



UNIVERSITÄT
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Guidelines for Bachelor/Master Theses

Chair of Digital Transformation and Information Systems

Guidelines for Bachelor/Master Theses

Welcome to the Chair of Digital Transformation and Information Systems! Our research and teaching are focused on the human-centered design of interactive systems for digital transformation from the perspective of the individual, companies, and society. Among other things, our research projects deal with methods and tools for the human-centered design of interactive systems, affective, behavioral, and cognitive effects of interaction between humans and interactive systems within different contexts, as well as ethical and legal effects of the digital transformation seen from the perspective of the individual and society.

We are happy that you find our research interesting enough to think about writing your final thesis at our chair. This document will support you in this process. It provides the most relevant information for students interested in writing their Bachelor's or Master's thesis at our chair. It should answer all (administrative) questions that might arise before or during the thesis process. For any additional questions, please contact your supervisor.

Good luck with your thesis!

1 Before you start

1.1 Eligible Programs

Our chair supervises Bachelor and Master students in all courses of studies in the Department of Economics. This encompasses (among others) Business Administration, Digital Business Administration, Business Informatics, Business and Economics Education, Digital Transformation Technologies and Management, Economics and Law. The programs differ concerning the time of the thesis and the number of credit points (CP):

- Bachelor (all): 10 weeks
- Master (except Business and Economics Education): 6 months
- Master in Business and Economics Education: 15 weeks

These differences will be considered when scoping your topic.

1.2 Prerequisites

You should fulfill the following requirements to write a thesis at our chair.

1. All formal requirements of the examination office concerning the application for your final thesis. This is a mandatory requirement. The requirements are available for download [here](#)¹.
2. Successful completion of the seminar at the Chair of Digital Transformation and Information Systems, or at least at another business or business informatics chair, with a relevant topic from the field of information systems. This is not mandatory; however, some pre-experience in the field of information systems helps to shorten your preparation time for the thesis.

1.3 Finding a Topic

The topics generally originate from the research interests of the respective supervisor. Information on currently offered topics can be found [here](#)². If you would like to approach us with your own research topic, you are welcome to do so. Ideally, such topic ideas have emerged while writing your seminar thesis, during one of our Bachelor or Master lectures, or in the context of your working (student) position. Furthermore, you can read recent publications of the chair (or other researchers in the same domain) and see whether those match your interests and offer potential for a thesis topic. Make sure that your idea is as concrete as possible. Ideally, this idea should be described in a one-pager when approaching us.

1.4 Application Procedure

You can apply for supervision if you fulfill the prerequisites and have found one or multiple ideas for a thesis topic. To apply, please send an e-mail with the following documents:

- Motivation for writing a thesis at our chair (in the body of your e-mail)
- Application documents (CV, current transcript of records)
- If applicable: PDF of your seminar thesis
- Your ideas for a thesis topic, as specific as possible, ideally on one page
- The desired date for the start of your thesis
 - Please consider the official dates of issue from [ViPA](#)³:

Please send your e-mail to Andreas Kilian: andreas.kilian@uni-saarland.de.

¹ <https://www.uni-saarland.de/fakultaet-hw/vipa/abschlussarbeiten.html>

² <https://www.uni-saarland.de/lehrstuhl/morana/lehre/abschlussarbeiten/themenliste.html>

³ <https://www.uni-saarland.de/fakultaet-hw/vipa/abschlussarbeiten/ziehungstermine.html>

If we already know you, e.g., because you have written your seminar thesis at our chair, you can skip the application procedure and directly approach your seminar thesis supervisor about potential thesis topics.

1.5 Research Proposal

Once you found a topic and a supervisor, you can start working on a detailed proposal of your research topic. The first step is completing our preparation course for conducting scientific research, ManTIS, for which you will receive an invite. The second step is the actual proposal. This proposal is very important because it sets the objectives and expectations of your thesis. You can expect your proposal to go through multiple iterations before your supervisor and Prof. Morana accept it. Only then may you officially register your thesis. Working on a proposal is, therefore, not a commitment to supervising your work, but it allows us to assess whether you, as a candidate, can handle the research topic and whether the collaboration between you and your supervisor works well. During the proposal process, there is always a chance - for you and us - to decide against supervision if we have a justified reason that a collaboration does not make sense.

In the first iteration, a research proposal should ideally be about 3-5 pages (text and figures only). It should contain the following content (based on our thesis template):

- Introduction: Motivation of your topic, including a first iteration of your research question.
- Theoretical foundation: You should show that you have understood the most relevant scientific theories and models relevant to your planned thesis.
- Related work: This chapter should summarize a first overview of other studies and projects that are related to your thesis project.
- Method: You should provide a first impression and preliminary key figures of the method(s) you plan to use to answer your research question.
- Results, Discussion, and Conclusion are not relevant for the Proposal phase; these will be relevant during the thesis process.
- Bibliography: A preliminary overview of the literature you have included in your proposal.
- After the bibliography, please include a preliminary schedule in which you describe the different steps of your planned thesis process, consisting of the timespan from the beginning of the proposal phase until final submission.

You should use the official thesis template, which is available for download on our [website](#)⁴.

⁴ <https://www.uni-saarland.de/lehrstuhl/morana/lehre/abschlussarbeiten/templates.html>

Once the research proposal is accepted, it will serve as an orientation throughout your writing process. You may take your proposal as a working basis for your actual thesis and develop your thesis from thereon. However, that does not mean everything in the proposal is set in stone. During the actual work on your thesis, if you realize that you need to change something, this is always possible if justified.

1.6 Official Registration

Once your proposal is accepted, you may officially register your thesis at the examination office. Further information can be found on the [website of the examination office](#)⁵.

In general, there is a two-step process.

1. You must pay close attention to the official starting dates and registration deadlines set by the examination office on their [website](#)⁶. These dates and deadlines are usually binding. Please complete and turn in the official registration form to the examination office before the deadline. The form can be found on their website. You can do it by yourself; no signature from the chair is needed.
2. After registering your thesis at the examination office, your supervisor will approach you with additional documents for the chair-side registration. These documents need to be signed by both you and your supervisor after consultation with Prof. Morana. Your supervisor will take care of turning them into the examination office.

1.7 Cooperations with Industry

In general, our chair welcomes thesis projects in cooperation with industry. We have experience in this area and have seen great results from those cooperations. However, before starting your thesis project in cooperation with a company, here are a few things you should consider:

- **Topic:** We prefer that the company supplies the topic in these cooperative projects. This ensures that the company is sufficiently involved in the successful outcome of the thesis (see also below). However, the topic must also be sufficiently interesting to contribute to the research of our chair (i.e., it may not already be solved in academic literature).
- **Company involvement:** We find that the most successful cooperation projects are those where the company has a genuine interest in the outcome of the thesis and is involved in the day-to-day business. This ensures good supervision from their side. One way to show this

⁵ <https://www.uni-saarland.de/fakultaet-hw/vipa/abschlussarbeiten/ablauf.html>

⁶ <https://www.uni-saarland.de/fakultaet-hw/vipa/abschlussarbeiten/ziehungstermine.html>

involvement is, for example, they offer you a contract as a thesis student (with payment) and name a concrete supervisor for you to work with on a daily basis. If they do not do that, you can still work with them, but you need to consider that supporting you may not be the first priority of the company, which means that you may be left to solve potentially arising problems on your own.

- **Time pressure:** When working with a company, you can expect things to go slower than they normally would because you rely on the input of people who are potentially very busy with other things. You risk coming under time pressure to submit your thesis on time. Plan for long waiting times, incorporate time buffers, and think about alternative plans when possible.
- **Increased expectations:** A great cooperation project contributes to both research and practice. This is possible but may be more challenging than just making a contribution to research.
- **Data protection:** When working with company data (for example, event logs, interviews, internal documents), you typically need to ensure that this data is sufficiently protected. Think about this topic upfront and remember that it does not only involve you but also your supervisor and a potential second reviewer; if the company asks for an NDA, please approach us as early as possible.

If you are convinced about doing your thesis in cooperation with a company, do not let these points discourage you. These projects can be great starting points for your career in a company and may be very helpful in the long run.

2 While you write

2.1 Formalities

Your thesis must be 7.000 words (ca. 28 pages) (Bachelor) or 14.000 words (ca. 56 pages) (Master) long (+/- 10%). Any major deviations from these guidelines need to be approved by your supervisor. These page counts refer to net pages (i.e., pages with text, tables, and figures) and do not include a table of contents, lists of tables and figures, appendices, and the bibliography. Exceeding the maximum limit is only permitted after consultation with the supervisor (e.g., in the case of extensive, empirical work).

Your thesis should be formatted according to the chair template (available on the [chair website](#)⁷ or from your supervisor). The citation style is APA 7th edition and can be automatically set by all major reference management software (e.g., Mendeley, Zotero, Citavi, etc.).

⁷ <https://www.uni-saarland.de/lehrstuhl/morana/lehre/abschlussarbeiten/templates.html>

2.2 Use of AI tools

The use of AI tools is permitted as an aid when working on the thesis. However, please be aware that generative tools such as ChatGPT are not a scientific source and do not replace individual research. Among other things, generated text content can be fictitious or inaccurate. Generated texts should therefore always be checked for accuracy. The university provides how-to concepts for dealing with generative AI [here](#)⁸. If you use such tools, you must indicate their use in the affidavit of your thesis. Please use the following wording:

"I declare that I used the following AI tools during the thesis process:"

Tool	Description of use

2.3 Schedule

Your thesis project will (roughly) consist of the following phases:

- Proposal phase:** In this phase, you will approach your topic by reading relevant literature, clarifying the expectations of your supervisor, and scoping your topic. The end-product of this phase is the completed and agreed-upon research proposal before officially registering your thesis. Typically, this phase takes about one to two months and does not count towards the official timespan of your thesis. However, it is very relevant to get familiar with the topic and the surrounding literature. After this phase, you can start the actual research work.
- Research phase:** In this phase, you will conduct the actual research, following the specifications of the goal and method from the research proposal. This phase strongly depends on your thesis topic. Depending on the scope of your thesis, this phase takes between one and four months.
- (Optional) Implementation phase:** If your topic involves the production of a prototype (e.g., software artifact), this happens in this phase. Typically, the implementation phase is closely intertwined with the research phase, but you should treat them differently. Implementations are inherently hard to schedule for because a lot of unexpected things can happen (e.g., problems with dependencies, bug fixing, provision of computing resources). Therefore, you should plan for plenty of buffer time to avoid trouble. Before the official start of the thesis, gaining first experience with the development of the system is recommended. In doing so, a first minimum viable product can be created to know whether the general idea can be implemented

⁸ <https://www.uni-saarland.de/studieren/digitalelehre/future-skills-fuer-studierende.html#c368679>

with the corresponding programming effort and whether the knowledge for this is sufficiently available.

- **Writing phase:** Once your research is done, you start writing the thesis document itself. To make this easier, it is important to document the previous phases well. Of course, you can also start writing in parallel with the other phases. This phase typically takes about two weeks to one month.
- **Finalization phase:** Ideally, the first complete draft of your thesis is finished about two to four weeks (depending on your scope) before the submission deadline, so there is plenty of time for finalizing proofreading and detail improvements, plagiarism checks, and clarifying some final questions.

To manage your thesis project, the schedule that you have set up during your proposal phase is a very helpful tool. You should continually develop your schedule according to your current process so you do not run out of time towards the end.

2.4 Contact with your Supervisor

Your 'supervisor's task is to guide your research, to help you in case of questions, and (eventually) to grade your work after submission. Your supervisor is interested in your topic and high-quality research results and will be interested in doing everything possible to achieve the best possible result. This is also the reason why we offer regular meetings (e.g., weekly) in which you can come up with questions and discuss them with your supervisor. On the other hand, please remember that the topic is not "their" topic – your thesis is your responsibility, and your supervisor will support you but not do the work for you. This means that sometimes, you need to make your own decisions and justify them.

Our general policy is that you need to be proactive about contacting your supervisor if you need their input. To do that, you should use the regular meetings we offer on an individual basis. Besides the regular meetings and after an individual consultation with your supervisor, further ways of arrangement can be determined, such as additional meetings, questions by e-mail, MS Teams, etc. Please talk to your supervisor about it, if necessary. As a rule of thumb for contacting us:

- If you have urgent questions that need to be clarified as fast as possible, do not hesitate to contact your supervisor directly.
- If you have questions that can wait a few days to be answered, please collect them for the regular meeting with your supervisor and ask there.

Please remember: We do NOT give worse grades for asking (too many) questions. We are happy if you ask good and justified questions in case you are unsure and do not know what to do. If we get the impression that your questions are unjustified or there are too many questions, we will talk to you about it first and try to find a solution.

2.5 Confidentiality

If your thesis contains confidential data (for example, if you cooperated with a company), there are two ways to deal with this:

1. You can anonymize the company in your thesis so a reader will not know the company or entity the data refers to. This is advisable when working with common documents, data, or processes existing in any company.
2. You can add a so-called clause of confidentiality or blocking notice to your thesis. This blocks the contents of your thesis from any unauthorized readers. This is advisable when you are working with data that is very specific to the respective company or individual. To do this, you add a page at the beginning of your thesis document, which contains the following text: *This Bachelor / Master thesis TITLE contains confidential information of COMPANY. This thesis may only be made available to the members of the examination board of Saarland University and must not be published, reproduced, or disclosed to any other third party – neither in full or in part – for a period of DURATION years after completion of the thesis examination process without explicit prior written approval by COMPANY.*

Which way you choose depends on the circumstances of your thesis. You must clarify any data protection concerns early in your thesis project so that they do not cause problems after the start. Note that your thesis must always be available to the examiners, i.e., your supervisor, Prof. Morana, and a potential second reviewer who is a member of Saarland University.

2.6 Presentations

At our chair, participants present their progress in a monthly thesis colloquium. Participation in the monthly thesis colloquium is mandatory as soon as you start to write your proposal until submission of the final thesis. During the thesis colloquium, you will present your progress three times in a presentation. This allows you to share your results with a larger audience and to receive feedback from other participants, research assistants, and Prof. Morana. The first presentation will be at the beginning of your official thesis processing period about your proposal, the second presentation in the middle of the processing time, and the final presentation will be at the end about your final thesis results.

Presentation Type	Slides	Duration Presentation	Q & A Duration
Pitch	1 – 3	5 min	5 min
Mid-Term	Max. 5	10 min	10 min
Final	Max. 10	20 min	10 min

3 When you are done

3.1 Final Check

The regular meetings shall ensure that your thesis emerges in close collaboration with your supervisor. Ideally, you use the weekly meetings to keep your supervisor up-to-date about the current state and involve them as close as possible to the thesis process so they can support you as much as possible. At the end of the thesis process, when your preliminary thesis has been finished, you have the option to send a preliminary version of your final submission to your supervisor for feedback. They will not read every word of your manuscript, but they can give you high-level feedback on the content and structure and point out obvious flaws if there are any.

3.2 Submission

You need to submit your thesis in two ways:

1. Official submission at the examination office: Usually, they require two printed (double sided), bound (softcover is sufficient) copies of your thesis, plus an electronic copy of your thesis on a CD/DVD or USB stick. Submission is possible in person at the examination office or by mail. Please check the [website of the examination office](#)⁹ for their specific requirements.
2. Official submission at the chair: Please send a digital copy of your final thesis to your supervisor by e-mail. We do NOT need any printed copies.

Please make sure that your thesis contains the cover page of the examination office and the Affidavit, which must be signed by you. This includes both the printed and the electronic versions. Make sure that all of your electronic and printed submissions are identical at the time of submission.

3.3 Certificate of passing

Once you have submitted your thesis, the examination office will issue a submission confirmation to you. In addition, we will confirm by e-mail that your thesis has been successfully submitted. In special circumstances and on an individual agreement with your supervisor, we can issue a certificate of passing right away or soon after submission, confirming that your thesis will be graded with at least a 4.0. If you need such a certificate, approach your supervisor.

⁹ <https://www.uni-saarland.de/fakultaet-hw/vipa/abschlussarbeiten/ablauf.html>

3.4 Publications

Bachelor's and Master's theses are usually not published. However, very good theses can be turned into a conference or journal research paper. Your supervisor will let you know if this is the case for your thesis. You will then have the chance to work on turning your thesis into a publication and, of course, will be listed as an author of this publication.

3.5 Grading criteria

The thesis is evaluated according to various criteria. On the one hand, the thesis itself is evaluated, and on the other hand, the process you have gone through while writing and developing it. Below is a small insight into which criteria can be included in the overall evaluation. Please note that the evaluation criteria are individually adapted according to the topic and are not limited to the list given.

General Approach				
Time management	Independence	Systematic approach	Care of the research work	...
Written Elaboration				
Content				
Literature research	Research question and method	Relevance of the results	Comprehensibility and completeness	...
Format				
Bibliography and citation	Format	Structure	Language and comprehensibility
Presentation				
Time Management				
Presentation				
Outline	Structure	Slide design	General presentation skills/lecture	...
Content				
Selection of contents	Red thread	Comprehensibility	Completeness	...
Participation in the Thesis Colloquium				

Finally, we would like to encourage you to see your thesis at our chair not only as an opportunity for professional but also for personal development. We wish you the best of luck in your research journey!