Information for the examining committee, the opponent and the chair of the doctoral defence

Faculty of Science and Technology

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Introduction

Doctoral theses at Swedish universities are presented orally in a public defence where the doctoral students, known as the respondents, defend their scientific work. In this document, the procedure and regulations of the defence are presented. The document can be seen as a complement to Guidelines for doctoral education at the Faculty of Science and Technology (TEKNAT 2021/301).

The Examining Committee

The grade awarded to a doctoral thesis is decided by an examining committee specially appointed for each individual thesis. The defence is an examination and not solely a formality. Although rare, it does happen that a committee fails to reach a positive decision.

The examining committee members read the thesis prior to the doctoral defence, listen and judge the defence, and are after the defence given the opportunity to ask complementary questions to cover topics that have not been highlighted by the opponent. It is the responsibility of the chair of the doctoral defence to give instructions to the examining committee members. After the defence, the committee together with the opponent and the respondent’s supervisors retire to a non-public meeting to discuss the student’s contribution in the thesis and performance in the oral discussions with the opponent. The committee selects a chairperson internally and if necessary the committee members may invite other parties to participate in the discussions. The supervisors, the opponent and possible appointed committee substitute may be present at the beginning of the meeting of the examining committee. Only the examining committee members have the right to be present at the final deliberations and the decision. There are no grades other than “passed” or “failed”, which should be based on the content and the defence of the thesis. A decision is made by majority vote within the committee alone. The examining committee’s decision shall be reported in a decision protocol using the form on the faculty’s website (www.teknat.uu.se/education/doctoral-studies/forms/).

It is important for each committee member to be aware that the committee has an important and formally regulated role. It is not, for example, acceptable for the committee to fail to reach a decision (although in very exceptional cases a committee meeting may be adjourned).

If a member of the examining committee has expressed a reservation against the decision of the majority, this is to be noted in the decision protocol or other decision document, but not on the degree certificate. The committee decides whether to give reasons for its decision. Any such explanatory statement must be attached to the decision protocol, but not to the degree certificate.

The Opponent

It is the opponent’s role to lead the main part of the public scientific discussion, which is complemented by the examining committee and public audience, by asking critical questions to the respondent. The defence concerns the thesis and related issues, and should not be an examination of the student’s basic knowledge based on courses. Such knowledge is examined by other session in the education. Since the defence should be a scientific discussion at the highest possible level, the level of the discussion should not be adjusted to the public audience by asking questions on more basic knowledge (see the procedure example of a doctoral defence below). The opponent should critically discuss the full thesis, i.e. both the summary/introduction and the papers in a compilation thesis. The opposition should preferably address how well the respondent have understood and can answer to the following questions:

- To what extent is the aim of the thesis relevant to the field?
• Have appropriate methods been used to answer the questions posed?
• Are the results satisfactorily presented, for example in such a way that it is clear how conclusions have been drawn?
• Are there adequate references to the literature?
• Do the presented results justify the conclusions, and has the respondent correctly identified the conclusions that can be drawn?
• Is it clear what the specific contribution(s) of the respondent is/are in the study?
• What are the strong and weak parts of the thesis?

If the opponent wishes to round up the opposition by giving an overall judgement of the thesis, the opponent may do so in general terms, but should not say or imply that the respondent has "passed", thus this is the decision of the examining committee in a closed meeting after the defence. The opponent is not a part of the examining committee but may attend the beginning of the meeting of the examining committee after the defence. The opponent is not allowed to be present during the committee’s final discussions or the subsequent decision.

The Chair of the Doctoral Defence

In addition to chairing the doctoral defence, the appointed chair of the defence is responsible for instructing the examining committee of its duties and that only the members of the examining committee have the right to be present at the final deliberations and the decision.

In case of digital participation of the opponent or examining committee member/s, the chair of the doctoral defence is responsible for testing the technology well in advance and ensure that the audio and video are of good quality before and during the doctoral defence. If technical problems arise during the defence, it is the responsibility of the chair to pause the defence to make sure that the audio and video are of good quality before the defence proceeds.

The Thesis

The doctoral thesis can be designed either as a monograph, i.e. a unified, coherent scientific work, or as a compilation thesis, i.e. a compilation of scientific papers with an introduction. The introduction of a compilation thesis should place the papers in the context of the research field and also summarise them. Apart from published papers, the thesis may contain unpublished manuscripts. The doctoral thesis must either meet the requirements for publication in an international scientific journal with independent quality review or be a summary of the respondent’s scientific papers with equivalent quality requirements. If the doctoral student has co-authored a paper with another person, this may be taken into account only to the extent that the individual effort can be distinguished. This should be done through a description of the doctoral student’s contribution to the papers on which a compilation thesis is based.

It is important for the examining committee to assess to what extent the work in papers with more than one author can be attributed to the respondent.

The Doctoral Defence

The faculty has appointed a chair, an opponent and an examining committee for the doctoral defence. The procedure of the defence varies within the faculty. The opponent and the examining committee members are recommended to contact the chair of the defence (who decides how the defence will proceed) for more information.

The following description of the procedure is only an example:
The chair of the defence opens the official defence. If the opponent, the respondent or others are not Swedish speaking the defence will be conducted either entirely or partially in English.

The respondent is first permitted to give additional information about the thesis, such as errata, or reporting recent acceptance/publication of papers in the thesis. Then, the thesis topic and the thesis are presented orally by the opponent and/or the respondent. The opponent gives a short introduction and background to the topic of the thesis, preferably at a level understandable for non-specialists since the defence is a public event. If agreed upon in advance, this presentation may also be given by the respondent. Next, the respondent (or the opponent) presents a short summary of the thesis, describing its main methods and results. This presentation should be aimed at an audience reasonably acquainted with the research field, or at least with a broad scientific education. Thereafter follows the opposition, i.e. the scientific discussion, during which the opponent critically reviews the thesis and asks questions to the respondent, who should defend the thesis and engage in a scientific discussion with the opponent. Finally, the examining committee and the audience are given the opportunity to ask additional questions. The entire procedure commonly takes 2 to 3 hours, but there are no formal limits on minimum or maximum time, so the time needed for a proper scientific discussion should be taken.

If Problems Should Arise

The doctoral defence should be regarded as the examination based upon the written work in the thesis. It is not the intention that the committee members have made individual decisions regarding the respondent before the defence. Prior to the defence, any potential problems should be addressed to the respondent’s department, usually by contacting the main supervisor. Problems may concern e.g. the quality of the thesis, indications of possible plagiarism, or issues regarding to what extent the work can be attributed to the doctoral student as opposed to co-authors of papers. In some cases, it may be necessary to postpone or cancel the defence.

Should questions of a formal character appear during the defence or the committee’s subsequent meeting, the chair of the defence should contact 1) the section dean, 2) the faculty office (phone numbers can be found on the form concerning the appointment of the opponent and the committee), and 3) the chair of the faculty’s Doctoral Educational Board.

Formal Guidelines

Guidelines for doctoral education at the Faculty of Science and Technology (TEKNAT 2021/301) are available at the University’s website (www.regler.uu.se).