

# Guide to Writing the Master's Thesis

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## **FH VORARLBERG**

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**ANHANG**

Preliminary Topic of the Master's Thesis (Appendix 1)	
Title page Master Thesis (Appendix 2)	
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## 1. General

In accordance with their educational mission, universities of applied sciences prepare students for careers that demand the application of scientific knowledge and methods by providing them with the required subject-area knowledge and competences.

## 2. Aim

The master's thesis is the final requirement for completion of the master's degree programme. The thesis is proof of high professional quality and the ability to carry out academic work. The thesis must display a level of achievement consistent with the level of the master's degree and is therefore subject to high academic demands. The focus of the master's thesis is on the scientific engagement with a problem in the field of mechatronics, preferably in a company. Through the master's thesis students show that they are able independently to solve problems on the basis of scientific principles and fully to document these solutions.

## 3. Choice of topic

Students are responsible for the choice of their master's thesis topic. Topics that are worked on together with or in a company are preferred. The topic must be agreed upon with a member of the academic staff of the master's in mechatronics degree programme. This member of staff is responsible for ensuring that the topic can be completed within the prescribed time limits, and that the quality of the work required for the topic complies with the demands of the degree programme. The master's thesis begins with the submission of the signed form (Appendix 1) to the degree programme administration by 15 December at the latest.

## 4. Supervisor

The member of academic staff who approved the topic is responsible for the supervision of the student during the preparation of the master's thesis. The supervision of the master's thesis is conducted in such a manner that the supervisor is regularly informed about the progress of the thesis. Regular supervision meetings should take place. However, the preparation of the thesis must in all cases be conducted by the student in an independent manner. The supervisor is required to inform the student when he/she is of the opinion that the work conducted for the thesis does not appear to meet the requirements for a pass grade.

## 5. Requirements

In the master's thesis the problem, the means applied to solve the problem and the solution itself must be described. The current state of technology in the specific technical field must also be described. The thesis must clearly document the independent work of the student. In general, the thesis will be longer than 40 pages. Drawings, listings etc. can also be included in an appendix. The master's thesis is a scientific document and must fulfil the corresponding requirements. The thesis must contain a title page (see Appendix 2), on which the title of the master's thesis, the supervisor at Vorarlberg University of Applied Sciences and the student must be named. In accordance with the criteria for academic research, the thesis must contain a sworn declaration (Appendix 3). Alongside the conclusion at the end of the thesis, a summary of several pages must be provided.

## 6. Scientific Paper

A scientific paper (min. 6 pages) in the subject area of the master's thesis must be prepared that can be submitted to a specialist conference or journal.

## 7. Poster of the master's thesis

A poster of the master's thesis must be prepared that can be used by the student and Vorarlberg University of Applied Sciences for presentation purposes. This poster must be designed in such a way that it can be openly displayed at any time and in any place. Please notice the templates of the FHV.

## 8. Scientific research

Specially designed courses in the area of scientific research are offered and a large amount of reference literature is available.

Mayer, Brigitte; Hans Gruber (2009): Wissenschaftliches Arbeiten. Ein Leitfaden. 7. Ausg. Lehr- und Lernunterlage der Fachhochschule Vorarlberg. Dornbirn.

## 9. Public domain

All information that in connection with a master's thesis or other work is made known to Vorarlberg University of Applied Sciences, students and teaching staff at the University is subject to the usual standards of confidentiality. In connection with a master's thesis, all the information required for the assessment of the thesis must also be made available to the academic supervisor. However, he/she is of course also subject to the rules of confidentiality. This can also be additionally agreed upon in writing.

The master's thesis forms part of the final committee exam for the master's degree. All examiners on the examination committee must thus also have access to the complete text of the master's thesis. In the context of the master's exam, the master's thesis must be presented and defended. The master's exam is a public exam. The questions asked by the examiners will naturally refer to the content of the master's thesis.

## 10. Restriction notice

Where necessary, an agreement must be reached with the company supervisor regarding the extent to which the contents of the master's thesis are partly or wholly to be withheld from third parties. If an explicit wish is expressed by the company, the master's thesis can be protected by a restriction notice for a limited period. A two year restriction is usual, and in accordance with § 65 UniG idgF a maximum of five years is possible. Theses subject to a restriction notice are kept in the archive of the Library of Vorarlberg University of Applied Sciences and may not be viewed without the permission of the company. In order to place a restriction note on a thesis, the form 'Restriction Notice' must be used and must be bound into every copy of the thesis as the first page (Appendix 4).

The title of the master's thesis, the summary, the abstract, the scientific paper and the poster on the thesis must also in the case of barred theses be accessible to the general public.

## 11. Submission

The master's thesis must be presented to the supervisor at Vorarlberg University of Applied Sciences for assessment. Four<sup>1</sup> bound<sup>2</sup> copies of the assessed master's thesis must be submitted to the degree program administration at the latest by the date of registration for the master's exam. In addition, the master's thesis must be submitted to the degree program administration in electronic form. For the electronic version, the requirements of Vorarlberg University of Applied Sciences must be adhered to. URL: <https://inside.fhv.at/>

<sup>1</sup> One for the library in Bregenz - Landesbibliothek, two for the FHV's library and one for the degree program

<sup>2</sup> Hardcover

## 12. Assessment Criteria

The assessment of the master's thesis is conducted according to the following criteria:

- \_Independence {20%}
- \_Subject knowledge and results {30%}
  - Quality of the results
  - Knowledge and competences
  - New insights
- \_Scientific standards and execution {30%}
  - Methodology, systematic thinking, structure
  - Completeness
  - Delimitation of the problem
  - Critical reflection
  - Attention to detail
- \_Written report {20%}
  - Formal structure
  - Layout, structure, criteria for scientific research
  - Language
  - Clarity, readability, style
  - References and citations
  - Correctness;
    - appropriate number and quality of sources
    - use of visual aids
    - attention to detail

With the exception of the assessment of the independence of the student's work on the thesis, the written report provides the basis of assessment.

The assessment of the master's thesis is conducted according to the system of grades.

Very good:

The master's thesis must fulfil the criteria and clearly surpass the standard. Independent innovative ideas on the part of the student, an independent approach to the thesis work without the need for support from the supervisor etc. characterize these theses.

Good:

The requirements of the thesis were completely fulfilled according to the criteria. Occasional instructions or items of information from the supervisor were necessary and were followed or applied well.

Satisfactory:

The requirements of the thesis were fulfilled; a significant amount of assistance from the supervisor was necessary. The instructions and information provided by the supervisor (e.g. with regard to literature research, calculations etc.) were only partially followed or not at all.

Sufficient:

The requirements of the thesis were not fulfilled. Only the minimal criteria were satisfied. Instructions and information from the supervisor were not heeded.

A fail grade must already be apparent during the supervision of the thesis. The student must be made explicitly aware of this situation.

## 13. Failed thesis

A thesis that fails the first examination may be resubmitted on one further occasion after corrections have been made and within the time limits expressly stated by the degree program administration. A change of topic is not allowed.