

Guidelines for evaluation of PhD theses at Norwegian University of Life Sciences, Faculty of Chemistry, Biotechnology and Food Sciences

These guidelines aim to facilitate a common understanding of expectations to the PhD thesis at the Norwegian University of Life Sciences, and to help the evaluation committee to prepare in a timely manner.

Administration of the committee

The local member (the 3rd opponent) of the evaluation committee serves as its coordinator (NMBU's representative in the committee), and coordinates the writing of the assessment of the thesis using Form 4.4. The evaluation is a joint text, based on the inputs from each external opponent. If dissenting opinions, it may contain individual statements. Please note that all communication between the evaluation committee and the PhD candidate or supervisors, should be channelled through the Committee coordinator. If in doubt, the coordinator should consult the Head of Research at KBM.

Timetable for Scientific work of the evaluation committee:

When	What
6 weeks prior to the planned date of defence:	 The 1st and 2nd opponent provides inputs to the coordinator for the joint evaluation statement. The coordinator prepares a joint statement report & conclusion (normally 2–3 pages) using <u>FORM 4.4</u> "Assessment of thesis". The table in part B should be filled in by each of the external opponents separately. The evaluation committee agrees on the final report.
At the latest 25 working days before defence:	The coordinator forwards the evaluation of the committee (form 4.4) to the faculty administration and PhD candidate.
On the day of the defence:	The evaluation committee evaluates the defence and fills in FORM 4.5 "Statement from the Evaluation Committee".

Timetable for practical issues, flight and hotel bookings, reimbursements, etc:

When	What
If/when the thesis is approved	Opponents are requested to book flight tickets: Please plan for
for public defence	arriving in the afternoon/evening the day before the defence
	and stay till the day after. If you leave on the day of the
	defence, we ask that you book a flight departing from OSL at
	20:00 or later
When you have your flight	Please let us know your arrival and NMBU will take care of
scheduled	hotel bookings (usually in Oslo, Ski or at the Oslo Airport
	Gardermoen)
Ahead of the defence (in the	The committee will prepare and discuss the share of work at
morning on the day of defence	the defence. Depending on arrivals, the committee will
or the evening before)	sometimes meet for dinner the evening before the defence.
Dress code at the day of the	There is no strict dress code, but public defences in Norway are
defence	quite formal (jeans not recommended).



When/if the defence is	A small celebration on spot. Most often an evening party
approved	arranged by the candidate.
After the defence	Send reimbursement forms to

Schedule for the defence (the regular way, variations/divergences may be agreed):

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When	What	
11:00 - 12:00	Lunch (committee, supervisors and chair of defence)	
12:15 - ~15:00	Public defence:	
	 The candidate gives a ± 30 minutes presentation of the thesis. 	
	 1st opponent discusses the thesis with the PhD candidate for ± 45 minutes. 	
	 2nd opponent discusses the thesis with the PhD candidate for ± 45 minutes. 	
	 The 1st and 2nd opponent may choose to organise the discussion with the candidate in shorter sequences, the discussion should be closed after a total of 90 minutes. 	
~15:00	Committee convenes.	
	 The committee presents its results to the candidate and audience. 	
	• The evaluation of the thesis, <u>FORM 4.5</u> "Statement from the Evaluation	
	Committee" is signed and handed in to the faculty by the coordinator.	

Regulations concerning evaluation of the thesis.

The "Regulations for the degree of Philosophiae Doctor (PhD) at the Norwegian University of Life Sciences" describes the requirements for the PhD thesis and the work of the evaluation committee in Sections 10 and 14:

Section 10 The thesis

Section 10-1 Thesis requirements

- (1) The thesis must be an independent scientific work or development work that meets international standards with respect to academic level, ethical requirements, and methods within the field.
- (2) The thesis must contribute to the development of new scholarly knowledge and be of sufficiently high academic quality to merit publication as part of the literature in the field, or in an appropriate format as part of the research-based knowledge development in the field.
- (3) The thesis can be a monograph or a compilation of several pieces of work in the form of scholarly manuscripts and/or articles. If the thesis consists of several part-works, the thesis must contain an introductory chapter ('kappe') that documents the coherence between the part-works, and, from an overall perspective, summarises and collates the research questions and conclusions presented in them. The PhD candidate must be the sole author of this introductory chapter.
- (4) The main component of the doctoral thesis can consist of a new product or a systematised collection of material, or it can be presented in a different way (for example, sound, images, video, electronic forms of presentation) where its theoretical and methodological basis is not apparent from the product itself. In such cases, in addition to presenting the product itself, the thesis must have an additional part. The additional part must consist of a written account of the research



question, the choice of theory and methods, and an assessment of the result in relation to international standards and the academic level within the field.

- (5) If the thesis consists of several scholarly works that have been produced in cooperation with other co-authors, the PhD candidate should normally be the main or first author of at least half the manuscripts/articles. The Vancouver Convention's standards for co-authorship must be complied with. Upon submission of the thesis, each scholarly work with several co-authors must be accompanied by a declaration describing the PhD candidates' contribution and the contributions of each co-author. The declaration must be signed by both the PhD candidate and the co-authors. The PhD candidate is responsible for obtaining such declarations of co-authorship.
- (6) The thesis must be written in either English or Norwegian. In both cases, the thesis must contain a brief abstract in English and a brief abstract in Norwegian.

Comments to the regulations:

NMBU's PhD regulation has no lower limits concerning number of articles, number of published/accepted articles, or number of articles with PhD student as first author. KBM normally recommends at least 3 publications, with minimum one of them published/accepted for publication. The evaluation committee is to decide if the work is sufficient for a PhD degree within the given research field (also paying attention to the co-authorship declarations that will follow the PhD thesis).

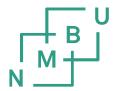
Section 14 The work of the evaluation committee

Section 14-1 General provisions

The committee's coordinator must inform external members of the evaluation committee about NMBU's PhD Regulations and the current guidelines for evaluation of doctoral degrees (https://www.nmbu.no/en/research/phd/regulations_guidelines). From the committee is appointed until the doctoral degree exam has been completed, there must be no contact between supervisors and the committee concerning the PhD candidate or the PhD candidate's work.

Section 14-2 Evaluation of the thesis

- (1) When evaluating the thesis, particular emphasis must be placed on whether the thesis meets the requirements set out in Section 10. An overall assessment must be made, and the thesis's strengths and weaknesses considered, including an evaluation of whether the material and methods are appropriate in relation to the questions raised in the thesis, and whether the arguments and conclusions presented are tenable.
- (2) The evaluation committee may request to look into the source material used by the PhD candidate, and also request supplementary information for the purposes of elaboration and clarification.
- (3) Based on the submitted thesis and any additional material, the evaluation committee can recommend the Faculty to permit minor revisions before the final recommendation is made. In its preliminary recommendation, the committee must provide a specified written list of what the candidate needs to revise. If the Faculty permits such revisions, the PhD candidate will be given a deadline normally not longer than three months to revise the thesis. The PhD candidate cannot appeal decisions made by the Faculty pursuant to this provision. The evaluation committee is to be given a deadline of up to six weeks from they receive the revised thesis until they submit their final recommendation.



(4) If the committee finds that fundamental changes with respect to theories, hypotheses, material or methods are necessary before the thesis can be recommended for public defence, the committee must submit a recommendation that the thesis is found not to be worthy of a public defence for the PhD degree.

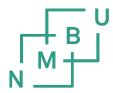
Section 14-3 The evaluation committee's recommendation

- (1) The committee must submit a joint reasoned recommendation to the Faculty on whether the thesis is worthy of a public defence for the doctoral degree. All parts of the submitted or presented documentation must be reviewed on the basis of the criteria in Section 10. The recommendation should be written in a discussion-based form and it should end with a clear conclusion that the committee:
 - a. recommends that the thesis be approved for public defence, or
 - b. recommends that the Faculty permits minor revisions of the thesis before the final recommendation is made, cf. Section 14-2 (3), or
 - c. recommends that the thesis not be approved for public defence (rejected), cf. Section 14-2 (4).
- (2) In its recommendation, the evaluation committee must state their judgement on the level of the thesis in relation to the international standard in the field.
- (3) Any disagreement between the committee members must be mentioned in the recommendation, and individual statements, if any, must be enclosed with the recommendation.
- (4) The committee's recommendation must be available within three months of the committee receiving all parts of the thesis for evaluation, and no later than 25 working days before the planned public defence. If the Faculty permits minor revisions of the thesis, cf. Section 14-2 (3), a new deadline will apply from the date on which the thesis is re-submitted.
- (5) The Faculty communicates the evaluation committee's recommendation to the PhD candidate and the main supervisor. The PhD candidate is to be given a deadline of 10 working days to submit written comments on the recommendation. If the PhD candidate does not wish to submit comments, he/she must inform the Faculty about this as soon as possible. If the PhD candidate's comments have a bearing on the question of whether the thesis can be approved, the comments should be presented to the evaluation committee before the Faculty makes a decision on the matter.

Section 17 The doctoral exam - public defence

Section 17-2 Public defence of the thesis (disputation)

- (6) The public defence is chaired by the Dean or a person appointed by the Dean. The chairperson gives a brief account of the submission and evaluation of the thesis and of the assessment of the trial lecture. The PhD candidate will then explain the purpose and results of the doctoral work.
- (7) The public defence is to be a scholarly discussion between the opponents and the PhD candidate on the formulation of research questions, the methodological, empirical and theoretical basis of the thesis, and the documentation and form of presentation. Particular emphasis should be placed on



testing the tenability of important conclusions drawn by the PhD candidate in the thesis. The questions the opponents choose to pursue need not be limited to those discussed in the committee's statement on the thesis. After both opponents have concluded their questioning and the PhD candidate have been given the opportunity to defend the thesis, members of the audience must be given the opportunity to comment *ex auditorio*. The chairperson concludes the public defence.

(8) The evaluation committee submits a reasoned recommendation to the Faculty in which the committee describes how it has evaluated the defence of the thesis. The report must conclude on the question of whether the public defence is approved or not approved.

Section 17-3 Approval of the doctoral degree exam

- (1) If the evaluation committee unanimously recommends approving the public defence, the Faculty may, without further consideration, approve the doctoral degree exam as a whole.
- (2) If the evaluation committee's recommendation is unanimously negative or split, the Faculty must consider and decide the question of whether to approve the public defence. If the Faculty does not approve the public defence of the thesis, the PhD candidate can be given one more attempt at defending the thesis. The Faculty decides when the new public defence will take place. A new public defence cannot take place until six months have elapsed, and, if possible, it should be evaluated by the committee who evaluated the thesis and the original public defence.