

GUIDELINES FOR THE ASSESSMENT PROCESS OF THE DOCTORAL DEGREE AT THE FACULTY OF MEDICINE, UNIVERSITY OF BERGEN

Last revised and approved by the Programme Board for the PhD programme at the Faculty of Medicine and Dentistry on 23.10.2019.

I. On the assessment committee and these guidelines' relationship with other regulations and guidelines

The assessment committee should consist of one male and one female opponent, plus a chair who is employed at the Faculty of Medicine.

The legal competence of the committee members must be considered in accordance with the Public Administration Act Section 6-10. In addition, the members should normally not have cooperated on publications or have joint publications with each other or the candidate/supervisors over the last five years.

There should be no contact between the committee members and the candidate/supervisors during the assessment of the thesis, apart for questions regarding the date for the trial lecture and public defence. All other queries should be directed to the faculty.

The assessment committee is requested to state whether or not the thesis satisfies the formal and real requirements set out in the *Regulations for the Philosophiae Doctor (PhD) degree at the University of Bergen*, adopted on November 29 2018. *Guidance on doctoral theses at the Faculty of Medicine, University of Bergen* (revised 20.11.2019) should also be consulted.

II. The Assessment Committee's Recommendation

The assessment committee's recommendation is a written report, which first and foremost must evaluate whether the qualitative and quantitative scientific requirements have been met, so that the thesis can be defended for the degree of PhD. The committee should assess not only the scientific quality, but also the candidate's independent contribution. The report should conclude with a clear and unambiguous recommendation of whether the thesis is worthy of defence and provide a well-grounded justification for this conclusion. The committee may request to see additional data or ask for supplementary or clarifying information.

The quality of the individual parts of the work should be evaluated, by means of recognised quality measures if relevant. If the doctoral thesis includes material that has not been published in international refereed journals, the committee's written assessment should be particularly detailed. If any part of the thesis is not submitted to a scientific journal, the co-authorship statement should provide a detailed account of the candidate's contribution and a plan for publication should be provided.

The assessment committee should submit a joint written report. This should normally be 6-8 pages long. The report should be presented as one unified document in English, Norwegian or another Scandinavian language. Normally, the assessment committee does not need to meet, but if deemed necessary, the chair may apply (in advance) for the department to cover the expenses.

The assessment report should include the following elements:

1. A description of what forms the basis for the thesis, with separate discussion of the individual works and the summarising component accounting for the thesis. Normally, the individual

works will be published/accepted/submitted material for a scientific journal. Where these articles have more than one author, the role of the candidate should be addressed.

2. An assessment of the following elements, based on criteria (see below): Clearly and concisely formulated questions, use of methods that are adequate and can be repeated, precise presentation of results, critical assessment of results, use of terms and language within the academic field, adequate introduction. While assessing the thesis it should be considered that the summarising component is limited to 50-80 pages and that the candidate will have made some priorities within this framework.
3. A separate conclusion on the conditions for the assessment, and whether the thesis is found worthy of public defence.

When writing the report, the committee is recommended to consider the following:

- Title: Is the title adequate, accurate and not too long? Does it contain important keywords?
- Abstract/summary: Is there a short summary, including background, objective/purpose, materials/methods, results, conclusion, and consequences?
- Introduction: Is the background for the research and what it builds on described? Does the introduction lead on to the research questions that are the basis for the thesis? Is the literature review thorough and does it present state-of-the-art knowledge and research? Are relevant original publications mentioned? Does the introduction include an academic and contemporary context, and does it mention past studies of importance? Are illustrations and figures used adequately?
- Objective/purpose: Is the objective/purpose of the project presented clearly and concisely with a high degree of linguistic precision, and are they categorised into main goal and secondary goals?
- Material and methods: Is the presentation of materials and methods clear and concise, and does it include relevant details? Is reference made to already published/documented methods? Is a critical evaluation of the choice of methods and techniques included ("Methodological considerations")? Are ethical considerations in compliance with international standards and are all necessary formal approvals mentioned?
- Results: Are the most relevant/important results emphasised? Is it clear if and how the results contribute to progress within the academic field?
- Discussion: Is the discussion an objective and critical review of the candidate's own academic choices and results? Are strengths and weaknesses addressed, both in terms of methods utilised and results achieved? Are the results adequately presented in relation to existing knowledge? Is there a form of natural continuity within the work?
- Conclusions: Is there a summary of the most important results? Does the conclusion refer to and respond to the questions in the introduction?
- Future perspectives: Does this section include a description of how the work forms a basis for further development of the academic field? Should the results promote a change of opinion on a specific issue nationally or internationally? Should the findings lead to amendments or changes in routines, or new concepts?

- **References:** Are the references complete and are full titles listed? Are references to all sources listed, including sources for figures and tables? Is the list of references up to date and complete?

III Minor revision

The assessment committee may, on the basis of the submitted doctoral thesis and any additional material, recommend that the candidate is allowed by the faculty to make minor revisions to the thesis before the committee submits its final report. This should only be permitted if the recommended changes are not substantial, but would lift the thesis to a higher level. Minor revision should not be widely used, and the committee should only recommend minor revisions if they consider that reworking the thesis would give the desired effect within a maximum of 3 months. If the committee decides to allow minor revision, they must provide a written list of the specific items that the candidate must rework.

It should give some guidelines as to which areas should be improved without the recommendation being a guarantee that the thesis will be approved upon the final assessment.

If the committee finds that extensive changes in terms of theory, hypothesis, materials or methods are needed in order to deem the thesis worthy of a public defence, the committee must reject the thesis. An opportunity to submit minor revisions is not considered a second assessment, but postpones the original assessment. Such a recommendation does not affect the candidate's right to resubmit should the thesis be rejected.

The committee should send any recommendation for minor revision to the faculty and should not communicate with the candidate/supervisor(s). The Faculty will decide if minor revision is allowed and also decides a new deadline for the final assessment report.

IV Dissent/separate statements/rejection

Any dissent in the committee must be clearly expressed. If necessary, separate reports may be presented. The final report from the assessment committee offers guidance to the Faculty Board, which formally approves or rejects the thesis. If the thesis is rejected once, the candidate may submit a revised version. If the thesis is rejected again, this rejection is final.

V Deadlines

Within one month of receiving the thesis, the leader of the assessment committee should, in collaboration with the other committee members, doctoral candidate and Faculty, agree on a planned date for the public defence. The assessment committee should submit its written recommendation within three months of receiving the thesis. If there is a short time between the submission and planned public defence, the report must be ready no less than four weeks before the planned defence. The Faculty will inform the candidate of the committee's recommendation as soon as possible. The committee cannot have any contact with the supervisor or the candidate regarding the result of the assessment.

VI Trial lecture

At the Faculty of Medicine, the trial lecture is normally held the day before the public defence, or on the day of the Defence. The chair of the assessment committee is responsible for ensuring that the title of the trial lecture on a topic of the committee's choice is received by the faculty at least 4 weeks before the planned trial lecture. The title of the trial lecture should be submitted in writing. The topic should not be written as a question. The topic for the trial lecture should be within an important area in the field and should be interesting to both students and employees at the university and university hospital. The intention is to try the candidate's ability to gain knowledge outwith the topic of their own thesis, and the ability to present this in a lecture. The title will be treated as confidential until it is given to the doctoral candidate, 10 working days before the date of the trial lecture.

The length of the lecture is 45 minutes, followed by questions and discussion (15 minutes). The trial lecture must be approved by the assessment committee before a public defence can take place. The acting Dean (chair of the lecture) does not wear the gown during the trial lecture.

After the trial lecture and the discussion, the acting Dean, the committee and the candidate all leave the room and the committee withdraws to decide whether the trial lecture can be approved. The acting Dean can be in the same room, but does not take part in the assessment. As soon as the committee has reached a conclusion, the acting Dean informs the candidate. If the trial lecture is approved, all re-enter the lecture hall, and the acting Dean announces the result and that the public defence will take place as planned.

If the assessment committee does not approve the trial lecture, a new trial lecture must be held. The new trial lecture should be held over a different topic, no later than six months after the first attempt. A new trial lecture may only be held once, and should, if possible, be evaluated by the same committee that evaluated the first trial lecture.

If the trial lecture is not approved, only the acting Dean and the assessment committee re-enter the room to inform the audience about the result, and that the public defence cannot be held until a trial lecture is approved.

The committee's recommendation must be substantiated if the committee recommends a fail. A date for the new trial lecture will be announced as soon as the leader of the committee and the Faculty has agreed on a date.

VII Public defence

The public defence should take place no later than two months after the deadline for submitting the assessment report. At the public defence, the first and second opponents each submit an oral opposition, aiming to present a critical analysis of the thesis. Central aspects of the thesis are discussed with the doctoral candidate, on this occasion in greater detail than in the written statement. The opponents must use the opposition to point out the strong and weak points of the thesis and to judge its quality, its probative force, and the level of its information value. The opponents, primarily the first opponent, must place the thesis in a wider scientific context. The discussion is to be led in such a way that it will be fruitful for the candidate and the scientific group to which he or she belongs, and still be of interest to the audience.

The opponents should agree in advance on how they share the tasks between them. There are no detailed rules concerning this aspect. Generally, the structure of the thesis and/or the scientific background of the opponents will suggest a natural distribution of tasks. For example, each of the opponents may concentrate on a particular group of papers, or each may concentrate on particular aspects of all the papers.

The doctoral candidate initiates the defence by presenting the objectives and results of the scientific study. The introduction should not exceed 30 minutes. Then the defence continues in the form of a discussion of the thesis involving the opponents and the doctoral candidate. If the opponents have specific remarks about formal aspects of the thesis, the usual procedure is for the second opponent to bring these up. Technical aids (blackboard, overheads, slides, video projector, etc.) may be used. This should be arranged in advance so that such aids are installed and ready for use.

The first opponent in a normal defence has 60-120 minutes at his/her disposal, and the second opponent has 45-60 minutes. A short break can be placed between the opponents. The opponents should both conclude their opposition by summarising their own evaluation of the thesis. Opposition *ex auditorio* is permitted, and should be agreed with the chair of the public defence (acting Dean) no later than in the break. Opposition *ex auditorio* takes place before the second opponent takes the floor. Such contributions should be well prepared and precise, and should aim to enrich the scientific discussion. Anyone present may participate. The chair of the assessment committee may also present his/her opposition in this way.

When the opposition is completed, the acting Dean, the committee and the candidate all leave the room. The committee then withdraws to decide whether the public defence can be approved. The acting Dean can be in the same room, but is not part of the assessment. As soon as the committee has reached a conclusion, the acting Dean informs the candidate. If the public defence is approved, all re-enter the lecture hall, and the acting Dean announces that the defence is recommended approved, and that the recommendation will be submitted to the University Board.

The doctoral candidate, his/her research group and department may be congratulated briefly. The candidate may also offer his/her thanks before the acting Dean brings the defence to a close.

If the public defence is not approved, the candidate may defend his/her thesis again, once. A new public defence can be arranged six months after the original defence, at the earliest, and should, if possible, be evaluated by the same committee that evaluated the first defence. If the public defence is not approved, only the acting Dean and the assessment committee re-enter the room to inform the audience about the result, and that a new public defence will be announced later.

VIII Entry and exit

The protagonists proceed into the auditorium in the following order: Acting Dean, doctoral candidate, chair of the assessment committee, second opponent and first opponent. The acting Dean opens the procedure by giving the floor to the candidate. He then asks the first opponent to step forward. The second opponent is called forward after any opposition *ex auditorio*. The acting Dean closes the defence and proceeds out of the auditorium followed by the doctoral candidate and the assessment committee. The dress code for opponents is business formal.