamerfont{description item}{parent=item}
2644
2645 \setbeamerfont{projected text}{parent={tiny structure}}
2646
2647 \setbeamerfont{abstract}{size=\small}
2648 \setbeamerfont{abstract title}{parent={abstract,structure},size=\normalsize}
2649
2650 \setbeamerfont{verse}{family=\rmfamily,shape=\itshape}
2651
2652 \setbeamerfont{quotation}{shape=\itshape}
2653 \setbeamerfont{quote}{parent=quotation}
2654
2655 \setbeamerfont{note page}{size=\small}
2656
2657 \mode
2658 <all>
2659 </bmrfont>

```

#### 9.0.4 Beamer inner theme

```

2660 <*bmrinner>
2661 % Copyright 2024 by Walter Daems <walter.daems@uantwerpen.be>
2662 %
2663 % This file may be distributed and/or modified
2664 %
2665 % 1. under the LaTeX Project Public License and/or
2666 % 2. under the GNU Public License.
2667 %
2668 % See the file doc/licenses/LICENSE for more details.
2669
2670 \mode<presentation>
2671
2672 \setlength\parskip{0.5\baselineskip}
2673 \setlength\parindent{0em}
2674
2675 % use square (can also be circle or ball
2676 \setbeamertemplate{sections/subsections in toc}[square]
2677 \setbeamertemplate{itemize items}[square]
2678
2679 %\setbeamertemplate{description item}[align left]
2680
2681 \newif\if@noround
2682 \@noroundfalse
2683
2684 \newcommand*\uantwerpenleftshape[3] []{
2685   \newcommand\mycradius{0.05*(\getlength{\paperheight}-1.6)}%
2686   \coordinate (bl) at #2;
2687   \coordinate (tr) at #3;
2688   \if@noround

```

```

2689 \path[#1] (bl) rectangle (tr);
2690 \else
2691 \path[#1] (bl|-tr) -- (tr) -- (bl|tr) -- ($(bl)+(\mycradius,0)$)
2692 arc(-90:-180:\mycradius) -- cycle;
2693 \fi
2694 }
2695 \newcommand\uantwerpenrightshape[3] [] {
2696 \newcommand\mycradius{0.05*(\getlength{\paperheight}-1.6)}%
2697 \coordinate (bl) at #2;
2698 \coordinate (tr) at #3;
2699 \if@noround
2700 \path[#1] (bl) rectangle (tr);
2701 \else
2702 \path[#1] (bl|-tr) -- (tr) -- ($(bl|tr)+(0,\mycradius)$)
2703 arc(0:-90:\mycradius) -- (bl) -- cycle;
2704 \fi
2705 }
2706
2707 \newcommand\darken[2] [0.5] {%
2708 \begin{tikzpicture}[inner sep=0pt,outer sep=0pt]
2709 \node (a) {#2};
2710 \fill[fill=black,opacity=#1] (a.south west) rectangle (a.north east);
2711 \end{tikzpicture}
2712 }
2713
2714 \newcommand\uantwerpenleftshape[4] [] {
2715 \begin{tikzpicture}
2716 \uantwerpenleftshape[fill=black,fill opacity=0.0,text opacity=1,text=white,#1]{(-
#2/2,-{#3/2})}({#2/2},{#3/2})
2717 \node[align=left,anchor=center] at (0,0) { \callout\ #4 };
2718 \end{tikzpicture}
2719 }
2720
2721 \newcommand\callout[1] [scale=0.70711]{
2722 \begin{tikzpicture}#1
2723 \fill[maincolor] (0.4,0) -- (0.5,0) -- (0.75,-0.15) -- (0.75,0) --
2724 (0.9,0) arc(-90:0:0.1) -- (1,0.65) arc(0:90:0.1) -- (0.1,0.75) arc
2725 (90:180:0.1) -- (0,0.1) arc(-180:-90:0.1) -- cycle;
2726 \foreach \x in {0.35,0.7} {
2727 \begin{scope}[shift={(\x,0.425)},scale=0.25]
2728 \fill[white] (0,0) circle[radius=0.5];
2729 \fill[white] (0.5,0) arc(0:-90:1) --
2730 (-0.5,-0.725) arc(-90:0:0.725) -- cycle;
2731 \end{scope}
2732 }
2733 \end{tikzpicture}
2734 }
2735
2736 \newcommand\uantwerpenicon[1] [scale=1]{
2737 \includegraphics[#1]{\iconfile}
2738 }
2739
2740 \newcommand\heading[1]{\par{\usebeamercolor{\maybeinverse heading}\color{fg}{\small\bfseries
2741 \newcommand\subheading[1]{\par{

```

```

2742 \usebeamercolor{\maybeinverse
2743 subheading}\color{fg}{\footnotesize\it\bfseries #1~}}
2744
2745 \mode
2746 <all>
2747 </bmrinner>

```

### 9.0.5 Beamer outer theme

```

2748 <*bmrouter>
2749 % Copyright 2024 by Walter Daems <walter.daems@uantwerpen.be>
2750 %
2751 % This file may be distributed and/or modified
2752 %
2753 % 1. under the LaTeX Project Public License and/or
2754 % 2. under the GNU Public License.
2755 %
2756 % See the file doc/licenses/LICENSE for more details.
2757
2758 \mode<presentation>
2759
2760 \newcommand*{\getlength[1]{\strip@pt#1/28.45274}
2761 \newcommand*{\pw{\getlength{\paperwidth}}}%
2762 \newcommand*{\ph{\getlength{\paperheight}}}%
2763
2764 \newif\if@rhtext
2765 \@rhtextfalse
2766 \newif\if@lhtext
2767 \@lhtextfalse
2768 \newif\if@rqttext
2769 \@rqttextfalse
2770 \newif\if@lqttext
2771 \@lqttextfalse
2772 \newif\if@bhtext
2773 \@bhtextfalse
2774 \gdef\maybeinverse{}
2775
2776 \define@key{beamerframe}{noround}[true]{
2777 \expandafter\csname @noround#1\endcsname
2778 }
2779
2780 \define@key{beamerframe}{normal}[true]{
2781 \setbeamertemplate{title page}[main]
2782 \setbeamertemplate{section page}[main]%
2783 \setbeamertemplate{subsection page}[main]%
2784 \setbeamertemplate{background canvas}[normal]
2785 \gdef\maybeinverse{}
2786 }
2787
2788 \mode<handout|trans>
2789
2790 \define@key{beamerframe}{negativefill}[true]{
2791 }
2792

```

```

2793 \define@key{beamerframe}{negative}[true]{
2794 }
2795
2796 \mode
2797 <all>
2798
2799 \mode<beamer|second>
2800
2801 \define@key{beamerframe}{negativefill}[true]{
2802   \gdef\maybeinverse{inverse }%
2803   \usebeamercolor[fg]{\maybeinverse normal text}%
2804   \setbeamertemplate{title page}[negativefill]
2805   \setbeamertemplate{section page}[negative]%
2806   \setbeamertemplate{subsection page}[negative]%
2807   \setbeamertemplate{background canvas}[negativefill]%
2808 }
2809
2810 \define@key{beamerframe}{negative}[true]{
2811   \gdef\maybeinverse{inverse }%
2812   \usebeamercolor[fg]{\maybeinverse normal text}%
2813   \setbeamertemplate{title page}[negative]
2814   \setbeamertemplate{section page}[negative]%
2815   \setbeamertemplate{subsection page}[negative]%
2816   \setbeamertemplate{background canvas}[negative]%
2817 }
2818
2819 \mode
2820 <all>
2821
2822 \define@key{beamerframe}{graphicfill}[{\includegraphics[scale=0.1,min
2823   width=\paperwidth,min height=\paperheight]{Images/uantwerpen-01.jpg}}]{
2824   \gdef\maybeinverse{inverse }%
2825   \usebeamercolor[fg]{\maybeinverse normal text}%
2826   \setbeamertemplate{background canvas}[graphicfill]{#1}
2827 }
2828
2829 \define@key{beamerframe}{graphic}[{\includegraphics[scale=0.1,min
2830   width=\textwidth,min height=\textheight]{Images/uantwerpen-02.jpg}}]{
2831   \gdef\maybeinverse{inverse }%
2832   \usebeamercolor[fg]{\maybeinverse normal text}%
2833   \setbeamertemplate{background canvas}[graphic]{#1}
2834 }
2835
2836 \define@key{beamerframe}{lhgraphic}
2837   [{\includegraphics[scale=0.1,min width=0.5\paperwidth,min
2838   height=\textheight]{Images/uantwerpen-03.jpg}}]{
2839   \gdef\maybeinverse{}%
2840   \setbeamertemplate{background canvas}[lhgraphic]{#1}
2841   \@rhtexttrue
2842 }
2843
2844 \define@key{beamerframe}{lqgraphic}
2845   [{\includegraphics[scale=0.1,min width=0.5\paperwidth,min
2846   height=\textheight]{Images/uantwerpen-04.jpg}}]{

```

```

2847 \gdef\maybeinverse{}%
2848 \setbeamertemplate{background canvas}[lqgraphic]{#1}
2849 \@rqtextrtrue
2850 }
2851
2852 \define@key{beamerframe}{rhgraphic}
2853 [{\includegraphics[scale=0.1,min width=0.5\paperwidth,min
2854   height=\textheight]{Images/uantwerpen-05.jpg}}]{
2855 \gdef\maybeinverse{}%
2856 \setbeamertemplate{background canvas}[rhgraphic]{#1}
2857 \@lhtextrtrue
2858 }
2859
2860 \define@key{beamerframe}{rqgraphic}
2861 [{\includegraphics[scale=0.5,min width=0.5\paperwidth,min
2862   height=\textheight]{Images/uantwerpen-05.jpg}}]{
2863 \gdef\maybeinverse{}%
2864 \setbeamertemplate{background canvas}[rqgraphic]{#1}
2865 \@lqtextrtrue
2866 }
2867
2868 \define@key{beamerframe}{thgraphic}
2869 [{\includegraphics[scale=0.5,min width=\paperwidth,min
2870   height=0.5\textheight]{Images/uantwerpen-06.jpg}}]{
2871 \gdef\maybeinverse{}%
2872 \setbeamertemplate{background canvas}[thgraphic]{#1}
2873 \@bhtextrtrue
2874 }
2875
2876 \define@key{beamerframe}{bhgraphic}
2877 [{\includegraphics[scale=0.5,min width=\paperwidth,min
2878   height=0.5\textheight]{Images/uantwerpen-07.jpg}}]{
2879 \gdef\maybeinverse{}%
2880 \setbeamertemplate{background canvas}[bhgraphic]{#1}
2881 }
2882
2883 \BeforeBeginEnvironment{frame}{%
2884 \gdef\maybeinverse{}%
2885 \setbeamertemplate{title page}[main]%
2886 \setbeamertemplate{section page}[main]%
2887 \setbeamertemplate{subsection page}[main]%
2888 \setbeamertemplate{background canvas}[normal]%
2889 \usebeamercolor[fg]{normal text}%
2890 }
2891
2892 % The following does not work as \end{frame} is never executed by
2893 % beamer!
2894 % \AtEndEnvironment{frame}{\gdef\maybeinverse{}}
2895
2896 \NewEnviron{rhframe}[3] []{%
2897 \begin{frame}[#1]{#2}{#3}
2898 \begin{minipage}[t]{0.525\textwidth}
2899 ~
2900 \end{minipage}

```

```

2901     \begin{minipage}[t]{0.465\textwidth}
2902     \BODY
2903     \end{minipage}
2904 \end{frame}
2905 }
2906
2907 \NewEnviron{r3qframe}[3][\%
2908 \begin{frame}[#1]{#2}{#3}
2909     \begin{minipage}[t]{0.23\textwidth}
2910     ~
2911     \end{minipage}
2912     \begin{minipage}[t]{0.76\textwidth}
2913     \BODY
2914     \end{minipage}
2915 \end{frame}
2916 }
2917
2918 \NewEnviron{lhframe}[3][\%
2919 \begin{frame}[#1]{#2}{#3}
2920     \begin{minipage}[t]{0.465\textwidth}
2921     \BODY
2922     \end{minipage}
2923     \begin{minipage}[t]{0.525\textwidth}
2924     ~
2925     \end{minipage}
2926 \end{frame}
2927 }
2928
2929 \NewEnviron{l3qframe}[3][\%
2930 \begin{frame}[#1]{#2}{#3}
2931     \begin{minipage}[t]{0.77\textwidth}
2932     \BODY
2933     \end{minipage}
2934     \begin{minipage}[t]{0.22\textwidth}
2935     ~
2936     \end{minipage}
2937 \end{frame}
2938 }
2939
2940 \NewEnviron{bhframe}[3][\%
2941 \begin{frame}[#1]{#2}{#3}
2942     \BODY
2943 \end{frame}
2944 }
2945
2946 \NewEnviron{thframe}[3][\%
2947 \begin{frame}[#1]{#2}{#3}
2948     \BODY
2949 \end{frame}
2950 }
2951
2952 %%%
2953 % Order:
2954 % 1. option is executed

```

```

2955 % 2. frametitle is typeset
2956 % 3. canvas is typeset
2957 % 4. frame is typeset
2958 %%%
2959
2960 \def\ps@uantwerpen@titlepage{%
2961   \setbeamercolor{title in title page}{parent=palette primary}
2962   \setbeamertemplate{footline}[empty]
2963   \@nameuse{ps@uantwerpen}
2964 }
2965
2966 \defbeamertemplate*{background canvas}{negativefill}[1]
2967 {%
2968   \gdef\appropriatelogo{\logomonowhite}%
2969   \gdef\appropriateslidenumber{\usebeamercolor{pageno in head/foot}%
2970     \insertframenumber/\inserttotalframenumber}%
2971   \color{maincolor}\vrule width\paperwidth height\paperheight
2972 }
2973
2974 \defbeamertemplate*{background canvas}{negative}[1]
2975 {%
2976   \gdef\appropriatelogo{\logopos}%
2977   \gdef\appropriateslidenumber{}%
2978   \begin{tikzpicture}
2979     \clip (0,0) rectangle (\pw,\ph);
2980     \uantwerpenleftshape[fill=maincolor]{(0.8,0.8)}{(\pw-0.8,\ph-0.8)}
2981   \end{tikzpicture}
2982 }
2983
2984 \defbeamertemplate*{background canvas}{graphicfill}[1]
2985 {%
2986   \gdef\appropriatelogo{\logoneg}%
2987   \gdef\appropriateslidenumber{}%
2988   \begin{tikzpicture}
2989     \clip (0,0) rectangle (\pw,\ph);
2990     \node[align=center] at (0.5*\pw,0.5*\ph) {#1};
2991   \end{tikzpicture}%
2992 }
2993
2994 \defbeamertemplate*{background canvas}{graphic}[1]
2995 {%
2996   \gdef\appropriatelogo{\logopos}%
2997   \gdef\appropriateslidenumber{}%
2998   \begin{tikzpicture}
2999     \clip (0,0) rectangle (\pw,\ph);
3000     \begin{scope}
3001       \uantwerpenleftshape[clip]{(0.8,0.8)}{(\pw-0.8,\ph-0.8)}
3002       \node[align=center] at (0.5*\pw,0.5*\ph) {#1};
3003     \end{scope}
3004   \end{tikzpicture}%
3005 }
3006
3007 \defbeamertemplate*{background canvas}{lhgraphic}[1]
3008 {%

```



```

3009 \gdef\maybeinverse{}%
3010 \gdef\appropriatelogo{\logopos}%
3011 \gdef\appropriateslidenumber{\usebeamercolor{pageno in head/foot}%
3012   \insertframenummer/\inserttotalframenummer}%
3013 \pgfmathsetmacro\dx{0.5*\pw-1.2}%
3014 \pgfmathsetmacro\dy{\ph-1.6}%
3015 \begin{tikzpicture}
3016   \clip (0,0) rectangle (\pw,\ph);
3017   \begin{scope}
3018     \untwerpenleftshape[clip]{(0.8,0.8)}{(0.8+\dx,0.8+\dy)}
3019     \node[align=center] at (0.8+0.5*\dx,0.8+0.5*\dy) {#1};
3020   \end{scope}
3021 \end{tikzpicture}
3022 \@tempwattrue
3023 }
3024
3025 \defbeamertemplate*{background canvas}{lqgraphic}[1]
3026 {%
3027   \gdef\maybeinverse{}%
3028   \gdef\appropriatelogo{\logopos}%
3029   \gdef\appropriateslidenumber{\usebeamercolor{pageno in head/foot}%
3030     \insertframenummer/\inserttotalframenummer}%
3031   \pgfmathsetmacro\dx{0.25*\pw-1.2}%
3032   \pgfmathsetmacro\dy{\ph-1.6}%
3033   \begin{tikzpicture}
3034     \clip (0,0) rectangle (\pw,\ph);
3035     \begin{scope}
3036       \untwerpenleftshape[clip]{(0.8,0.8)}{(0.8+\dx,0.8+\dy)}
3037       \node[align=center] at (0.8+0.5*\dx,0.8+0.5*\dy)
3038         {#1};
3039     \end{scope}
3040   \end{tikzpicture}
3041   \@tempwattrue
3042 }
3043
3044 \defbeamertemplate*{background canvas}{rhgraphic}[1]
3045 {%
3046   \gdef\maybeinverse{}%
3047   \gdef\appropriatelogo{\logopos}%
3048   \gdef\appropriateslidenumber{\usebeamercolor{pageno in head/foot}%
3049     \insertframenummer/\inserttotalframenummer}%
3050   \pgfmathsetmacro\dx{0.5*\pw-1.2}%
3051   \pgfmathsetmacro\dy{\ph-1.6}%
3052   \begin{tikzpicture}
3053     \clip (0,0) rectangle (\pw,\ph);
3054     \begin{scope}[shift={(0.5*\pw,0)}]
3055       \untwerpenrightshape[clip]{(0.4,0.8)}{(0.4+\dx,0.8+\dy)}
3056       \node[align=center] at (0.8+0.5*\dx,0.8+0.5*\dy) {#1};
3057     \end{scope}
3058   \end{tikzpicture}
3059   \@tempwattrue
3060 }
3061
3062 \defbeamertemplate*{background canvas}{rqgraphic}[1]

```

```

3063 {%
3064 \gdef\maybeinverse{}%
3065 \gdef\appropriateologo{\logopos}%
3066 \gdef\appropriateslidenumber{\usebeamercolor{pageno in head/foot}%
3067 \insertframenumber/\inserttotalframenumber}%
3068 \pgfmathsetmacro\dx{0.25*\pw-1.2}%
3069 \pgfmathsetmacro\dy{\ph-1.6}%
3070 \begin{tikzpicture}
3071 \clip (0,0) rectangle (\pw,\ph);
3072 \begin{scope}[shift={(0.75*\pw,0)}]
3073 \untwerpenrightshape[clip]{(0.4,0.8)}{(0.4+\dx,0.8+\dy)}
3074 \node[align=center] at (0.8+0.5*\dx,0.8+0.5*\dy) {#1};
3075 \end{scope}
3076 \end{tikzpicture}
3077 \@tempwattrue
3078 }
3079
3080 \defbeamertemplate*{background canvas}{thgraphic}[1]
3081 {%
3082 \gdef\maybeinverse{}%
3083 \gdef\appropriateologo{\logopos}%
3084 \gdef\appropriateslidenumber{\usebeamercolor{pageno in head/foot}%
3085 \insertframenumber/\inserttotalframenumber}%
3086 \pgfmathsetmacro\dx{\pw-1.6}%
3087 \pgfmathsetmacro\dy{0.5*\ph-0.8}%
3088 \begin{tikzpicture}
3089 \clip (0,0) rectangle (\pw,\ph);
3090 \begin{scope}[shift={(0,0.5*\ph)}]
3091 \untwerpenleftshape[clip] {(0.8,0)}{(0.8+\dx,\dy)}
3092 \node[align=center] at (0.8+0.5*\dx,0.5*\dy) {#1};
3093 \end{scope}
3094 \end{tikzpicture}
3095 \@tempwattrue
3096 }
3097
3098 \defbeamertemplate*{background canvas}{bhgraphic}[1]
3099 {%
3100 \gdef\maybeinverse{}%
3101 \gdef\appropriateologo{\logopos}%
3102 \gdef\appropriateslidenumber{\usebeamercolor{pageno in head/foot}%
3103 \insertframenumber/\inserttotalframenumber}%
3104 \pgfmathsetmacro\dx{\pw-1.6}%
3105 \pgfmathsetmacro\dy{0.5*\ph-0.8}%
3106 \begin{tikzpicture}
3107 \clip (0,0) rectangle (\pw,\ph);
3108 \begin{scope}[shift={(0,0.8)}]
3109 \untwerpenleftshape[clip] {(0.8,0)}{(0.8+\dx,\dy)}
3110 \node[align=center] at (0.8+0.5*\dx,0.5*\dy) {#1};
3111 \end{scope}
3112 \end{tikzpicture}
3113 \@tempwattrue
3114 }
3115
3116

```

```

3117 \defbeamertemplate*{background canvas}{normal}
3118 {%
3119   \gdef\maybeinverse{}%
3120   \gdef\appropriatelogo{\logopos}%
3121   \gdef\appropriateslidenumber{\usebeamercolor{pageno in
3122     head/foot}\insertframenummer/\inserttotalframenummer}%
3123 }
3124
3125
3126 \defbeamertemplate*{title page}{main}[1][]
3127 {%
3128   \thispagestyle{uantwerpen@titlepage}%
3129   \begin{tikzpicture}
3130     \clip (0,0) rectangle (\textwidth,\paperheight-0.075cm);
3131     \node[anchor=center] at (0.5*\textwidth,0.75*\ph)
3132       {\includegraphics[height=.9\logounitheight]{\logopos}};
3133     \node[
3134       text width=0.98\textwidth,
3135       text=basecolor,
3136       align=center] at (0.5*\textwidth,0.5*\ph) {
3137       \begin{beamercolorbox}[wd=\textwidth,center]{title in title page}
3138         \LARGE\bfseries\inserttitle\[\[lex]
3139         \usebeamercolor{fg]{subtitle in title page}
3140         \color{fg}\large\bfseries\insertsubtitle
3141       \end{beamercolorbox}
3142     };
3143     \node[
3144       text width=0.98\textwidth,
3145       color=basecolor,
3146       align=center] at (0.5*\textwidth,0.25*\ph) {
3147       \begin{beamercolorbox}[wd=\textwidth,center]{author in title page}
3148         \large\bfseries\insertauthor
3149       \end{beamercolorbox}
3150     };
3151     \node[
3152       text width=0.98\textwidth,
3153       color=basecolor,
3154       align=center] at (0.5*\textwidth,0.15*\ph) {
3155       \begin{beamercolorbox}[wd=\textwidth,center]{date in title page}
3156         \normalsize\bfseries\insertdate
3157       \end{beamercolorbox}
3158     };
3159   \end{tikzpicture}
3160 }
3161
3162 \defbeamertemplate*{title page}{negative}[1][]
3163 {
3164   \begin{tikzpicture}
3165     \clip (0,0) rectangle (\textwidth,\paperheight-0.075cm);
3166     \node[
3167       text width=0.98\textwidth,
3168       align=center] at (0.5*\textwidth,0.5*\ph) {
3169       \begin{beamercolorbox}[wd=\textwidth,center]{inverse title in title page}
3170         \LARGE\bfseries\inserttitle\[\[lex]

```

```

3171         \usebeamercolor[fg]{\maybeinverse subtitle in title page}
3172         \color{fg}\large\bfseries\insertsubtitle
3173     \end{beamercolorbox}
3174 };
3175 \node[
3176 text width=0.98\textwidth,
3177 align=center,] at (0.5*\textwidth,0.25*\ph) {
3178     \begin{beamercolorbox}[wd=\textwidth,center]{inverse author in title page}
3179         \large\bfseries\insertauthor
3180     \end{beamercolorbox}
3181 };
3182 \node[
3183 text width=0.98\textwidth,
3184 color=basecolor,
3185 align=center] at (0.5*\textwidth,0.15*\ph) {
3186     \begin{beamercolorbox}[wd=\textwidth,center]{inverse date in title page}
3187         \normalsize\bfseries\insertdate
3188     \end{beamercolorbox}
3189 };
3190 \end{tikzpicture}
3191 }
3192
3193 \defbeamertemplate*{title page}{negativefill}[1] []
3194 {
3195     \thispagestyle{uantwerpen@titlepage}
3196     \begin{tikzpicture}
3197         \clip (0,0) rectangle (\textwidth,\paperheight-0.075cm);
3198         \node[anchor=center] at (0.5*\textwidth,0.75*\ph)
3199             {\includegraphics[height=.9\logounitheight]{\logomonowhite}};
3200         \node[
3201 draw,rectangle,
3202 text width=0.98\textwidth,
3203 color=maincolor,
3204 align=center] at (0.5*\textwidth,0.5*\ph) {
3205             \begin{beamercolorbox}[wd=\textwidth,center]{inverse title in title page}
3206                 \LARGE\bfseries\inserttitle\[\lex]
3207                 \usebeamercolor[fg]{inverse subtitle in title page}
3208                 \color{fg}\large\bfseries\insertsubtitle
3209             \end{beamercolorbox}
3210 };
3211         \node[
3212 text width=0.98\textwidth,
3213 color=maincolor,
3214 align=center] at (0.5*\textwidth,0.25*\ph) {
3215             \begin{beamercolorbox}[wd=\textwidth,center]{inverse author in title page}
3216                 \large\bfseries\insertauthor
3217             \end{beamercolorbox}
3218 };
3219         \node[
3220 text width=0.98\textwidth,
3221 color=basecolor,
3222 align=center] at (0.5*\textwidth,0.15*\ph) {
3223             \begin{beamercolorbox}[wd=\textwidth,center]{inverse date in title page}
3224                 \normalsize\bfseries\insertdate

```

```

3225     \end{beamercolorbox}
3226   };
3227 \end{tikzpicture}
3228 }
3229
3230 \defbeamertemplate*{section page}{main}[1] []
3231 {%
3232   \begin{tikzpicture}
3233     \clip (0,0) rectangle (\textwidth,\paperheight-0.075cm);
3234     \node[
3235       text width=0.98\textwidth,
3236       text=basecolor,
3237       align=center] at (0.5*\textwidth,0.55*\ph) {
3238       \begin{beamercolorbox}[wd=\textwidth,center]{section title}
3239         \Large\bfseries\insertsectionnumber.\~\insertsection
3240       \end{beamercolorbox}
3241     };
3242   \end{tikzpicture}
3243 }
3244
3245 \defbeamertemplate*{subsection page}{main}[1] []
3246 {%
3247   \begin{tikzpicture}
3248     \clip (0,0) rectangle (\textwidth,\paperheight-0.075cm);
3249     \node[
3250       text width=0.98\textwidth,
3251       text=basecolor,
3252       align=center] at (0.5*\textwidth,0.55*\ph) {
3253       \begin{beamercolorbox}[wd=\textwidth,center]{section title}
3254         \Large\bfseries\insertsectionnumber.\~\insertsection
3255       \end{beamercolorbox}
3256     };
3257     \node[
3258       text width=0.98\textwidth,
3259       text=basecolor,
3260       align=center] at (0.5*\textwidth,0.45*\ph) {
3261       \begin{beamercolorbox}[wd=\textwidth,center]{subsection title}
3262         \large\bfseries\insertsubsection
3263       \end{beamercolorbox}
3264     };
3265   \end{tikzpicture}
3266 }
3267
3268 \defbeamertemplate*{section page}{negative}[1] []
3269 {
3270   \begin{tikzpicture}
3271     \clip (0,0) rectangle (\textwidth,\paperheight-0.075cm);
3272     \node[
3273       text width=0.98\textwidth,
3274       text=basecolor,
3275       align=center] at (0.5*\textwidth,0.55*\ph) {
3276       \begin{beamercolorbox}[wd=\textwidth,center]{inverse section title}
3277         \Large\bfseries\insertsectionnumber.\~\insertsection
3278       \end{beamercolorbox}

```

```

3279     };
3280 \end{tikzpicture}
3281 }
3282
3283 \defbeamertemplate*{subsection page}{negative}[1] []
3284 {
3285 \begin{tikzpicture}
3286 \clip (0,0) rectangle (\textwidth,\paperheight-0.075cm);
3287 \node[
3288 text width=0.98\textwidth,
3289 text=basecolor,
3290 align=center] at (0.5*\textwidth,0.55*\ph) {
3291 \begin{beamercolorbox}[wd=\textwidth,center]{inverse section title}
3292 \Large\bfseries\insertsectionnumber.\~\insertsection
3293 \end{beamercolorbox}
3294 };
3295 \node[
3296 text width=0.98\textwidth,
3297 text=basecolor,
3298 align=center] at (0.5*\textwidth,0.45*\ph) {
3299 \begin{beamercolorbox}[wd=\textwidth,center]{inverse subsection title}
3300 \Large\bfseries\insertsubsection
3301 \end{beamercolorbox}
3302 };
3303 \end{tikzpicture}
3304 }
3305
3306 \defbeamertemplate*{footline}{empty}
3307 {
3308 }
3309
3310 \defbeamertemplate*{footline}{normal}
3311 {%
3312 \leavevmode%
3313 \hbox{\begin{beamercolorbox}
3314 [wd=.5\paperwidth,ht=0.55cm,dp=0.25cm,left,leftskip=.8cm
3315 plus1fill]{author in head/foot}}%
3316 \includegraphics[height=0.35\logunitheight]{\appropriatelogo}
3317 \hskip0pt plus 1filll ~
3318 \end{beamercolorbox}}%
3319 \begin{beamercolorbox}[wd=.5\paperwidth,ht=0.55cm,dp=0.25cm,
3320 right,rightskip=.8cm plus1fill]{\maybeinverse pageno in head/foot}}%
3321 \usebeamerfont{pageno in head/foot}~\hskip0pt plus 1filll
3322 \appropriateslidenumber
3323 \end{beamercolorbox}}%
3324 \vskip0pt%
3325 }
3326
3327 \defbeamertemplate*{frametitle}{empty}
3328 {
3329 }
3330
3331 \defbeamertemplate*{frametitle}{normal}
3332 {%

```

```

3333 \vskip0.75cm%
3334 \if@rhtext%
3335 \@tempdima=0.5\textwidth%
3336 \@tempdimb=0.5\textwidth%
3337 \advance\@tempdima by0.5\beamer@leftmargin%
3338 \advance\@tempdimb by-0.5\beamer@leftmargin%
3339 \else%
3340 \if@rqttext%
3341 \@tempdima=0.23\textwidth%
3342 \@tempdimb=0.77\textwidth%
3343 \else%
3344 \if@lhtext%
3345 \@tempdima=0em%
3346 \@tempdimb=0.5\textwidth%
3347 \advance\@tempdimb by-0.5\beamer@leftmargin%
3348 \else%
3349 \if@lqttext%
3350 \@tempdima=0em%
3351 \@tempdimb=0.77\textwidth%
3352 \else%
3353 \if@bhtext%
3354 \@tempdima=0em%
3355 \@tempdimb=\textwidth%
3356 \vskip0.5\textheight%
3357 \else%
3358 \@tempdima=0em%
3359 \@tempdimb=\textwidth%
3360 \fi%
3361 \fi%
3362 \fi%
3363 \fi%
3364 \fi%
3365 \hskip\@tempdima%
3366 \begin{beamercolorbox}[wd=\@tempdimb]{\maybeinverse frametitle}%
3367   \usebeamerfont{frametitle}\insertframetitle\[\[0.5ex]%
3368   \ifx\insertframesubtitle\empty%
3369     {\usebeamerfont{framesubtitle}%
3370     \usebeamercolor[fg]{\maybeinverse framesubtitle}~\strut\par}%
3371   \vskip-1ex%
3372   \else%
3373     {\usebeamerfont{framesubtitle}%
3374     \usebeamercolor[fg]{\maybeinverse framesubtitle}%
3375     \insertframesubtitle\strut\par}%
3376   \fi%
3377   \if@tempswa\else\vskip-.3cm\fi% set inside beamercolorbox... evil here...
3378 \end{beamercolorbox}%
3379 }
3380
3381 \newdimen\xlleft
3382 \newdimen\ylleft
3383 \newdimen\xupright
3384 \newdimen\yupright
3385 \newdimen\xcurrent
3386 \newdimen\ycurrent

```

```

3387 \newcommand*\extractloleft[1]{\path (#1);\pgfgetlastxy{\xlloleft}{\ylloleft};}
3388 \newcommand*\extractupright[1]{\path (#1);\pgfgetlastxy{\xupright}{\yupright};}
3389 \newcommand*\extractcurrent[1]{\path (#1);\pgfgetlastxy{\xcurrent}{\ycurrent};}
3390
3391 \DeclareRobustCommand\place{\@ifnextchar[{\@place}{\@place[align=left] }}
3392 \def\@place[#1] at (#2,#3)#4{
3393   \begin{tikzpicture}[overlay,remember picture]
3394     \extractloleft{$(current page.south west)$}
3395     \extractupright{$(current page.north east)$}
3396     \node[#1] at
3397       ({\xlloleft*(1-#2)+\xupright*#2},{\ylloleft*(1-#3)+\yupright*#3}) {#4};
3398   \end{tikzpicture}
3399 }
3400
3401 \mode
3402 <all>
3403 </bmrouter>

```



## Change History

v1.0	General: Consolidated uacoursetext class and uamasterthesis class . . . . . 1 Added option qr . . . . . 43 Added option titlepagenoartwork . . . . . 43 Added option titlepagetableonly 43	v1.6	General: Added diploma codes for Faculty of Applied Economics . 1 Added diploma code documentation . . . . . 6 \diploma: Added diploma codes . 62
v1.1	General: Small bugfixes and 'filled' option . . . . . 1 Added option user documentation . . . . . 4 Made raggedright conditional on option 'filled', because it can't be undone . . . . . 72 \diploma: Fixed typo on programme's name (e-umlaut) 62	v1.7	General: Added babel translations of elements of master's thesis title page . . . . . 1 Added babel tags of elements of master's thesis title page . . . . 49 \maketitle: Embedded babel translations of keywords into title page . . . . . 74, 78
v1.2	General: Added lmodern package and increased headheight to 13.7pt to please Fancyhdr . . . . 1 Added lmodern package to please MikTeX . . . . . 45 Increased headheight to please Fancyhdr . . . . . 72	v1.8	General: Corrected minor typographic mistakes, added signature and solved problems with shell escape . . . . . 1 Added missing packages ifmtarg and shellesc . . . . . 45 Allowed for empty senderrole . 87 \makefinalpage: Inserted blank one but last page . . . . . 77 \maketitle: Allowed for empty senderrole . . . . . 86 \signature: Added signature . . . 67
v1.3	General: Minor bugfixes, abandonment of a few packages, font freedom . . . . . 1 Abandoned use of cmbright - no more font dictatorship for theses and courses . . . . . 45 Added inclusion of background package . . . . . 45 \makefinalpage: Changed eso-pic for tikz . . . . . 77, 80 \maketitle: Changed eso-pic for tikz . . . . . 78	v1.81	General: Bugfixes for release v1.8 . 1 Apparently shellesc is still missing from quite a number of installations, therefore, conditional loading . . . . . 45
v1.4	General: Implemented uantwerpenletter class . . . . . 1 Implemented letter class . . . . 43	v1.9	General: Integrated uantwerpenexam class into package . . . . . 1 Added etoolbox for convenience reasons . . . . . 45 Implemented uantwerpenexam class . . . . . 43
v1.5	General: Replaced bottom arcs in footer of letter by official PDF versions . . . . . 1 \maketitle: Implemented new footer . . . . . 86	v2.0	General: Implemented uantwerpenphdthesis class into package . . . . . 1 Implemented uantwerpenphdthesis class . . . 43 Removed package ifmtarg because unreliable . . . . . 45

Updated diploma code documentation to incorporate PhD degrees	6	for EM	1
<code>\makefinalpage</code> : Implemented final page	83, 85	<code>\diploma</code> : Added code for Master EM without specialization	62
<code>\maketitle</code> : Implemented title page	80		
v2.1		v2.5	
General: Bugfix release after promotion event on research day	1	General: changed publisher to universitas in example	13
Added appropriate <code>\appendix</code> command	73	<code>\depot</code> : Made the specification of a depot number optional	63
Allow for setting the multiple choice mark symbol	91	<code>\insertsolutionspagepartial</code> : Corrected for 'one page too early' in solutionspagepartial	92
Corrected erroneous line breaking	91	<code>\maketitle</code> : Corrected formatting in case of absent ISBN or depot number	80
Corrected spacing in title + exampart	87	<code>\programme</code> : Shortened 'voorbereidingsprogramma' and 'schakelprogramma' tags	61
<code>\engdut</code> : Increased intercolumn spacing for engdut	90	<code>\publisher</code> : changed publisher to universitas in default	55
<code>\extrainfo</code> : Changed default to empty	69	v3.0	
<code>\maketitle</code> : Corrected information page (p4) jury spacing	80	General: Adapted to the new house style of UAAntwerpen and added a beamer template	1
<code>\subtitle</code> : Added subtitle to phd text	54	Added iftex	45
Ensured that subtitle is really optional by adding default space value	54	<code>\facultyacronym</code> : Changed REC in RE, TEW in BE and WET in WE (according to official naming scheme)	54
v2.2		v3.1	
General: Improved visibility of chapter numbers by adding a white outline	1	General: Renamed generic images to be unique for TexLive distribution	1
Added white chapter number outline	73	v3.2	
Corrected spacing	73	General: Small bugfixes (e.g., frame numbering instead of page numbering)	1
v2.3		v4.0	
General: Reworked masterthesis to bamathesis and minor bug fixes	1	General: Last update of house style (phdthesis coursetext and bamathesis), added uantwerpenreport class, improvements based on use feedback and major rework to benefit from expl3, removed all diploma codes to ease maintainability	1
2019/03/27	87	Removed diploma codes, as too many faculties are requesting to maintain them	6
Added boxes to fill out name and docket number	87	Removed option qr again	43
Introduced bachelor level codes to allow for bachelor theses	6	Removed options titlepagetableonly and titlepagenoartwork	43
<code>\diploma</code> : Added diploma level	62		
<code>\extrainfo</code> : The command <code>\extrainfo</code> now allows for an extra (optional) first argument 'firstpage'	69		
v2.4			
General: Added option for diploma without specialization			

Total rewrite of this part based on expl3 . . . . .	49	Added some suggestions for a two column summary of a bamathesis . . . . .	16
\diploma: Discontinued: removed all diploma codes . . . . .	62	\department: Added department name . . . . .	54
\facultyacronym: This function is now obsolete . . . . .	54	\subtitled: Added dutch translation option to phdtext class . . . . .	54
v4.1		\titled: Added dutch translation option to phdtext class . . . . .	54
General: Adapted coursetext again to universitas agreement + added bleed version for phd texts + small bugfixes . . . . .	1	v4.5	
Added cameraready option . . . . .	47	General: Small bugfixes: more robust fonts for overleaf, added some missing degrees . . . . .	1
Added option cameraready . . . . .	43	Added bachelor degrees (dutch) in english mode for FTI . . . . .	52
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