

**Rules for the preparation of university  
qualification theses  
at the Brno University of Technology**

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# 1 RECOMMENDATIONS FOR WRITING UNIVERSITY QUALIFICATION THESES

## 1.1 Margins

Margins and page size:

- page size A4 (210×297 mm),
- top margin 2,5 cm,
- bottom margin 2,5 cm,
- left margin: 2,5 cm,
- right margin: 2,5 cm,
- heel (page number) from the edge of the paper: 1,25 cm,
- pagination: right margin for single-sided printing, outer margin for double-sided printing.

### 1.1.1 Font

- When writing with a word processor, use either Times New Roman in 11 to 12 pt or Arial in 10 to 11 pt in a normal cut. As a rule, do not underline words or sentences in the text, but use bold or italic.
- For image captions, use italics 1 pt smaller than the paragraph text.
- Format Level 1 headings: 14 pt capitals for Times New Roman or 13 pt for Arial, semi-italic, left justified.
- Format Level 2 headings: 13 pt minus signs (lowercase) for Times New Roman or 12 pt for Arial, semi-italic, left justified.
- Format Level 3 headings: 12 pt minus (lowercase) for Times New Roman or 11 pt for Arial, semi-italic, left justified.
- Format Level 4 headings: 12 pt minus (lower case) for Times New Roman or 11 pt for Arial, bold italic, left justified.
- Do not combine different fonts in a document.

### 1.1.2 Line spacing

When writing with a word processor, line spacing “at least” 16 pt for 12 pt font size or 14 pt for 11 pt font size. Align plain text in a block. For clarification – you set the line spacing in Word as follows: *Home* → *Paragraph*.

### 1.1.3 Writing formulas

We recommend using Word Equation Editor 3.0 to write mathematical formulas and some chemical equations. The path to the equation editor is INSERT/OBJECT/OBJECT.../ Equation

Editor 3.0. Definitely do not use the INSERT/EQUATIONS to insert equations in Word. The character size settings in formulas are based on the following rules:

- full font size: 100% of plain text font size, e.g. 12 pt,
- superscript/subscript: font size: 58% of the font size of normal text, e.g. 7 pt,
- top/bottom subindex: 42% of plain text font size, e.g. 5 pt,
- symbol: 150% of plain text font size, e.g. 18 pt,
- subsymbol: 100% of plain text font size, e.g. 10 pt,

Equations are numbered in round brackets on the right.

#### **1.1.4 Length**

The recommended length of a thesis is 50 to 70 pages, for a bachelor's thesis 30 to 40 pages.

#### **1.1.5 Image size**

The optimal size of the figures is 0.5 pages including the caption, i.e. 2 figures per page, unless the complexity of the figure requires a larger size. Write the description of the images below the image. The font size of the figure captions is 1 pt smaller or the same as the font size of plain text. It is recommended to describe all types of graphical objects (graphs, diagrams, photographs, maps, structural chemical formulas) with the numbered label Figure or Figure. All figures (graphs, diagrams) discussed in the paper must be in the text and not in an appendix.

#### **1.1.6 Tables**

Write the description of the tables above the table. Only column or row headers are bolded. Font size in tables is 1 pt smaller or the same as plain text.

### **1.2 Bibliographic citations according to ISO 690 and examples**

Take a look at the website <http://citace.com/dokumenty.php>.

#### **1.2.1 General principles for citations**

The citation must be clear and complete. It is preferable to include more identifying information (e.g. for serial publications or electronic resources). Maintain the spelling standards for the language. If an entry is missing, omit it and continue with the next entry. In addition to author and title information, do not translate the information in the following fields:

- release data (1<sup>st</sup> edition),
- publishing data (names of publishers),
- physical description data (150 p.),
- abbreviations.

A reference to a literary source is indicated in the text by an index (example: selenious acid<sub>25</sub>...) or in square brackets (example: selenious acid [25]).

More advanced word processor users can use the “insert footnote, explanatory note” function and have the references numbered automatically, with the citation (“explanatory note”) at the end of the document. It is best, however, to use one of the citation programs (Citation Pro, EndNote, etc.) that allow citing literature directly while writing in Word.

### 1.2.2 Monographs

Monographic publications are one of the basic types of documents. These are mainly books, proceedings, various brochures and other one-off material. Do not put them in a notebook!

#### Examples

JANOUCHEK, Viktor. *Internet marketing: market yourself on the web and social networks*. Brno: Computer Press, 2010. ISBN 978-80-251-2795-7.

ČMEJRKOVÁ, S., F. DANĚŠ a J. SVĚTLÁ. *How to write a professional text*. Prague: Leda, 1999. ISBN 80-85927-69-1.

ADOBE CREATIVE TEAM. *Adobe Flash CS4 Professional: Official training course*. Translated by Lukáš KREJČÍ. Brno: Computer Press, 2009. ISBN 978-80-251-2334-8.

#### Printed monograph, a digitized version of which is published on the Internet

NIERHAUS, Gerhard. *Algorithmic Composition: Paradigms of Automated Music Generation*. Wien: Springer, ©2009. ISBN 978-3-211-77539-6. Dostupné také z: <http://www.springerlink.com/content/g7h129>

### 1.2.3 Special type of monographs – grey literature

#### Scientific qualification work

VAVRYSOVÁ, Alena. *Carotenoid production by yeasts of the genus *Cystophilobasidium**. Brno, 2009. Thesis. Brno University of Technology, Faculty of Chemistry, Department of Food Chemistry and Biotechnology.

AXMAN, Petr. *Design and development of devices for solving selected biomechatronic problems*. Brno: Brno University of Technology, Faculty of Mechanical Engineering, Department of Solid Mechanics, Mechatronics and Biomechanics, 2009. PhD. Thesis, sv. 545. ISBN 978-80-214-3939-9. Also available at: <http://www.vutium.vutbr.cz/tituly/pdf/ukazka/978-80-214-3939-9.pdf>

### 1.2.4 Company literature (catalogues, annual reports)

Výroční zpráva a. s. DEZA. Valašské Meziříčí (CZ): DEZA, 1999.

THOMSON REUTERS. Web of Science: Card for quick reference. [s.l.]: Thomson Reuters, ©2008.

### 1.2.5 Standards

ČSN ISO 690-1: 1996. Bibliographic citations. Content, form and structure. Prague: Czech Standards Institute, 1996. 32 p.

### 1.2.6 Journal article

Vlach, J.: JE Temelín and heat supply. *Energy*, 2001, vol. 51, no. 3, pp. 84-85. ISSN 0375-8842.

Kren, L. Shake hands with a robot. *Machine Design*, 2001, vol. 73, no. 3, pp. 88–91. ISSN 0024-9114.

### 1.2.7 Contribution in proceedings

Novák, K.: Marketing of universities - ideas and reality. In *Marketing of universities: proceedings of the international conference Project Tempus Phare CME 97-3026, Prague, 16-17 March 2000*. Ed. František Freiberg et al. Prague: Faculty of Mechanical Engineering, CTU, 2000, pp. 117-126. ISBN 80-01-02163-7.

Fazekas, F.: Matrix algorithms and methods (MAM) for the analysis of stochastic chains and processes. In *Proceedings of the 6th mini-conference on dynamics, identification and anomalies of automotive systems. Budapest, November 9-11, 1998*. Ed. I. Zobory. Budapest: Technical University, 1998, pp. 477-483. ISBN 963-420-635-2.

### 1.2.8 Bibliographic citations of electronic documents according to ISO 690-2

In the case of electronic resources, it should be noted in addition:

**Media type:** online, CD-ROM

**Access to source:** mandatory for all online documents.

- **Re:** Available from: <http://www.amsoft.cz>

**Version:** mandatory for all online resources.

- **Re.:** last modified: 10<sup>th</sup> of May 2002
- **Re.:** last modified 25.3.2002

**Date of citation:** a very important mandatory entry that documents from which version of the document version quoted (modifications in the document, etc.) It is possible to indicate:

- **Re.:** cited 12 April 2002

### 1.2.9 Electronic monographs

Balasubramanian, V. <bala@pegasus.rutgers.edu> *State of the art review on hypermedia issues and applications*. [HTML dokument]. Newark (New Jersey): Graduate School of Management, Rutgers University, March 1994 [cit. 16. 3. 1999]. Available from: <[http://www.isg.sfu.ca/~duchier/misc/hypertext\\_review/](http://www.isg.sfu.ca/~duchier/misc/hypertext_review/)>.

### 1.2.10 Databases

*Administrative Register of Economic Entities (Ares)* [database online]. Praha: Ministry of Finance of the Czech Republic, 1999. Available from URL

<<http://www.info.mfcr.cz/ares/ares.html>>. Database of economic entities in the Czech Republic.

### 1.2.11 Article in an electronic journal

Churá, M.: Atlas spreads its wings. *Chip* [online]. 2001, March [cited 19 March 2001]. Available from: [http://www.chip.cz/texty/2001\\_1/0319/alt.shtml](http://www.chip.cz/texty/2001_1/0319/alt.shtml)

Vojtášek, F.: Google search service has started indexing pdf files. *Ikaros* [online]. 2001, č. 3 [cit. 16. 3. 1999]. Available at www: <http://ikaros.ff.cuni.cz/2001/c03/pdf.htm>. ISSN 1212-5075.

### 1.2.12 Article in the electronic conference proceedings

Papík, R.: Zdroje šedé literatury a jejich strategický potenciál pro vědu a obchod. In *Inforum 2000, Praha, 23.–25. května 2000* [online]. 2000 [cit. 16. 3. 1999]. Dostupné na www: <http://www.inforum.cz/inforum2000/index.htm>.

### 1.2.13 Website

Davis, J.: *Suiseki FAQ* [online]. 1997, last revision 20th of January 1998 [cit. 16. 3. 1999]. Dostupné z: <<http://www.btinet.com/~bonsai.suiseki/suiseki/Faq.html>>.

Shemirami, B.: *Ready to print organizer* [online]. 1997, poslední revize 20.1.1998 [cit. 16. 3. 1999]. Dostupné z: <<http://www.ilap.com/nsn>>.

## 1.3 Other resources on the Internet

Oficiální výukové stránky Ústavu informačních studií a knihovnictví FF UK  
<http://www.cuni.cz/~brt/bibref/bibref.html>

Citation Guides for Electronic Documents <http://www.ifla.org/I/training/citation/citing.htm>

## 2 VERY BRIEF TYPOGRAPHIC BASICS

### 3 Have a look [here](#).

Punctuation marks are not preceded by a space, they are always followed by (period, comma, semicolon, colon, question mark, exclamation mark). Inside brackets, the text is not separated from the bracket by a space. The three dots (...) are typeset with the sequence Alt+0133 (left Alt key on the keyboard and numbers from the numeric keypad). Decimal numbers are written with a comma, thousands are separated by an indivisible space (Shift+Ctrl+spacebar):

- 0,56
- 120,352
- 5 001,202 2
- 10 000,155 55

### 3.1 Hyphen, dash, plus, minus, en dash

- **Hyphen** is used either to divide words or to join words in complex expressions, e.g.: Brno-město or word division: roz-dělení.
- **Dash (Alt+0150)** is longer than a hyphen and is used to indicate a break in the text, it is always separated by spaces. It may remain at the end of a line but may not begin a new line. It may replace quotation marks in direct speech. It is also used to indicate whole currency values. In the sense of a range of values, the hyphen is used without spaces! Examples: books – newspapers, 25,- Kč, 25–30 °C.

- **Minus** is inserted using the equation editor, but it is acceptable to replace the minus sign with a dash in plain text.
- **En dash (Alt+0151)** is used only in American typography as a replacement for commas or quotation marks and is set without spaces.
- The difference between hyphen, dash, plus, minus and en dash is obvious: -, –, +, − and —.

## 3.2 Hyphenation

It is not recommended to use hyphenation at the end of lines in automatic mode, because the dictionaries of most editors are imperfect, and the result does not conform to Czech spelling. However, word splitting is necessary in many cases, and we recommend using the manual method of word splitting, preferably using the optional word splitter in text editors (Ctrl+hyphen). This method is advantageous because the editor inserts the hyphen, but after changing the number of characters in the line, the split word is merged again without leaving a redundant hyphen in the text, e.g. in the middle of the line.

### 3.2.1 When words must not be split

- If there was one letter (a-nabáze) left at the end of the line,
- If only two letters (anabá-ze) were transferred to the next line, if two
- Letters are followed by a punctuation mark, such division is allowed,
- If splitting a word would create a word with an inappropriate meaning or a vulgarism (spisova-tele, ná-držka etc.),
- Must not be divided into two lines title and name (MUDr.-Novák) and abbreviated name and surname (J.-Novák),
- Numbers (10-000), numerals with unit abbreviations (10-m, 50-Kč) and date in numerals
- (30. 8.-1956),
- Is also not possible to split abbreviations (t.-c., s.-r.o., a-p.).

## 3.3 Orphans and widows

An orphan occurs when the last line of a paragraph, which is usually also the starting line, i.e. not the full length of the line, does not fit into the specified page or column space. It therefore spills over to the next page or column and becomes the first line. This is not only unacceptable, but also unesthetic.

A widow occurs when the first line of a new paragraph is “forgotten” at the end of a column or page – this is also a typesetting error. A widow is sometimes tolerated, but in the case of a headline, the correction is necessary.

## 3.4 Indentation of a paragraph

A common mistake is to indent the beginning of a paragraph by 1 or more centimetres using a tab. The ideal indentation (the beginning of a paragraph does not necessarily have to be indented) is the width of a square – 4 to 5 mm when using a 12 pt font. The first line of the first



paragraph of a chapter is not indented; in subsequent paragraphs of the same chapter, the first line is indented.

### **3.5 Physical units**

Units are separated from numbers by an indivisible space

- 120,50 m (Ctrl+Shift+Spacebar),
- 200,00 t,
- 15 °C (sequence is Alt+0176; in no case is the raised character used “o”).

### **3.6 Date format**

- 18. October 1994 spaces),
- 18. 10. 1994 (spaces),
- 18. X. 1994 (spaces).

### **3.7 Digits associated with the expression**

- 25 times, 50 times (no space)

### **3.8 Percentages, per mille**

- ‰ Alt+0137
- 100% expert

### **3.9 Angles**

It is written without spaces: 30°12'40", where the minute sign is Alt+0180 and the second sign is Alt+0189.

**ANNEX**

# **Cover**

**provided by the printer,  
electronic version available on the Portal**

Without a number

# Title page

printed by the student,  
electronic version available on the Portal

Without a number (page 1)

# Assignment of the final thesis

**originals are uploaded by the student,  
electronic version available on the Portal**

Without a number (page 2)

## **ABSTRAKT**

abstract text in Czech

## **ABSTRACT**

abstract text in English

## **KLÍČOVÁ SLOVA**

klíčové slovo, klíčové slovo, klíčové slovo

## **KEYWORDS**

keyword, keyword, keyword

KNOTEK, P. Culture as care for the soul. Brno, 2007. 89 p. Diploma/ Bachelor thesis at the Faculty of Chemistry. Brno University of Technology, Institute XXXX. Thesis supervisor Tit. Name Surname

**The full quote can be found on the Portal!!!**

## **PROHLÁŠENÍ**

Prohlašuji, že jsem diplomovou/bakalářskou práci vypracoval samostatně a že všechny použité literární zdroje jsem správně a úplně citoval. Diplomová/bakalářská práce je z hlediska obsahu majetkem Fakulty chemické VUT v Brně a může být využita ke komerčním účelům jen se souhlasem vedoucího diplomové/bakalářské práce a děkana FCH VUT.

.....  
podpis studenta

**In the English version please use:**

## **DECLARATION**

*I declare that the diploma/bachelor thesis has been written by myself and that all the quotations from the used literary sources are accurate and complete. The content of the diploma/bachelor thesis is the property of the Faculty of Chemistry, Brno University of Technology, and all commercial uses are allowed only if approved by both the supervisor and the dean of the Faculty of Chemistry, Brno University of Technology.*

.....  
student's signature

optional acknowledgement

**CONTENT**

# INTRODUCTION



The actual text of the thesis divided into recommended parts:

**THEORETICAL PART,  
or CURRENT STATE OF THE ISSUE**

**EXPERIMENTAL PART**

**RESULTS AND DISCUSSION**

**CONCLUSION**

## **LIST OF SOURCES**

## **LIST OF ABBREVIATIONS AND SYMBOLS USED**

## **LIST OF ANNEXES (optional)**

## **APPENDICES** (optional)