Aalto University School of Chemical Engineering

GUIDELINES FOR MASTER´S THESIS EVALUATION

1. General information about Master´s thesis evaluation

This guideline is intended for Master's thesis students, advisors, supervisors and the approving authorities. Provisions on the Master's thesis are laid down in the Section 10 of the Aalto University Degree Regulations for Bachelor's and Master's Degrees.

The Master's thesis is an independent engineering or research project completed by the student. The extent of the Master's thesis is 30 credits. The total number of hours to be spent on the master's thesis is about 800 hours. While the Degree Regulations give students a maximum of one year to complete their thesis, the grade is affected if the student significantly exceeds six months or other agreed deadlines. Delays beyond the student's control are considered extenuating circumstances and in the case of delays beyond that a justification has to be provided by the supervisor.

The evaluation of the Master's thesis and the grading decision is based on the criteria listed in section 2. Factors such as the independent contribution of the student, significance of the results to the company or other organization for which the work was done, and ability to stay on the agreed schedule are also considered in the evaluation. When the work is done in a team and as an employee in a company or other organization, it is the student's personal contribution and the thesis written independently by the student that are evaluated.

Supervisors are encouraged to seek collegial advice within the programme departments when it helps to achieve more accurate evaluation of the thesis. In cases where the supervisor has proposed the grade '5' or '1' or 'fail', the Degree Programme Committee shall either be provided with a supporting statement from another professor or (senior) university lecturer of Aalto University who is familiar with the field in question; or the initial statement shall be signed by the other professor / lecturer.

Having familiarized itself with the examiner's statement and any additional statements, the Degree Programme Committee decides on the approval of the thesis and on its grading.

2. Evaluation criteria

The Master's theses are graded based on how well they meet the criteria defined below. To be accepted, a Master's thesis should meet the criteria to at least a satisfactory extent. The grade is based on the thesis as a whole, and performance against any one criterion may have a major effect on the overall evaluation. Thus, while it is common practice to evaluate each of the following six areas on scale 1-5, the six areas need not be equally weighted when deciding on the final grade.

I. Definition of research scope and goals

- The goals and scope of the thesis have been defined.
- The thesis addresses challenging and relevant engineering problems or research questions, which are clearly described.
- The thesis addresses engineering or scientific importance and relevance of the subject.

II. Command of the topic

- The thesis demonstrates command of the thesis topic and understanding of technology and science in the topic area.
- The thesis demonstrates understanding of the relevant conceptual and theoretical frameworks.
- The thesis references and makes use of appropriate, up-to-date scientific and technical, and scholarly literature and other relevant sources of information.

III. Methods

- The student has chosen appropriate engineering or/and research methods.
- The chosen methods are appropriately explained in the thesis. The thesis provides justification for and reflects critically on the choice of methods.
- The student applies the chosen methods in a logical way that fits the problem and research question.
- The results are critically evaluated.

IV. Results and contribution

- The thesis presents results of the engineering or/and research process as well as justified conclusions drawn from the results.
- The goals of the thesis have been reached. The thesis answers the stated engineering problems or research questions and discusses them critically.
- The results have value to the engineering or scientific community and to the organization where the work was done. The thesis may make an original contribution to technology or to scientific or engineering knowledge in the topic area.

V. Presentation and language and structure

- The thesis is a coherent whole.
- The overall appearance of the thesis is appropriate, and the given guidelines have been followed.
- The text is logical and readable, and the style is suitably formal and objective for an academic thesis.
- There are no grammar, spelling or other language errors that make reading difficult.

VI. Thesis process

- The student has sought guidance and followed the received advice.
- Good engineering and scientific practices and ethical guidelines have been followed.
- The thesis has been written independently by the student. The student's personal contribution to the results is significant and evident from the thesis.
- The thesis process did not significantly exceed the planned schedule or set deadlines.

Grades

Grade 1(passable): The thesis meets just the minimum requirements but judged as a whole, it is acceptable as a master's thesis.

Grade 2 (satisfactory): The thesis meets the evaluation criteria in all areas but has significant shortcomings in multiple areas.

Grade 3 (good): The thesis meets the evaluation criteria in all six areas and has at most minor flaws. As a whole, it meets the attributes of a good thesis. However, there are also areas that could have been improved.

Grade 4 (very good): The thesis meets the evaluation criteria in all six areas, has only minor flaws, and is excellent in some aspects such as presenting important results.

Grade 5 (excellent): The thesis fulfills the evaluation criteria in all six areas and is exceptional in many aspect. As a whole, the thesis is excellent.

Effective date

The School of Chemical Engineering shall implement consistent guidelines for the academic evaluation of master's theses. This Guideline for Master's Thesis Evaluation have been approved by the Academic Committee for Chemical Engineering on 12.6.2018 and are to be used for the evaluation and grading of all master's theses approved in the School of Chemical Engineering in programmes that lead to a master's degree.

This guideline shall first be applied to all master's theses that are part of a master's degree for those students who are applying for the approval of their topic in the Degree Programme Committee Meeting that takes place after 1.8.2018. Furthermore, thesis supervisors shall draft their Statement of Master's Thesis Assessment in accordance with this new guideline for theses that have been submitted for assessment within the scope of the afore mentioned implementation provisions.

Thesis supervisors are encouraged to familiarize students with the Guideline for Master's Thesis Evaluation as soon as they start working on the master's thesis.

The thesis supervisor submits a written statement on the thesis, i.e. evaluation report, with a proposal for a grade to the Degree Programme Committee. When preparing the report, the supervisor should also give the advisor(s) the opportunity to express their views. The advisor(s) may also write an independent statement, in which there is no proposal for a grade, to the Degree Programme Committee.

Recommendations

- Statement template is recommended to use when evaluating and grading the thesis.
- The title of the thesis should be understandable and coherent
- Turnitin -tool is available for students. Turnitin is a help for practicing scientific writing and prevention of plagiarism.
- Supervisor organizes an initial meeting to start the thesis work, where the thesis overall goals, schedule, roles of thesis advisor and supervisor and any other relevant questions in the thesis process are discussed