

Leaflet for Doctoral Candidates from Medical Section

The doctoral procedure is arranged according to the doctoral degree regulations of the Medical Section. The German version can be downloaded from the internet

The leaflet contains important practical supplements, that should be considered together with the doctoral degree regulations before you start to write your thesis.

I. Preliminary remarks

PhD supervisor and doctoral candidate agree upon the topic of the thesis and, if possible, a working place shall be offered. The relationship between PhD supervisor and doctoral candidate is based on free mutual agreement. The members of University of Lübeck who are qualified as lecturers are not obliged to accept certain doctoral candidates or to place certain topics.

II. Duplication of the thesis

According to the doctoral degree regulations 6 bound copies of the thesis have to be presented to the central examination office. The pages should be printed on one side only. **Ring wires** shall be used. If the thesis has not been published in a magazine, **25 DIN A5-**copies of the thesis, microfiches or CD-Roms have to be given to the central examination office within one year after the examination is passed. In case an abridged version of the thesis has been published or a joint publication exists, the PhD supervisor has to write a certificate certifying that the publication contains essential parts of the thesis. The central examination office will check and confirm the sufficiency of the publication.

III. Advices how to organize writing a thesis

The thesis has to prove the applicant's qualification for independent scientific work and for intelligible presentation of its results. It has to be an individual, new contribution to a scientific field. Joint theses are not allowed. If a thesis is developed in a working group, the applicant's individual work has to be distinguishable and clearly marked. Early before the work on the thesis has started, the topic should be defined as sharply as possible.

The working plan (arrangement of time, use of laboratories, prospective duration, size and use of auxiliaries for research, if necessary the applicant's participation in a team, that plans a joint publications) should be organized and agreed upon by doctoral candidate and PhD supervisor together, as to make the work progress efficiently.

The work for your thesis should start with a profound study of relevant literature. The doctoral candidate saves a lot of time at writing the bibliography (i.e. the repeated look at originals) lateron, if he/she immediately and completely marks all the necessary bibliographic data of all excerpts from the beginning onwards.

If the study of literature results in the fact that the intended work is not feasible, that someone else has already treated this topic, or that there is no chance to find relevant scientific results by the intended means, the doctoral candidate should return the topic to the PhD supervisor or suggest the amendment of either research plan or topic. The return of the topic should be done in writing. The same applies to the withdrawal of the topic done by the PhD supervisor. The present supervisor will confirm the taking back in writing. Only if the former duty is terminated this way, a possible new PhD supervisor will accept the doctoral candidate.

IV. Advices how to write a thesis

Title

The title of the thesis has to correspond as exactly as possible to topic and content of the thesis. It has to be worded in a way as to even make people who are no specialists in that field understand what it is about. Abbreviations and trade names should be avoided in the title.

Structure

The thesis has to be clearly structured, e.g. in the following main paragraphs: The list of contents, if necessary followed by a list of abbreviations, should be placed in front of the introduction.

- I. Introduction and statement of the problem
- II. material and methods
- III. individual research (resp. own findings, observations, results)
- IV. discussion
 1. literature survey (resp. former research)
 2. comparison of own research with former one
 3. critical integration of own results and conclusions
- V. summary
- VI. bibliography
- VII. attachments (e.g. big tables, casuistry, descriptions of techniques or instructions)
- VIII. expression of thanks (should contain links to help and support from others)
- IX. curriculum vitae

The single passages should be distinguishable by eye-catching headings. The structure of the thesis has to be identical in the list of contents and in the headings of chapters and passages. The reader should be able to easily find certain parts of the thesis without having to read many pages first. The list of contents has to mention the page-numbers, the pages of the thesis have to be numbered.

A thesis should be as short as possible and as detailed as necessary

Leading aspect of the description should be: Even persons who are not closely related to the special field should be able to understand which are the theoretical and methodological chains of reasoning the thesis is based on and according to which principles its results are obtained. In addition, persons who are specialized in the same field while following the details given by the doctoral candidate (e.g. bibliographical references and methodics) should be able to check how precisely and completely the doctoral candidate has comprehended the topic.

Introduction

Starting points (e.g. previous works done by the same team or in the same field) and problems mentioned in the thesis should be described in the introduction in a way that even persons who are not closely related to the topic can see where the thesis belongs to and what it aims at.

Material and Methods

Methods that have already been published or are well known should not be described. Only the principle should be mentioned as well as references to the corresponding literature. New or further developed methods on the other hand, same as the doctoral candidate's way of getting and interpreting own results, should be described as precisely as to make every expert able to repeat the experiments and to prove their results (reciprocity). Regarding theses with experiments on animals or clinical research there should be a remark in the passage "Material and Methods" that, if necessary, comments according to the effective law for prevention of cruelty to animals resp. of the ethic commission have been obtained. In cases of doubt the doctoral board of the section can contact the university's ethic commission for information. The thesis will be evaluated according to the doctoral candidate's own contribution. Therefore this contribution has to be clearly distinguishable. If

outside help for organization, statistics or data collection is used, it has to be clearly indicated.

Images and Tables

Images and tables have to be numbered continuously and to be provided with a legend. The reader should be able to see immediately, what it is about and what he/she shall learn from the image, without having to search for it in the text. Within the text references to images and tables have to note the image- and table numbers in question. What is mentioned in the legend does not need to be repeated in the text. It is sufficient to set a link in the text to the legend in question. Regarding micro-photograms etc. the image scale has to be marked, if it is not easily evident. If images or tables are taken from other theses the authority has to be mentioned in the legend (e.g. “designed according to“ or “from MÜLLER, 1990, image no. 3“). The copyright has to be respected. Abbreviations, signs, letters etc. within images have to be explained in the legend or the legends (with page-number) have to refer to those passages in the text that include the necessary explanations. It is useless to document results that are summed up in tables once more graphically. Non-informative numerical data should be omitted.

If authority data cannot be integrated into the thesis, it should be mentioned where they are found in order to make renewed evaluations possible. Regarding to the usage of measuring units only the internationally valid ones, e.g. SI-units are allowed.

Statistics

The use of figures (frequencies, quantitative values, e.g. measured values etc.) automatically leads to statistics. It can be descriptive and does not allow any further generalizing conclusions then, because only the relations in the own collective are shown. If generalizing conclusions are intended or necessary, statistical methods for assessment and checking have to be used, in order to draw a conclusion from the ratio of the random test on the so called “basic entirety“. If necessary it is suggested that the doctoral candidate asks for competent advice concerning the planning of test, observation or collection series and its statistical evaluation, e.g. in the Institute for Medical Statistics and Documentation or in the Institute for Social Medicine. The test and collection planning has to be reconstructibly described (in “Material and Methods“). Only thus outside observers can judge, whether the results are suitable for generalization, where systematic interference factors are situated and – if the results shall be compared with those of other researchers – whether they are comparable to each other (e.g. regarding the equivalence in observation, definition, structure and representation of collectives). The authority of a possible statistical advice should be mentioned.

References/Quotations

In the text authors can be quoted according to two different principles.

a.) names are mentioned as follows, depending on the fact whether one or more authors are concerned:

1. One author (Müller, 1980)
2. Two authors (Müller and Schmidt, 1980)
3. More than two authors (Müller et al., 1980)

Even if foreign publications are concerned, the word “and“ shall be used. If for one reference several authors of articles are mentioned, the order should follow the year of publication (Freitag, 1978; Müller and Schmidt, 1980; Sommer et al., 1990). If one author has published different articles within one year, small letters should be placed behind the year, same as in the bibliography. Each publication, mentioned in the text, has to be clearly determinable in the bibliography. Quotations in the text do not mention in the initial letter of the first name.

b.) The number used for a reference in the bibliography can also be inserted in brackets into the respective place within the text. If there are several references given, the order follows the numerical value. The single numbers are separated by commas, e.g. (5, 19, 137).

For quotation both alternatives are possible, but you have to decide for one and consequently adhere to it in the whole thesis.

Bibliography

The bibliography gives special information about the doctoral candidate's conscientiousness. It has to include all authors mentioned in the text and should not include anyone who is not mentioned there. The bibliography has to be continuously arranged in alphabetical order. Every authority mentioned in the bibliography has to be bibliographically described in such a way that an interested reader can find the original without problems. As far as the bibliographical details are concerned a distinction between two versions has to be made:

- a.) the originals, resp. their abstracts in magazines and
- b.) references from books (monographs, manuals, textbooks)

The details regarding a.) have to include:

- names and initials of the first names of all authors
- title of the publication
- name of the magazine according to the abbreviations in the "Index Medicus", mentioning the volume number, the page-numbers of the first and last page of the quoted abstract as well as the year of publication as shown in the following examples

e.g.: Fritz P, Schneider H, Heimburg P, Wegner G: Sekundäre hypertrophe Kardiomyopathie bei Morbus Fabry. Med Welt 29, 1851-1854 (1978)

Englisch quotations:

e.g.: Ferrans JV, Hibbs RG, Burda CD: The heart in fabry's disease. A histochemical and electron microscopic study. Am J Cardiol 24, 25-110 (1969)

It is not necessary to give any details about months or issue numbers. If a magazine has no volume numbers, the above mentioned method should be used without mentioning the number of the volume.

It should be acted accordingly, if a doctoral candidate had no way to get the original, although he/she tried to use the inter-library loan, but had to refer to the abstract.

The details regarding b.) have to include:

- names and initial letters of the first names of all authors
- if necessary the chapter, if voluminous publications resp. publications of several authors are concerned always the chapter
- all editors of the manual or of the publication written by several authors
- the title of the book, if necessary with volume number
- edition and the first page of the chapter the details used or quoted are located
- name of the publisher
- place the publishing house is situated (if more than one place is existing the first place is enough)
- year of publication and edition details

e.g. Gross R: Thromboembolische Erkrankungen der Lunge.

In: Maegeli Th, Matis P, Gross R, Runge H, Sachs HW: Die thromboembolischen Erkrankungen. 2. edition, 511-522, Schattauer, Stuttgart 1960

Theses submitted for PhD and theses submitted for the certificate of habilitation can be quoted as follows:

Author and title of the publication as usual. Afterwards:
Med. Diss. Bonn, 1954
Med. Habil. Schr. Bonn, 1954

The suggested form for quotations and bibliography does not have to be understood as dogma. Therefore small discrepancies, e.g. concerning the punctuation and the placement of the year-date, are allowed. It is important that one method is homogenously and continuously used and the bibliography is not once written this way and once another way. Abbreviations of magazines according to "Index Medicus" are absolutely necessary. Invented abbreviations are not accepted. If a magazine is not included in the Index Medicus, an abbreviation according to the principles used in the Index Medicus should be created.

Summary

The summary should not only include the results of the thesis, but also be a brief outline of the whole research concerning order – problem – material – methods – results and discussion. The reader has to get an idea of concept, basis and course of the thesis as a whole, even if he/she reads the summary only. But the summary should not be longer than one page yet. Abbreviations have to be avoided.

Thanks/Curriculum Vitae

On the page next to the last the doctoral candidate normally expresses his thanks to e.g. the director of the clinic or institute for his working place, for the cession of material and especially to the PhD supervisor for the topic and for his/her advices. In this passage persons, teams, laboratories and institutes, the doctoral candidate received help and advices from during the composition of his/her thesis, should not be forgotten as well.

A tabular curriculum vitae shall be put on the last page. In the curriculum vitae the period of time used for the thesis (the experimental research) should be indicated.

V. Style/Expression

The two referees and the doctoral board will also rate style and readability of the thesis. Therefore the doctoral candidates should try to write a clear and carefully chosen German or English language. Diffuseness, repetitions, inaccurate expressions and jargon should be avoided. The necessary should be clearly and precisely stated. The readers are educated physicians, but they are not always familiar with the details of the topic or the special subject treated in the thesis. They have no time to guess what the doctoral candidate could have meant or done.

The doctoral candidate and resp. his/her PhD supervisor are not only responsible for the subject-matter of the thesis, but also for its style and form. Every thesis is a scientific original and a historical document that is accessible to the public. Decades later it still shows a sections academic quality. A thesis that does not meet the formal requirements will be returned to the doctoral candidate for amendment.

VI. Shape

The 6 typewritten copies have to have written DIN A4 size. All parts of the thesis have to be combined to a single connected volume. The thesis has to be a clearly structured. Important data can be contrasted with less important ones by engagement and amendment of the line spacing. The line spacing should only in exceptional cases comprise less than 1.5 lines. A free margin of 3 cm width on the left (staple margin) and 2.5 cm width on the right as well as the spaces of upper and lower edge of the page should always stay the same. Additional information that impedes the fluency of the text, e.g. tables, literatures casuistries can be summed up as "attachment". All bigger tables, folded pages, planning documents and examples of questionnaires belong to the attachment.

The printed copies in DIN A5 form have to be clearly readable and solid. They will be integrated into the stocks of the university library. The printed copies have to be bound in a

way that the single pages are connected with a durable adhesive. This adhesive should be supported by a spine, that is permanently connected to the inner book. A thesis with a thin adhesive (mostly coloured) as spine and with pages that are easily coming off, will not be accepted.

The title-pages of the 6 bound copies as well as of the printed copies are to be made as per attachment 1. The title should be printed on the outer cover if possible. The second page of the 6 bound copies and the back of the title-page of the printed copies should have the following text only:

1. **Referee:** (in the printed copies the name of the PhD supervisor)
 2. **Referee:** (name – to be left blank in the bound copies, but to be inserted in the printed copies).....
- Day of oral examination:** (date - to be left blank in the bound copies, but to be inserted in the printed copies).....
- Granted for print. Lübeck,** (date – to be left blank in the bound copies, but to be inserted in the printed copies).....

VII. Criteria for the rating of theses, that will be considered by commentators and doctoral board

1. Formal Criteria:
 - language (spelling, punctuation, intelligibility to all, precise use of terms, expressiveness)
 - structure (clear structure, definition of aims)
 - external shape (graphical presentation, tabular recording)
 - proportion and length
2. Relevance of the problem
 - for the institution involved, in a wider frame
3. Realization of the thesis
 - variety of methods, independence in research activities
 - choice of adequate methods
 - own development of methods, resp. methodological progress
 - relevance of results
 - duration (calculated from the placing of the topic and in relation to the result)
4. Intellectual treatment of the data
 - critical valuation and statement, integration of own data in existing concepts with regard to the latest publications
 - arrangement and logic of the discussion
5. Publication of the results
 - as independent publication or as part of a publication. The publication in an acknowledged magazine is required for the marks “Summa cum laude“ and “Magna cum laude“. A list of publications should be placed behind the curriculum vitae.

Attachment 1 (example): center name and title

From the Clinic for
of University of Lübeck
Director: Prof. Dr.

Title of the Thesis

Thesis

for
the acquisition of doctorate
at University of Lübeck
- Medical Section -

presented by
first name and family name
from place of birth

Lübeck 2019

The application for admission to doctorate has to be presented to the chairman of the doctoral board of the Medical Section of University of Lübeck mentioning the desired degree. Chairman at present: Prof. Dr. med. K.-F. Klotz

Attachments:

- 1) 6 copies of the thesis, written in German or English language
- 2) a summary of the thesis in German language
- 3) 6 copies of publications, patents
- 4) a curriculum vitae on the last page of the thesis, with special emphasis on education and studies with passport photo
- 5) a police clearance (certificate of good conduct), form sheet 0, that will be directly sent to the university - central examination office - by the municipal office
- 6) a certificate of the successfully passed medical examination, resp. diploma or state examination
- 7) a certificate of the International Office
- 8) a statement about who has been the supervisor of the thesis and in which clinic or institute it has been written
- 9) a Votum of the Ethik-Comitte with Nr. and Date of the Votum
- 10) a Votum of the Animal Experiment-Comitee with Nr. and Date of the Votum
- 11) an affirmation that the thesis has been written without the help of others and that no other than the stated auxiliaries have been used
- 12) if case histories or patient reports have been used for writing the thesis, a declaration is necessary stating that the responsible medical or scientific director agrees to the presentation of the paper as "Inaugural"-thesis, unless he/she has not been the supervisor him/herself.
- 13) an affirmation that no other application for admission has been placed or that the thesis has not been presented anywhere else
- 14) a declaration whether and how the applicant has participated in another doctoral procedure
- 15) an address in Germany that is valid during the doctoral procedure. Every changement to this address has to be immediately announced to the examination office of University of Lübeck
- 16) if necessary, a declaration whether you disagree to the admission of other doctoral candidates, who have applied for the same examination, as audience

All of the declarations can be combined in one.

Please send all your documents to the following address:

Universität zu Lübeck
Zentrales Prüfungsamt
Ratzeburger Allee 160
23538 Lübeck

or present them personally at the
House 2, ground floor (room no. 8)
person in charge: Mrs. Puhl