

# Guidelines for the formal procedure at the public defence of Doctoral dissertations at the Royal Institute of Technology, Stockholm

## Background

A doctoral dissertation at a Swedish University has to be examined by an opponent and discussed at a public defence, the disputation. The opponent is appointed by the Chairman of graduate studies of the School to which the doctor candidate belongs.

The Chairman of graduate studies also appoints a chairman of the disputation and an evaluation committee (3 or 5 persons).

The evaluation committee shall evaluate the dissertation and judge the candidate's defence performance. Based on their evaluation the committee assigns a grade of "Pass" or "Fail".

The dissertation has to be available in published form (final version) at least three weeks before the public defence. It is then, or preferably earlier (often in manuscript form), sent to the opponent and to the evaluation committee.

A Swedish doctoral thesis may consist of several reports or articles held together by an introduction to and a summary of the papers, which then constitutes the formal thesis, or one monograph.

If the dissertation contains work carried out jointly by two or more persons it must be possible to distinguish the contribution of the candidate. A useful guideline for assessing the quality of the dissertation may be that it (in condensed form, whenever necessary) should be acceptable for publication in internationally recognized journals. In judging the amount and originality of the work it should be noted that the time allotted for graduate studies leading to a doctoral degree in the present Swedish system is four years of full-time studies. One to two of these are usually devoted to course work.

## Public defence

Those present at a public defence are the opponent, the candidate, the evaluation committee, the chairman of the disputation and, as a rule, the principal advisor of the candidate. In addition colleagues, experts in the field of the dissertation, and the interested public are welcome.

The members of the evaluation committee shall take an active part in the discussion of the dissertation.

In the following, the common procedure for public defences is outlined. Note that there are no detailed rules describing how the actual examination of the dissertation and the defence should be conducted. The procedure described below can therefore be slightly modified.

1. The chairman welcomes those present and introduces the candidate and the opponent. The chairman also states where the research has been done, who besides the candidate have contributed to the project.

Concluding the introduction, the chairman informs the persons present that they will be given the opportunity to participate in the discussion with the candidate after the opponent's examination.

2. The chairman turns the floor to the candidate giving him/her the opportunity to present formal comments on the dissertation, e.g. corrections of misprints which might exist.
3. The opponent – or the candidate - briefly summarizes the dissertation.

The work should be presented in such a way that it allows a scientist not specialized in the work of the candidate (but working in the same main area) to appreciate the work and the contribution made by the candidate. The problems treated and the results achieved should be stated with their relation to other relevant work in the same field and their importance to science and society. Please note, that the summary should concern the dissertation. It should not be a lecture on current research problems in the particular scientific field.

If the summary is presented by the opponent, the candidate should be given an opportunity to comment briefly and to supplement the presentation.

4. The opponent discusses the dissertation with the candidate by asking questions, giving the candidate ample opportunity to demonstrate that he/she masters the topic and is able to counter criticism. The questions should mainly deal with the work reported in the dissertation and not be a general examination. (It is, however, sometimes necessary to provide additional information as a background).

It is concluded by the opponent declaring the examination completed and, if he/she so wishes, complimenting the candidate on the work.

During this stage of defence, participation by the audience is not allowed.

5. The chairman shall give the members of the evaluation committee an invitation to discuss questions/matters they feel have to be more enlightened with the candidate. Hereafter the chairman invites questions and/or comments from the audience. In the discussion that may follow, both the opponent and the principal advisor may participate as well as the candidate.
6. The chairman thanks the opponent and the candidate on behalf of KTH.

The whole procedure should normally take not more than 2 - 3 hours.

After the public defence the evaluation committee meets to decide whether the candidate should pass the examination. The opponent and the principal advisor are normally invited to take part in the meeting of the evaluation committee to give their further opinions on the dissertation and the defence. However, they do not have a formal part in the grade decision.