

# Gradu — A Class for Writing Master's Thesis at the Faculty of Information Technology of the University of Jyväskylä

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## Abstract

This class is designed to facilitate the writing of a Master's Thesis (and other thesis) work at the Department of Information Technology of the University of Jyväskylä. It may also be used elsewhere if it conforms to their requirements.

## 1 Invocation

Invoke the class with the usual `\documentclass{gradu2}`.

### 1.1 Language Options

Languages options set hyphenation, titles translations and date formats to the selected language. The available languages are:

`finnish` switches to Finnish language (default)

`english` switches to English language

You can switch at any time from one of those languages to the other one with `\selectlanguage{language}`.

## 1.2 Input Character Set

Input character set options allow to specify with what character set the source file is written. Available character sets are:

`ascii` ASCII encoding (ISO 646)

`latin1` ISO-8859-1 encoding (Western Europe languages) (default)

`latin2` ISO-8859-2 encoding (Central Europe languages)

`latin3` ISO-8859-3 encoding (Esperanto, Maltese)

`latin5` ISO-8859-5 encoding (Cyrillic)

`latin9` ISO-8859-15 encoding (Western European languages with the Euro symbol)

`applemac` Macintosh encoding

`ansinew` Windows 3.11 ANSI (extended ISO-8859-1) encoding

`cp1252` synonym for `ansinew`

`cp1250` MS Windows 1250 (central and eastern Europe languages) code page

`decmulti` DEC Multinational Character Set encoding

`next` Next encoding

`cp437` IBM 437 code page

`cp437de` IBM 437 code page (German version)

`cp850` IBM 850 code page

`cp852` IBM 852 code page

`cp865` IBM 865 code page

Usual encodings, by platform, are:

**Linux** `latin1` (or nowadays more often than not, `latin9`)

**MS Windows** `cp1252`

**Macintosh** `applemac`

## 2 Copyrights

The class outputs copyright assertion by default. This can be inhibited.

`copyright` Output copyright assertion and license information on the second title page (default).

`nocopyright` Do not output copyright assertion and license information.

## 3 Other options

`numbib` Number bibliography (default).

`nonumbib` Do not number bibliography.

`newtitle` A different title page format (attempts to conform to CS dept requirements)

`shortthesis` This is a short thesis; no chapters will be used. (For Bachelor's theses etc.)

`altsubsec` Alternate layout for subsections (the first line of the paragraph is on the same line as the title of the subsection)

## 4 Header Commands

The following commands can be used before the `\begin{document}`. Some of those are optional (their default values are described along with the command) and the others are mandatory. If one of the mandatory commands is not used, a reminder will be printed inside the document.

`\title` document's title (mandatory)

`\author` documents's author (mandatory) **deprecated, use `\setauthor` instead**

`\setauthor` document's author (two arguments: first names and surname) (mandatory)

`\date` document's publishing date (defaults to the current date) **deprecated, use `\setdate` instead**

`\setdate` takes three arguments: day, month, year (all numeric); sets document's publishing date (defaults to the current date)

`\yliopisto` the university to which this thesis will be submitted, in Finnish (defaults to "Jyväskylän yliopisto")

`\yliopisto` the university to which this thesis will be submitted, in English (defaults to "University of Jyväskylä")

`\laitos` the department to which this thesis will be submitted (defaults to "Tietotekniikan laitos" in Finnish and "Department of Mathematical Information Technology" in English)

`\aine` the formal subject (major or minor) whose thesis this is (defaults to "Tietotekniikan" in Finnish and "in Information Technology" in English)

`\linja` study line (optional)

`\tyyppi` type of work in Finnish (defaults to "pro gradu -tutkielma")

`\type` type of work in English (defaults to "A Master's Thesis")

`\keywords` document's keywords in English (mandatory)

`\avainsanat` document's keywords in Finnish (mandatory)

`\contactinformation` author's contact information (mandatory)

`\yhteystiedot` author's contact information (synonym of `\contactinformation`)

`\tiivistelma` abstract in Finnish (mandatory)

`\abstract` abstract in English (mandatory)

`\translatedtitle` title in the other language (mandatory)

`\copyrightowner` owner of the copyright (defaults to the author's name)

`\license` license under which the document is published (defaults to "All rights reserved.")

`\copyrightyear` copyright year (defaults to the current year)

## 5 Sectioning Commands

The available sectioning commands are:

`\preface` Preface

`\termlist` List of terms

`\mainmatter` Marks the beginning of the main part of the document. Should appear before the first `\chapter`. Inserts the table of contents, the list of tables and the list of figures. Switches on chapter numbering; switches the page numbering from lowercase roman to arabic, starting from 1 again.

`\chapter` Beginning of a chapter

`\section` Beginning of a section

`\subsection` Beginning of a subsection

Note that `\subsubsection`, `\paragraph` and `\subparagraph` are forbidden.

In addition to the previous commands, there are three useful environments:

`thebibliography` allows to specify a list of references. Should be put before the appendices.

`appendix` inserts an “Appendices” line into the table of contents and the chapters inside the environments will be numbered with letters instead of numbers, beginning from “A”.

`chapterquote` allows you to add a quote to the beginning of a chapter. It takes one mandatory argument: the attribution line for the quote. You should start the text of the chapter immediately after this environment; do not leave empty lines there.