

Dean's Decree No 6/2023
as amended on 1st September 2023

Student's Guide to Bachelor's/Diploma Thesis

1. Introduction

The Bachelor's/Diploma thesis and the defence thereof constitutes an integral part of the final examinations at the Faculty of Informatics and Management (FIM) of the University of Hradec Králové. The thesis is regarded as an important individual project by whose successful defence at the end of the study period the student demonstrates:

- the ability to independently write a paper on a specialised topic in the given field of study, which complies with the formal requirements for final theses and adheres to generally applicable legal regulations, citation ethics and citation rules;
- familiarity with specialised literature and the ability to independently and creatively apply the knowledge gained from studying it to his/her work.

2. Contents of the thesis

Bachelor's and Diploma theses can differ in form, depending on the character and the purpose of the projects (project draft, theoretical study, empirical research, etc.). Hence the following project structure should be considered as a general recommendation which needs to be adapted to the character of an individual thesis project.

Recommended scope of the work:

- for Bachelor's theses - 35-45 pages (approximately 70,000 characters)
- for Diploma theses - 50-60 pages (approximately 100,000 characters)

The thesis needs to be formatted according to the guidelines outlined below. Only pages from the Introduction section to the Conclusions section of the thesis are included in the final page count.

Recommended project structure:

1. Title Page
2. Declaration
3. Acknowledgements
4. Abstract and keywords (Czech and English)
5. Contents
6. Introduction
7. Project aims and methods???
8. The body of the thesis (main chapters)¹
9. Results and discussion
10. Conclusions and recommendations
11. Bibliography
12. Appendices
13. Thesis specifications (copy)

ad 1)

See appendix for an example of the title page layout.

ad 2)

See appendix for an example of the declaration.

¹ This part of the thesis is normally divided into several chapters.

ad 3)

Acknowledgements – Thanking the supervisor, the thesis consultant or the company that made the implementation of the project possible is polite and advisable but not obligatory.

In any case, the acknowledgments should not exceed several lines.

ad 4)

The **abstract** is an obligatory part of the final paper (see appendix). It is a summary of the project aims, the methods used, the results and their implications. The length of the abstract in either language (Czech or English) should not exceed 200 words. The abstract should be written after all the main parts of the thesis have been completed, and should succinctly characterize the entire work, including the results.

ad 5)

Contents – Page numbers are given in Arabic numerals. The pages are numbered in such a way that the Introduction section starts on page 1. It is also possible to number the pages preceding the Introduction, in which case Roman numerals (i.e., I, II, III, etc.) are used. The pages in the appendices are not numbered and are thus not included in the final page count.

ad 6)

The purpose of the **Introduction** section is to introduce the topic of the thesis, explain the reason for this particular topic choice, and define the research problem. By drafting the Introduction and Method sections (see below) at the beginning of the writing process, the student gains a clearer idea about the overall conception of the final work. The Introduction is, however, usually finalised after all the main parts of the thesis have been written.

ad 7)

The aim of the thesis is to find a solution to a specific research problem. The proposed solution needs to be supported by findings supported by findings from a literature review. Relating the findings of other researchers to the students' own findings forms a part of the **Project aims** section. In formulating the project aims, it is advisable to use action verbs (e.g., create, compare, determine, elaborate, etc.).

The chosen **method** must be adequate to the problem that is to be solved. It is therefore advisable to explain why the author has chosen a particular approach and, where appropriate, to explain why this approach is more suitable to the task than other possible approaches. It is also advisable to acknowledge and describe the possibilities and limitations of the chosen approach. The Methods section includes a description of the thesis with sources, and outlines the conception of the theoretical part. The use of artificial intelligence tools in the creation of the thesis is permitted, but only if the methods of their use are thoroughly described (see chapter 5 ON USING ARTIFICIAL INTELLIGENCE TOOLS). If empirical research is part of the thesis, its nature (qualitative or quantitative) needs to be specified. In the case of quantitative research, it is necessary to carefully define the target group and pay attention to the representativeness of the sample.

A number of difficulties may arise during the preparation of a Bachelor's/Diploma thesis. Students may find out that some of the research questions posed at the beginning cannot be answered or they might discover that there are additional aspects which need to be addressed. These issues must also be described in the Methods section.

ad 8)

The **body of the thesis** usually includes a brief literature review. The research discussed in the review should be directly related to the focus of the thesis. It is often useful to characterize the historical development of the problem or topic (this is especially needed when a problem from practice is being solved). Students focus on relevant sources documenting the state of the field under study. It is desirable to use scholarly articles and publications.

In the subsequent part, which is normally divided into several chapters, students present their solution to the research problem. Depending on the character of the work, students must consider whether the non-textual contents (such as data, graphs, images, etc.) will be incorporated within the text or, attached in the form of an appendix, or whether a combination of both will be used.

ad 9)

Results and discussion – This part contains a critical review and discussion of the obtained results (a comparison of the obtained results with the findings of other researchers and with the students' initial hypotheses; important circumstances influencing the project; the originality of the findings, etc.)

ad 10)

The **conclusions part** describes the extent to which the aims of the thesis were achieved. It is also appropriate to discuss the implications and suggestions for further research.

ad 11)

In the list of cited works (the so-called **Bibliography**), all cited sources in the order recommended by the chosen citation form are listed.

More detailed information on working with sources is provided in chapter 4 *WORKING WITH SOURCES*). **ad 12)**

Each **appendix** must be numbered in the upper right corner (e.g., Appendix 4).

Appendices can also have the form of data media (CDs, DVDs, ...); these must be placed in a suitable envelope, attached to the back of the thesis, and visibly labelled as appendices. Any sources referred to in the appendices must also be correctly cited. Digital appendices in the form of software projects can be attached in the form of a link to the relevant cloud repository (Github, Gitlab, etc.).

ad 13)

The **thesis specifications**, which each student discussed with his/her supervisor and uploaded into STAG before beginning the work on his/her thesis, are part of the electronic (or printed, if required) version of the submitted thesis. They can be obtained from the eVŠKP² information system.

3. Regulations governing the submission of Bachelor's/Diplomatheses

Submission of theses

The principles and rules for the submission and handling of final theses are specified in detail in the "*Regulations for the handling of bachelor's, diploma, rigorous, dissertation and habilitation theses at UHK*", which is a decree of the Rector, and in the "*Directive of the Dean of the FIM UHK supplementing the Study and Examination Regulations of the UHK*".

Binding of the Bachelor's/Diploma thesis

In cases where the above regulations require the submission of a physical copy, the submitted copy must be bound in hard black or blue covers. The information that must be printed on the front cover are specified in the appendix. The thesis itself must be printed on white sheets of A4 paper weighing 80 g/m². The submitted physical copy is returned to the student after the defence.

Page layout

The thesis is written in an A4 format, using a suitable word processor. A template for writing the thesis is available in the MES Methodology Seminar course in LMS Blackboard (oliva.uhk.cz)

The template complies with the following formatting guidelines:

Main text – serif font (Cambria or Times New Roman), size 12

Headings – sans serif font (Verdana, or Arial), all headings are numbered

Margins – The inner margin at the spine starts 3,5 cm from the edge of the page. All other page margins are 2 cm.

Page numbers – The page number is indicated in the bottom centre margin.

Page format – There are usually 30-35 lines per page (1½ line spacing). Paragraphs are aligned in a block and the use of word division is recommended.

A note on language – Passive voice is used throughout the text (e.g. "it is stated", "it has been found",

² <https://ris.uhk.cz/evskp>

"research has been conducted", "something has been chosen for programming", ...). The personal form (1st and 2nd person plural and 1st person singular) can only be used in the introduction (typically when describing the motivation for the thesis). It is also not appropriate to use the so-called "indirect" first person, e.g., "the author has decided", "the author has come to an opinion". The author of the thesis must ensure that the text is at the required level in terms of both orthography and style. Failure to comply with this requirement (especially due to the occurrence of major spelling mistakes in the text) constitutes a reason for a significant reduction of the grade and in some cases even for not recommending the thesis for defence. Editing, layout and clarity are all part of the assessment criteria.

4. Working with sources

The sources are listed at the end of the thesis in the order required by the citation method used (see below); they are not sorted according to their type. The citations and their marking in the text are governed by the **ČSN ISO 690 Bibliographic citations norm** dating back to 2022³, or by the **APA standards**⁴.

In-text citations should follow the **Harvard citation style** "author (year)" or the numerical format "[1]" or "(1)", depending on the conventions used in the particular field of study. In the first case (when the Harvard style is used), the list of sources given at the end of the thesis (bibliography) is arranged alphabetically. In the second case (numerical format), the bibliography is organised according to the order of occurrence in the text. For a systematic management of citations, it is possible to use one of the available software tools (e.g., Citation PRO Free⁵, Zotero⁶, or in MS Word the References/Citations and bibliography tab, etc.)

The citation style can be set uniformly for the whole study programme/specialisation. The student follows the instructions given by the thesis supervisor.

Reference to the source must be provided whenever one begins to work with information taken from somewhere else, regardless of whether it is a paraphrase or a direct quotation.

Figures, diagrams, and tables created by the author of the thesis should be labelled in the following way: "source: own". If students use their own photographs, the following description is included "source: author". Alternatively, a reference to the author's archive is provided, and included in the bibliography at the end of the thesis.

Important note: After submission, final papers are automatically submitted for an anti-plagiarism check. The report generated by the anti-plagiarism system is then made available both to the supervisor and the opponent of the thesis.

The introduction of someone else's idea without proper citation of the work used (article, book, document, web source, etc.) is punishable (under copyright law). In the case of Bachelor/Diploma theses, it means automatic rejection and is also considered a disciplinary offence. If a large number of such errors are found in the thesis, this finding is referred to the Disciplinary Committee.

5. Using artificial intelligence tools

If the thesis supervisor does not object to it, using artificial intelligence (AI) tools in an appropriate form and scope in writing the thesis is permitted. However, in the Methods section of the thesis the

³ For more information, see the following websites: <http://www.citace.com> , <https://www.citace.com/CSN-ISO-690.pdf> , <https://citace.zcu.cz/> , <https://sites.google.com/site/novaiso690/>

⁴ See <https://apastyle.apa.org/>

⁵ <https://www.citace.com/vytvorit-citaci>

⁶ <https://www.zotero.org/>

author must clearly state that what types of tools were used and for what purposes. Any results obtained with the contribution of AI should be critically examined and validated by the author and should be placed in a broader context. In writing the thesis, the author is aware that the resulting work is a work of authorship and that he/she is taking full responsibility for the published content (including information gained with the contribution of AI). He/she also agrees to adhere to the copyright law.

6. Defence of the Bachelor's/Diploma thesis

The defence of the Bachelor's/Diploma thesis forms a part of the Final State Examination. Members of the Examination Board are present at the defence.

Students will usually first give a short presentation of their work (10 minutes maximum). They will state their reasons for choosing the topic and explain the thesis writing process, including a brief discussion of the problems they encountered and the ways in which they overcame the problems. At the end of the presentation, they will also introduce the results of their work.

After the presentation, the main parts of the opponent's and supervisor's reviews and their final evaluations are presented, and students respond to any comments made in the reviews. This is followed by a discussion with students, based on the questions from the opponent and the supervisor (and possibly also questions from other members of the Board).

The purpose of this discussion is to determine the student's understanding of the issues covered in their thesis and their ability to respond to questions.

Both the thesis itself and the defence are included in the final classification.

An important part of the defence is the demonstration that the student wrote the final thesis on his/her own.

7. Final provisions

These methodological guidelines fully replace Dean's Decree 1/2000 as amended on 12.1.2011. The guidelines are binding for final theses submitted after 1 September 2023.

In Hradec Králové 1. 9. 2023

prof. RNDr. Josef Hynek, MBA, Ph.D.
Dean of FIM UHK

Appendix: Example 1. Front cover layout

Example 2. Title page layout

Example 3. Declaration

Example 4. Abstract

Example 1. Front cover layout

University of Hradec Králové

Faculty of Informatics and Management

BACHELOR'S/MASTER'S THESIS

2023

First name(s), Last name(s)

Example 2. Title page

University of Hradec Králové

Faculty of Informatics and Management

Name of the Department

**Title of Bachelor's/Master's Thesis
(Subtitle)**

Bachelor's/ Master's Thesis

Author: First name(s), Last name(s)

Field of Study:

Supervisor: Title, First name(s), Last name(s)

Consultant (if applicable): Title, First name(s), Last name(s)

The consultant's place of work (institution/department)

Hradec Králové

March 2023

Example 3. Declaration

Declaration:

I declare I wrote the Bachelor's/Master's thesis myself, using only the listed bibliographical sources.

In Hradec Králové, date

Signature
First name(s), Last name(s)

Example 4. Abstract

Thesis Abstract:

The abstract should contain basic facts which characterise the contents and results of the study. It should be provided both in Czech and in English. The length of the text in each language should be between 100 and 200 words. The English version of the abstract must also contain the thesis title in English.

Abstrakt

Text abstraktu, text abstraktu, text abstraktu, text abstraktu, text abstraktu, text abstraktu,
text abstraktu, text abstraktu, text abstraktu, text abstraktu, text abstraktu, text abstraktu,
text abstraktu...

Abstract

Title:

Text of abstract, text of abstract, text of abstract, text of abstract, text of abstract, text of
abstract, text of abstract, text of abstract, text of abstract, text of abstract, text of abstract,
text of abstract, text of abstract, text of abstract, text of abstract...

(Note.: Bakalářská práce must be translated into English as “**Bachelor Thesis**“; “Diplomová práce” must be translated as “**Diploma Thesis**”.)

Keywords in Czech

Keywords in English