# Imperial College London Dissertation Template The icldt class\*

Daniel Wagner info@prettyprinting.net

January 29, 2009

## 1 Introduction

The provided document class icldt is based on the class scrept from the koma-script package. It uses the packages geometry and setspace to fullfill the requirements for dissertations of the University of London and of Imperial College London as cited in Section 3.

If you print your dissertation for yourself or as a present for family, friends or colleagues you probably should use a different layout which does not fulfill the College requirements but which looks much better.

For further information and for professional layouting and printing services please visit www.PrettyPrinting.net.

# 2 Usage

The College regulation for dissertation leave some choices up to you. Most of these choices are available as documentclass options.

onehalfspacing doublespacing

You can choose between one-and-a-half or double linespacing with the option onehalfspacing respectively doublespacing. One-and-a-half linespacing is default.

imperial
university

You can specify if you are submitting for a University of London or an Imperial College London degree with the option university respectively imperial. Use imperial if you are enrolled for an Imperial College London degree, but not for an University of London degree. Use university if you are enrolled for an University of London degree, which is possible at Imperial College only if you started studying before 2007. Default is imperial.

titlepagenumber=on titlepagenumber=off

The College requirements say that every page including the titlepage has to

<sup>\*</sup>This document corresponds to icldt v1.4, dated 2008/09/25.

be paginated with the arabic pagenumber. Many people believe a pagenumber on the titlepage looks horrible. Therefore you can choose to violate this requirement and switch the pagenumber on the titlepage off with the option titlepagenumber=off. By default the template sticks stricktly to the requirements and uses titlepagenumber=on as default.

a4paper oneside All other options are passed on to the underlying document lass scrrept. This is how the paper format is set to A4 with a single-sided layout by default. Imperial College London degrees allow double-sided layout for thesis with more than 100 pages. Use option twoside to switch to a double-sided layout.

12pt The College does not impose any restrictions on the fontsize. By default the fontsize is set to 12pt which seems to be reasonable with regard to the paper format and margins.

## 2.1 Titlepage

The titlepage includes all required information (see Section 3). The titlepage can be adapted to degrees of "University of London, Imperial College" and to degrees of "Imperial College London" by using the class option university and imperial respectively. To obtain a University of London degree at Imperial College is only possible if you started studying before 2007. Therefore the option imperial is chosen by default. The titlepage is placed in the document with \maketitle.

\maketitle

\college

If you are from another college, e.g. within the University of London, you can redefine the college's name with \college{name}. By default the college is Imperial College London.

\department

You have to specify your department with \department{name}. The department's name is printed on the titlepage. It is also used for the name of your degree. So if you study in the department of Computing it is assumed that you will get a degree in Computing. If this is not the case or if you are an external student who is not part of any department please use \field{field of studies} to declare the field of studies in which you will get your degree.

\field

PhD You can choose the name of your degree which is printed on the titlepage by
 MSc selecting one of the documentclass options PhD, MSc, BSc. The Diploma of Imperial
 BSc College (DIC) is automatically added when you choose the option PhD. The PhD option is selected by default.

DIC=on DIC=off If you obtain a PhD without the Diploma of Imperial College use the option DIC=off. To add the Diploma to any of the other degrees – check with the College's administration if this is possible – use the option DIC=on.

\supervisor

The regulations do not require to mention your supervisor on the titlepage. If you want to do so anyway define her name with  $\sum name$ .

#### 2.2 Declaration

Although it is not mentioned in the College's regulation, many departments require a signed declaration at the beginning of the thesis, which states that the thesis is original work, etc. please confirm with your supervisor of the PhD administrator in your department whether you need the declaration of not.

declaration=on
declaration=off

You can switch the declaration off with then documentclass option declaration=off. By default it is switched on, i.e. declaration=on. The titlepage is followed by a declaration that the dissertation is your original work and all cited material has been properly acknoledged. The declaration reads:

I herewith certify that all material in this dissertation which is not my own work has been properly acknowledged.

This declaration is followed by your name as defined by  $\author{name}$ . That is where you need to sign before you hand in your dissertation.

\declaration

If you want to change the text of the declaration use \declaration{new text}.

#### 2.3 Abstract

abstract

Use the abstract environment to write the abstract of your dissertation. It should follow directly after the \maketitle command.

Your abstract is not allowed to exceed 300 words.

#### 2.4 Dedication

\dedication \makededication

The regulations do neither require nor forbid a dedication of your dissertation to somebody or something. If you want to include a dedication define its text with  $\dedication\{text\}$  which is provided by the koma-script class. To place it in the document use  $\mbox{makededication}$ . The right place for the dedication would be between the abstract and the table of contents.

## 2.5 Table of Contents

The College regulations say that "the abstract should be followed by a full table of contents (including any material not bound in) and a list of tables, photographs and any other materials."

You can create the table of contents and the lists with the standard LATEX commands \tableofcontents, \listoffigures and \listoftables.

# 3 Regulations for Dissertations

This section is an excerpt from the regulations for dissertations of the University of London and of Imperial College London. It cites all requirements which have direct impact on the document layout. The full text of the requirements can be found online:

- Imperial College London: http://www3.imperial.ac.uk/pls/portallive/docs/1/48333706.PDF
- University of London: http://www.london.ac.uk/fileadmin/documents/students/postgraduate/binding\_notes.pdf

## Paper

A4 size paper  $(210 \times 297 \text{ mm})$  should be used. Plain white paper must be used, of good quality and of sufficient opacity for normal reading. For a university of London degree only one side of the paper may be used. For Imperial College London degrees "pages may be printed double-sided for theses over 100 pages".

## Layout

University of London: Margins at the binding edge must be not less than 40 mm (1.5 inches) and other margins not less than 20 mm (0.75 inches).

Imperial College London: Page content should be centred, so that margins are equal distant from the edge of pages/binding.

Double or one-and-a-half spacing should be used in typescripts, except for indented quotations or footnotes where single spacing may be used.

## **Pagination**

All pages must be numbered in one continuous sequence, i. e. from the title page of the first volume to the last page of type, in Arabic numerals from 1 onwards. This sequence must include everything bound in the volume, including maps, diagrams, blank pages, etc. Any material which cannot be bound in with the text must be placed in a pocket inside or attached to the back cover or in a rigid container similar in format to the bound thesis.

## Title Page

The title page must bear the officially-approved title of the thesis, the candidate's full name as registered, the name of the College/Institute at which the candidate was registered (except for External Students) and the degree for which it is submitted.

#### Abstract

The title-page should be followed by an abstract consisting of no more than 300 words.

#### **Table of Contents**

In each copy of the thesis the abstract should be followed by a full table of contents (including any material not bound in) and a list of tables, photographs and any other materials.

## 4 Copyright & License

Copyright © 2008, Daniel Wagner, www.PrettyPrinting.net

Permission is hereby granted, free of charge, to any person obtaining a copy of this documentclass and associated documentation files (the "Template"), to deal in the Template without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Template, and to permit persons to whom the Template is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Template.

The Template is provided "as is", without warranty of any kind, express or implied, including but not limited to the warranties of merchantability, fitness for a particular purpose and noninfringement. In no event shall the authors or copyright holders be liable for any claim, damages or other liability, whether in an action of contract, tort or otherwise, arising from, out of or in connection with the Template or the use or other dealings in the Template.

# 5 Implementation

These macros store the required information.

- 1 \newcommand\*{\@supervisor}{}

- 4 \newcommand\*{\@department}{}
- 5 \newcommand\*{\@field}{}

```
6 \newcommand*{\@degree}{}
7 \newcommand*{\@diploma}{}
8 \newcommand*{\@declaration}{}
```

The options for the document class are declared. This will redefine the information in the macros defined above if necessary.

```
9 \DeclareOption{university}{%
10 \renewcommand{\Quniversity}{University of London}}
11 \DeclareOption{imperial}{%
12 \let\@university\empty}
13 \DeclareOption{PhD}{%
14 \renewcommand{\@degree}{Doctor of Philosophy}
15 \renewcommand{\@diploma}{Diploma of Imperial College London}}
16 \DeclareOption{MSc}{%
17 \renewcommand{\@degree}{Master of Science}\let\@diploma\empty}
18 \DeclareOption{BSc}{%
19 \renewcommand{\@degree}{Bachelor of Science}\let\@diploma\empty}
20 \DeclareOption{DIC=off}{%
21 \let\@diploma\empty}
22 \DeclareOption{DIC=on}{%
23 \renewcommand{\@diploma}{Diploma of Imperial College London}}
24 \DeclareOption{declaration=off}{%
25 \let\@declaration\empty}
26 \DeclareOption{declaration=on}{%
27 \renewcommand{\@declaration}{%
28 I herewith certify that all material in this dissertation which
29 is not my own work has been properly acknowledged.}}
These options offer (limited) choices for the layout.
30 \DeclareOption{doublespacing}{\AtBeginDocument{\doublespacing}}
31 \DeclareOption{onehalfspacing}{\AtBeginDocument{\onehalfspacing}}
32 \DeclareOption{titlepagenumber=off}{%
33 \AtEndOfClass{\renewcommand{\titlepagestyle}{empty}}}
34 \DeclareOption{titlepagenumber=on}{%
35 \AtEndOfClass{\renewcommand{\titlepagestyle}{plain}}}
All other options are handled by the underlying document lass scrrept from the
koma-script package.
36 \DeclareOption*{\PassOptionsToClass{\CurrentOption}{scrreprt}}
The default options are defined and executed.
37 \ExecuteOptions{%
39 \ProcessOptions\relax
```

40 \newcommand\*{\supervisor}[1]{\gdef\@supervisor{#1}}

\supervisor Defines the name(s) of the supervisor(s).

\college Defines the name of the college.

41 \newcommand\*{\college}[1]{\gdef\@college{#1}}

\department Defines the name of the department.

42 \newcommand\*{\department}[1]{\gdef\@department{#1}}

\field Defines the name of your field of studies.

 $43 \end{*{\footnotesize [1] {\gdef\@field{#1}}}}$ 

\declaration Redefines the declaration text.

44 \newcommand\*{\declaration}[1]{\gdef\@declaration{#1}}

The whole document class builds on scrreprt from the koma-script package.

45 \LoadClass{scrreprt}

The linespacing is controlled by the package setspace

46 \RequirePackage{setspace}

The page layout is set with the geometry package.

```
47 \RequirePackage[left=4.2cm,right=4.2cm,top=2.97cm,bottom=5.94cm]% 48 {geometry}
```

The font for title and headlines is changed from sans-serif, which is default in koma-script, to the serif font.

49 \setkomafont{sectioning}{\rmfamily\bfseries}

The titlepage is typeset including all information required by the University of London and Imperial College London.

- 50 \renewcommand\*{\maketitle}{
- 51 \begin{titlepage}
- 52 \par
- 53 \clearpage
- 54 \thispagestyle{\titlepagestyle}
- 55 \noindent\begin{minipage}[t]{\textwidth}
- 56 \centering\large
- 57 \ifx\@university\@empty \else \@university\par\fi
- 58 \@college
- 59 \ifx\@department\@empty \else \par Department of \@department\fi
- 60 \end{minipage}
- 61 \null\vfill
- 62 \begin{center}
- 63 {\titlefont\huge \@title\par}

```
64
   \vskip 3em
   {\Large \lineskip 0.75em
65
   \begin{tabular}[t]{c}
67
    \@author
   \end{tabular}\par}
68
   \vskip 1.5em
69
   {\Large \@date \par}
70
   \vskip \z@ \@plus3fill
71
   \ifx\@supervisor\@empty \else
72
   {\Large Supervised by \@supervisor \par}
73
74
   \fi
   \vskip 3em
75
76
  \end{center}\par
  \noindent\begin{minipage}[b]{\textwidth}
77
   Submitted in part fulfilment of the requirements for the degree of \
79
   80
   \ifx\empty\@university{\@college}\else{the \@university}\fi
81
   \end{minipage}
```

If the declaration option is switched on, the titlepage is followed by the declaration that the dissertation is original work of its author.

```
84 \ifx\@declaration\@empty\else{
85 \cleardoublepage
86 \chapter*{Declaration}
87 \thispagestyle{plain}
88 \@declaration
89 \par\vspace{3cm}
90 \hfill\@author
91 \cleardoublepage
92 }\fi
93 \end{titlepage}
94 }
```

The dedication – which is not mentioned in the requirements for dissertations of the University of London and Imperial College London – is typeset on its own plain page.

```
95 \newcommand{\makededication}{
96 \ifx\@dedication\@empty \else
97 \clearpage
98 \thispagestyle{plain}
99 \null\vfill
100 {\centering \Large \@dedication \par}
101 \vskip \z@ \@plus3fill
102 \cleardoublepage
103 \fi
104 }
```

abstract The abstract is implemented as a section without numbering on its own plain page.

- 105 \renewenvironment{abstract}{\%}
- $106 \verb|\chapter*{Abstract}\thispagestyle{plain}}{\cleardoublepage}|$