

## Requirements for Master's Theses in the Master Study Program Mathematics

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- The Master thesis is a written examination that should demonstrate the ability of the candidate to work independently using scientific methods on a problem from the area of the Master degree in "Mathematics", to find a solution and to present the solution in an adequate way.
- Throughout the Master's thesis, it must be clearly indicated in each individual case, if proofs, definitions and results have been taken over from a reference one-to-one, with minor modifications, with significant changes, etc.

### Some criteria for the evaluation of Master's theses

#### 1. Personal contribution:

Is the work closely following a reference, or are the statements formulated independently? Which parts of the thesis contain significant personal contributions? (E.g. worked out details, corrections of minor and major errors, supplementary comments and explanations, new and extended theorems, placement of the results within a larger context, connections to lectures, additional examples, applications, simulations, etc.)

*Note: Passages that are taken over without essential changes from a reference can not be regarded as personal contributions, and hence they can not improve the assessment.*

#### 2. Difficulty:

How demanding is the topic? How deeply has the topic been worked out? Are there complete proofs or sketches of proofs for the more difficult statements and the necessary preliminaries?

#### 3. Completeness and correctness:

To which extent have the proofs been worked out completely, in full detail, and correctly? Is the reasoning logically clear?

#### 4. Presentation:

Is the thesis accessible even without special prior knowledge? How well are the questions motivated, and how well are the central ideas worked out?

#### 5. Introduction and literature review:

Is there a detailed introduction? How well are the topics, problems and questions to be discussed presented? Are they placed in a larger context? Is there an extensive review of the literature related to the questions discussed in the thesis?

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