

# Guidelines for Master Theses

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*This document is to be used as a collection of qualities a student should show within his or her Master thesis.*

## Prerequisites (*to be checked before beginning laboratory work*)

- The student is aware of the laboratory safety regulations and able to react to emergencies in an adequate way.
- The student knows good scientific practice and will work accordingly.

## Written Thesis

### Overall style, presentation, logic, language, completeness

#### *Introduction*

- Concise overview of the research field relevant to the Master thesis, and identification of important open questions.
- Clear description of the problem addressed in the thesis and clear statement of the project goals.

#### *Methods*

- Clear description of the logic and hypotheses underlying the choice of performed experiments.
- Clear description of the methods used such that others can reproduce all experiments.

#### *Results and Discussion*

- Clear presentation of the experimental results.
- Correct interpretation and concise discussion of the obtained results with respect to the original goals.

#### *Conclusions and Outlook*

- Discussion of the results in a more general context within the research field
- Formulation of new hypotheses, outlook for future work.

## Practical work in the laboratory

### Overall attitude, motivation, input, independence

#### *Lab/Field work & Experimental design*

- High quality of experimental work.
- Planning and carrying out of experimental procedures.
- Solid understanding of the theory behind experimental techniques.
- Detailed and traceable documentation of the experimental work in the lab book.

#### *Communication*

- Communicative attitude in the laboratory.
- Ability to ask for and make constructive use of advice.
- Initiation of and contribution to scientific discussions.

## Presentation of work

### Structure, content, explanations

#### *Presentation*

- Clear presentation of the project and the results in group meetings or in final presentation.
- Ability to answer questions & discuss issues raised by listeners.

### ***Finally, the following points should be considered:***

- *Every Master thesis is a unique piece of work. These guidelines should be applied without reducing the field of possible Master thesis topics.*
- *Good work does not always yield “good results”. An unsuccessful project should not effect the grading since the work and effort of the student and not only the results should be evaluated.*
- *The written Master thesis is the result of an iterative process.*
- *The Master thesis should be discussed with the student to give him or her the chance to improve in the future.*