



Department Geoenergy

Master Examination Roadmap

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UNIVERSITÄT
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1. Introduction

This document is intended to provide guidance to master's students who are at the stage of initiating their master's thesis. It offers a comprehensive roadmap through the process that they must follow to successfully navigate their academic journey towards graduation. By outlining key steps and strategies, this guide aims to support students in effectively managing their thesis work and ultimately achieving their goal of graduation. Figure 1 below depicts the summary of the entire process, which will be explained in detail throughout this document.

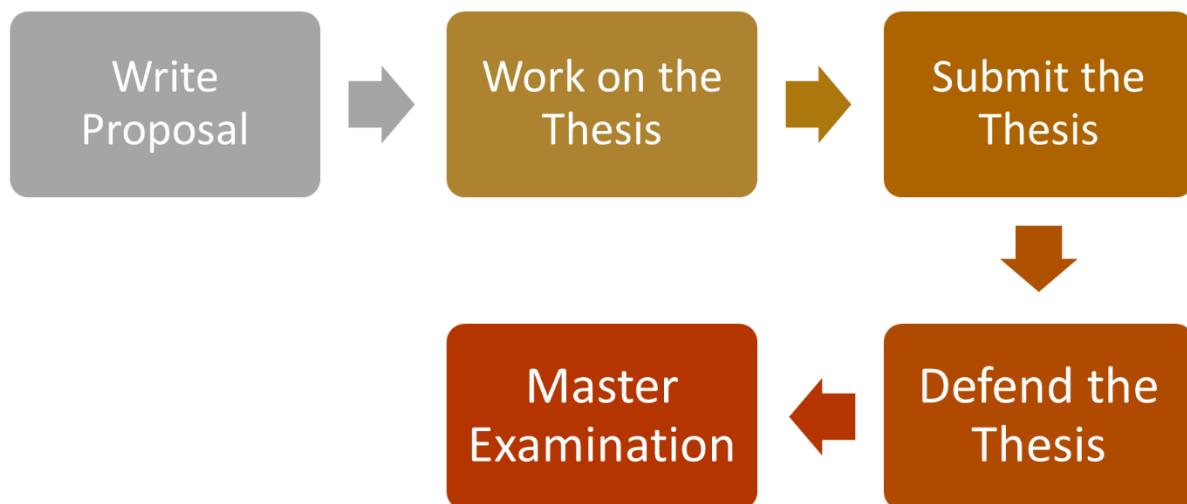


Figure 1. Process Milestones

2. Proposal Phase

a. Topic Selection Models

During their master's studies, every student should proactively engage with a faculty member from their chosen area of specialization (such as Drilling and Completion Engineering, Petroleum and Geothermal Energy Recovery, or Reservoir Engineering) to discuss potential topics for their master's thesis. It is advisable for students to come prepared to this discussion with initial ideas or concepts that reflect their interests and the direction they envision for their thesis. This initial exchange serves as a foundation for further discussion and guidance.

The actual thesis proposal will then be collaboratively developed in cooperation with the supervisor(s) to ensure alignment with academic standards and program objectives.

Sometimes, the department chairs may publish master thesis topics via social media or showcase them at the department building. In such cases, students can apply by email or approach the responsible faculty member for more details about the topic.

If a student has the opportunity to undertake their thesis in collaboration with a company or external organization, the proposed topic and thesis proposal must also be approved by the responsible faculty member within the department. This ensures that the chosen topic meets academic standards and aligns with the educational objectives of the program.

Once the proposal is approved by the supervisors (which include the main faculty supervisor, co-supervisors, and in some cases, industrial supervisors), the students can proceed to commence work on their thesis. It is crucial for students to maintain open communication with their supervisors throughout the thesis process to receive guidance, feedback, and support as needed.

b. Proposal Template

The proposal is considered an unofficial agreement between the student and the supervisors. However, it is a crucial document that must be prepared meticulously as it will serve as a guiding framework for the student throughout the execution of the thesis work. The proposal document must cover the following key items:

- Title in English and German
- Abstract
- Problem Description
- Project Objectives
- Project Work Packages and Schedule
- Project Milestones
- Project Partners (in case the thesis will be in collaboration with the industry or an external organization)
- Project Coordination and Thesis Advisors

- Necessary Input by Project Partners (in case the thesis will be in collaboration with the industry or an external organization)
- Necessary Infrastructure and Software
- Related Projects at the department
- References

Each of these elements plays a vital role in shaping the direction and scope of the thesis project, ensuring clarity, feasibility, and alignment with academic standards. Therefore, thorough attention to detail and clear communication with supervisors are essential during the preparation of the proposal. The student can download the proposal template from the department's webpage using the following link: <https://dpe.ac.at/downloads/>

c. Thesis Agreements

Once the proposal is approved by the faculty member, he or she will forward a copy of the proposal to the respective office manager of the chair:

- Elisabeth Koch of Drilling and Completion Engineering
- Marlies Helbl of Geonergy Production Engineering
- Bettina Matzer of Reservoir Engineering

Upon receipt of the proposal, the office manager will initiate the creation of a thesis agreement to formalize the proposal as an official document. Once the thesis agreement is generated, the student will receive an email notification. The student is required to review the proposal and formally confirm their agreement with its contents immediately. At the same time, the office managers also register for the assessment of the Master's thesis in MU_online.

3. Thesis Phase

a. Thesis Execution Phase

In order to effectively monitor the workflow and progress, the student must regularly provide updates and interim reports as requested. The specific mode of reporting will be determined by the respective supervisor(s) and will typically include milestone checkpoints. These milestones serve as important markers throughout the thesis work phase, allowing both the

student and supervisor(s) to track progress, address any challenges, and ensure alignment with project objectives and timelines. Clear communication and adherence to reporting requirements are essential to ensure the successful completion of the master's thesis.

While working on the thesis, students must ensure they fulfill their financial obligations by paying the tuition fee for the semester. Failure to do so will result in the student being ineligible to proceed to the master examination.

It's important for students to be aware that their master thesis will undergo a plagiarism check. This means that when writing the thesis, they must refrain from directly copying content from other sources. Instead, it's crucial to paraphrase and appropriately reference any borrowed ideas. The acceptable level of plagiarism is 10% or less. If the plagiarism percentage exceeds this threshold, the student will receive a plagiarism report and will be required to revise the text to reduce the percentage.

Additionally, students are required to use the department's thesis template, which can be downloaded from the following link: <https://dpe.ac.at/downloads/>. While the template provides a standardized format, students may request permission from their supervisors to modify the content layout if it is required.

b. Thesis Submission

The thesis must be finalized, accepted by the supervisor(s), and uploaded to the system at least 4 weeks before the scheduled master examination date. Any delay in submitting the thesis may result in the student being ineligible to proceed with the master thesis defense and the master examination. Therefore, it's imperative for students to adhere to the submission deadline to ensure ample time for review and approval by the supervisor(s) and the necessary administrative processes.

Students are required to create their thesis in the MU online platform and input all necessary information into the system, including both the English and German versions of the abstract, full text of the thesis (Must be PDF/A format).

Additionally, it is the responsibility of each student to contact the Study Support Center either while working on the thesis or at least 6 weeks before the scheduled master examination date. The Study Support Center will verify whether the student has fulfilled all requirements

in terms of passed courses and will provide necessary paperwork that must be completed within the specified deadlines. Furthermore, during this interaction, students will be asked to select a second field, in addition to the one their thesis is written in. This second field will determine the specific questions the student will be asked during the master examination.

Upon successfully completing all the thesis submission steps, the student will receive an email from Bettina Matzer requesting high-level details about the thesis and the Master Exam.

4. Registration for the Master Exam

One of the required steps that must be completed at a later stage of finalizing the thesis work is registering for the master's exam. The following points summarize the steps and requirements for registering for the master's exam.

- Registration for graduation must be completed by the deadline. The relevant documents can be found under the link <https://ssc.unileoben.ac.at/en/studienabschluss/masters-degree>
- You will also find the requirements for the degree on this page. Please check these and, if you meet the requirements, start the registration for the Master's degree under the link <https://www2.unileoben.ac.at/forms/master>
- All necessary information can be found on the homepage. If you have any questions about the procedure, please contact the Study Support Center directly.
- After the deadline for submission, Mrs. Matzer sends an e-mail with the most important information. Please note this urgently.
- A blocking request can be made by students on your MU_online homepage.

5. Master Thesis Defense

The master thesis defense is typically scheduled to take place approximately 2 weeks before the master examination. During this defense, students are required to deliver a PowerPoint presentation summarizing their thesis and its outcomes to the examination committee. It's essential to note that this presentation should not exceed 20 minutes in duration. Therefore, it is highly advisable for students to rehearse their presentation beforehand, and if possible, in front of colleagues, to ensure clarity and coherence.

Following the presentation, the student will engage in a defense of the thesis. Members of the examination committee may pose questions covering various aspects of the thesis that are pertinent to their expertise and interests. Thus, students should come thoroughly prepared to address inquiries and defend their work effectively.

For the PowerPoint presentation, students are encouraged to use the provided template, which can be downloaded from the following link: <https://dpe.ac.at/downloads/>.

The day of the presentations, the student must bring 2 hard copies of the thesis. One copy is to be handed to the indicated chair, while the second copy must be submitted to the Study Support Center.

Regarding thesis printing and binding, ÖH provides a service for printing and binding; however, their resources are limited, necessitating a check for availability beforehand. An alternative option is a professional printing shop, which collaborates with a bindery:

- Mail Boxes Etc. Leoben (MBE) - Schädle Business Services e.U. located at Langgasse 14, 8700 Leoben
- Buchbinderei Dienbauer GmbH located Gösser Str. 18, 8700 Leoben

Please note that the binding of the Master's thesis must comply with the guidelines (hard copy, black cover, name on the spine). A cover with only foil as a cover sheet or a spiral-bound copy will not be accepted.

6. Master Examination

One week before the exam, the schedule of the exam and the assigned exam room will be communicated to the students via email.

The dress code is a miner's uniform or a suit. You must be enrolled to take the Master's examination. The tuition fee for the summer semester is valid until 31.10. of the year, the tuition fee for the winter semester until 31.3. of the year.

On the examination day, all students who have registered for the exam must be present in the exam room by 7:30 a.m. This ensures that all students participate in the exam as scheduled.

Students are required to prepare a PowerPoint presentation lasting 5 minutes, providing a summary of their thesis, including the objectives, brief methodology, and main findings/results. The examination will commence with this short presentation, followed by the master examination.

During the examination, the main subject will be discussed for 30 minutes, followed by the second subject for 25 minutes. Once a student has completed the examination, he/she must leave the room to allow the professors for further discussions and defining the grades.

After both the morning and afternoon sessions, students will be collectively informed of their grades during the respective breaks.