



UNIVERSITY OF VAASA  
Faculty of Technology

## General Writing Guideline - Faculty of Technology

## **The Use and Purpose of the Guidelines**

At the Faculty of Technology, there are five different guidelines for writing theses: Guideline for Bachelor's degree in business studies, guideline for Bachelor's degree in technology, guideline for Master's degree in business studies, guideline for Master's degree in technology, and general writing guidelines for the Faculty of Technology.

The student is required to use two of these guidelines, 1) general guideline for the Faculty of Technology and 2) guideline for appropriate degree.

The purpose of the above guidelines is to ensure that theses at the faculty fulfil the requirements concerning academic writing and layout.

This is the general guideline for thesis writing for the Faculty of Technology. It is meant for all students preparing a thesis at Faculty of Technology. In addition, students are required to use a guideline for the appropriate degree. This guideline is also meant for use in other study-related written works.

For further information, contact the administrative personnel of the Faculty.

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## 1. GENERAL INSTRUCTIONS

### 1.1. Thesis formatting

Recommended fonts are Palatino, Times New Roman or equivalent. Font size in the body text must be 12; a larger font (for example 14) may be used in headings and other similar parts of the text. In special cases, a smaller font may be used (for example 10).

Body text width should be 15 cm with margins as follows: left and right 3cm, top 3,5 cm, and bottom 3 cm.

Spacing must be 1,5 in traditional typewriter spacing, i.e. 18pt in continuous word processor spacing. Spacing 1 should be used in the abstract.

Direct quotations are placed in quotation marks if their length is maximum three lines. A direct quotation is a word-for-word copy of the original source. This means that also the stylistic choices must be copied from the original source. Direct quotations longer than three lines must be indented and written with spacing 1, and quotation marks shall not be used. However, writers should avoid making long direct quotations.

To add clarity or emphasis, the student may use **bold**, *italics*, petit (font size 10), or smaller spacing (e.g. in direct quotations), etc. Underlining is not recommended. In general, special formatting should be used sparingly and in a consistent and logical way.

The text must be divided into paragraphs, separated by a blank line. The first lines of the paragraphs should not be indented. Right alignment is used for both the body text and headings that are longer than one line. Care should be taken that alignment does not create too wide spaces between words.

### 1.2. Headlining

Chapters should always start on a new page (for example chapter 2 must start on a new page even though chapter 1 did not reach the bottom of the previous page). Main

headings must be followed by a blank line (or 18pt). No page break should be placed before subheadings. Second-level subheadings (for example 2.4.) should be preceded by two blank lines (or 42pt) and followed by one blank line (18pt). Third-level subheadings must be preceded and followed by a blank line (18pt). Subheadings below third-level are not recommended. Chapters with only one numbered subheading must be avoided (there should always be at least two). Only main headings (chapter headings) are written in capital letters in their entirety. Headings should never be bolded. Please pay attention to the full stops in the heading numbering. The numbers are always followed by a full stop.

Other headings (for example unnumbered headings) are to be separated from the other parts of the text like multi-level subheadings.

### 1.3. Pagination

Page numbers are to be placed in the top centre of the page, with approx. 2,5 cm top margin. The same font type and size as in the text must be used in page numbers. Pagination must start from the first page after the cover page and continue until the last page of the document, including appendices if they appear on normal pages.

### 1.4. Dashes and hyphens

The slightly longer ‘en’ dash (–) (not hyphen -) should be used to specify ranges expressed in numbers or words. For example: In the years 1941–1944; sections 3–7; pages 12–15.

### 1.5. Table of Contents and other indexes

The table of contents must correspond exactly with the headings in the text. It must be prepared according to the formatting in the table of contents of this guideline.

Subheadings are aligned with the text part of the main headings. Only main headings are written in capital letters and should not be bolded.

If necessary, the work should also contain an index of symbols and abbreviations. Signs, abbreviations, symbols, and terms which are not necessarily known by the reader should be listed with explanation in an alphabetical order in groups. For example, first the Greek alphabets, then the Roman alphabets, and finally the abbreviations. An index of symbols and abbreviations is placed immediately after the Table of Contents.

A separate index of pictures or figures may be given after the Table of Contents. The index should state the heading of the picture/image and the page. An index of tables included in the work may also be given. The index should state the heading of each table and their location.

#### 1.6. Pictures, figures, and tables

All *illustrations and photographs* are to be numbered in sequence. Captions must be placed *below or beside* the pictures and the spacing 1 should be used. Numbering should appear in bold (for example **Picture 1./Figure 1.**). Captions should not appear in bold. They are left-aligned and should end in a full stop. Cartograms must be accompanied by a graphic scale. Standardised symbols and quantity marks must be used in all illustrations and figures. When figures are embedded in the text, they have to be preceded and followed by two blank lines. All text in the figures has to appear in the language in which the thesis is written.

*Tables* are numbered in sequence and given sufficient headings. Caption is placed *above* the table and it should be written with spacing 1. Numbering should appear in bold (for example **Table 1.**). Captions should not appear in bold. A Caption is left-aligned and should end in a full stop. Statistical data must be presented unambiguously and according to the standard notational conventions of statistics. When tables are embedded in the text, they must be preceded and followed by two blank lines.

### 1.7. Mathematical equations and programme codes

The possible *mathematical equations* must be systematically numbered and integrated in the general text part of the thesis. They should be presented in a grammatically correct way, including punctuation. Each equation is to be placed on a line of its own and should be preceded and followed by a blank line. Equations must be continuously numbered, and the number in parentheses should appear on the right of the page. The beginning of the equation should also be tabulated so that all equations have the same indentation. Standardised symbols must be used in all mathematical presentations, whenever possible. When such do not exist, the student must use other established symbols. Personal symbols should be used only as a last resort.

Possible *programmes or programme excerpts* are to be indented and separated from the text by one blank line both before and after the code. Programme code should appear in a different font. Monospaced fonts (such as courier) are recommended. In case of pseudo-programme examples, proportional fonts are recommended.

### 1.8. Appendices

Everything that is placed after the list of references is considered an appendix. Appendices are numbered in sequence, and the heading or title of each appendix is stated in the list. The word 'appendix' is written in capital letters (for example, APPENDIX 1.), but the heading or title of the appendix in small letters. All figures, tables and lists that illustrate or complement the content of the thesis but are too extensive or not essential enough to be integrated in the text, are placed at the end of the work as appendices. Also questionnaires and interview forms belong to the appendix section of the work.

## 2. SOURCES

### 2.1. References in the text

All sources that are referred to in the text must be listed in the list of references, and all sources listed in the list of references must be referred to in the text. In-text references are given in parentheses. A standard in-text reference gives the last name (family name) of the author, year of publication followed by a colon, and page number(s). Page numbers are not required when referring to a publication in its entirety. References to electronic sources are made as above but without page number. Web addresses are not given in in-text references (they are given in the list of references at the end of the work). For example: in-text reference to a printed source, (Suutari 1996: 25–27); in-text reference to an electronic source: (Salmi & Virtanen 1996).

When the author's name is given elsewhere in the sentence, it should not be repeated in the reference. In this case, only year of publication and possible page number are given inside the parentheses. For example, "According to Virtanen (1966: 25–27), there are..." When citing a source with several authors, give all last names in the first reference in the text; afterwards use the first name followed by 'et al.' (and year of publication and possible page number). For example: first reference, (Vauhkonen, Viillos & Härmälä 1968: 34); subsequent references, (Vauhkonen et al. 1968: 56–58).

When generalising or summarising information from several sources, they are all placed in the same parentheses, for example according to the year of publication. The sources are separated by semicolons. For example: (Morrill 1965; Winter 1969: 36). Separate works by the same author are differentiated by the year of publication. If two or more works by the same author have the same year, sequential alphabet letters beginning with 'a' after the year should be used to distinguish among them. For example: (Smith1970a) and (Smith 1970b), etc.

Works with no author should be cited by using the word(s) according to which the source is listed in the list of references at the end of the thesis (so called 'corporate author', meaning a company, association, legislation, etc.). For example: (National Institute of Mental Health 1999: 12); or (Government Decree on University Degrees

794/2004); or ...according to the Government Decree on University Degrees (794/2004). The year of amendments may be added in case it has special significance for the work.

References must clearly indicate which parts of the text are derived from sources. In case the content of a whole paragraph summarises information derived from a source, the reference entry is placed after the full stop of the last sentence, and an additional full stop is placed inside the parenthesis (before the final parenthesis). For example: ...end of the last sentence of a paragraph summarising information from a source. (Suutari 1996: 120–121.)

In other cases, references are incorporated in the sentence. In other words, the reference entry is placed inside the sentence, either after the name of the author or, in case the author is not mentioned in the sentence, at the end of the sentence, before the full stop. For example, ...end of the incorporated reference (Suutari 1996: 120–121). For example, According to Suutari (1996: 120–121) the topic...

When necessary, the nature of the references may be specified by using abbreviations such as ‘e.g.’ (for example), ‘cf.’ (compare), ‘i.e.’ (in other words), and so on. For example: (cf. Allardt 1976: 52–53). Longer direct quotations must be indented, written with smaller spacing and placed in quotation marks.

## 2.2. List of references

All sources are listed at the end of the thesis alphabetically according to the author’s last name. The choice of alphabetical order may be made according to the conventions of the language in which the thesis is written. Works by the same author are listed in a chronological order. In case of works by the same author with the same year of publication, the works are ordered by placing a lower case letter after the year of publication (for example: 1960a, 1960b). *All names of publications must appear in italics.*

In case a list of references entry exceeds one line, all lines after the first are indented by 1 cm (see examples below). Right alignment is to be used also in the list of references.

All entries are separated from each other by a blank line. URL addresses should not be underlined or written in a different colour than the rest of the text.

In case of a work with several authors, the name of the first author is 'reversed' (surname, first name/names). The names of subsequent authors are not reversed (i.e. they are given in the order first name, surname). All names of the authors are separated by commas, except for the last, which is preceded by '&'.

In English book titles, all words (except prepositions, conjunctions and articles) are capitalised. The title of an article in serial publication is written without any additional capital letters. All nouns in the name of a publication series are capitalised. An example of a list of references is available at the end of these guidelines.

### 2.3. Instructions for references

Information about the sources is to be given in the order presented in the tables below. Information marked with \* is not compulsory. Other information is required only when it occurs in the particular publication.

#### 2.3.1. Separate publication ("book")

**Table 1.** Publication data for a separate publication.

<b>Traditional sources</b>	<b>Electronic sources</b>
Author(s)	Author(s)
Year of publication	Year of publication
Title	Title
	Type of medium
Edition (when after the first)	Edition (when after the first)
Place of publication	Place of publication
Publisher	Publisher
	Time of updates (if available)
	Date of access
*Number of pages	

*notes	*notes
	Access and address
*ISBN	*ISBN or equivalent

**Printed book:**

Author's surname, First name(s) or Initials (year of publication). *Title of Publication*.  
Edition. Place of publication: Publisher. \*number of pages. \*notes. \*ISBN.

Rao, Radnakrishna C. (1973). *Linear Statistical Inference and Its Applications*. 2nd Ed. New York: Wiley.

Brealey, Richard A., Stewart C. Myers & Franklin Allen (2008).  
*Principles of Corporate Finance*. 9th Ed. New York: McGraw-Hill.  
976 p. ISBN 978-007-126675-8.

**Electronic source:**

Author's surname, First name(s) or Initials (year of publication). *Title of publication*  
[type of medium]. Edition. Place of publication: Publisher, time of updates [date  
of access]. \*notes. Availability and web address. \*ISBN.

Salmi, Timo (1993). *A Comparative Review of the Finnish Expenditure-  
Revenue Accounting* [online]. Vaasa, Finland: University of Vaasa,  
1996 [cited 12 Feb. 2009]. Available from World Wide Web <URL:  
<http://lipas.uwasa.fi/~ts/comp/comp.html>>. ISBN 951-683-724-7.

Salmi, Timo & Ilkka Virtanen (1996). *Deriving the Internal Rate of  
Return from the Accountant's Rate of Return: a Simulation  
Testbench* [online]. Vaasa: University of Vaasa [cited 20 Aug.  
1996]. Available from World Wide Web: <URL:  
<http://lipas.uwasa.fi/~ts/simu/simu.html>>.

## 2.3.2. Publication in a periodical, publication series or magazine (book or article)

**Table 2.** Publication data for a publication in a periodical.

<b>Traditional sources</b>	<b>Electronic sources</b>
Author(s)	Author(s)
Year of publication	Year of publication
Title of article/book	Title of article/book
Title of periodical	Title of periodical
	Type of medium
Volume: number, pages	Volume: number, pages
	Time of updates (if other than the date of access)
	Date of access
	Location in periodical
*notes	*notes
	Availability and access
*ISSN	*ISSN or equivalent

**Printed article (or book in a series):**

Author's Surname, First name(s) or Initial(s) (year). Title of work. *Title of periodical*  
 Number of volume:number of instalment, number of first page–number of last  
 page. \*Notes. \*ISSN.

Gautschi, David A. (1981). Specification of patronage models for  
 retail centre choice. *Journal of Marketing Research* 8:2, 162–174.

**Article published in electronic form:**

Author's Surname, First name(s) or Initial(s) (year). Title of work. *Name of periodical*  
 [type of medium] Number of volume:number of instalment [date of access],  
 location. \*notes. Availability and access. ISSN.

Price-Wilkin, John (1994). Using the World-Wide-Web to Deliver Complex Electronic Documents: Implications for Libraries. *The Public-Access Computer Systems Review* [online] 5:3 [cited 28 July 1994], 5-21. Available from Internet: <URL:gopher://info.lib.uh.edu:70/00articles/ejournals/uhrlibrary/pacsreview(v5/n3/pricewil.5n3>. ISSN 1048-6542.

### 2.3.3. Article in a symposium

**Table 1.** Publication data for an article in a symposium.

<b>Traditional sources</b>	<b>Electronic sources</b>
Author(s) of article	Author(s) of article
Year of publication	Year of publication
Title of article	Title of article
Title of symposium	Title of symposium
	Type of medium
Pages (on which article is found)	
Editor(s) of symposium	Editor(s) of symposium
Edition (when after the first)	Edition (when after the first)
Place of publication	Place of publication
Publisher	Publisher
	Time of updates (if available)
	Date of access
	Location in symposium
*notes	*notes
	Availability and access
*ISBN	*ISBN

### **Printed article:**

Author's surname, Forename(s) or Initials (year of publication). Title of the article. In: *Title of the symposium*, pages. Ed. Editor(s) of the symposium. Place of publication: Publisher. \*Notes. \*ISBN.

Abler, R.F. (1974). The geography of communications. In: *Transportation Geography, Comments and Readings*, 327-346. Ed. Michael E. Eliot Hurst. New York: McGraw-Hill.

### Article in an electronic symposium:

Author's surname, Forename(s) or Initials (year of publication). Title of article. In: *Title of the symposium* [type of medium]. Editor(s) of the symposium. Place of publication: Publisher [Date of access]. Location within host document. \*Notes. Availability and access. \*ISBN.

McConnell, W.H. (1993). Constitutional history. In: *The Canadian Encyclopedia* [CD-ROM]. Macintosh version 1.1. Toronto: McClelland & Stewart.

### 2.3.4. Unpublished separate work

Distinguishing between and an "unpublished" work and an "electronically published" work is not unambiguous. If necessary, a more appropriate instruction can be adapted for this purpose. An unpublished work is listed in the list of references with the statement Unpublished. The department or library in which the work is stored should be mentioned.

**Table 4.** Publication data for an unpublished work.

Traditional sources	Electronic sources
Author(s)	Author(s)/Sender
Year	Sending date
Title of article	Title of message
	Host message system
	Subordinate responsibility/recipients
	Type of medium
Place	Place of sending

	Date of citation
*Pages	Location in host message system
*notes ('unpublished')	*notes

### **Traditional source:**

Kinnunen, Jyri-Pekka (1981). *Yleisimmät investointilaskentamenetelmät eri käyttötilanteissa*. 104 pp. Unpublished. University of Vaasa Library.

### **Electronic source:**

Pritchard, Sarah (1995). Your request for information about ISO standards [online]. Message to: Margaret Morrison. 18 February 1995 [cited 3 March 1995]. Personal communication.

Vaasan läänin elektronisen kirjaston projekti (1996). *Toimintasuunnitelma* [online]. Vaasa: University of Vaasa Library, dated after meeting 30.5.1996 [cited 15.8.1996]. Available from World Wide Web: <URL: <http://lipas.uwasa.fi/~sukkula/toiminta1996.html>>.

### 2.3.5. Work without an author (or with corporate author)

In the SFS 5342 Standard there are instructions for referring for example to patents, maps, statistics, standards, parliamentary documents, laws, etc. In legal science, the convention is to make a separate section for explanations of abbreviations for acts and decrees (for example: PA = Patents Act 550/15 December 1967). In case of several committee deliberations, they are given in a chronological order. The same applies to the official statistics of Finland.

### **Printed source:**

*Official Statistics of Finland VI C: 104, I. Population census 1970. General demographical data.* Helsinki: Tilastokeskus, 1973.

Committee Deliberation 1987:39. Yritysverotuksen uudistamiskomitean mietintö. [Deliberation of the committee for corporate tax reform]. Helsinki: Ministry of Finance.

Accounting Act 30.12.1997/1336.

LTT Research Ltd. (1967). Suomen keskus- ja vaikutusaluejärjestelmä. Summary: The system of functional centres and areas in Finland. *Valtakunnan suunnittelutoimiston julkaisusarja A: 19, VIII + 134 pp.*

### Electronic source:

Ministry of Education (1995). *Kulttuurinen tietoyhteiskunta: Strategiset perusteet ja lähtökohdat opetusministeriön toimintaohjelmalle vuosiksi 1997-2000* [online]. Helsinki: Ministry of Education. Available from World Wide Web: <URL:[http://www.minedu.fi/kulttuurinen\\_tietoyhteiskunta](http://www.minedu.fi/kulttuurinen_tietoyhteiskunta)>.

### 2.3.6. Entire periodicals

When there is a reference to all or several volumes of a yearbook or a periodical, the list of references refers to the periodical publication as a whole and not to its individual parts. The volume and part referred to are marked in the reference in the text.

**Table 5.** Publication data for an entire periodical.

Traditional sources	Electronic source
Title of periodical	Title of periodical
*Corporate author	*Corporate author
	Type of medium
Place of publication	Place of publication
	Edition/Version

*Publisher	Publisher
	Date of access
Time of publication	Time of publication
*Series	*Series
	Availability and access

**Printed publication:**

Virittäjä. Helsinki: Kotikielen seura, 1897-. ISSN 0042-6806.

**Electronic publication:**

*Journal of Technology Education* [online]. Blacksburg (Va): Virginia Polytechnic Institute and State University, 1989- [cited March 15, 1995]. Semi-annual. Available from Internet: <URL:gopher://borg.lib.vt.edu: 70/1/jte>.

## LIST OF REFERENCES (A MODEL)

- Abler, R.F. (1974). The geography of communications. In: *Transportation Geography, Comments and Readings*, 327-346. Ed. Michael E. Eliot Hurst. New York: McGraw-Hill.
- Brealey, Richard A., Stewart C. Myers & Franklin Allen (2008). *Principles of Corporate Finance*. 9th edition. New York: McGraw-Hill. 976 p. ISBN 978-007-126675-8.
- Committee Deliberation 1987:39. Yritysverotuksen uudistamiskomitean mietintö. [Deliberation of the committee for corporate tax reform]. Helsinki: Ministry of Finance.
- Gautschi, David A. (1981). Specification of patronage models for retail centre choice. *Journal of Marketing Research* 8:2, 162-174.
- Kinnunen, Jyri-Pekka (1981). *Yleisimmät investointilaskentamenetelmät eri käyttötilanteissa*. 104 pp. Unpublished. University of Vaasa Library.
- Price-Wilkin, John (1994). Using the World-Wide-Web to Deliver Complex Electronic Documents: Implications for Libraries. *The Public-Access Computer Systems Review* [online] 5:3 [cited 28 July 1994], 5-21. Available from Internet: <URL:gopher://info.lib.uh.edu:70/00articles/ejournals/uhlibrary/pacsreview(v5/n3/pricewil.5n3>. ISSN 1048-6542.
- Salmi, Timo & Ilkka Virtanen (1996). *Deriving the Internal Rate of Return from the Accountant's Rate of Return: a Simulation Testbench* [online]. Vaasa: University of Vaasa [cited 20 Aug. 1996]. Available from World Wide Web: <URL: http://lipas.uvasa.fi/~ts/ simu/simu.html>.
- Virittäjä. Helsinki: Kotikielen seura, 1897-. ISSN 0042-6806.