

Directive of the Dean of the Faculty of Economics, Technical University of Liberec No. 1/2019

Title	Processing of Final (Bachelor's and Master's) Theses at the Faculty of Economics, Technical University of Liberec			
	Name	Position	Date	Signature
Guarantor:	Ing. Otakar Ungerman, Ph.D.	vice-dean	24. 9. 2024	
Approved by:	doc. Ing. Aleš Kocourek, Ph.D.	dean	24. 9. 2024	
Review:	04	Effective from:	24. 9. 2024	
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For information purposes only. The Czech version of the Dean's Directive is legally binding.

Article 1 General Provisions

- (1) This directive regulates the requirements for the assignment, processing, formal preparation and submission of Bachelor's and Master's theses (hereinafter referred to as "thesis") in accordance with the <u>rector's directive No. 5/2018</u>. The requirements for dissertations are regulated by the <u>Dean's directive No. 4/2022</u>.
- (2) This directive uses the generic masculine as the primary, non-attributive designation, which does not imply any preference in terms of biological sex or gender.
- (3) The final thesis is an original, comprehensive professional written work, which the student prepares independently, citing all sources applied, both their own and others, and based on consultations with the thesis supervisor and consultant. The title and focus of the final thesis must correspond with the study programme and specialisation of the student at the Faculty of Economics, the Technical University of Liberec (from now on "FE TUL").
 - a) The Bachelor Thesis demonstrates that the student is able to study the relevant bibliography and evaluate it critically, implement the stated objectives of the Bachelor Thesis at an appropriate level and report on it. The level of the Bachelor Thesis corresponds to the knowledge acquired during the bachelor studies.
 - b) The Master Thesis demonstrates that the student is able to independently solve an assigned professional task related to the field of their master's study programme, apply appropriate professional procedures acquired during the study, organise information from primary and secondary sources reasonably and defend the applied approach. The thesis corresponds to the knowledge and competencies gained during the master studies, demonstrating mastery of the professional issues and methodology.
- (4) The aim of the final thesis is to demonstrate the ability to apply both theoretical and practical knowledge and skills acquired during the studies. The author of the thesis is solely responsible for the accuracy and truthfulness of all information contained in the thesis.
- (5) In the parts where the text of the thesis hinges on known facts described in the bibliography, the bibliographic references should be cited according to ISO 690:2010 (examples of citations are stipulated in Appendix A of this Directive).
- (6) Following the rector's directive No. 4/2023 (not available in English), the use of artificial intelligence tools shall be explicitly stated in the introduction of the thesis, including their specific identification, for example, with the sentence "ChatGPT 4.0 was used in the preparation of the text.", specifying which parts of the thesis the AI was used. Artificial intelligence outputs should be approached critically. Failure to mention the use of AI is treated similarly to plagiarism.



- (7) From the point of view of copyright, Act No.121/2000 Coll. Act No. 121/2000 Coll., on Copyright, in particular § 60 Academic Contributions, fully applies to final theses.
- (8) The final theses are public, as stipulated in § 47b Act No. 111/1998 Coll. on Higher Education, Article No. 31 TUL Study and Examination Regulations and Rector's Directive No. 5/2018.
- (9) The supervisor of the Bachelor's thesis may be an academic staff member with a Master's degree (or its equivalent) or higher, working at one of the departments of FE TUL. The supervisor of the Master's thesis may be an academic staff member with a Ph.D. or higher degree working at one of the departments within EF TUL.

Article 2 Final Thesis Assignment

- (1) During March, the staff of the faculty departments publish proposals for the framework topics of the final theses to be prepared in the following academic year in the STAG information system (hereinafter referred to as IS STAG). The topics are in accordance with the study programme (and its specialisation, if any) for which they are proposed and are subject to the approval of the guarantor of the study programme or specialisation before they are made public and listed in IS STAG.
- (2) Students may propose their own thesis topic by the end of February at the latest, based on an individual agreement with the thesis supervisor. Providing the thesis supervisor and the supervisor of the study programme or specialisation approve the topic, the topic is listed in IS STAG with an explanatory note that it is preferably intended for this particular student.
- (3) The student chooses the focus of their final thesis during April of the penultimate year of study from the areas announced by the relevant department. The student registers a maximum of three topics of their choice (including their own topic proposal) within IS STAG, for which they also specify their priorities. The registration includes processing a thematic focus and a brief thesis outline, which the student submits to the supervisor.
- (4) The future supervisor of the thesis assesses the processed documents and assigns the topic in IS STAG to the particular student. One topic can be given to several students.
- (5) After the topic registration, the student completes the requirements for the specific assignment of the final thesis in IS STAG (list Thesis Topics):
 - a) the title of the thesis in Czech and English,
 - b) the principles for elaboration (in the form of a numbered list) must be in accordance with the title of the final thesis and must correspond to what the student has to address in the final thesis,
 - c) a list of recommended current literature (in the form of a bullet-point list; no title can be older than 10 years, and the list must always include at least one recent article from a journal indexed in Web of Science, Scopus or ProQuest). The list shall comply with the requirements of ISO 690:2022, details of which are given in Appendix A of this directive.
 - d) Students in professionally oriented degree programmes shall indicate under the reference list, after the two blank lines "Consultant: the consultant's name including academic titles and their job title".
- (6) The student selects "Student Completed Supplementary Material VŠKP" and presses the "Save" button.
- (7) The thesis supervisor checks the data entered by the student into IS STAG and, if necessary, agrees with the student on modifications. After the final adjustments, the supervisor selects "Teacher-approved Supplementary Material VŠKP" and presses the "Save" button.



- (8) The study programme guarantor approves the specific assignment in IS STAG via mass approval of topics no later than October 15 of the relevant academic year.
- (9) Subsequently, on October 31, the Dean of FE TUL approves the assignment via mass approval in IS STAG.
- (10) In case of disapproval by the Dean or study programme guarantor, the assignment is returned to the student for modification.
- (11) After approval by the Dean, the secretariat of the relevant department converts the assigned topic in IS STAG into the form of a thesis assignment. Before submitting the final thesis, the student will generate the assignment from IS STAG together with the introductory pages of the thesis (see Article 5 (1) of this Directive).
- (12) Courses related to the bachelor's thesis (i.e., "Work with a professional text," "Bachelor's Thesis I," and "Bachelor's Thesis II"), or courses related to the master's thesis (i.e., "Master's Thesis I," "Master's Thesis II," "Master's Seminar I," and "Master's Seminar II") are registered by the student in the department in which the respective thesis is assigned.

Article 3 Form for Processing the Final Thesis

- (1) The student elaborates on the final thesis in written form. Depending on the topic of the assignment, it is supplemented by appendices.
- (2) The range of the final thesis shall correspond to the assigned topic and be specified by the thesis assignment. The regular scope of the Bachelor Thesis is 30 standard pages, the typical range of the Master Thesis is 65 standard pages, including figures and tables (1 standard page represents 1,800 characters, including spaces). The title pages, assignment, appendices, and references do not count towards the scope.
- (3) The final thesis is written in the language taught within the Faculty of Economics (eventual exceptions may be approved by the Dean). The final thesis written in the Czech language must comply with the current edition of the Czech spelling rules and the basic typography rules summarised in Appendix B of this Directive. The final thesis in English follows English typography rules.
- (4) The final thesis is printed on white A4 paper. The opening pages are printed on one side, and the following text, beginning from the abstract onwards, is printed on both sides.
- (5) The thesis must be written on a word processor with the following formatting settings:
 - a) font size 11,
 - b) Inter font,
 - c) 1.5 line spacing,
 - d) 25 mm for top, bottom and edge margins, a gutter margin of 30mm on the spine edge,
 - e) each chapter starts with a new page,
 - f) mathematical relationships, figures, diagrams, graphs and tables are aligned to the left banner,
 - g) mathematical relationships are provided with a number, are numbered in ascending order, the number is indicated in a round bracket at the right margin of the corresponding line,
 - h) tables are numbered in ascending order (e.g. "Table 1"), the table titles are above the table and aligned to the left margin of the table (Inter, font size 11, italics), the source is stated below the table to the left margin of the table (Inter, font size 11),



- i) Images, graphs and diagrams are numbered in ascending order and uniformly labelled as Figure. Titles are placed below the image, graph or diagram and aligned to the left margin (font size Inter 11 points, italics), and the source is indicated below the title aligned to the left margin of the image, graph or diagram (font size Inter 9 points), each figure, graph or diagram is to be referred to in the text of the thesis,
- j) brochures, drawings or other company literature are appendices to the thesis and are not included in the scope of the final thesis,
- k) fliers, leaflets, drawings or other corporate documents, are part of the appendices within the final thesis, not counted into the final scope of the thesis.
- (6) The final thesis is written in the passive voice; it is inappropriate to state subjective, insufficiently supported opinions of the author.

Article 4 Final Thesis Layout

- (1) The final thesis consists of the following parts, and individual pages are ranked commensurate with the following order:
 - a) the opening page is pursuant to the pattern indicated in Annex No. 1 <u>TUL Rector's</u> <u>Directive No. 5/2018</u>,
 - b) the front page is generated from IS STAG (pages 1 and 2 are blank, not numbered),
 - c) the topic of the final thesis (double-sided, pages 3 and 4, not numbered),
 - d) the confirmation statement (generated from IS STAG; pages 5 and 6 are left blank, not numbered),
 - e) the title, abstract and keywords presented in Czech (page 7, not numbered),
 - f) the title, abstract and keywords presented in English (page 8, not numbered),
 - g) the acknowledgement (optional, page 9, not numbered, followed by blank page 10),
 - h) the contents (page 9 or 11, the pages are numbered from this page onwards),
 - i) the list of figures (photographs),
 - j) the list of tables,
 - k) the list of abbreviations and symbols (in alphabetical order; commonly used abbreviations are not mentioned),
 - I) the entire text (divided into chapters):
 - Preface (contains general specifications with a focus on the objective and purpose of the thesis),
 - Analysis and evaluation of the current state (data on the current state of the issue presenting recent findings, bibliographic research included),
 - Suggested solutions including economic assessment (contains a synthesis of the problem including an economic evaluation; this part within the Master Thesis constitutes one of the principal chapters),
 - **Conclusion** (contains clearly and logically expressed results achieved in the thesis, evaluates its economic, technical and social contributions as well as considerations and proposals for further research),
 - m) list of the literature used (alphabetically arranged, not subdivided, prepared following the Citation Guidelines available in Czech only).



n) list of appendices (appendices are marked with the word "Appendix", ordered alphabetically by capital letters and the title of the appendix; appendices include drawing documentation, corporate documents, etc.; the page numbering of appendices is a continuation of the page numbering of the final thesis, but appendices are not included in the scope of the thesis).

Article 5 Submission of the Final Thesis

- (1) The first six introductory pages of the thesis are generated from IS STAG (tab "My study" \rightarrow item in the left menu "Final thesis" \rightarrow link "Fill in data on the thesis (or submit an electronic form of the thesis)." \rightarrow link "Print title pages and the thesis assignment. PDF format".)
- (2) Subsequent pages of the thesis are numbered in ascending order, starting with the "Contents" page, which has page number 9 (if no acknowledgement is given) or 11 (if acknowledgement is included).
- (3) Before submitting the final thesis to the supervisor, the students upload it to IS STAG as a single file in PDF format (PDF/A). The file includes title pages, the thesis assignment and additional data (title of the thesis in English, keywords in Czech and English and the abstract of the thesis in Czech and English). The PDF format must allow searching within the text.
- (4) After saving all the data and the electronic form of the thesis, the student prints a confirmation certificate validating the entry of the required data into IS STAG, signs it and attaches it to the printed version of the submitted thesis.
- (5) The student submits just one copy of the final thesis. The submitted copy must be bound so that the individual sheets are not loose. The Final Thesis is wrapped in a dark-coloured cardboard folder with a contrasting print following the <u>TUL Rector's Directive No. 5/2018</u>.
- (6) The final theses are automatically checked to ensure that no intentional, unauthorised use of another person's work in gross violation of the legislation governing intellectual property protection (plagiarism check) has occurred during their processing. The plagiarism check results are assessed by the thesis supervisors in IS STAG and in their evaluation form. For evaluating the results of the plagiarism check, it is not the degree of similarity of the thesis to other texts that is determined, but whether this degree of similarity is justified, whether all sources used in the text are appropriately cited and whether they are listed in the list of references. In the case of suspected plagiarism, the Dean will decide on disciplinary proceedings based on a complaint from the thesis supervisor.
- (7) The credit from the courses "Work with a professional text" or "Diploma seminar I" is entered into IS STAG by the Dean. The credit from the courses "Bachelor's Thesis I" and "Bachelor's Thesis II", or "Master's Thesis I", "Master's Thesis II" and "Master's Seminar II" will be entered into IS STAG by the respective supervisor of the thesis.
- (8) If the confirmation sheet stating that the thesis text and supplementary information were entered into IS STAG is not attached to the final thesis's printed version, the supervisor will not award credit to the student for it.
- (9) If the student fails to submit the final thesis by the due date or the thesis supervisor does not accept the thesis by the due date, the student cannot participate in the State Final Examination.
- (10) The submitted thesis copy may be returned to the student after a successful defence.



Article 6 Final Provisions

- (1) This revision supersedes Revision 03 of Directive No. 1/2019 in force and in effect as of the 1st September 2023.
- (2) This revision of Directive No. 1/2019 enters into force and effect on the 24th September 2024.



Appendix A Bibliographic Citation Patterns

- (1) For creating citations and bibliographic records, we recommend using the <u>Zotero</u> citation software, installing the <u>TUL citation style add-on</u> and using the author-date citation system (<u>TUL-iso-690-2022-ad.csl</u>).
- (2) First names are spelt in full, or the initials can be applied to all types of documents. However, only one of these two options shall be applied to all items in the list of sources used.
- (3) In all types of documents with multiple authors, the names of all authors shall be indicated, separated by semicolons where possible. The name of the first author shall be given inversely, and the name of the last author may be separated by "and". In the case of more than five authors, the sixth and subsequent authors are replaced by the abbreviation "et al.".
- (4) Standard and Legal

CZECH REPUBLIC, 1998. Act No. 111 of April 22 1998 on Higher Education and on Amendments and Additions to Other Acts (Higher Education Act). In: *Collection of laws of the Czech Republic*. Part 39, pp. 5388-5419. ISSN 1211-1244.

OFFICE FOR TECHNICAL STANDARDIZATION, METROLOGY AND STATE TESTING (ÚNMZ), 2022. ČSN ISO 690:2022, Information and documentation – Rules for bibliographic references and citations of information sources

(5) Printed Monograph

BUREŠOVÁ, Jitka, 2019. Building customer loyalty to clothing brands on Facebook. Brno: Masaryk University Press. ISBN 978-80-210-9123-8.

RYDVALOVÁ, Petra; Ivan JÁČ; Eva KARHANOVÁ HORYNOVÁ; Eva ŠTICHHAUEROVÁ; Magdalena ZBRÁNKOVÁ et al., 2017. *Typology and evaluation of family business vitality*. Liberec: Technical University of Liberec. ISBN 978-80-7494-352-2.

SEMERÁDOVÁ, Tereza and Petr WEINLICH, 2019. Website Quality and Shopping Behavior – Quantitative and Qualitative Evidence. Cham, Switzerland: Springer International Publishing. ISBN 978-3-030-44440-2.

Edition data are applied only if the second or a subsequent edition is concerned.

KUNEŠOVÁ, Hana; Aleš KOCOUREK; Pavla BEDNÁŘOVÁ; Eva CIHELKOVÁ and Miloš NOVÝ, 2014. *World economy: new phenomena and perspectives*. 3rd ed. Prague: C.H. Beck. ISBN 978-80-7400-502-2.

COYLE, John J.; Edward J. BARDI a C. John LANGLEY, 2003. *The Management of Business Logistics: A Supply Chain Perspective*. 7th ed. Mason: South-Western Thomson Learning. ISBN 978-0-324-00751-0.

(6) Journal Article

ŠTICHHAUEROVÁ, Eva; Miroslav ŽIŽKA and Natalie PELLONEOVÁ, 2020. Comparison of the Significance of Clusters for Increasing Business Performance. *Journal of Competitiveness*, vol. 12, no. 3, pp. 172–1889. ISSN 1804-171X.

(7) Contribution in a Scientific Collection

MYSLIVCOVÁ, Světlana; Kateřina MARŠÍKOVÁ and Jaroslav DEMEL, 2021. Employability of University Graduates: The Influence of Covid-19 Pandemic. In: ANTLOVÁ, Klára and Tereza SEMERÁDOVÁ (ed.). Proceedings of the 15th International Conference Liberec Economic Forum 2021. Liberec: Technical University of Liberec, pp. 405–413. ISBN 978-80-7494-578-6.

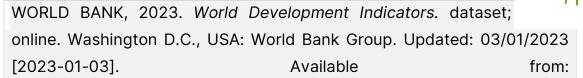
(8) Dissertation and/or Habilitation Dissertation

CHERAGHALIZADEH, Romina, 2022. *The Effect of Social Media Marketing on Customer Relationships*. Ph.D. Thesis. Liberec: Technical University of Liberec, Faculty of Economics. Available from: https://dspace.tul.cz/handle/15240/166818.

(9) Electronic Online Sources

OECD, 2023. *EBOPS 2002 – Balanced International Trade in Services (1995-2012)*. dataset; online. Paříž, Francie: Organization for Economic Co-operation and Development. Data extracted on 21 Aug 2023 [2023-08-21]. Available from: https://stats.oecd.org/Index.aspx?QueryId=113771.

UNGERMAN, Otakar a Jaroslava DĚDKOVÁ, 2020. Model of the Circular Economy and Its Application in Business Practice. online. *Environment, Development and Sustainability*, vol. 22, no. 4, pp. 3407–3432. ISSN 1573-2975. Available from: https://doi.org/10.1007/s10668-019-00351-2.



https://databank.worldbank.org/source/world-development-indicators.

- (10) For referring the sources used in the text of the thesis, the Harvard referencing style is applied, i.e., **the authors' last name and the year of publication:**
 - a) The surname of the author(s) and the year of publication shall appear in round brackets in the text.
 - b) If the number of authors is more than two, only the surname of the first author and "et al." are given.
 - c) If the name of the author is not known, the institution sponsoring the publication shall be used instead of the author.
 - d) If the institution is not known, use the abbreviation "Anon." (anonymous).
 - e) In the case of a direct quotation, the page number from which the direct quotation is taken shall also be given in brackets after the year of publication.
- (11) The list of citations at the end of the thesis is arranged alphabetically by the authors' surnames and at the second level by year of publication.

Example:

Fojtíková et al. (2014, pp. 301) defines globalisation as "an objective and natural process that is driven by the expansion of international trade, the increased mobility of capital and labor," and shows that this process, although spontaneous, is often supported by multinational companies and international organisations (Fojtíková et al., 2014). One of the manifestations of globalisation is the massive increase in the intensity of the international movement of goods, services, capital and people leading to the strengthening of interdependence of national economies (Bednářová, 2016). This is also why globalisation offers many opportunities, but it does not provide any certainties and leads to more frequent and large-scale economic crises (Kraft and Fárek, 2012).

References:

BEDNÁŘOVÁ, Pavla, 2016. Development of macroeconomic imbalances in EU countries in connection with integration and globalisation processes. Liberec: Technical University of Liberec. ISBN 978-80-7494-298-3.

FOJTÍKOVÁ, Lenka; Kateřina DVOROKOVÁ; Radomír KAŇA; Monika MRLINOVÁ; Eva KOVÁŘOVÁ et al., 2014. *The position of the European*

Union in the conditions of a globalised world economy. Series on Advanced Economic Issues, vol. 27. Ostrava: University of Mining - Technical University Ostrava. ISBN 978-80-248-3333-0.

KRAFT, Jiří and Jiří FÁREK, 2012. World economy in the epoch of global changes. Liberec: Technical University of Liberec. ISBN 978-80-7372-910-3.

- (12) Distinguishing between the citing of direct and indirect quotations
 - a) **Direct quotations** an exact copy of the original, including punctuation, keeping the original language; the quotes are placed in quotation marks (text usually in italics), followed by a reference to the source. No text modifications are permitted in a direct citation! If the author adds some information or even highlights it, the author's note is indicated in parentheses. For texts in foreign languages, the author provides a relevant translation (after the original text). The amount of direct citations shall not exceed 5%-10% of the text scope. All directly cited sources must be referenced correctly in the thesis, including the page number or page numbers from which they are cited, and must be listed in the reference list.
 - b) Indirect quotations paraphrase or summarise the words of another writer using one's own words. The reference source is always indicated in accordance with Bibliographic Citation Patterns. Indirect quotations are not put in quotation marks; only the source applied is indicated. The amount of indirect quotations is limited. When citing the bibliography, however, the provisions of Act No. 121/2000 Coll., on Copyright Law, on rights related to copyright and amending specific laws (copyright law) are considered. § 31 states that a person who uses the excerpts from published works of other authors to a justified extent in their work does not infringe the copyright act. Law does not determine the degree of a "justified extent", but it follows from logic and rationality that the citing of a single work is not of an extensive scope. Finally, all works used must be properly referenced in the thesis and included in the list of references.



Appendix B Basic typographical rules

- (1) When writing texts, it is necessary to observe the basic typographical rules (according to the standard ČSN 01 6910:2014) so that the text's appearance is appropriate in terms of form and can be read easily. The Internet Language Manual of the Institute of the Czech Language of the Academy of Sciences of the Czech Republic may also be recommended.
- (2) A **full stop** indicates ordinal numerals and is written after some abbreviations. Only one full stop is written if a sentence ends with an acronym or an ordinal numeral. Examples of use are given below.

The 1980s, not the 80s

a 60 year old man, not a 60 year old man

Section 2.3.1 discusses the idea from subsection 1.7 (see note 3).

The date entry is recommended in the form: DD. MM. YYYY, e.g., 13. 12. 2023 (in text) or YYYY–MM–DD e.g., 2023–05–01" (in accounting recoreds, etc.).

(3) A **colon** in the sense of a ratio (in mathematics) is written with a space on either side; in the sense of the score of a match or an expression of time, we use a colon without spaces.

The football match ended 2:1.

The ratio of the theoretical-methodological to practical part is 1:2.

- (4) **Parentheses** and **quotation marks** are written without a space separating them from the word, phrase, or clause they surround. There are three variants of quotation marks in the Czech language; the classic quotation mark is "".
- (5) It is necessary to consistently distinguish between the writing of the **hyphen** " " and the dash " ". The hyphen is shorter and stronger (we write it directly from the keyboard). The hyphen is always written without spaces (e.g. in expressions with the particle "-li" ("if"...) or by joining two words, e.g. "theoretical-methodological part").
- (6) The **dash** is longer and thinner, generally inserted by combining various keyboard shortcuts. It often automatically replaces the hyphen when the so-called autocorrect is set appropriately. A dash with a space on either side separates parts of text (insertions, passwords). A dash in the sense of "to", "from to", "against" is not separated by spaces unless they are multi-word phrases.

Open 8am-8pm, but Open 8:00 – 20:00.

GDP flight Prague - Abu Dhabi", but direct flight Prague-Vienna"

The monograph is identified by a code – the so-called standard international ISBN number (e.g., 80-86929-11-6)."

(7) **Degrees** and **percentages** are spelled with a space in their noun meaning. In the sense of an adjective, they are written without a space.

30 % meaning thirty percent (noun form), however, 30% (without spaces) is read in Czech as "třicetiprocentní" (adjective form). The difference is purely contextual in English.

15 °C = 15 degrees Celsius, however, 12° beer = dvanáctistupňové (twelve degree) beer"

- (8) A number-word combination is formed without spaces and without a hyphen. It is not advisable to replace the "times" character × (insert using "insert symbol" or left Alt+0215) with the lower case "x". Ordinal numbers are followed by a period and a space. In Czech text, we use a comma as the decimal separator. For the sake of clarity, thousands are separated by a fixed space (see paragraph (11) of this appendix). Italics are used for the names of constants, variables, functions and physical quantities.
- (9) **Monetary amounts** may be given as follows: '50 CZK' or 'CZK 50,00' or '10 000 €' or '130 Sk' or 'CZK 60'. It is not recommended to write "50,- CZK" or "CZK 50,-", but rather to write in whole numbers: "50 CZK".
- (10) According to the new edition of the norms, **abbreviations** of legal forms may, but no longer have to, be written in accordance with the Commercial Register.
- (11) It is not appropriate to **end a line** with one-character conjunctions and prepositions or numbers. To join a preposition firmly with the following word (to collapse the line together), a so-called fixed space is used, which can be typed, e.g., using the keyboard shortcut left Alt+0160, or in Microsoft Word using the shortcut Ctrl+Shift+Spacebar. Similarly, when writing an ISBN or ISSN, you can prevent the line from breaking by inserting a hard hyphen between the digits (in Microsoft Word, Ctrl+Shift+Hyphen).