## Responsibilities of examining committee and procedure for the doctoral thesis defense

## A. Evaluation of the doctoral thesis

- 1. The members of the examining committee may not have any form of conflict of interest with the student or supervisors.
- 2. The role of the examining committee is to act as examiner during a doctoral thesis defense. This includes evaluating:
  - the performance of the respondent during the public thesis defense
  - the scientific content of the included papers of a compilation thesis
  - the quality of the summary (kappa)
  - all the above in relation to the individual contributions of the respondent and the degree goals of a doctorate as legislated in the Swedish Higher Education Ordinance.
- 3. Each member of the examining committee is expected to read the thesis carefully and prepare a set of questions intended as a basis for discussion with the respondent during the thesis defense.
- 4. An individual committee member does not need to be an expert on all aspects of the thesis but may focus on the parts for which the member has relevant expertise. Together, the committee should have the relevant expertise to examine and grade the doctoral thesis.
- 5. According to the procedure at the CBH school at KTH, the committee members are not expected to provide review comments or pre-evaluation prior to the public doctoral thesis defense.
- 6. When evaluating the doctoral thesis, the committee members should keep in mind that the precise format of a doctoral thesis at KTH may vary, for instance, the number of pages and organization of the summary, and number of papers included in the compilation.
- 7. At KTH, a doctoral thesis can be a compilation thesis or a monograph thesis, although the latter is not common.
- 8. The publications/manuscripts included are normally authored by the doctoral student in collaboration with others. When a publication/manuscript has several authors, the doctoral student's contribution must be clearly stated in the thesis. Additional information about the student's individual contribution can be obtained from the supervisor(s) in the committee meeting after the thesis defense.
- 9. KTH's quality goal is that a doctoral thesis must be at such a level that essential parts of it can be accepted for publication in a peer-reviewed scientific journal of good international quality.
- 10. A doctoral thesis at CBH should be "holistically" evaluated where the student's own contribution and fulfilment of the degree goals are the most critical aspects to evaluate.
- 11. The recommendation for a doctoral thesis at CBH is that it includes at least four papers of which two are published. Of the published papers one should be with the respondent as first author, and preferably also one manuscript is first-authored by the respondent. Here, first authorship implies that the respondent has made substantial contributions to the work regarding scientific content, analysis, and writing. The individual contribution of the respondent and the respondent's understanding of the scientific field and development of research skills is more important than the number of papers and impact of the journal.
- 12. The discussion with the respondent should be kept constructive and not take the form of an interrogation on general knowledge, except when needed to clarify a specific issue.
- 13. There is no time limit for the committee's discussion with the respondent, but usually lasts for 0.5-1 hour depending on the number of committee members (3 or 5) and the how much of the thesis has been covered by the opponent.
- 14. After the closure of the public defense, the examining committee will convene to grade the thesis. See more information in part B below.
- 15. There are no formal KTH guidelines regarding dress code, and this is normally agreed upon between the opponent, supervisor, and respondent.
- 16. The examining committee should be aware of their joint responsibility to act as "opponent" in case the regular opponent is unable to attend on short notice.

## B. Procedure for thesis defense

The thesis defense is open to the public. The parties at a thesis defense include the respondent, the opponent, the members of the examining committee, the chairperson of the thesis defense (hereafter referred to as chair), and normally the supervisors, as well as the public and colleagues in the audience. There are no strictly defined rules regarding the form of the act, but it typically follows the scheme below.

- 1. The chairperson welcomes everyone present and gives a brief introduction of the respondent, opponent, and examining committee. This introduction varies in content and length.
- 2. The chairperson informs the auditorium of the procedure of the public thesis defense and informs the audience that they will be given the opportunity to ask questions after the questioning by the opponent and the examining committee.
- 3. The chairperson gives the respondent the opportunity to comment on possible errors in the thesis (errata list).
- 4. If previously agreed upon, the chairperson now invites the opponent to give a brief introduction to the field of the thesis.
- 5. After the opponent's introduction (if applicable), the respondent presents the thesis succinctly, including an introduction, the questions at issue, achieved results, and the scientific and societal interest of the results, and relevant conclusions (typically no more than 30 min). The summary should not be a lecture on current research problems in the field of the thesis. If the opponent presents this summary, the respondent is thereafter given the opportunity to briefly comment on and complement the summary.
- 6. Following the summary, the opponent and respondent engage in a discussion about the thesis, which typically lasts for about 1-1.5 hours. The examining committee and audience are not allowed to ask questions during this part of the dissertation defense.
- 7. When the opponent has declared that the review and discussion are concluded, the chairperson invites the members of the examining committee to ask questions to the respondent. The examining committee is the decision-making authority, not the opponent. The task of the committee is to evaluate how well the respondent addresses the opponent's questions and engages in the discussion, and to ask additional questions on those parts that need further clarification.
- 8. When there are no more questions or comments from the examining committee, the audience is invited to ask questions and make comments. At this stage, everyone is free to participate in the discussion.
- 9. The chairperson closes the thesis defense by thanking the opponent and respondent on behalf of KTH. The completed thesis defense act normally lasts for 2-3 hours.
- 10. The examining committee convenes immediately after the defense act. The opponent and the principal supervisor (among others) must be available at the meeting of the examining committee. The examining committee determines which of these parties have the right to attend and to speak at the meeting. The standard procedure for the committee meeting is as follows:
  - The committee members elect a committee coordinator (sometimes referred to as committee chairperson) among themselves, and then gives the word to the elected coordinator.
  - The coordinator first addresses the opponent who is asked to give their opinion of the thesis and the discussion.
  - If requested by the coordinator, the main supervisor is given the opportunity to describe the development of the respondent towards becoming an independent researcher, and to clarify the respondent's scientific contribution to the papers/manuscripts of the thesis, including the writing process.
  - The coordinator addresses the other committee members to collect their opinions. Note that if, at any time and for any reason, the committee prefers to confer in private, the coordinator can ask the chairperson, opponent, and supervisor(s) to leave the room.
  - At the end of the meeting all committee members state individually their recommendation whether to award the thesis the grade Pass or Fail. When it comes to this decision, the opinion of the majority shall apply. In the event of a tie, the coordinator's opinion shall determine the grade. Anyone who disagrees with the final decision may make their reservations known by submitting a note of dissenting opinion. This dissenting opinion shall be reported in the form of a separate document appended to the protocol. All those who do not report a dissenting opinion are in support of the decision. Whosoever contributes to the final processing of the thesis

- defense without taking part in the decision has the right to have their dissenting opinion recorded.
- The decision of the examining committee is documented in a protocol, which is signed by all committee members, and directly handed to the committee coordinator. In case the committee is not unanimous in passing the thesis, or if the thesis is failed, the reasons should be entered in the protocol or documented elsewhere. By this, the meeting is closed.
- The protocol shall be promptly handed over to the third-cycle administrator.
- 11. After the meeting, the coordinator of the examining committee announces the decision in person to the respondent.