
Guidelines for preliminary examiners of doctoral dissertations

Aalto University School of Chemical Engineering

According to the Doctoral dissertation at Aalto University (1 Dec. 2015), a doctoral dissertation is either one extensive manuscript – a monograph – or an article-based manuscript, supplemented with a compendium of these publications, which summarizes the goals, techniques and discoveries of the research. If it is an article-based manuscript, it is generally expected that all articles should have been published, or have been accepted for publication at the time of submission for pre-examination. It is, however, permissible for one or more of the articles to be in manuscript form, provided it/they have been submitted for peer-review. An article-based dissertation may include co-authored publications, if it is clearly demonstrated that the doctoral candidate has independently contributed to the writing of them.

An article here is taken to mean a refereed (peer-reviewed) scientific full paper which has been published or accepted for publication in a scientific journal or other refereed printed work. The manuscript of the dissertation submitted for preliminary examination must be complete and its language must be of high quality.

Pre-examination

The manuscript as a whole must be examined and accepted by a minimum of two pre-examiners before it can be published as a doctoral dissertation. After successful completion of the pre-examination process, the dissertation will be defended in public at a defense event organized by Aalto University School of Chemical Engineering (CHEM). The pre-examination process is not anonymous; the names of the pre-examiners and the opponent(s) are published in the final hardcopy of the dissertation. Aalto CHEM dissertations are available online at <https://aaltodoc.aalto.fi/handle/123456789/51>

Tasks of a pre-examiner

The purpose of the pre-examination is to determine whether the manuscript fulfills the general quality requirements of a doctoral dissertation. Therefore, particular attention should be paid to the following aspects:

1. The dissertation must contain new scientific findings in its area of research.
2. The methods, experimental set-ups, measurements, and the data presented in the dissertation should withstand scrutiny appropriate to scientific research.
3. The doctoral candidate should present his/her achievements and assertions clearly and scientifically.

Additionally, pre-examiner shall evaluate the manuscript and the doctoral candidate's contribution compared to other recent dissertations accepted within the similar areas of research. Please suggest whether the thesis manuscript is the range top20%/excellent or not.

A pre-examination statement is a report of between 1 and 4 pages in length, bearing the official letterhead of your institution. In his/her final statement on a dissertation

manuscript, the pre-examiner should comment upon whether the candidate's contribution to the dissertation has been sufficient to warrant the award of a doctoral degree. With this in mind, please consider whether the description of the author's contribution allows an objective evaluation to be made about the research work undertaken by the candidate.

The pre-examiner should approach an article dissertation as a whole, regardless of the fact that the separate articles may have already been published in refereed series. The pre-examiner should pay special attention to any submitted article(s), which has/have not yet been accepted for publication. The same rule also applies to Open Access publications, such as PloS One, as their evaluation process differs from the classical scientific peer-review system. Other points to consider: are the publication forums appropriate and do they reflect the quality of research work presented in the compendium part of thesis. It is required that an article dissertation, examined as a whole, fulfills the scientific requirements of a scientific dissertation.

When examining a dissertation manuscript, the pre-examiner may compare it to the standard of the dissertations accepted in his/her own university. The final statement should include an assessment of the scientific quality of the pre-examined manuscript compared to a standard expected of a dissertation. Here scientific quality refers to *inter alia* knowledge of major theories and recent research within area, originality, contribution to the field and the quality of research presented by the manuscript.

If necessary, the pre-examiner may discuss the thesis with the doctoral candidate or with the supervising professor in order to confirm arguments, aspects or data presented in the thesis. Owing to the time limit imposed on the pre-examination, the pre-examiner should not embark on an actual supervision of the research by the doctoral candidate. The pre-examination statement shall discuss the original manuscript submitted for examination and not possible revised versions. In his/her statement, the pre-examiner may propose additions, corrections, and deletions to the thesis (monograph) or to the compendium part of the thesis (article dissertation).

Towards the closing of his/her statement, the pre-examiner must clearly state whether or not the dissertation should be granted permission to publish.

Attach this grading table to your statement:

General quality requirements for doctoral thesis manuscripts Pre-examiner _____ Doctoral candidate _____	Your evaluation of this thesis: Mark only one box on each row		
	Top20% (Excellent)	Pass	Fail
1. Does this dissertation contain new scientific findings in its area of research?			
2. Consider the methods, experimental setups, measurements, and the data presented in this			

dissertation. Do they withstand the scrutiny appropriate for scientific research?			
3. Does the doctoral candidate present his/her achievements and assertions clearly and scientifically?			
Compared to other recent dissertations accepted by your university or within similar areas of research, is this manuscript in your opinion Top20% OR Pass OR Fail?			

After the Doctoral Programme Committee has received the pre-examination statements, it will, at its discretion, request from the doctoral candidate a response to the all these comments. The doctoral candidate must submit to the Committee the revised manuscript together with a report of corrections made accordingly, confirmed by the supervising professor. The Doctoral Programme Committee may also decide to send the revised manuscript for additional review to the pre-examiners.

A pre-examiner is requested to present his/her statement on official letterhead within the deadline presented in the official request letter, so that the examination process of the dissertation can be completed within the time set by the regulations of the Aalto University. In case the submission of statement is late from given deadline, the Doctoral Programme Committee may be obliged to consider appointing another pre-examiner.

The pre-examiners shall submit their statements directly to the Secretary of the Doctoral Programme Committee. Minor stylistic corrections can also be submitted directly to the doctoral candidate. However, all comments and corrections suggested by pre-examiner must be acknowledged in the statement and included as an appendix to the statement.

Please note that we do not need an additional signed paper copy per regular mail, if the electronic or scanned statement delivered by e-mail had your signature on the official letterhead of your institution.

On behalf of the Doctoral Programme Committee

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Professor

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