Friedrich-Alexander-Universität
Technische Fakultät

Department of Computer Science
Computer Science 6
(Data Management)

Prof. Dr.-Ing. Richard Lenz

Information Sheet: Minimum Quality Criteria for Theses

About this Information Sheet

The criteria listed below are intended to serve as a guideline for the supervision of university theses. The criteria are to be understood as minimum requirements; failure to comply with them should result in a failing grade. In an adapted form, these criteria can also be applied to seminar papers and project reports. Needless to say, these criteria do not constitute an exhaustive list that could be used, for example, as a checklist for passing. Furthermore, the following criteria are not suitable for justifying a high grade.

The following criteria should be brought to the students' attention and must be carefully verified by the supervisors.

1. Good Scientific Practice

1. In principle, the rules of good scientific practice and the standards and values underlying these rules apply.
   DFG - German Research Foundation - Good Scientific Practice
2. Based on the general regulations of the DFG, the statutes for ensuring good scientific practice at FAU must be observed:
   Statutes for Safeguarding Good Scientific Practice (FAU)
3. The following excerpt from the statutes is particularly noteworthy:
   "Scientific misconduct occurs in particular if, in a scientifically relevant context, false statements are made intentionally or through gross negligence, the scientific achievements of others are misappropriated, or the research activities of others are impaired. The circumstances of the individual case are decisive in each instance."
   Intentional false statements (e.g., falsification of measurements) are considered an **attempted deception** and will be reported to the examination office/examination committee.

2. Original Achievement

1. The submitted written work must represent an original achievement. Plagiarism or citations that are not properly identified generally lead to immediate failure.
2. In case of suspected plagiarism, the FAU regulations on handling plagiarism must be followed. If a thesis is rejected due to plagiarism, the examination committee will be informed.

3. Handling AI

1. The general FAU guidelines on the use of AI should be observed:
   Guidelines for AI in Teaching at FAU
   Guidelines for Artificial Intelligence (AI) in Teaching
2. The specific interpretation of these criteria must be discussed with the supervisor in the context of the concrete thesis.
3. The overriding principles apply here as well: The independence of the work must be guaranteed, and the actual use of tools must be made transparent. In particular: Any type of AI use must be brought to the attention of the supervisor. A violation of this principle leads to immediate failure.
4. When using LLMs, it is strongly recommended to document the complete dialogue history. Upon request, the dialogue history must be disclosed.
5. A table with potential criteria can be found in the appendix to this information sheet.

4. Citations

1. All sources used must be listed in the bibliography and referenced at the appropriate place in the text.
2. All sources specified by the supervisor must be included in the work.
3. At least some of the most important scientific publications relevant to the context of the work must be cited. Counterexample: No scientific publications cited at all.
   (An honest effort to find relevant literature must be evident.)
4. All cited sources must actually exist; they must be findable and accessible.
5. A common standardized citation format (e.g., DIN, APA, MLA, Chicago, or Harvard, etc.) must be used consistently for all references.
   Counterexample: A bibliography is not a collection of links!
6. References to websites must always include an "accessed on" date.
   (The requirements for a literature reference are usually described in detail in the documentation of the citation standard used.)

5. Traceability and Comprehensibility

1. The submitted written work must be readable and comprehensible at least for independent subject experts.
   Counterexample: LLM-generated text that sounds good but makes no sense. This is indeed an absolute minimum criterion! Failure to comply must lead to a failing grade!
2. Traceability also includes:
   a) Documentation of the task definition
      (including own interpretation/delimitation if applicable)
   b) Documentation of the state of the art on the topic
      (at least referring to a reference article in which the problem to be treated was recognized as relevant – avoid duplication of work)
   c) Documentation of the solution approach,
      i.e., the scientific methodological approach
   d) Documentation of results
   e) Critical discussion

6. Scope

1. The scope of a thesis is not a criterion for the grade, but depending on the task, a certain minimum length is expected and should not be undercut.
   (As much as necessary – as little as possible)
2. Average orientation values are:
   a) Bachelor's Thesis: 40 – 75 pages
   b) Master's Thesis: 60 – 100 pages
   c) Master's Project, Seminar Paper: 10 – 30 pages (depending on project organization)
3. Rough lower limits, adhering to formatting guidelines, are:
   a) Bachelor's Thesis: 30 pages
   b) Master's Thesis: 50 pages
   c) Master's Project: 10 pages
4. These orientation values may vary depending on the topic.
5. The minimum scope is also considered undercut if it is evident that measures were taken to artificially increase the page count.

A. Appendix: AI Usage

(Potential) documentation of AI usage,
based on the information sheet for theses at University Hannover:

Function	**Usage permitted**	**Disclosure mandatory**	**Chat history in appendix**
Spelling and grammar check	☐	☐	☐
Style correction (writing style)	☐	☐	☐
Translation assistance	☐	☐	☐
Topic finding / brainstorming support	☐	☐	☐
Text generation for individual paraphrasing (e.g., a book quote)	☐	☐	☐
Text generation based on provided bullet points	☐	☐	☐
Text generation via AI "original achievement" (e.g., data access, web search, writing text incl. literature)	☐	☐	☐
Plagiarism detection	☐	☐	☐
Literature research	☐	☐	☐
Information extraction from texts (e.g., PDF)	☐	☐	☐
Citation assistance (from Citavi to AI)	☐	☐	☐
Presentation creation (PowerPoint, worksheets, . . .)	☐	☐	☐
Teaching preparation	☐	☐	☐
Generation of images, video, sound, music, etc.	☐	☐	☐
Image editing	☐	☐	☐
Planning assistance for study/experimental design	☐	☐	☐
Creation of guidelines / questionnaires	☐	☐	☐
Programming assistance	☐	☐	☐
Transcription	☐	☐	☐