

## INFORMATION FOR PRE-EXAMINERS OF DOCTORAL DISSERTATION

### The setting

In the Faculty of Technology at the University of Turku, there are three-level degrees: Bachelor's degree (normative duration 3 years of full time studies), Master's degree (normative duration 2 years), and doctoral degree (normative duration 4 years). The title of the doctoral degree is Doctor of Philosophy or Doctor of Science in Technology.

An accepted doctoral dissertation is an essential requirement for completing a doctoral degree. The dissertation may consist of either a single monograph or a collection of several publications (or unpublished manuscripts intended for publication) together with an in-depth introduction to the work. Articles may be co-authored provided that the doctoral researcher has made independent contributions to them. Doctoral researcher's contribution to the joint publications is clarified in the contribution statement, which is signed by the doctoral researcher, all supervisors, and the research director (a supervising professor).

Two external pre-examiners will first evaluate the proposed dissertation in order to decide whether the proposal constitutes an acceptable dissertation that may be published. On the basis of pre-examiners' recommendations, the Faculty Council will make the final decision in this matter. In the positive case, the dissertation will be published and the author will defend the thesis in a public examination where there is one opponent nominated by the Faculty.

### Quality requirements

The purpose of the pre-examination is to establish whether the proposed manuscript satisfies the quality requirements of a doctoral dissertation (quality control). Therefore, particular attention should be paid to following aspects:

1. A dissertation must contain new scientific findings in its field of research.
2. Theoretical developments, experimental set-ups, measurements, and the data presented in a dissertation should withstand the scrutiny appropriate to scientific research.
3. The author must be capable of presenting his/her achievements and assertions in a clear, scientific manner.

The pre-examiner should approach a compilation dissertation as a whole, even if separate articles have been accepted for publication in refereed series. If one or more individual manuscript included in the collection for the thesis has not gone through the refereeing process of a journal, the examiner should make certain that these manuscripts individually satisfy the scientific standards expected of a publication. As indicated above, examiners will receive a contribution statement.

When examining a dissertation manuscript, the pre-examiner should, if possible, compare it against the standards set for dissertations in Finnish or Swedish universities.

### Corrections and revisions

If necessary, the pre-examiner may discuss the thesis with the doctoral researcher or with the supervising professor in order to confirm and possibly correct statements presented in the thesis. Owing to the time limit imposed on the pre-examination, the examiner should not embark on an actual supervision of the doctoral researcher's research.

The pre-examiner may propose additions, corrections and deletions to the thesis in the final statement. If the required changes are small, the pre-examiner may leave their supervision to the doctoral researcher's thesis supervisor (indicating this in the statement). If major changes to the thesis are necessary before the printing permission can be granted (such changes typically involve flaws in the interpretation of results, lack of data supporting the conclusions etc.), the pre-examiner should discuss the matter with the doctoral researcher and the thesis supervisor. In such a case, the doctoral researcher should make corrections and additions to the thesis, based on the pre-examiner's advice and send a new version of the thesis to him/her before a final statement about granting a permission to defend the thesis for the revised thesis manuscript is sent to the Faculty.

### **On the form of the pre-examiner's statement**

A typical statement is 2–3 pages long and should discuss the proposed dissertation in some detail.

The pre-examiner should also estimate whether the doctoral researcher's contribution to the dissertation has been sufficient.

Toward the close of the statement, the pre-examiner should clearly state whether a permission to publish the dissertation can be granted.

Doctoral theses are graded as “accepted with honours”, “accepted”, or “rejected”. The grading of doctoral theses is performed on the basis of the statements from the official examiners (two pre-examiners and an opponent). If all examiners estimate in their statements that the doctoral thesis is on the same level as the top 10% of theses in its field internationally, the thesis can be accepted with honours. We ask the pre-examiner to state explicitly whether or not the doctoral thesis is in the top 10% of theses in its field internationally.

### **Grading criteria**

At least the following items must be considered when grading a doctoral thesis

- significance, originality, or novelty of the research setting in relation to other completed and ongoing research in the field in question;
- justifiability of chosen research methods, originality of the methodology and development of new methods;
- quality, impact, and theoretical or practical significance of the research results;
- proof of familiarity with the field of research in question and the doctoral researcher's ability to critically examine his or her own and other research; and
- coherence, clarity and other issues concerning the style of the presentation.

### **Time limit**

The pre-examiner should present the statement within one month from the initial receipt of the official request.

### **Language of the statement**

The statement can be written in Finnish if the pre-examiner and all signatories of the contribution statement understand Finnish. Otherwise, English is recommended.