

# 1/2014 Dean's Order

On terms of topic and title selection of specialization thesis/thesis/degree thesis at the University of Pécs, Faculty of Health Sciences, formal and content requirements of writing, review procedure and terms of the dean's proposal application

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## I. Objective of writing the specialization thesis/thesis/dissertation (hereinafter: thesis)

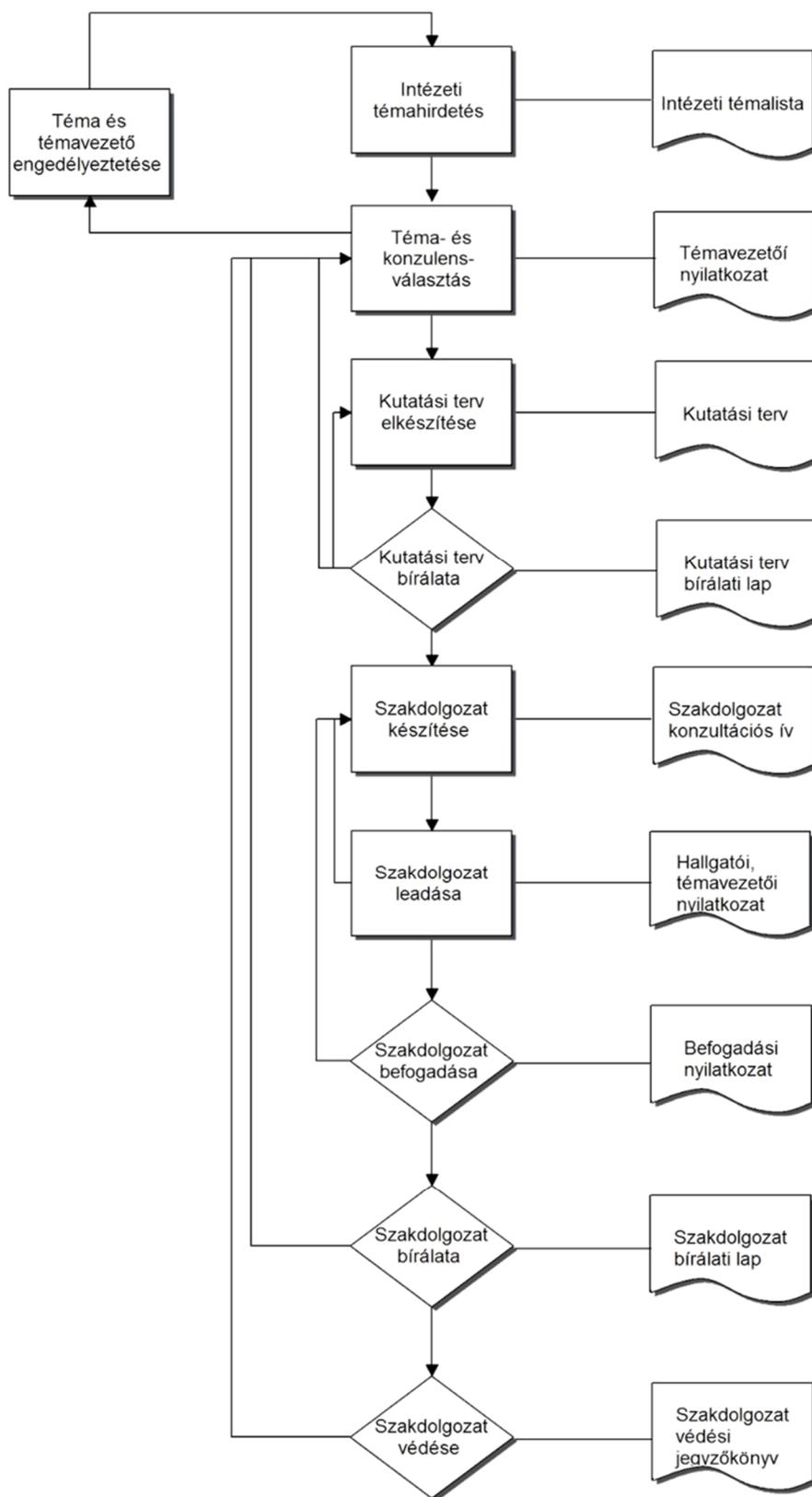
1. The students of University of Pécs Faculty of Health Sciences are obliged to write thesis for conclusion of their studies. The thesis is a scholarlike elaboration of a specific topic based on individual scientific work, completed with new findings in the topic that proves the thorough professional research methodology, biostatistics and IT theoretical knowledge of the student covering the relevant international and Hungarian researches of the domain, also proving expertise in their application in practice.
2. The student with the thesis must demonstrate that he/she is able to adopt the knowledge acquired in the specific domain or the processed scientific literature in a competent way. The thesis must show creative, individual results, proving critical skill and independent opinion of the student.
3. In order to achieve the above objectives, an essential principle of the thesis is demonstrating the conclusions based on individual results. This can be achieved by a thesis written based on individual (experimental, descriptive, exploratory) research, thereby the institutes may announce such subjects. In special cases however, with the chosen topic or character of training taken into account, it can also be completed with the application of qualitative analysis, comparative analysis, methodological scientific literature analysis, case study (at least with five cases) and meta-analysis of previous research results. In this case the condition of the topic approval is the supporting decision of the Thesis Methodology Committee. However, application and exposition of the relevant statistical methodology for proving adequacy of the conclusions is also essential here.

## II. The Thesis Methodology Committee

1. The Thesis Methodology Committee is a body acting to supervise the progression of thesis writing and professional quality of works to be submitted at the Faculty.
2. Main functions:
  - Provision of faculty supervision in thesis topic publication
  - Synchronization of scientific activities at the Faculty, in particular promotion of approximation of research topics for synergy purposes
  - Promotion of maintaining the quality of the scientific activities on behalf of the students

- Promotion of the Faculty publication activities both in case of students and academic persons
  - Publication of resolution concerning competent affairs and cases initiated by the Dean
  - Specification of the extent of permissible divergence from the regulations concerning thesis requirements at BSc or MSC training
  - Provision of proposals, in particular concerning form and content requirements of the thesis.
3. The members of the Committee are selected upon referral and appointment of the Dean of Faculty for indefinite period.
  4. Members of the Committee, ex officio, are the scientific and educational vice-deans, and the course leaders of the research methodology courses. In addition to them, among the members are academic professor(s) specialized in research methodology and biostatistics and other disciplines in the training profile of the Faculty. The number of the Committee members is not limited.
  5. Committee membership is ceased in case of dismissal, resignation, and membership of office is ceased in case the appointment is terminated.

### III. Process of thesis writing



Approval procedure of topic and supervisor	Topic announcement in institute	Topic list in institute
	Topic selection and consultant	Supervisor declaration

	invitation	
	Writing of research plan	Research plan
	Review of research plan	Research plan review form
	Writing of thesis	Thesis consultation form
	Submission of thesis	Student and supervisor declaration
	Admission of thesis	Admission declaration
	Review of thesis	Thesis review form
	Defense of thesis	Thesis defense report

FIG.1: FLOW CHART OF THESIS WRITING

#### IV. Announcement of thesis topics

1. The Faculty lecturers complete the list of the suggested thesis topics before the end of the spring semester of every academic year. Professors to be nominated as supervisors are obliged to publish at least three different topics.
2. Primarily, lecturers that acquired PhD might be obliged for fulfillment of consultant tasks, but only in those topics that strictly belong to their specialization or research fields. Involvement of faculty professors with academic degree (MSc) to fulfill consultant tasks is allowed with the consent of the head of institute, with the dean's written permission, if the professors without PhD have successfully completed further trainings to enhance their statistical methodological knowledge.
3. The supervisor lecturer should provide titles and short summaries of the propositions (in 4-5 sentences, research methods to be applied (questionnaire survey, documentation analysis, observational study etc.), statistics methods to be applied (preferably with naming the exact statistical tests) at least in three topics by filling in Annex 4.1. After this the supervisor should define the maximum estimated number of theses that may be submitted concerning a specific topic (i.e. not per semester), by providing the opportunity of the objectives' specificity, and thus the authenticity of the work. Finally he/she should indicate the major/specialization in that the announcement of the topic is proposed.
4. After collection of proposed topics at the institute, the head of institute sends them for the Thesis Methodology Committee (hereinafter: Committee).
5. The Committee decides if the proposed topics may be announced, and if necessary, amends the list. After the decision, the thesis topics are published at the Faculty website and, in parallel with it, the supervisors are informed on the decision or eventual modifications.
6. In case the student intends to research a topic that is not listed in the published topics list, approval is initiated by the head of institute of the chosen supervisor, after the supervisor's referral and by submitting the statement issued by him/her (Annex 1). If the head of institute would approve publication of this topic, he/she would forward the application to the Committee that would decide on the approval of the topic proposal.
7. If the intended topic or the research would justify it (i.e. qualitative analysis, comparative analysis, methodological scientific literature analysis, case study with at least with five cases or meta-analysis of previous results), a RESEARCH PLAN should be also submitted together with the application mentioned in the previous section, that would also be forwarded to the Committee in case of approval by the head of institute. The decision would be made by the

Committee based on the approval document. The Committee is entitled to make a decision, where condition of support would be that the evaluation of the completed thesis is performed by the Committee. In this case the head of institute would forward the thesis for review to the Committee that would conduct it.

## V. Topic selection procedure

1. The process of thesis writing starts with the selection of topic and by selecting the supervisor. The student should contact the assigned supervisor of the topic the student intends to research and then consult the possible objectives of the thesis. The supervisor lecturer (the head consultant of the student, hereinafter: supervisor) has the right to refuse the supervisor request, if justified. Particularly justified case is when over ten students are writing their theses under the particular consultant's supervision, independently from the status of writing progress concerning the individual students. But, based on consultation with the head of institute, he/she has to make certain that student would be able to write his/her thesis in the institute publishing the topic in this case also, i.e. he/she would be able to choose another consultant.
2. In case the supervisor has accepted the request, confirmed by filling in the „Topic, supervisor and consultant selection declaration“ form (Annex 4) jointly with the student, by designation of the chosen topic and the objectives to be taken into account, verified by his/her signature. The declaration, together with the research plan, must be submitted to the institute in charge! At this stage providing of the thesis title is not necessary.
3. The students in the course of writing their theses are also entitled to choose external special consultant as supervisors and consultants. Only professionals with academic degree and outstanding skills in the specific topic should be chosen as external special consultants. In this case and in this case only the consultant's PhD degree is not necessary. The head of institute decides on the approval of person of the external consultant.
4. In case the supervisor is external consultant, choosing an internal consultant is also obligatory. In this case the student should start by filling in V.1 and V.2 sections with contacting the internal consultant, in „Topic, supervisor and consultant selection declaration“ (Annex 4) by indicating the external consultant (in this case as supervisor) as well. The supervisor should be contacted with the declaration of the internal consultant.
5. The task of the internal consultant is promotion and supervision of the university/faculty requirements (see IX.4) and exercising faculty/institute supervision of thesis writing, including the grade proposed by the supervisor.
6. One student is allowed to write his/her thesis under the supervision of maximum two consultants. In the event both consultants are external professionals (the supervisor and consultant also), the student – in this case and in this case only – is obliged to choose internal consultant as the third one! Research under the supervision of three consultants (supervisor and two consultants) is permitted only in justified cases, in case professional specialized in the research topic cannot be found among the lecturers of the Faculty.

7. Joint tasks of the student and the supervisor based on the published research results are investigation of the following:
  - a) Significance, up-to-date character of the question to be examined and whether the topic can be substantially researched.
  - b) Does the scientific literature form such a theoretical context in which the topic of the research could be adequately included, whether the specific research is worth to be performed, whether adequate research can be performed by the application of the sample, research tools and statistical methods used in the research phase.
8. The consultant keeps record of the number of theses written under his/her supervision, personal data of the students writing the theses and the topics/titles of the theses.
9. Topic change could take place in justified case, in the event the student, after completion of the research plan based on reviewing and citing of the research results after the overview of the actual survey of the relevant Hungarian and international scientific literature. Based on that it can be decided, whether this specific research is worth to be performed in the specific field and whether the methods to be applied are appropriate for researching the topic. The signed and sealed „Topic, supervisor and consultant selection declaration“ form (Annex 4) has to be submitted in this case too! The head of institute (in charge of the specific training) assessing the research plan decides about the written application (Annex 3).
10. In case approved research plan is not submitted within two academic years, the topic selection is void; the student has to start a new topic selection procedure. The student is also obliged for a new topic selection procedure if the thesis is not submitted within three academic years after approval of the research plan.

## VI. The research plan writing process

1. After choosing the topic and inviting the supervisor (or consultant), the student may start writing of the research plan.
2. The objective of the research plan is the evaluation of the research topic's
  - a) scientific environment,
  - b) relevancy,
  - c) researchable character,
  - d) expected methodological (statistical) demands
  - e) expected efficiency and
  - f) preparedness of the student for individual research.

3. The formal requirements of the research plan – except for requirements concerning volume (VII.9.), binding (VII.10.) and cover page (VII.11.) – are consistent with the requirements of the thesis (Chapter VII.).
4. The following content must be included on the cover page of the research plan:
  - a) name of the student writing the thesis and the chosen topic – in the centre, on the left side;
  - b) university, faculty, institute and – if applied – department name – in the upper section;
  - c) name, status/title and workplace of supervisor – on the right side, in the bottom.
5. Volume of research plan: minimum 13.000 characters without spaces – without table of contents, bibliography, figures/tables and their titles and other annexes, minimum in 7, maximum in 15 typewritten pages.
6. Content requirements and articulation of the research plan

The research plan must contain the following chapters:

- a) Proposition, setting the objective (1-2,5 pages): in this chapter demonstration of the proposition and presentation of the exact objectives takes place.
- b) Hypotheses (1/2 page): In this chapter presentation of the hypotheses are requested, in case the student wants to make statistical hypothesis testing also, if required, the null hypotheses have to be presented as well! In case the student intends to present proposal not to be or unable to be analyzed via hypothesis testing, he/she has to present it as an objective!
- c) Scientific literature overview (4-5 pages): in this chapter presentation of the scientific environment based on overview of the up-to-date, relevant Hungarian and international scientific literature (by academic application, preferably from the last five, but maximum from the last ten years, more dated should be cited only where appropriate). The student is required to review at least 15 relevant sources, closely matched to the specific topic based on the following, as short summaries (but not by inserting their abstracts), with at least five Hungarian and at least five international publications to be listed:
  - (1) objective(s) of the research,
  - (2) place and date of research,
  - (3) description of the sample,
  - (4) applied methodology,
  - (5) results (the statistical results of at least five cited sources are obliged to be demonstrated in academic quality and precision as well)
  - (6) conclusions of the author.

The overview based on the above aspects – in case of the student's individual decision, with the approval of the supervisor – can be presented in table format as well. In this case the sources used designate 1 line of the table each, while the listed aspects designate 1 column of it.

- d) Planned research (1-2 pages): In this chapter the student is required to present the research underlying the thesis, according to the following:
    - (1) Type of research
    - (2) Planned place and date of research: presentation of the locations and period of the research (as accurately as possible).
    - (3) Defining the target group (if relevant, estimate number of the base population)
    - (4) Sampling procedure
      - (a) Method and process of sampling
      - (b) Detailed definition of inclusion and exclusion criteria
      - (c) Expected sample size (if the control group description is relevant)
      - (d) Sub-sampling (control group sampling) method, defining criteria (if relevant)
    - (5) Applicable methodology and procedure details (in case of questionnaire survey its set of questions, the range of data to be acquired, sources, etc.) with exact description of items planned to be used from another source, citation of source (in case there is no data borrowed, its declaration required)
    - (6) Statistical methods to be applied with presentation of the the variables (dependent and independent ones)
    - (7) Adequate name of software(s) to be applied
  - e) Expected results (1/2-1 page): presentation of the potential results, expected findings. In case they are unpredictable, indication and its short justification is needed.
  - f) Bibliography: please see section VIII.11 for its formal requirements.
  - g) Annexes: generally at this stage they are not requested. In case they are attached, it should be done according to contents of section VIII.12.
7. The research plan has to be submitted before the deadline in one printed and softcover copy (type of binding is optional) to the relevant institute and later, at the time of the thesis submission, in one digital copy (on digital data storage or later uploaded online). At this stage submission of the printed copy is enough, however, one digital copy identical in all respects with the printed version has to be submitted together with the thesis, thus it is practical to prepare the digital version at the time of printing (in PDF and editable version, see X.4.b.)(3)).

8. Reviewing of the research plans submitted before the deadline are done by filling in the „Research plan review form“ (Annexes 5.1 and 5.2) by the supervisor and the reviewer, by the approval of the institute.
9. In the event of occurrence of ONE aspect of the following in the course of reviewing of the research plan, ONLY fail grade can be provided, therefore only „not complied“ classification can be applied:
  - a. Failure to identify the statistical test applicable during the methodologically exact statistical processing of the research with the professional assistance of the consultant. (Proficiency level application of the statistical tests is neither expected at this stage, nor required, however identification of it with the consultant's assistance is obligatory.)
  - b. The literature overview does not contain the overview of at least 15 relevant research result publications (with at least 5 international and 5 Hungarian publications) in adequate detail concerning the research field and its frontier (objective of research, type of research, target group, sample, place and date of research, data collection methodology, identification of types of statistical analysis regarding at least five publications) from the last 5-10 years preceding the research. Naturally, besides abstracts accessed in the databases, full content of the relevant scientific literature publications is also an essential basis of the literature overview and planning of the research.
  - c. Objective of the literature overview is the following: acquiring knowledge concerning review of objectives, investigative methodology and main results of relevant international and Hungarian research cases and practicing of proficiency level usage of scientific databases.

Accordingly, reviewing basic information and evidences taken from books and notes are not acceptable (eg. anatomy, physiology, clinical basic principles etc.), or usage of information published for non-professionals or in not scientific works in printed (eg. daily newspapers) or digital (online) format, researched in not scientific databases.

Due to the objectives concerning literature overview, besides the above, incomplete citation or citation of the online database (eg. PubMed, Medinfo, Chinal, etc.) cannot be accepted, but the publication must be cited according to the standards (author, year of publication, title, title of periodical, volume, volume number, page number of the article).
  - d. Due to the above objectives, the literature overview in which the student would not review, present and cite the original publication presenting the particular research results, instead borrows items from other author's literature review and cites these secondary sources or lists the translation/literature overview as his/her own literature research result, cannot be accepted.
  - e. Plagiarism, that is copying of works (article, train of thought, sub-chapter, diagram, etc.) of other authors, parts or the whole, without citing the author, or usage of paraphrases (rephrasing of the text with the exact content but with the thesis writer's own words). In this case disciplinary proceedings are also justified.

- f. The proposition is unexplained, the objectives are vague, its hypotheses research evidences, its research material and methods are inappropriate (target group, sample selection method, item number, place and date of research, data collection methods, identification of statistical procedures).
  - g. In case the literature overview and the research plan is not completed in accordance with the regulations.
  - h. In case in any stage of the assessment it is proved that the literature overview and the research plan is not an individual work completed by the student, based on the consultant's instructions.
  - i. In case of questionnaire survey: In the course of the research the standardized (or not standardized but used in other researches, eventually in other languages) questionnaires are not reviewed and presented, main sets of questions of the individually compiled questionnaire are not presented, the research issue is not touched upon, is only superficially by the questionnaire, or is confined to the examination of evidences. The standardized and/or individually compiled questionnaire must be presented in the annex of the thesis; in the research plan the presentation of the main question sets is enough.)
  - j. In case of document analysis: The document analysis aspects are not presented.
10. The research plan cannot be accepted in case if in any of the two (supervisor and institute) reviews:
- a) „not complied“ classification is included in the assessment,
  - b) three or more „partially complied“ classification is included in the review aspects.
11. In case the research plan is not accepted, it can be re-submitted one time in the reference semester in a revised version, without conducting renewed topic selection procedure. Its deadline is defined by the institute, adjusted to the semester schedule. If rejected the second time, it can be submitted exclusively in the referred period of the following semester, in the course of conducting renewed topic selection procedure. In the reference semester, by the second submission deadline only the student, whose research plan has been rejected, is allowed to submit research plan.
12. The list of students are sent to the Registrar's Office until the end of each exam period, in summarized format (student identification data, selected topic, supervisor, date of acceptance of the research plan) by the institute, whose research plans have been approved in the reference period.
13. Consequences of final approval of the thesis topic selection and thus of the research plan, and the related deadlines:
- a) In case of 8-semester training: the research plan completed according to the regulations until the end of the 5th semester, is a prerequisite of the „Research methodology and biostatistics II“ subject (in case of Health Care and Disease Prevention BSc - Public Health Supervisor is a prerequisite of the „Professional practice II“ subject). The review sheet regarding the research plan (Annex 5.1) filled in by the supervisor and proposed for

approval has to be attached. The prerequisite of approval of the topic selection is the approval of the research plan by the institute in charge of the training (Annex 5.2).

- b) In case of 7-semester training: the research plan completed according to the regulations until the end of the 4th semester; is a prerequisite of the „Research methodology and biostatistics II” subject. The review form regarding the research plan (Annex 5.1) filled in by the supervisor and suggested for approval has to be attached. The prerequisite of approval of the topic selection is the approval of the research plan by the institute in charge of the training (Annex 5.2).
- c) In case of 6-semester training: the research plan completed according to the regulations until the end of the 3rd semester; is a prerequisite of the „Research methodology and biostatistics II” subject. The assessment sheet regarding the research plan (Annex 5.1) filled in by the supervisor and suggested for approval has to be attached. The prerequisite of approval of the topic selection is the approval of the research plan by the institute in charge of the training (Annex 5.2).
- d) In case of 2-4-semester training: the research plan completed according to the regulations until the end of the 1st semester, is a prerequisite of the „Research methodology and biostatistics III” subject (in case of Nursing MSc, Public Health MSc – Epidemiology and Health Promotion specialization, Nutritional Sciences MSc), „Research methodology and biostatistics II” subject (in case of Health Care Management MSc, Social Work in Health Care MSc), „Clinical Research II” subject (Clinical Laboratory Sciences MSc), „Public Health and Epidemiology I” subject (in case of Public Health MSc – Environmental and Occupational Health specialization) and „Physiotherapy IV” subject (in case of Physiotherapy MSc). The assessment sheet regarding the research plan (Annex 5.1) filled in by the supervisor and suggested for approval has to be attached. The prerequisite of approval of the topic selection is the approval of the research plan by the institute in charge of the training (Annex 5.2).

## VII. Formal requirements of the thesis

1. The thesis must be written in Hungarian, however, if the student requests it upon the recommendation of the head of institute, it may be written in a foreign language with the dean's permission. The assessment and its documentation will be written in Hungarian in this case as well. In case of students attending a foreign language program, the language of the thesis, the assessment and its documentation is the same as the language of the program.
2. Paper size A4 (29.7 cm x 21 cm) must be used, and Hungarian spelling rules must be applied to the thesis in conjunction with the wording of Brencsán Medical Dictionary (editor: Katalin Benjamin, 4<sup>th</sup> revised and expanded edition, Medicina Kiadó 2006, ISBN: 963 242 990 7).
3. The document must be simplex, that is, you may print only onto one side of the paper.
4. The font type must be Times New Roman, and the font size 12pt.

5. Numbering of pages must begin with the table of contents, located in the bottom right corners.
6. Paragraphs must be justified.
7. Margins: 4 cm on the left side, all other margins are 2.5 cm; line-spacing: 1.5-spaced.
8. Numbering the chapters (decimal numbering): Chapter and subchapter headings must be prepared using automatic numbering and heading function.
9. Minimum length of the thesis without spaces, abstract, table of contents, bibliography, figures/tables, their captions and other appendices (recommendation, acknowledgement, technical notes):
  - a. higher-level vocational training, higher-level specialist vocational training and higher-level postgraduate specialist training: 50,000 characters (min. 30, max. 50 pages);
  - b. BSc course: 70,000 characters (min. 40, max. 60 pages);
  - c. MSc course: 90,000 characters (min. 50, max. 70 pages).
10. The "bound" form of the thesis is black with golden lettering. The front cover must contain the following: the name of the University and the Faculty on the upper part of the left side; "SPECIALIZATION THESIS" (in case of higher-level vocational training and higher-level postgraduate specialist training), "THESIS" (in case of Bsc course), or "DEGREE THESIS" (in case of Msc course) in the middle; and the name of the student, the location of the course (city, e.g. Pécs) and the year of submission on the bottom right side. (Annex 2.1.)
11. The inside cover of the thesis must contain the following: the name and address of the student in the middle on the left side; the name of the university, faculty, institute and department on the upper part (bold, Times New Roman, 14pt fonts); under that centered the name of the student (capital letters, Times New Roman, 18pt fonts); on the bottom right side, the name, title and workplace of the supervisor (bold, Times New Roman, 14pt fonts). If an internal advisor assisted the thesis writing, the name, title and workplace of the advisor must be written under the supervisor's data. (Annex 2.2.)
12. The thesis/diploma work has to contain the table of contents and bibliography sections. The abstract has to be included on the page following the cover, followed by the table of contents (with page numbers), and made with the table of contents generator of the word processing software by auto-heading. The bibliography has to be included after the end of the thesis, preceding the annexes.

## VIII. Structure and required content elements of the thesis

1. Abstract: in Hungarian and English language. Short (at least 200, maximum 350 words) summary of the work, concluded by listing the keywords (at least 3, maximum 10.)
2. Table of Contents: with chapter numbers, chapter titles and numbering of pages.

3. Introduction: chapter demonstrating the personal motivation of the student, in which justification of the topic selection and description of its up-to-date character is explained.
4. Objectives: in this chapter presentation of the proposition and demonstration of the specific objectives are concluded. In this chapter presentation of the hypotheses is requested, in case the student is aimed to perform statistical hypothesis testing, the null hypotheses have to be presented as well! In case the student intends to present proposal not to be or unable to be analyzed via hypothesis testing, he/she has to present as an objective!
5. Scientific literature overview: in this chapter overview of the up-to-date, relevant Hungarian and international scientific literature (by professional application of it preferably from the last five, but maximum from the last ten years, more dated should be cited only where appropriate) for presentation of the scientific environment that helps the reader in the interpretation of thesis, identification of its values and assessment of novel conclusions. At least application of 15 sources is required, 1/3 of it is Hungarian, 1/3 of it is international publications, at least 5 sources are required to include qualitative results as well. In case of the latter ones explanatory interpretation of the statistical results is requested as well. Among the used sources there can be works not included in the research plan, published since the submission of the research plan, or deemed necessary to be cited after the date of submission. Presentation of curriculum material-level knowledge is justified only in case if not containing trivial information, thus citing curriculum sources should be avoided. The student is obliged to demonstrate the statistical results of at least five cited sources in academic quality and precision as well. The scientific literature overview should not exceed 50 percent of the volume of the thesis.
6. Investigative methodology: the chapter demonstrating the methodology of the individual researches, containing the following:
  - a) Type of research
  - b) Place and date of research: presentation of the locations and period of the research.
  - c) Defining the target group, if relevant, estimate number of the base population (number of items)
  - d) Detailed presentation of the sampling procedure, according the following:
    - (1) Method and process of sampling
    - (2) Detailed definition of inclusion and exclusion criteria
    - (3) Sample size (if the control group description is relevant)
    - (4) Sub-sampling (control group sampling) method, defining criteria (if relevant)
  - e) Details of applied methodology and procedure (eg.: in case of questionnaire survey its question sets, set of basic data, sources)
  - f) Presentation of items from other sources with citation (in case there was no borrowing, declaration of it is also requested)

- g) Statistical methods applied (identification of statistic method, significance criteria) and provision of the variables (dependent and independent).

Required statistical skills: in case of academic specialization special and further training descriptive statistics with provision of confidence limits, in case of BSc training application of mathematical statistical method examining the link between two, in MSc training examining the link between several variables. Deviation from this is authorized only in case of topic researched approved by the Committee defined in Section I.3.

- h) Specification of the applied IT software(s) (name of product, version number)

- i) Fulfillment of compliance of ethical aspects

7. Results: in this chapter the student presents his/her results and the interpretative figures, tables and graphs compiled on the basis on the results. This chapter serves only for presentation of statistical facts; conclusions are to be avoided in this section. Using any source materials, thus referencing them in this chapter is not academic practice, cannot be justified. It is advised to apply only figures and graphs that's visualization would help interpretation. Figures showing repeated data demonstrated in text before is unnecessary, with no other than placeholder purposes that would reduce the value of thesis at the review. The figures should be colored only to the extent necessary, the formatting of the figures and charts should be uniform. All figures have to include the sample or the sub-sample size (n=...), the charts have to include the names of the axes, and the dimensions of the displayed values. In the case of bar charts demonstrating statistically significant difference it has to be indicated with an „\*“ symbol above the column concerned. All figures and tables have to be accompanied with explanation that should be understood without the context. All figures and tables have to be referred in the text. In the text only essential information related to the figures and graphs have to be emphasized: detailed repetition of the data should be avoided in the text, if they are already included in the text.
8. Conclusions: this chapter contains the individual conclusions, demonstration of the opinion of the student based on the previously presented statistical results. It is absolutely obligatory to comment on every single aspect and hypothesis listed in the objectives: whether they are confirmed or not confirmed. Using any source materials, thus citing them in this chapter is not academic practice, cannot be justified.
9. Discussion: in this chapter the student demonstrates the consistency of the research topic – proposition – research results – conclusions process. Also in this chapter the student might compare the results of previous or international researches similar to his/her research, that is not obligatory but could improve the value of the work. Consequently, in this chapter literature sources can be applied that have been reviewed in the „Literature overview“ chapter. Here the author would determine further possible approaches; specific proposals related to the results of the research and describe the limits of his/her research. This chapter might be combined with the „Results“ chapter.
10. Acknowledgements: not necessary for mere compliment purposes. In case when specific persons or organizations has contributed substantially to the student's work, then displaying

it – in addition to words of appreciation and the gratifying feeling – is definitely justified. If the student would dedicate his/her work based on personal motivation to somebody, then he/she should not include that in this chapter but put on the page following the cover, containing only dedication! The acknowledgements are not to be counted in the required number of characters and pages.

11. Bibliography: traceability and identification of information found in the source material is an essential criterion of its compilation. Structured compilation of the bibliography is necessary, listing is recommended in due course of citing the first reference; however listing can be done according to alphabetical order by the surname of the first author. Citing is possible in numerical format (recommended) and first data item and date as well. All sources in the index can be listed only with the original bibliography details and only in one instance!

The student may choose from the following standards when compiling the bibliography:

- a) APA (American Psychological Association)
- b) ICMJE (International Committee of Medical Journal Editors) Vancouver Style

The composition of bibliography at the end of the thesis is recommended using the manage sources and bibliography function of the text editor software, or by its endnote function. In this latter case special attention must be paid that one source should be listed only in one occasion in the bibliography!

Approved citation standards are found in Annex 2.3.

12. Annexes: required to be submitted in print format, included in the thesis:
  - a) copies of head of institutes approvals, contributions of the institutes where the researches have been conducted.
  - b) research questionnaires, observational and review aspects in the format they have been applied.
  - c) All figures, charts and tables that are more than half a page long, that need to be identified by numbers, as they can be and have to be cited in the text! (Basic statistical data and calculations are not to be submitted in printed format; however they have to be attached electronically to the thesis!)
13. The diagrams cited in the thesis and compiled individually have to be identified with titles numbered with Arabic numerals; the tables have to be identified with titles numbered with Roman numerals. The numbering should be continuous. In case the total number of diagrams and tables is more than fifteen, an index of diagrams and tables has to be inserted after the bibliography section. Even if the number of diagrams would not justify it, the student may have a decision that he/she would include the index in the thesis and thus helping the reader.

## IX. Process of thesis writing, the consultations

1. The student is obliged to conduct consultations concerning his/her thesis with the consultant at least five times during the research plan and thesis writing process, at least one time per semester.
2. If the supervisor is an external consultant, the student is obliged to conduct consultations with the internal consultant at least two further times in addition to the above that has to be administered on the separate copy of Annex 6 (see IX.8)!
3. Tasks of the consultant in the course of the consultations:
  - a) provide assistance for the student in collecting and understanding of the scientific literature (relevant international and Hungarian scientific researches) related to the topic;
  - b) helps to choose the best relevant publications from the collected sources and guides the selection;
  - c) gives council for constructing the thesis structure based on the presented draft;
  - d) motivates the students in the development phase for conducting problem raising and solving and analytical work by providing his/her practical expertise;
  - e) gives guidance to the student after presentation of the draft thesis for necessary revision and correcting mistakes.
4. If the consultant is an internal consultant, or assists the student's research independently, as supervisor without an external consultant, his/her additional tasks are:
  - a) helps the student in the interpretation of the relevant institutional regulations
  - b) gives council in the course of the thesis writing process in ensuring the criteria provided in the regulations
  - c) supervises the enforcement of the ethical considerations, with special attention to the inclusion of institution licences where the research has been conducted and licenses of the ethical bodies.
5. The consultations may be conducted by attending the consulting hours of the lecturers, on appointment with the consultant or electronically (via the institutional e-mail address of the consultant).
6. Deadline of consultant's preliminary part reviews (e.g.: research plan), reviews and written counseling, answers and filling in the necessary declarations is maximum 10 office days on the consultant's side.
7. It is the student's obligation to contact his/her consultant for consultation at a time, after he/she would have enough time to implement the lecturer's comments in the thesis.

8. The consultant records in writing – on the thesis consultation form (Annex 6) – the steps and results of the work conducted during the consultations, and takes notes also if the student would not perform the tasks provided by the supervisor.
9. The student is obliged to verify the final text of the thesis with all consultants before binding it, written consent of all consultants is requested for the submission of the thesis (Annex 7.2). Deadline on the consultant's side is included in provisions of IX.6.
10. The consultant – by all means and methods available – is obliged to supervise whether the thesis contains truly individual research results and thoughts. In case if the structure, conclusions, writing style is identical in identifiable extent with another thesis or work of other person, the paper must not be approved to be submitted as a thesis!

## X. Thesis submission, review and defense procedure

1. The deadline for submission of the thesis is determined by the Faculty Council upon the proposal of the Study Committee; its date should be 40 calendar days before start of the final exam periods. This defined deadline is announced in the schedule of the academic year.
2. The student is obliged to indicate – 10 calendar days prior to the (not belated) submission deadline – by filling in electronically the „Thesis submission form” document (Annex 7.1) and by sending it to the e-mail address of the Registrar's Office ([szakdolgozat@etk.pte.hu](mailto:szakdolgozat@etk.pte.hu)). The subject of the e-mail has to be the following: NAME OF THE STUDENT – NEPTUN CODE. The title of the thesis cannot be modified from that point on!

If the student submits the thesis submission form after the defined deadline, the thesis submission of the student cannot be accepted, he/she has to submit the form again until the defined deadline before the next thesis submission deadline. Furthermore if the student submits his/her thesis according to the regulations, but would not initiate the defense procedure of the thesis or acquires „fail” mark at the defense, he/she has to submit the thesis submission form by keeping the later deadlines.

3. The student is entitled to submit application for exclusion of opponents (reviewers) from the opposition procedure in the event of real conflict of interest, by filling in the relevant part of the „Thesis submission form” (Annex 7.1). The acceptable and objective reasons of conflict of interest are when the following conditions exist between the reviewer and the student:
  - a) executive or employee status in the last 5 years or they work or worked at the same workplace (department, research group)
  - b) they are or have been close relatives,
  - c) they had shared publication(s) in the last 5 years, and
  - d) objective review of the thesis cannot be expected from the person involved in the procedure for other reason (eg.: conflict of interest). In this specific case the detailed justification of exclusion and accurate exploration of the reason is needed.

Verification of the conflict of interest is the head of institute's task, which could approve the application of the student, the student will not receive specific note of it.

4. The student is obliged to submit the following at the Registrar's Office when submitting the thesis:

a) the thesis bound in 1 copy

b) on non-rewriteable CDs in 2 copies, with the NEPTUN code, name, major/specialization written on the disc in non-deletable way:

(1) The disc title is the NEPTUN code of the student

(2) The following have to be inserted in the THESIS directory:

(a) electronic version of the thesis in not write-protected, print quality PDF document (document title: „thesis- NEPTUN.pdf“, NEPTUN is the NEPTUN code of the student)

(b) the electronic version of thesis in Microsoft Word format (with .doc or .docx extension) or editable OpenOffice (LibreOffice) format (with .odt or .sxw extension) (document title: „thesis- NEPTUN.EXT“, NEPTUN is the NEPTUN code of the student, EXT is the extension of file). It is recommended to apply format in which the document was originally written!

(c) in the ANNEXES directory the annexes have to be inserted in pdf and original format electronic version.

(d) in the CALCULATIONS directory the calculations concerning the data and charts published, and the digital files containing the register plates (if applicable)

(3) In the RESEARCH PLAN directory

(a) the electronic version of the approved research plan in not write-protected, print quality PDF document (document title: „researchplan- NEPTUN.pdf“, where NEPTUN is the NEPTUN code of the student)

(b) the electronic version of thesis of the approved research plan in Microsoft Word format (with .doc or .docx extension) or editable OpenOffice (LibreOffice) format (with .odt or .sxw extension) (document title: „researchplan- NEPTUN.EXT“, NEPTUN is the NEPTUN code of the student, EXT is the extension of file). It is recommended to apply format in which the document was originally written!

(4) The correct CD directory structure is the following:

- 👤 STUDENT NEPTUN
  - 📁 THESIS
    - 📁 ANNEXES
    - 📁 CALCULATIONS
  - 📁 RESEARCH PLAN

- c) The thesis consultation form (Annex 6).
  - d) The thesis submission declaration form (Annex 7.2).
  - e) If there have been any changes, the modification application, submission of the copy containing the approval is also required (Annex 3.)
  - f) Declaration of the authenticity of the thesis.
5. The appointed rapporteur of the Registrar's Office registers the theses according to programmes and departments, checks the inclusion of the thesis and the obligatory annexes submitted on digital data storage, and also whether they can be opened and not damaged, issues certificate concerning compliance with the formal criteria (Annex 8). The Registrar's Office sends the summarized list of the theses according to programs and departments (containing the name of student, name of supervisor, title of the thesis) to the head of the institute in charge who would appoint the opponents of the theses and informs the Registrar's Office about that.
6. The appointed rapporteur of the Registrar's Office sends
- a) The supervisor's review form to the supervisor of the student
  - b) To the opponent
    - (1) the opponent's review form
    - (2) the bound thesis
    - (3) the CD submitted by the student,
- and at the same time informs the reviewers concerning the place and deadline of the submission of the reviews.
7. The consultant and the opponent conduct the review by filling in the review form (Annexes 9.1 and 9.2). The reviewer of the thesis assesses the thesis based on the following criteria:
- a) compliance of the topic selection (to what extent does it fit into the academic curriculum and to what extent is it more in-depth. The thesis must be significantly more in-depth compared to the higher vocational training, academic special and further training, college, academic curriculum.)
  - b) structure, internal proportions, logic of the thesis and if the specific sections have been included according to their content gravity;
  - c) Compliance with the research and scientific ethical aspects, compliance of the reference system, ethics and whether the conclusions of the author of the thesis are distinct enough from other authors' conclusions and research results;
  - d) the writing style of the thesis;

- e) quantity and quality of the scientific literature reviewed, inclusion and profundity of the international and online scientific literature;
  - f) compliance of the applied research methods;
  - g) compliance of the applied statistical tests;
  - h) individual, creative findings, quality of interpretation of the results, adequacy of the conclusions;
  - i) readability, integrity in the context of the overall image of the thesis, fulfillment of the defined objectives;
  - j) other formal and content-related comments.
8. The opponent, who did not participate in the writing phase of the thesis as consultant of the student, formulates the questions in writing that he/she would ask concerning the thesis.
9. In the event of occurrence of ONE aspect of the following in the course of the thesis review, ONLY fail grade can be provided for the thesis:
- a) The thesis does not meet the above mentioned formal and content criteria. (single page printing on A/4 page; Times New Roman font; font size 12 pt; pages with page numbers; justified paragraphs; margins according to the above; numbering of chapters and subsections; properly completed table of contents and bibliography; minimum volume; proper cover and cover page; and adequate citation).
  - b) The topic in the title of the thesis is only concerned in minimal detail in the thesis.
  - c) The thesis contains data and information violating regulations.
  - d) The thesis contains basic factual errors concerning theory or practice.
  - e) Its volume or internal proportions significantly differ from the expectations.
  - f) Contains over 20 spelling, grammatical, stylistic and editing errors compromising understanding.
  - g) The literature overview does not contain publications demonstrating research results of at least 5 international and 5 Hungarian researches, in adequate detail concerning the research field and its frontier, from the last 5-10 years previous to the research. Furthermore the presentation is not sufficiently detailed regarding at least 5 sources (objective of research, type of research, target group, sample, place and date of research, data collection methodology, identification of methods of statistical analysis).
  - h) The application of inadequate statistical method.
  - i) The thesis is constructed from other work word-for-word without citing the original source (plagiarism).

„Plagiarism“ is publication of other authors' intellectual property (written work, thought) as the author's own, without any sign of indication of reference to the source. Plagiarism cannot be allowed according to the rules of academic dignity, if proved, it must mean assessing of the whole work with a „fail“ mark and rejection of it. In this case disciplinary proceedings are also justified.

Plagiarism is considered proven if the reviewer of the thesis finds the following:

- (1) copying whole works of other authors (thesis, article, train of thought, subsection, diagram, etc.), publishing it under the thesis writer's name without citing the author;
- (2) partial appropriation of other author's work, by borrowing important trains of thought, parts, subsections, diagrams, models without citing, or by citing the original work without clarifying the specific role of the author and the person borrowing in the development of the specific model, thought, etc.
- (3) usage of paraphrases (rephrasing of the text with the exact content but with the thesis writer's own words).

10. If both (opponent and supervisor) reviews would unanimously assess the thesis with a „fail“ mark, there is no room for second opponent procedure, the student cannot be permitted for thesis defense, and at the same time obliged for new topic selection procedure.

11. In case any of the reviewers (supervisor and/or opponent) identifies plagiarism, there is no room for second opponent procedure. Initiation of disciplinary procedures against the student is executed by the head of the institute in charge.

12. In case

- a) the opponent's or the supervisor's review is concluded with fail mark, or
- b) the results of the supervisor's and opponent's review differs more than two marks from each other,

the head of the institute in charge appoints a second opponent. The second opponent concerning the thesis review fills in Annex 9.2. In case the second opponent would review the thesis with a fail mark as well, the student cannot be permitted for thesis defense, and at the same time obliged for new topic selection procedure.

13. the study rapporteur sends the opponent's review of the thesis in non-editable electronic format to the student, who is allowed to inspect it in person before the defense, at the study rapporteur.

14. Students of Infant and Childhood Care higher vocational training according to the Vocational Education Act and the 20/2007 (V.21.) Organizational and Operational Rule are absolved from the opponent procedure.

15. The thesis defense period is defined every year in the schedule of the University of Pécs Faculty of Health Sciences, that period has to be published according to the publication practice of the Faculty. The date of the thesis defense is determined by the head of the

institute in charge, with the contents of the provision concerning the review committee composition taken into account. Considering the number of theses and engagement of the lecturers (by the provisions of the review committee composition taken into account) several dates can be set for thesis defense but in this case the particular thesis defense date concerning the individual students have to be defined.

16. A review committee for the thesis defense with three members has be formed, with its chair being the head of institute or head of department (associate professor or professor emeritus) but in any case a professional with academic qualification. One member should be the opponent of the thesis, and at least one member should be an external professional not involved in teaching the core subjects of the training or contracted for full-time work with the Faculty (external member).
17. The function of the thesis defense is the following: to ascertain the committee concerning the authenticity of the work, clarification of the eventual incompletions, contradictions of the thesis, and assessing the debate skills of the students. The student may correct and complete what is written in the thesis that has to be taken into account at the final classification of the thesis.
18. The grade given for the thesis, based on the opponent's proposal is determined by the committee, with the formal and content criteria as well as performance of the student during the defense taken into account. Arising from the objective, external professional and detailed assessment potential and the final grade given by the committee is allowed to be maximum two grades higher than grade proposed in the review of the opponent.
19. In the course of the defense there is no opportunity to improve the grade if there are significant formal and content-related incompletions and mistakes, since there is no possibilty to correct these issues in the thesis.
20. At the assessment it also has to be taken into account if the student is unable to contradict unequivocally the objections and criticism arising concerning the thesis, or unable to answer the questions asked in adequate detail. The student during the defense of the thesis must prove that he/she has acquired sufficient expertise and knowledge concerning the topic of the thesis exceeding the higher vocational education/BSc/MSc training requirements.
21. In the course of the defense it has be ascertained whether the thesis is the individual work of the student. All theses proposed for any grades have to be classified as „fail“ in the review by the committee, if
  - a) the student would not answer the opponent's questions in sufficient detail, substantially and adequately, by keeping appropriate professional standards, and
  - b) if it is proven that the thesis is not the individual work of the student or the required formal and content-related criteria have not met according to the review committee's consideration, or
  - c) or is not able for adequate oral presentation of the contents of the thesis, or

- d) does not have the appropriate level of professional background concerning the topic.
22. If the result of the thesis defense is a „fail“, the student is obliged to write a new thesis/degree thesis in the course of a new topic selection procedure.
23. The student is obliged to take the thesis from the Committee after the defense procedure or later at the Registrar's Office, while the electronic copy is forwarded by the Registrar's Office to the library (with publication of the grade of defense as condition for publication). The library is allowed to publish the thesis for research only in non-editable, write-protected format.
24. On the „Specialization Thesis/Thesis/Degree Thesis submission declaration“ form (Annex 7.2) students may request CONFIDENTIAL treatment of their theses, in which the electronic version of the thesis will be placed in the library, however – during the confidential treatment period - they are not permitted for access, delivered to or researched by students and third parties not involved in the review procedure. Considering that the purpose of the thesis – as of scientific activity in general – is dissemination of its results in the largest extent possible, confidential treatment may be requested only in particularly justified cases. Such cases are: potential violation of individual rights (if it cannot be eliminated during the writing of the thesis), potential violation of trade secrets, patent protection concerning products or services and potential significant damage to business interests due to the publication of the thesis. The student may request in these and only these cases a confidential treatment, submission of detailed justification annexed separately is also requested for its validation, containing the name of the enterprise, patent-protected products or services concerned, name and contact details of the discloser, also indicating why is it necessary to include these confidential information in the thesis. The timeframe has to be specified in the detailed justification as well, for which the student request limited access to the thesis. If not specified, the confidential treatment approved by the head of institute is limited to five years period. The discloser's declaration about fulfillment of the confidential treatment, expectations and requested timeframe of it is also submitted with the application. The confidential treatment application is approved by the head of institute based on the above mentioned formal and content-related criteria and by maintaining the possibility of consulting with the designated contact. If the submitted application is incomplete or unclear, the head of institute may order for its completion. With submitted discloser statement he/she may not consider the sensitive nature of the data basis for confidential treatment. If confidential treatment cannot be approved, the student is obliged to remove all sensitive data specified by the discloser! Confidential treatment of the thesis cannot affect the review and the defense procedure! During the defense only the members of the Committee, the consultant/supervisor and the opponent may be present in addition to the student.
25. The student is not allowed to submit work with the same title and content that has been successfully defended earlier by him/her. Citing an earlier thesis is possible but the science-ethical aspects have also to be applied.

## XI. Application terms of the dean's proposal, relation of the successful dean's proposal to the thesis

1. Out of the students' scientific applications submitted as dean's proposals, a number of applications equaling 1% of the active students graduating in the relevant academic year each program, but at least 1 person's application, may be accepted as a winning application.
2. Formalities, formal and content requirements of the dean's proposal, and the way of submission are the same as the requirements on the thesis specified in this dean's order. Deadline for submitting the dean's proposals: last business day of the third week of May of the current year.
3. Prerequisite of submitting the students' scientific activities as a dean's proposal is to fulfill one of the following three points:
  - a. The student has defended his scientific research topic and its findings as a thesis, during which the opponent's assessment and defense each concluded with an excellent mark.
  - b. The student achieved first, second or third place at the Scientific Student's Associations Conference of the faculty by demonstrating his scientific research topic and its findings.
  - c. The student has introduced his scientific research topic and its findings as the first author in a publication in an international journal qualified with an impact factor, as follows:
    - (1) in a journal qualified with an international impact factor,
    - (2) or, as a rapporteur of a scientific conference with a citable abstract, registered with an international impact factor.
4. The students' scientific work submitted within the framework of the dean's proposal application – after being checked by the Registrars Department if it complies with the conditions of submission specified in point XI.3 – is assessed by two opponents asked by the scientific vice dean based on the recommendation of the Scientific Committee. The primary task of one of the opponents is to assess the research methodological and biostatistic standard of the research paper.
5. The opponents prepare their review by using an assessment sheet (Annex no.11). The opponents send the research paper – within 2 weeks from the reception – with the completed assessment sheet to the scientific vice dean. If either of the assessors does not recommend the application for acceptance as a dean's proposal, the submitted work must be rejected as an unsuccessful application.
6. The student submitting a winning application accepted as a dean's proposal is rewarded the same way as the person achieving first place at the Scientific Student's Associations Conference of the faculty.
7. A dean's proposal that is a winning thesis may be accepted in case the winning dean's proposal was prepared and assessed in an earlier academic year (point XI.3.b) and 3.c)) than the deadline until which the student must submit the thesis, and the winning dean's proposal submitted for acceptance complies with the formalities, and the formal, content and submission requirements on thesis writing specified in this dean's order.

## XII. Other provisions

1. Entry into force: This regulation – in a phasing-out system – enters into force at the beginning of the academic year of 2014/2015.
2. Students of programs in foreign languages are subject to special conditions with regard to the following elements of the regulation, considering the limited access to the research work:
  - a. Options called special cases specified in point I.3. of this order (qualitative testing, comparative analysis, methodological scientific literature analysis, case study prepared by processing at least five cases, and meta-analysis of previous research findings) are ensured without a separate procedure, within institutional authority.
  - b. In case of preparing the research plan, by way of derogation from the regulation (VI.6.c), it is not necessary to process five Hungarian scientific literatures, but the minimum number of sources remains the same. This exception shall be applied in case of the requirements of literature analysis of the thesis (point VIII.5 of the Regulation). The exceptional rules regarding the representation of Hungarian scientific literature must be applied too when assessing the research plan (VI.9.b) and the thesis (X.9.g).
  - c. The process of preparing the thesis is the same as written in the Regulation, while the language of the thesis and the entire documentation (including the assessments) is the language of the program.
3. At the same time as this order is entering into force, the Dean's Order no.5/2008 is gradually ceasing to have effect so that its provisions shall continue to apply for the classes not affected by the introduction in the phasing-out system.

Annexes:

1. Application for selection of not announced thesis topics and consultant
2. Cover, cover page and bibliography sample
  - 2.1 Cover
  - 2.2 Cover page
  - 2.3 Bibliography
3. Modification application sample
4. Topic selection, supervisor and consultant invitation declarations
5. Research plan review form
  - 5.1 Supervisor review form
  - 5.2 Opponent review form
6. Thesis consultation form
7. Thesis submission documents
  - 7.1. Thesis submission form
  7. 2 Thesis submission declarations
8. Thesis admission declaration
9. Thesis review form
  - 9.1 Supervisor review form
  - 9.2 Opponent review form
10. Thesis registry form and defense report
11. Dean's proposal opponent review form