

National Taipei University of Technology

Thesis Preparation and Specifications for Graduate Students

04.27.2020

1 General Provisions

1.1 Introduction

Since every graduate student has to submit one qualified academic degree thesis, the Office of Academic Affairs hereby prescribes the guidelines about the format of graduate student theses so that the degree theses published by the University will follow a standard format and it is hoped that these specifications will assist graduate students in formatting their theses.

These specifications are general guidelines. Respective departments and schools may set forth relevant rules for idiomatic expressions in their own fields of studies.

1.2 Thesis topic and advisor

After identifying the thesis advisor, each graduate student should have their thesis topic approved by the advisor and the head of their school to complete the final decision on the thesis topic and the thesis advisor appointment.

After choosing their thesis topics and appointing their advisors, graduate students may change the topics as necessary before completing their own thesis, subject to the discussion of the academic committee of their own departments. If there is a conflict of opinion between a graduate student and his or her advisor, they may also request a review and arbitration by the academic committee of their department.

Degree theses shall be written in the Chinese language. Submitting any thesis which has been accepted for the award of any other degree is not allowed and will be deemed as cheating. If the situation is found after the degree conferral, the degree will be revoked and cancelled.

1.3 Thesis completion and degree examination

Master's students who have met the following requirements may register for the master's degree examination:

1. From the semester following the first anniversary of their master's studies.
2. Upon the fulfillment of all required courses and credits, other than the theses, of their respective schools as of the present semester.
3. Upon the initial draft of their these, or submission of the written reports or technical reports to substitute for the degree thesis and as approved by the advisors. Master's students of art school or application technology school may substitute their thesis requirements with creative works, displays and performances along with written reports or technical reports.

Doctoral students who have met the following requirements may register for the doctoral degree examination:

1. Upon a successful assessment of doctoral candidate qualifications.
2. From the semester following the second anniversary of their graduate studies; or the semester following the third anniversary of their studies in the accelerated doctoral program, which the students have studied for one full year in the master's program, and two full years in the doctoral program.
3. Upon the fulfillment of all the required courses and credits, other than the theses, of their respective schools as of the present semester.
4. Upon the completion of the academic thesis publication requirements of the department (school) by the academic oriented doctoral students; completion of the required publication of innovative research and development results in industry-academic, patent, or technical transfer fields of the department (school) by the technical oriented doctoral students. Each department (school) will prescribe relevant procedures.
5. Upon the initial draft of their these, as approved by the advisors.
6. Technical oriented doctoral students shall enroll in at least one graduate course about management at the College of Management; enrollment in said course must be approved by their advisors, and work in the area of research and development at private entities, governmental agencies or other institutions engaged in the practical technology related to the projects of the department (school) for two or more years; said private entities, governmental agencies, or institutions shall accept the students

upon the review and approval by the academic committee of department (school). Each department (school) will prescribe the review criteria and other procedures for the research and development jobs in practical technology.

Students who apply for the degree examination shall form the “degree examination committee” upon the consent of their advisors, fill the degree examination application form (master’s or doctoral degree), and obtain the approvals as required before they attend the degree examination. The formation of the “degree examination committee” is subject to the University’s “Policy on Degree Examination.” After the student passes the “degree examination,” modifies and finalizes the thesis based on the comments of the degree examination committee members, the degree examination committee members shall sign on the “Thesis Oral Exam Committee Qualification Report” (for master’s or doctoral degree).

1.4 Theses

Whoever has passed the degree examination shall upload the digital file of thesis/dissertation or technical report to University Library’s “Electronic Thesis/Dissertation (ETD) System” (<https://cloud.ncl.edu.tw/ntut/>). After passing the library review, students should print out authorization forms, submit the forms and theses/dissertations to the Library before the graduation. The binding information and the number of items submitted to the Library should meet the Library’s requirements. If there are any other paper copies students should submit to their department or institute, please follow the department’s or institute’s requirements.

2 Order and Components of Theses

The thesis shall consist of the components in the following order:

Thesis Cover

Blank Page

Title Page

Thesis Oral Exam Committee Qualification Report (for master's or doctoral degree)

Chinese Abstract

English Abstract

Acknowledgments

Table of Contents

List of Tables

List of Figures

Main Body

References

Appendices

List of Symbols (Formula)

Author Introduction (as necessary)

Spacing requirements in this document will be specified as (1.5 lines, 12pt blank line), in which “1.5 lines” refers to the **spaces between lines**, and “12pt size blank line” refers to the **font type and size**.

2.1 Cover

The format of the cover shall follow the thesis cover formatting example.

2.2 Title Page

The title page shall include the University's name, name of department/school, name of academic discipline, title of the thesis, name of author, name of advisor, and completion date, all centered below the top of the page. The title page is the front matter, and should not be paginated. When binding the thesis, place one blank page between the cover and the title page.

2.3 License Form

Theses shall be submitted on the University library's website "Digital Theses Service (<http://etds.ntut.edu.tw>)". Upon the approval of the library, print and sign the degree thesis license form and, submit it to the library (do not bind into the papers of the thesis). The license form ensures that the copyrights will remain with the students, and the contents may be reproduced or caused to be reproduced by a third party for academic or research purposes.

2.4 Thesis Oral Exam Committee Qualification Report

The Thesis Oral Exam Committee Qualification Report shall be signed by the degree examination committee members, the advisor, and the Head of School, then inserted in the degree thesis. The text must appear in DFKai-SB. The "Thesis Oral Exam Committee Qualification Report" is the front matter, and shall not be paginated.

2.5 Abstract

Abstract is a brief or summary of the thesis or report. The purpose of the abstract is to help the readers roughly understand the contents of the whole paper through a short statement. The abstract usually includes the description of questions and the outcomes within 500 words or one page and must not contain any references or cited figures. If the thesis is written in Chinese, its abstract shall be written in Chinese, and in English if so desired. The heading shall appear in 20pt DFKai-SB Bold, beginning one line (1.5 lines, 12pt blank) below the top of the page. Skip one line (1.5 lines, 12pt blank) and begin the abstract. The abstract page shall be paginated.

2.6 Acknowledgments

Acknowledgments are the author's statement of gratitude to the people and institutions that helped in the research. The heading shall appear in 20pt DFKai-SB Bold, beginning one line (1.5 lines, 12pt blank) below the top of the page. Skip one line (1.5 lines, 12pt blank) and begin the text of the acknowledgements.

2.7 Table of Contents

Except for the cover, title page, license form and qualification report, the page number of every item in the rest of the thesis and each chapter or section in the main body shall be specified in the table of contents. Usually, the table of contents includes the first section heading of each chapter in the thesis. It is optional whether or not to insert the rest of the levels of the sections in the table of contents. The table of content page shall be paginated. The heading “Table of Contents” shall appear in 20pt DFKai-SB Bold, beginning one line (1.5 lines, 12pt blank) below the top of the page. Skip one line (1.5 lines, 12pt blank) and begin the following text.

2.8 List of Tables

The list of tables shall include the starting page number of each table in the thesis. If there are only one or two tables in the thesis, the list of tables will be optional. The heading shall appear in 20pt DFKai-SB Bold, beginning one line (1.5 lines, 12pt blank) below the top of the page. Skip one line (1.5 lines, 12pt blank) and begin the following text.

2.9 List of Figures

The list of tables shall include the starting page number of each figure in the thesis. If there are only one or two figures in the thesis, the list of figures will be optional. The heading shall appear in 20pt DFKai-SB Bold, beginning one line (1.5 lines, 12pt blank) below the top of the page. Skip one line (1.5 lines, 12pt blank) and begin the following text.

2.10 Main Body

2.10.1 Chapter

The main body of text usually consists of chapters. Each chapter shall begin on a new page, one line below the top of the page (1.5 lines, 12pt blank), followed by the text. If written in English, each chapter names shall be capitalized, except for the word “Chapter.” Headings shall be centered. Insert one line (1.5 lines, 12pt blank) below each heading. Headings shall be 20pt in size. Long headings can be separated into several lines based on its context. The text shall appear in DFKai-SB Bold. For example:

Chapter 1 Introduction

or

第一章 導論

If the heading of that chapter is long, separate into two lines:

Chapter 2

LONG HEADING ARRANGEMENT PER THESIS SPECIFICATION

Chapter titles and headings shall not contain any punctuation marks or its English translation. The first page of each chapter shall be paginated.

2.10.2 Section

Chapter consists of sections and sections can be divided into several levels. Each level of section shall have its own title (called sub-section title). The section heading must be left-aligned, and one line (1.5 lines, 12pt size blank line) below the previous paragraph, and immediately followed by the text without any lines in-between. The section heading shall be 18pt in size and appear in DFKai-SB Bold. Sections headings must not be left hanging alone on the bottom of the page. There shall be at least one line of text following the heading, or the heading shall be moved down to the next page. No heading shall contain any punctuation marks or its English translation.

2.11 References

References make the most important and indispensable part after the main body. Include the author's name, title (heading), source (journal name or book name), page _ to page _, and the year of publication. The heading shall appear in 20pt DFKai-SB Bold, beginning one line (1.5 lines, 12pt blank) below the top of the page. Skip one line (1.5 lines, 12pt blank) and begin each entry of the references. In the thesis, refer to the source of a citation or reference with a square bracket.

2.12 Appendices and List of Symbols (Formulas)

In situations when resources have critical value as a reference for the research thesis, but it might not be suitable to in the main body because of its extensive the content or be included with the main body, list these materials as appendices. For example, the detailed steps of the algorithm, computer program, details of the questionnaire, and so on. Appendices are usually numbered with English letters, A, B, C, etc. Each appendix usually has a heading, unless there is only one appendix. The heading of an appendix shall be 12pt in size and appear in DFKai-SB Bold, left-aligned. Skip one line (1.5 lines, 12pt size blank line) and begin the text of the appendix. If the appendix is longer than one page, the heading may be centered on the first page, and the remaining contents will begin from the second page. If there are plenty of mathematical formulas, or other symbols, include the definitions of these symbols, or these formulas in a list, and insert as an appendix using “List of Symbols” or “List of Formulas” as the heading. Such heading shall appear in the same font type and size as the heading of other appendices.



3 Thesis Formats

3.1 Computer Typesetting

The thesis shall be typed and formatted, and printed with high-quality laser printer, double-sided. Use Microsoft Word or LaTeX to edit. If using Microsoft Word, go to “Layout” under “File” menu, and set the “Margins” and “Paper Size” according to the specifications set forth in this chapter.

3.2 Page Layout and Settings

The thesis shall be printed on A4 80gsm papers (measured 21cm * 29.7cm), top to bottom. The paper must be white.

3.3 Indentation

In the general body text, each paragraph shall be indented two spaces of Chinese character or five spaces of English characters.

3.4 Font Type

In the thesis, Arabic numerals and characters of English or European languages must appear in Times New Roman, the font type used for *The Times* by printing company Monotype and Chinese text must be in DFKai-SB.

3.5 Font Size

In the thesis or report, fonts of the main body must be 12 points in size. If necessary, text and numbers in a figure, table or appendix may be slightly smaller than 12pt. The thesis topic shall be 24pt, chapter headings shall be 20pt, and section heading may be 18pt in size.

3.6 Font Spacing

Spaces between Chinese words shall not exceed one-tenth of the width of a Chinese character to present the best format. In Microsoft Word, each line may contain 34 words. If necessary, justify the text in Microsoft Word to improve layout aesthetics. Go to “Format”

menu and select “Font.” Set the “Character spacing” according to the specifications set forth in this chapter.

3.7 Line Spacing

Line spacing means the distance between two lines. The research thesis shall use 1.5 lines. In Microsoft Word, go to “Format” menu and select “Paragraph.” Set the “Line spacing” as 1.5 lines, 0pt before and after each paragraph. This document is formatted as 1.5 lines spacing and justified. Line spaces for references may be slightly less than 1.5 lines.

3.8 Margins

Each page of the thesis shall leave the binding edges for hardcover. The margins on the four sides shall be Left: 2.5 cm, Right: 2.5cm, Top: 2.5cm, and Bottom: 2.75cm. Margin difference within +3mm or -2mm is permitted. If using Microsoft Word, go to “Format” under “File” menu, select “Margins,” and set each four margins according to Figure 3.1. In addition, set the space between page number and the bottom edge of the page in “From edge” and enter “1.75cm” or “1.5cm” for the “Footer.”

※ When printing double-sided, check “Mirror margins” in Layout.

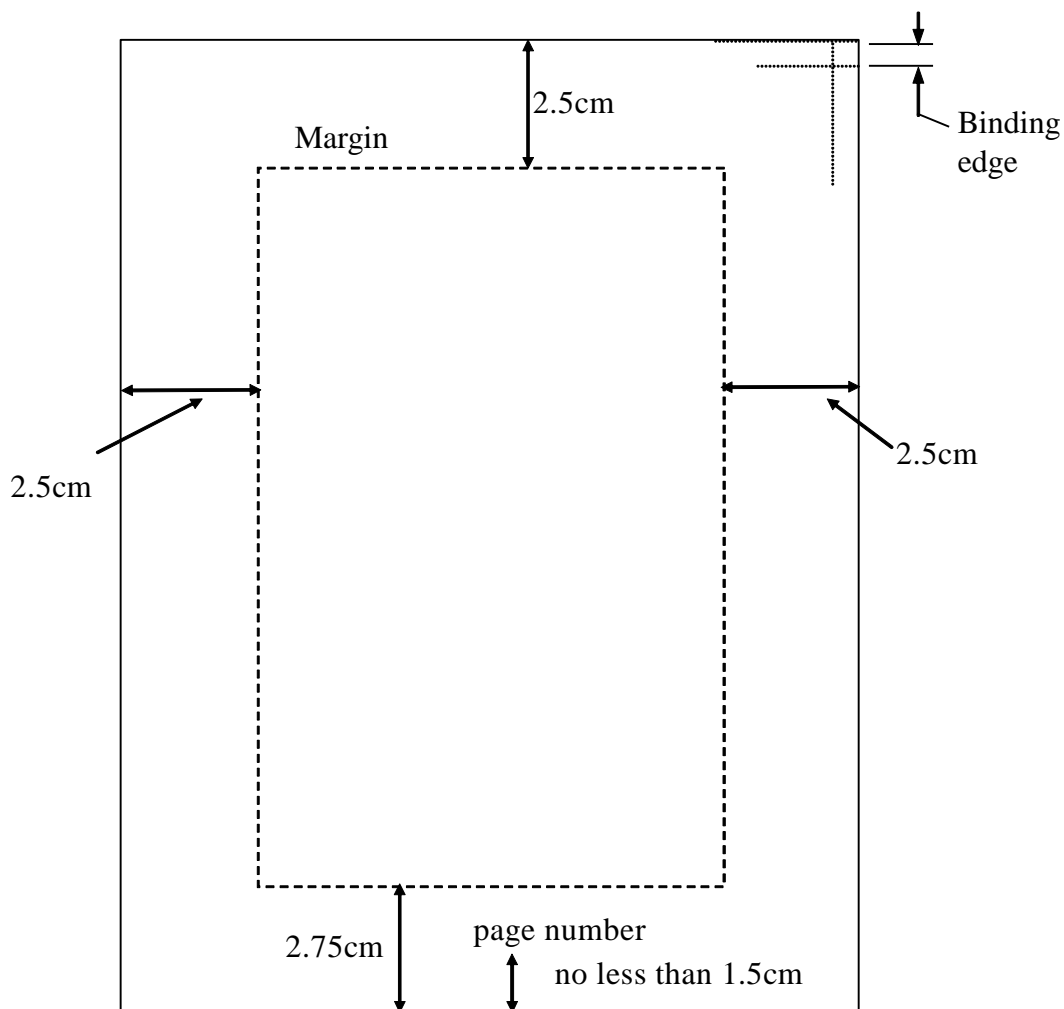


Figure 3.1 Margin Spacing Example

3.9 Page Numbering

In the thesis, except for the “cover page” and the “Thesis Oral Exam Committee Qualification Report,” insert a page number at the bottom of each page, centered, 1.5cm above the margin bottom (in this document the margin space is 1.75cm). Page numbers of front matter shall appear in lowercase roman numerals, i, ii, iii, iv, etc. The main body and the back matter shall be paginated with Arabic numerals. Do not insert any marks before a page number (such as “page” or -1-). Insert the page number as 1). Page numbers shall appear in half-width Times New Roman in both parts of front matter and main body.

3.10 Tables and Figures

3.10.1 Numbering

Tables and Figures shall be numbered respectively in order to make reference to and explain. Do not use the terms “as shown in the table below” or “as shown in the table on the next page.” Said table or figure may not appear in the exact location as described after being formatted. The correct expression to mention a table or figure shall be “as shown in Table 2” or “as shown in Figure 3”.

Tables and figures may be numbered sequentially within. If there are not many tables or figures in the thesis, tables and figures may be numbered sequentially throughout the thesis (for example, “Table 12” refers to the 12th table in the entire thesis). Number the tables and figures with Arabic numerals. The number of a table or figure in English may be followed by a period, but do not add a period in Chinese captions for example:

Table 2. This is a sample Table.

Figure 2. This Figure is for your reference.

表 2 Do not add a period after a table caption in Chinese

圖 2 Do not add a period after a figure caption in Chinese

When one figure includes several sub-figures, each sub-figure can be numbered as (a), (b), (c), etc.

3.10.2 Location

A table or figure shall be inserted at the bottom of the page where it is first mentioned or moved to the top of the next following page if no sufficient space remained. If there are more than two tables or figures on the top or bottom of the same page, the tables or figures shall be arranged in the order they are mentioned. A table or figure larger or longer than half of the page shall be placed and centered on a new page. A table or figure smaller or shorter than half of the page shall be placed on the same page of the main body. Tables and figures shall be centered. Insert one line above and below each table or figure, (1.5 lines, 12pt size blank line).

3.10.3 Size

If the table or figure exceeds the length of the page, it may be separated into several pages. The complete caption shall appear on the first page. At the right bottom of the page, write “continued on next page”. In terms of a table, the caption on the next page (or the following pages) shall be “Table 2 (continued)” or “Table 2, continued.” In terms of a figure, the caption on the next page (or the following pages) shall be “Figure 2 (continued)”. If the table or page size is excessively large and is not appropriate to be separated into several pages, use a folded page to contain the table or figure, or use smaller font size such as 10pt, or 9pt.

3.10.4 Caption

Each table or figure shall have a concise caption. The caption cannot contain any abbreviations. Captions of tables and figures shall appear in DFKai-SB (English captions shall be in Times New Roman) throughout the thesis. A period may be added after the caption of table or figure in English. No period when in Chinese captions.

The caption of table shall be centered above the table, with 6pt margins in between. The caption of figure shall be centered below the figure, with 6pt margins in between. If using Microsoft Word, the space between the caption and the figure or table can be set in “Paragraph” “Paragraph spacing” under the “Layout” menu. Examples are shown as Table 3.1 and Figure 3.2.

Table 3.1 Subsidiary Growth Curve by Region.

	Q1	Q2	Q3	Q4
Taipei	20.4	27.4	90	20.4
Taichung	30.6	38.6	34.6	31.6
Tainan	45.9	46.9	45	43.9

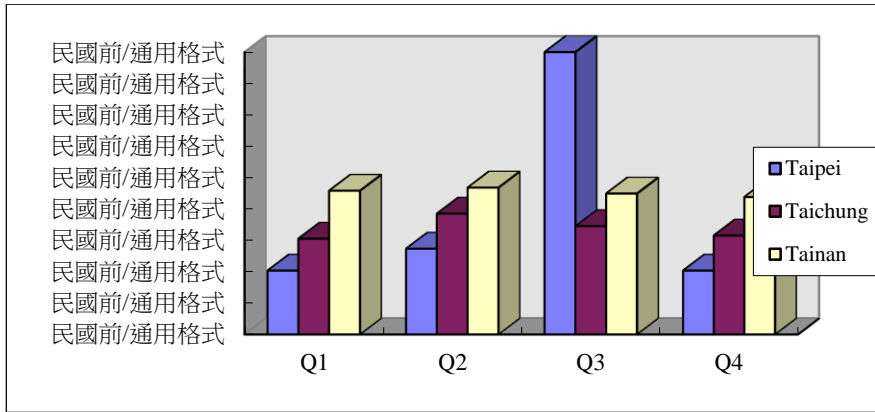


Figure 3.2 Accumulated Amount Per Quarter.

The caption shall not exceed the width of the figure or table. If the caption is longer than one line, arrange the caption in inverted pyramid style, as shown in Figure 3.3.

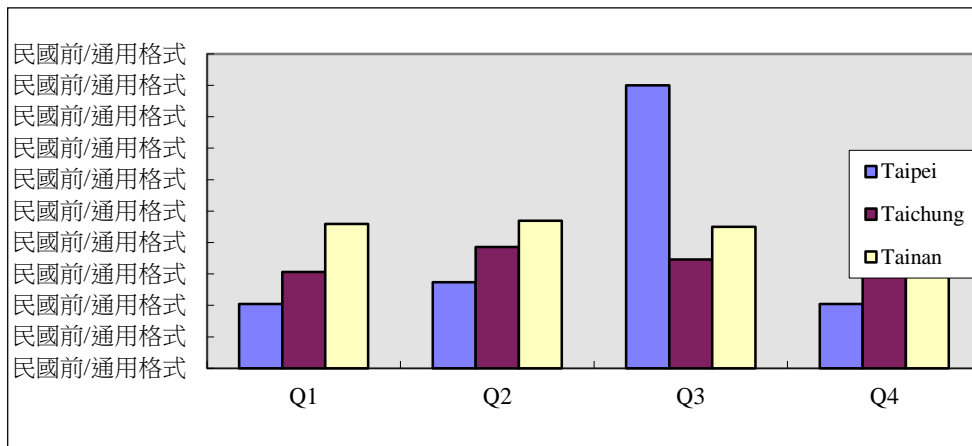


Figure 3.3 Accumulated Amount Per Quarter --- caption of figure or table shall not exceed the width of the figure or table.

If longer than one line, arrange as shown here.

3.11 Mathematical Symbols and Equation

Mathematical equations in the thesis shall be numbered in the order as they appear or being cited in the respective chapters. The ordering numbers shall appear in Arabic numerals with round brackets “().” For example, the fourth equation in Chapter 2 shall be referred to as “(2.4).” To display, place the equation in the center. Some spaces approximately 6pt shall be left between a line of the main body and an equation (in Microsoft Word, go to “Format”, “Paragraph spacing”). The ordering number shall be placed on the right side, right-justified, of each equation.

Like equation (3.1) below

$$\varepsilon_{\max} = \frac{1}{2N} \sum_{n=1}^N \frac{\| \mathbf{y} - \mathbf{T} \| ^2}{N_{\text{out}}}, \quad (3.1)$$

Do not insert “....” before equation (3.1), such as

$$S_x = \frac{M_3}{\sigma_x^3} = \frac{E[(x - \mu_x)^3]}{\sigma_x^3}. \quad (3.2)$$

Equation shall be followed by punctuation marks. In the thesis, use the expressions such as “E.q. (3.1),” “E.q. (3.2),” or “Equation (3.1).” In this document, mathematical symbols shall be italicized, such as x , y , μ , or ω . The size, height, and font type of the symbol shall be the same as it is shown in the equation.