

Guideline for creating an expose for a thesis

This guideline document is considered as an orientation for students who want to start at work on a study or thesis.

The preparation of the exposé at the beginning of a scientific work provides the opportunity to get in touch with the intended topic in a very short time in order to retrieve the working steps for the successful processing.

Section Structure

The exposé should have a total length of round about one page and contains following sections:

- 1. State of the art and problem statement
- 2. Scientific questions and problem solution propose
- 3. sequential arrangement of the work content for the development of the proposed solution
- 4. listing of the concrete work steps derived from the work contents. If necessary, including an estimation of the time frame (e.g., on a weekly basis).

State of the Art and Problem Statement

Based on research, the current state of the art is to be presented with regard to the object of investigation. Derived from this, the problem statement or/and improvement potentials shall be pointed out.

Following question can be used as orientation for this part:

- What is the current situation to achieve the subject?
- How is the current way to carry out the subject?
- Where do problems occur? What can be improvement?

The result of this section can be used for the formulation of the thesis introduction.

Scientific questions and problem solution propose

An approach for the solution of the previously presented problem is briefly presented. In addition, the benefit can be emphasized here.

Sequence of the working steps to achieve the solution

This section contains the content of the actual thesis. The working steps can represent the table of content of the thesis. The theme of the thesis should be clear in this part. An example could be the following:

First, the current situation and the common technical solution regarding an application will be presented. Here the problem, which results from the current state of the art, will be explained more clearly. Subsequently, the methodology and the theory for the development of a solution approach will be shown. Afterwards a new solution approach is presented, which takes up the original application, without letting the problem mentioned before arise. This approach will be tested on an example. Finally, further potentials for improvement will be presented.



Listing of work steps

A possible way to list the work steps is the Gantt-Chart. It contains the work packages as well as their order in the chronological way. A simple way of a Gantt-Chart is displayed in the figure below.

	Name	Duration	Feb 2022				Mar 2022					Apr 2022					May 2
			23	30	06	13	20	27	06	13	20	27	03	10	17	24	01
1	Research References	7 days				L											
2	Problem Statement	3 days		7		1 1											
3	Working on Solution	25 days		2		Č.		÷			t						
4	Proof of Concept	20 days		22											_ 1		
5	Documentation	14 days		2											Ľ.		

Figure 1: Example of a Gantt-Chart

The purpose of this part is to work out a time frame for the thesis. During the work, one can use this to allocate and assess the progress. One top, it is a good exercise for the student to plan his work.

