

University of Pécs, Faculty of Sciences

(Dean's Order no. 2/2021 (V./13.)) on the Code of the Faculty on Thesis Preparation

1. INTRODUCTION

Preparation of a thesis work (BSc)/diploma work (MSc) (hereinafter thesis) is an essential condition of obtaining a diploma in all study programs of the University of Pécs, Faculty of Sciences; a cornerstone of finishing university studies.

Thesis work (BSc) shall be submitted in undergraduate and undivided, single-tier teachers' training, and diploma work (MSc) shall be submitted in graduate training.

Despite of being one of many educational requirements of obtaining a degree, thesis preparation is special, because it requires free selection of topic, closer student-professor cooperation and high level of independence in work. This task requires responsible work from both student and professor, since the result of such a cooperative process shall prove the students's competency to obtain a degree; and should also be widely acceptable for professional public.

Present document provides general information on thesis preparation, specifies the mandatory content and format requirements, the responsibilities of the student and the professor through the process, and gives samples for the unified faculty framework providing transparent conditions of thesis preparation.

2. PROCESS OF THESIS PREPARATION

2.1. Announcement of topics

The topics are announced by the institutes following their own institutional procedures. The topics should be available for more than 120% of the actual student number eligible for thesis preparation to ensure reasonable choice for students. The topics announced shall be general enough to allow possible content changes during the preparation process. The topics shall be announced via the NEPTUN educational system (hereinafter NEPTUN system). Topics of thesis work and diploma work can be announced by the lecturers of the Faculty. A lecturer can announce multiple topics and the same topic can be announced by multiple lecturers. The topic is announced when the Registrar's Office, following the decision of the institutes, publishes it in the NEPTUN education system under the „final exam period”. The up-to-date topics are accessible in the NEPTUN education system.

2.2. Topic selection

Students shall register for a topic on the web surface of the NEPTUN system. The prerequisite of registration is to upload a draft, approved by the supervisor, to the NEPTUN system. In the case of a failed registration, the student shall turn to the head of the institute, who shall, together with the major director, assign a full-time lecturer to supervise the thesis preparation. Without registration for thesis, the student is unable to register for and pass the thesis work/diploma work consultation courses. Registration for the thesis topic is due at the beginning of the autumn and spring semester, at a time determined by the schedule of the academic year.

The student has the opportunity to change the topic of the thesis once or to write the thesis with another supervisor.

2.3. Consultation

During thesis preparation the student shall consult the supervisor. The method and schedule of consultation shall be determined by the supervisor.

2.4. Thesis submission (handing in)¹

The thesis shall be submitted electronically via the NEPTUN education system. The large-size files belonging to the thesis are to be uploaded to the storage space defined by the faculty. The conditions of the submission are that the student passes the thesis work/ diploma work consultation courses, and the permission of the supervisor to upload.

The deadline for thesis submission, both electronic and printed, and the possible deadline extension shall be determined and announced by the Faculty Council in each year's academic calendar based on Art. 59, Paragraph (10) of the Code of Studies and Examination of the University of Pécs.

2.5. Assessment

Readers (opponents) and review

Thesis is assessed by two readers (opponents), one of whom may be the supervisor. The readers (opponents) are designated by the institute responsible for the major of the author. Such a person can be designated as a reader (opponent), who fulfils the criteria listed in the Art. 59, Paragraph (11) of the Code of Studies and Examinations of the University of Pécs. Assessment is processed on the web surface of the NEPTUN system by a form determined by the Faculty. The final review is available for the student on the web surface of the NEPTUN system.

¹ The modification was carried out on the 22nd of September 2023

The assessment made by the readers (opponents) must be prepared in the Neptun system at least five working days before the day of the thesis defence, or in the case of external readers (opponents), it shall be uploaded to the educational system of Neptun. A third reader (opponent) can be designated in the case and under the rules described in Art. 59. Paragraph (12) of the Code of Studies and Examination of the University of Pécs. In case the thesis submitted does not fulfil all requirements of the present Code, it results in a „fail” assessment without review. The supervisor is obliged to check the fulfilment of the requirements, but the decision on fail assessment without review shall be made by the major director.

Thesis defence

The thesis work/diploma work can be defended only by the student who has obtained the pre-degree certificate stating that all course-units have been completed in the major involved in the preparation of the thesis/diploma work. The period for thesis defence shall be determined by the Faculty Council in the academic calendar of the semester. Thesis shall be defended in front of a board.

The members of the board, its schedule and procedure shall be determined by the institute concerned taking into consideration Art. 60., Paragraph (1) and Annex 12. of the Code of Studies and Examinations of the University of Pécs.

During the defence the board shall make a record, prepared by the Registrar’s Office to the defense board based on the data registered in the NEPTUN system. The board shall decide the final grade of the thesis in the record and is allowed to assess the defence in detail.

3. CONTENT AND FORMAT REQUIREMENTS

Thesis have different types based on the analysis of and the approach to the topic. Therefore, students can choose between the following types:

a) *Thesis based on empirical research*

A thesis based on research is the analysis and explanation of a generally observable phenomenon or problem with the help of the theories learnt during university studies and on professional literature.

In this type of thesis, students analyse a problem and propose possible solutions based on their own empirical research.

b) *Thesis based on literature review – methodological thesis*

In this type of thesis the students collect, analyse, systematize the theories, professional disputes, research findings, methodologies of literature and examine their practical applicability.

The students analyse the connections between the possible applications of the reviewed literature, compare them with critical assessment and evaluate them with explaining their own opinion and point of view.

3.1. Structure of the thesis

3.1.1. Structure of the Thesis based on empirical research

- Title page (Appendix 5.1.)
- Motto, dedication (optional, Appendix 5.2.)
- Table of contents
- Summary/abstract
- Introduction and research goals
- Introduction of tools/materials and methodology
- Introduction, analysis and discussion of results
- Conclusions
- Acknowledgement (optional)
- Reference list
- Abbreviations, list of figures and tables (optional)
- Appendixes (optional)
- Declaration of originality of the writing

The title page is the first page of the thesis, it counts as a full page, but the page number does not appear on it. The mandatory contents of the title page are: title, author, supervisor (external supervisor is optional), faculty, institute, university crest, location, year (see Appendix 5.1.) A motto or dedication can be added to the second page (see Appendix 5.2.).

The summary/abstract of the thesis is a minimum of 150, maximum of 300 words long concise summary of the thesis, clear and logical as independent text. The summary/abstract provides in detail information on the thesis, not general statements. In the summary/abstract the student shall provide information on the research problem, the goals of the research, methodology, the main results and the scientific significance of the thesis. The summary/abstract shall not contain figures, pictures and references.

The introduction chapter contains the description of the research topic (scientific problem) or the development task (e.g. in informatics), the literature review and integrates the topic in the professional background. In this chapter the motivation and the reasons for topic selection shall be mentioned; and the goals of the research shall also be explained in a separate section.

Introduction of tools/materials and methodology chapter contains the subject and field of analysis or development, the materials and tools used, and the description of research and development methodology in detail supported by references. This chapter also provides description of further methodological ideas, developments, experiments. The results chapter is one of the most important units of the thesis, which explains facts, observations, experiment results, as well as calculations or developments, therefore it may contain several figures, tables and some parts of the source code.

Chapter of discussion of results gives opportunity for the analysis and discussion of results. What do these results mean; do they correspond to the generally accepted theories? How should the results be understood considering the hypothesis? What are the limitations of the used methods?

Conclusions chapter gives opportunity for comparing the results of the thesis to other researchers' findings and for summarizing the new ideas of the thesis. Drawing attention to the further research possibilities and directions is also possible in this chapter.

Acknowledgement is an optional unit of the thesis, in which the student can express gratitude for special support (for example for an institution providing special data). If the thesis was supported by a grant application or by a project it shall be mentioned in the acknowledgement, which is expected and highly recommended.

3.1.2. Structure of the Thesis based on literature review – methodological thesis

- Title page (Appendix 5.1.)
- Motto, dedication (optional, Appendix 5.2.)
- Table of contents
- Summary/abstract
- Introduction
- Literature review, methodology
- Conclusions
- Acknowledgement (optional)
- Reference list
- Abbreviations, list of figures and tables (optional)
- Appendixes (optional)
- Declaration of originality of the writing

The title page is the first page of the thesis, it counts as a full page, but the page number does not appear on it. The mandatory contents of the title page are: title, author, supervisor (external supervisor is optional), faculty, institute, university crest, location, year (see Appendix 5.1.) A motto or dedication can be added to the second page (see Appendix 5.2.).

The summary/abstract of the thesis is a minimum of 150, maximum of 300 words long concise summary of the thesis, clear and logical as independent text. The summary/abstract provides in detail information on the thesis, not general statements. In the summary/abstract the student shall provide information on the examined issues, methodology, the goals of the research, the main results and the scientific significance of the thesis. The summary/abstract shall not contain figures, pictures and references.

Introduction chapter contains the description of the examined issues (scientific problem, methodology), the literature review, and integrates the topic in the professional background. In this chapter, the motivation and the reasons for topic selection shall also be mentioned.

The literature review chapter is one of the most important parts of the dissertation, which provides facts, observations and experimental results, methodological issues, as well as publishes calculations and discusses a number of problems or their solutions, and can include figures, tables (can be prepared by the author). The chapter also provides an opportunity for critical evaluation and discussion.

Conclusions chapter gives opportunity for summarizing the new ideas of the thesis and drawing attention to further research directions.

Acknowledgement is an optional unit of the thesis, in which the student can express gratitude for special support (for example for an institution providing special data). If the thesis was supported by a grant application or by a project it shall be mentioned in the acknowledgement, which is expected and highly recommended.

3.2.Format requirements

Fonts

Usage of font(s) shall be consistent throughout the whole thesis. In the final electronic (pdf format) and printed version of the thesis standard 12 size serif font shall be used, for example Book Antiqua, Times New Roman, Palatino, or Computer Modern. If necessary, smaller or bigger than 12 size font can be used, for example 10 sized for captions of figures and tables, 14 size for headings. Usage of font sizes bigger than 14 and smaller than 10 and of special and/or decorative fonts (for example Calligraphic, Black letter, Casual, etc.) is not accepted. For source codes, programme lists the type setting shall be non-proportional (monospaced) (e.g. Courier); for mathematical formulas, the rules common in the mathematical literature should be followed, the requirements of ISO 80000-2:2009 shall apply, for text editing the LaTeX is recommended.

Margins and spacing

The top, bottom and right margins should be 2.5 cm, while the left margin for gutter shall be 3 cm. Page number shall be added to all pages in the footer aligned to the right.

1,5 line spacing shall be applied in the whole text and the text shall be justified, except for titles, headings, footnotes, captions and bibliography, where simple line spacing is required. In the case of bibliography, text is to be closed to the left. Widow lines (orphan and widow lines) shall be avoided (see setting of word processor).

It does not need to use space between paragraphs, but it is necessary to use a space between chapters and subsections.

The formal appearance of the inner cover of the thesis must be prepared in accordance with Appendix 6.1. If a separate outer (hard) cover is used, a simplified image of the contents of the inner cover must be displayed, the obligatory elements of which are the title and the name of the author and supervisor.

Chapters, sections

The structure of the thesis shall be clear and logical. The thesis is divided into chapters, sections and subsections. The sectioning shall have no more than three levels. A chapter shall contain at least two sections. The sectioning shall be clearly represented in the table of contents. Chapters shall be designated with Roman numerals e.g. I. II. etc., while sections are marked with Arabic numerals e.g. 1. 2. etc., designation of sections should follow the chapters' designation. For subsections shall be designated with 1.1, 1.2, etc.. The designation of Appendixes is with capital e.g. A, B, C, etc.

Length

The length of the textual part of the thesis, including spaces, is a minimum of 35 thousand, a maximum of 70 thousand characters, and in the case of teacher training programmes, 60-80 thousand characters. The title page, table of contents, abstract, motto, acknowledgment, footnotes, list of references and appendices are not included in the text. The maximum size of the thesis in PDF format is 25 MB.

Language and style

The basic expectation of the text is that it be written with careful and consistent application of the grammar and spelling rules of the Hungarian language (in case of a thesis written in a foreign language, the language of the thesis). The aim should be to make the language of the thesis readable, understandable, yet professional.

3.3.Citation style/Reference style

To support independent research and distinguish own and quoted statements, citations and references shall be used. The institutes decide on the internationally accepted reference style, supported by a software (EndNote, Mendeley, BibTex etc.) to be used.

Institute	Citation style/Reference style	Useful guide
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Institute of Biology	<u>APA 7th</u>	<u>Link</u>
Institute of Physics	<u>IEEE</u>	<u>Link</u>
Institute of Geography and Earth Sciences	<u>APA 7th</u>	<u>Link</u>
Institute of Chemistry	<u>ACS</u>	<u>Link</u>
Institute of Mathematics and Informatics	<u>IEEE or APA 7th</u>	<u>Link</u>
Institute of Sport Sciences and Physical Education	<u>APA 7th</u>	<u>Link</u>

Reference list

The reference list is at the end of the text of the thesis. Every cited source should be in the reference list and the reference list shall only contain items cited in the text of the thesis. The order of the reference list items depends on the reference style selected.

Academic titles (Dr, PhD, CSc etc.) shall not be written in either the citations or the reference list.

Reference list items

Because of the different requirements for the different types of thesis works/diploma works (3.1.1., or 3.1.2.) to balance the independent work required for each type, different minimal number of references is established:

- a) Thesis based on empirical research: minimum 20 references (professionally relevant sources, minimum two in a foreign language)
- b) Thesis based on literature review – methodological thesis: minimum 24 references (professionally relevant sources, minimum four in a foreign language)

3.4.Tables, Figures

Every table, figure, and picture in the thesis shall be designated with a number, a short title and source. The number of tables and figures is continuous, and independent from the numbers of chapters or other units of the text. Sample: Figure 1: title (source).

In the body of the text, it is necessary to refer to the figure or table used as an illustration or support (eg: Figure 1). The titles of the tables should be at the top, while the titles of the figures should be at the bottom.

4. MISCELLANEOUS

4.1.Responsibilities and tasks

The preparation of the thesis by the deadline of submission through independent work is the responsibility of the student. The present Faculty Code provides general framework for the preparation. Special requirements of various research fields are determined by the respective institutes within the faculty framework.

The student shall check whether the abovementioned requirements are fulfilled and whether he/she did the best of his/her abilities in terms of style and grammar.

When questions not answered by this code and its appendixes arise, the student can address them to his/her supervisor, the academic coordinator of the institute, to the major director or the head of the institute.

The supervisor is responsible for professional guidance of the student, and shall answer professional questions related to the thesis.

The supervisor is obliged to check the fulfilment of content and format requirements, with special regard to the expected PDF format and its maximum size (25 MB), before the upload of the thesis to the NEPTUN system.

4.2.Plagiarism²

The student plagiarizes in case he/she uses the intellectual property (statement, phrasing, the result of someone else's work, etc.) without referring to the original source and represents it as his/her own. (Code of Studies and Examinations of the University of Pécs, Annex 14, Art. 3, Paragraph (1)).

Utilising artificial intelligence as author or co-author is not allowed during the thesis writing process. The usage of artificial intelligence can be checked with software as well. The usage of any text formulated by artificial intelligence during the writing of the thesis, without any referral or indication, shall be judged the same way as plagiarism.

It shall not be considered as plagiarism, if the student uses the given work within the framework of fair use, thus he/she quotes a portion of the work – in a quantity that is reasonable according to the character and purpose of the recipient writing and faithfully to the original text – by marking the source and the author (uses a reference). (Code of Studies and Examinations of the University of Pécs, Annex 14, Art. 3, Paragraph (2))

During the authentication process, Turnitin (Turnitin.com) software is used for plagiarism detection. If the fact of plagiarism is identifiable based on the authentication, the thesis shall be marked as unsatisfactory by the supervisor. In case of any condition listed below is fulfilled during the software-based inspection, the

² The modification was carried out on the 15th of September 2023

thesis shall be examined by an ad hoc committee in order to either determine or rule out the fact of plagiarism:

- (1) the total similarity index is at least 30%
- (2) similarity between the thesis and one single work is at least 3%

In case of plagiarism the procedure regulated by the Code of Studies and Examinations of the University of Pécs, Annex 14 shall be followed.

4.3. Rules of confidentiality

The student can request confidentiality of the thesis. The major director decides on granting the confidentiality request right after the approval of the topic. The Registrar's Office issues a decision on confidentiality, which shall be enclosed to the thesis. Such a request cannot be made later in the process, upon submission of the thesis. Confidentiality request shall be granted if public access to the data used in the thesis would potentially violate personal rights or business secrets.

Confidentiality shall be permitted when a student is bound by confidentiality obligation concerning the data used in the thesis and he/she can justify it with a credible document.

In case of confidentiality of the thesis the defence shall be closed too. The participants of the procedures related to the thesis preparation shall all sign a declaration of confidentiality. The rules of the procedure of confidentiality concerns the author, the supervisor, the readers (opponents), participants of the defence and everybody, who takes part in the handing-in and storage of the thesis, namely everybody who can have access to the confidential information.

4.4. Storage in the University Archive

The submitted printed hard cover version of the thesis will be returned to the student by the defence board. The thesis shall be archived only electronically based on the rules of the Code of Studies and Examinations of the University of Pécs, Annex 5.

5. ENTRY INTO FORCE

This order shall enter into force on the date of signature.

The Dean's Order no. 1/2019 (II./01.) is repealed as the present order enters into force.

Pécs, 13 May 2021

Dr Attila HORVÁTH
Dean

Clause:

The modification of the current order was carried out on the 15th day of September 2023.
Modifications shall enter into force from the 15th of September 2023.

Pécs, 22 September 2023

Dr András Trócsányi
Dean

6. APPENDIXES

6.1 Title page

6.2 Motto

6.3 Request of confidentiality

6.4 Declaration of confidentiality

6.5 Declaration of originality of the writing (Code of Studies and Examinations of the University of Pécs, Annex nr. 14/1.)

6.6 Assessment criteria

APPENDIX 6.1.

UNIVERSITY OF PÉCS
FACULTY OF SCIENCES
NAME OF THE INSTITUTE

TITLE OF THE THESIS WORK/DIPLOMA WORK



Supervisor: Dr NAME OF SUPERVISOR
position of the supervisor

Author: NAME OF AUTHOR (Neptun
code)
MAJOR

External supervisor: Dr SUPER VISOR

PÉCS, 2018

APPENDIX 6.2.

*„It Is Not the Strongest of the Species that
Survives But the Most Adaptable”*

(Darwin, 1859)

REQUEST OF CONFIDENTIALITY

Name:..... NEPTUN username:

Major:.....

Training schedule: full-time / correspondence / evening / distance education

Topic of the thesis:

.....
.....

I hereby request the classification and confidential handling of above thesis based on the following reasons: the company/data provider concerned by this thesis expects that it will be made confidential, as proven by the enclosed document.

Reasoning:

.....
.....
.....
.....

Pécs,

Signature of the student

Decision and explanation of the major director:

.....
.....

.....
Signature of the major director

DECLARATION OF CONFIDENTIALITY

Title of the thesis work/diploma work

.....
.....

Author of the thesis work/diploma work.....

Data of declarant:

<i>Name:</i>	
<i>Place and date of Birth:</i>	
<i>Mother's maiden name:</i>	
<i>Affiliation & position:</i>	

1. I hereby undertake the obligation to keep the data, information, or documents (hereinafter data) I learnt from the above-mentioned thesis /diploma work confidential. I will not transfer them to unauthorised third persons and will do everything in my power to prevent unauthorised third persons from accessing the data in any way.
2. I will not make or keep any copy on the data known or sent to me in writing (including electronically) and I will not aid third persons to do so.
3. I undertake the obligation not to violate any rights (especially personal rights, intellectual property rights) of the author of the thesis /diploma work, or of the people, institutions, companies contributing to the thesis preparation process.
4. I do understand that my confidentiality obligations established by the present declaration do not extend to data if the transfer or disclosure of the data is ordered by a law, judge or other authorities.

....., 20.....

.....
signature of the declarant

APPENDIX 6.5.

DECLARATION

of the originality of the writing

(According to Code of Studies and Examinations of the University of Pécs, Annex nr. 14/1.)

I, the undersigned,
(name)(NEPTUN system identifier), declare under
penalty of perjury

that every part of my writing,

.....
.....

is the result of my own, autonomus work, I only used referred sources (special literature, tools, etc.) and I observed the pertaining rules of the University of Pécs while preparing my writing.

I am aware that the University of Pécs has the right to check the observation of copyright rules through a plagiarism tracing system.

Pécs, _____ month _____ day, 20____ year

.....

signature of the student

Assessment criteria for Thesis based on literature review – methodological thesis

Assessment shall be done on a 100 point scale in five categories. In every category the assessment shall contain in detail comments with the length of 400-4000 characters. The reader (opponent) is obliged to ask two thesis-related questions.

1. Choice of topic, previous research – maximum of 20 points

Is the choice of topic reasonable? How deep is the exposition of the research problem? Does the topic of the thesis concern a real, actual problem with the analysis of social-professional connections?

2. Research results, literature review – maximum of 40 points

How independent and deep is the literature review? Does the review fulfil the requirements of professional publications? Has the author chosen the relevant literature and analysed it with good understanding? Does the student evaluate his/her own topic clearly within the professional research trends?

3. Structure and references – maximum of 15 points

Is the structure of the thesis logical, its division proportionate? Are the main points and connections well emphasized? Is the referencing style consistently used? Do the reference list and citations fulfil the requirements?

4. Style and grammar – maximum of 15 points

Is the language of the thesis clear? Is the grammar correct? Does the text of the thesis follow a formal writing style with correct usage of professional vocabulary?

5. Format – maximum of 10 points

Does the thesis fulfil the format requirements? How is the quality of the figures, pictures, tables? How is the overall form of the thesis? Does the thesis appear to be the result of neat, meticulous work?

0–49 points = fail (1)

50–59 points = pass (2)

60–74 points = satisfactory (3)

75–84 points = good (4)

85–100 points = excellent (5)

Assessment criteria for Thesis based on empirical research

Assessment shall be done on a 100 point scale in five categories. In every category the assessment shall contain in detail comments with the length of 400-4000 characters. The reader (opponent) is obliged to ask two thesis-related questions.

1. Choice of topic, originality – maximum of 10 points
Does the topic of the thesis concern a real, actual problem? How original is the topic from scientific point of view? Does the thesis contain new ideas or ideas from a new approach?
2. Literature review, previous research – maximum of 10 points
Based on the thesis, does the student show proficiency in the topic? How much relevant professional literature did the student read for the thesis writing and on what level was it analysed and used?
3. Methodological competence – maximum of 20 points
Are formulation of research goals, hypotheses/research questions and methodology clear and well-explained? Is the collection of data goal-oriented, well-grounded and circumspect? Is the sampling well-grounded professionally? Does the student explain the essence, advantages and disadvantages of the chosen methodology correctly? Did the student learn or develop new scientific methods (e.g. experiment planning, labor work, programming, etc.)? Could these new methods be useful in further research?
4. Analysis and results – maximum of 30 points
Are the results and conclusions well-grounded and represented in a clear, logical way? Were the research questions of the thesis answered? Are the findings of the student clearly identifiable and distinguishable from previous research results? Does the student understand and evaluate the results correctly? Does the student draw correct conclusions from the results? Are results of the thesis real and significant? Is the thesis a result of independent research work? Does the student have appropriate critical approach to the reserach done?
5. Format – maximum of 20 points
Did the student follow the format requirements? Is the structure of the thesis logical, its division proportionate? Are the quality of figures, pictures and tables professionally acceptable? Does the text follow professional language standards and vocabulary? Is the text grammatically correct? Was it written in formal style?

0–49 points = fail (1)

50–59 points = pass (2)

60–74 points = satisfactory (3)

75–84 points = good (4)

85–100 points = excellent (5)

APPENDIX 6.6.3

Assessment criteria for Thesis based on IT topics (for Business Informatics BSc, MSc, Computer Science Bsc)

Title of training / major:

Name of candidate:

Neptun code of candidate:

Title of Degree Thesis:

Opponent of Degree Thesis:

CRITERIA OF EVALUATION	Scores available	Scores obtained
1. The assessment of the topic selection, the method of presenting the problem and formulating the objectives	0-8	0
a) It does not present any relevant IT /methodological, business/economical problem	0	
b) Examination of a realistic, but small-scale IT or business problem, the purpose of research is not clear.	1-3	
c) Current, good topic selection, but the purpose of research is not completely clear.	4-6	
d) Current, good topic selection, and the purpose of research is not completely clear.	7-8	
2. The theoretical validity of the topic's examination and the quality of the literature's processing	0-12	0
a) Missing or weak theoretical background, lack of basic literature, the quality of processing (interpretation) is weak	0-4	
b) It is based on the basic literature / teaching material. The use of course materials has been demonstrated.	5-8	
c) It demonstrates knowledge of relevant national and international literature and technical standards, which is incorporated well into the work.	9-12	
3. Quality of the proposed problem and the research method's presentation	0-10	0
a) Missing or weak company description, system presentation, description of the method of research	0-3	
b) Presentation of the company, the IT problem and/or the method of research are incomplete, some parts are missing or inaccurate.	4-7	
c) Description and presentation of the proposed problem and the research method is complete and clear	8-10	
4. The quality of the presentation of possible solutions to the practical problem / utilization of the research method, depth of analysis	0-15	0

a) The problem is not properly perceived and/or the ambition of searching for possible solutions is missing.	0-4	
b) Basic methods, professional principles, known opinions and proposed solutions are followed mechanically.	5-9	
c) The Student is aware of the problem, the context, and assesses the possible solutions properly.	10-15	
5. The quality of the results obtained, conclusions and proposed solutions	0-15	
a) The Thesis is a purely descriptive work, without any essential conclusions.	0-3	0
b) The conclusions are only partly acceptable, justified and proven.	4-6	
c) Processing with analytical aspect, mostly good, but with not too recent conclusions, significant practical adaptations.	7-10	
d) Correct and independent conclusions, convincing and exploitable proposals	11-15	
6. Structure of the Thesis	0-10	
a) Unstructured development, unclear, undue structure.	0-3	0
b) Disproportionate, parts are not built on each other in logical order or the structure is over- dimensioned.	4-6	
c) Proportionate, logical structure with clear logical inference among parts, correct emphasis and development of essential points and contexts.	7-10	
7. Style, language (correct use of terminology), grammar (spelling)	0-8	
a) Uneasy style, use of professional terminology is imprecise, a lot of spelling mistakes.	0-3	0
b) The use of terminology is correct, but the style is uneasy, the language-style several times is not correct, exact.	4-6	
c) Exact, correct language-style, easy-to-understand way of thinking, consistent use of professional terminology, fluent, enjoyable description.	7-8	
8. Standard of formal requirements (external display of the thesis, quality of diagrams, tables, the appendix)	0-8	
a) Negligent, non-aesthetic execution, unclear presentation.	0-3	0
b) Careful editing, but it includes formally unclear, incorrect, inadequate annexes, charts, tables, texts.	4-6	
c) High-quality and aesthetic external presentation.	7-8	
9. Formal requirements for scientific bibliographic references	0-4	
a) Resources are not mentioned and/or there is no bibliography.	0	0
b) Missing/incomplete bibliographic data, inaccurate references.	1-3	

c) The scientific bibliographic references are appropriate to the standard.	4	
10. Overall impression of the Opponent (See 4-5 sentences justification at “Written evaluation” part)	0-10	0
Overall score*	0-100	0

* If the thesis gets **0 points in any of the categories above**, it is unacceptable, so it has to be qualified with **fail (1)** grade.

Written evaluation:

Recommended grade based on overall score:

0-50 Fail (1); 51-65 Pass (2); 66-75 Satisfactory (3); 76-85 Good (4); 86-100 Excellent (5).

Grade:

Degree Thesis defence:

Suggestion for questions to be answered during Degree Thesis defence:

- 1.
- 2.

Pécs,

Opponent's signature