Guidelines External Master Thesis in Materials Science

The Master Thesis (MT) is an integral part of the study program materials science at TU Darmstadt. The MT summarizes a research project of six months. During their research, students learn to manage and carry out defined research projects. This practical research experience provides a solid basis for a career in research (e.g. towards a PhD) and industry. The research towards the MT is usually carried out in one of the research groups of the Materials Science department (internal MT). In exceptional cases, students may also do their research outside of TU Darmstadt in a research institute (e.g. MPA, Fraunhofer, or Max Planck Society) or a research department in industry. This defines an external MT.

For an external MT students need to obtain permission from the examination committee. We have summarized the procedure in the following guidelines and give some general advice. As you can see, the formal procedure will take some time. We thus recommend that you start the process as early as possible to avoid delays.

Disclaimer: Please note that this document summarizes the administrative procedure as documented in the university regulations (APB) and departmental study regulations (SO). Legally binding are only the APB of TU Darmstadt and the SO of the Material Science Program.

General advice:
- Please observe the general university regulations (APB), the study regulations applicable to you (SO from 2011 or 2015), the general guidelines for a MT in Materials Science, and the TU information sheet for an external thesis.
- You need a university tutor who will act as the first referee of your MT. He/she must be a professor, an “apl.” professor, a “Habilitation,” or a “Privatdozent,” or hold a similar position (e.g. Emmy-Noether-scholarship holder) at the Materials Science department.
- Contact your potential university tutor as early as possible to clarify if he/she is able and willing to supervise your planned research project. You cannot proceed without a university tutor.
- Advanced Research Lab and MT must NOT BOTH be prepared externally.

BEFORE you apply for permission to prepare an external MT clarify these formalities:
- Identify a potential external tutor (in a research institute, company, etc.). Specify name and contact information, since contact by phone prior to permission of the external MT is mandatory.
- Identify a university tutor who is willing to supervise your MT (see above for possibilities).
- Define a MT title together with your tutors.
- Define a research proposal with your tutors, i.e. a document that specifies research motivation, methods and planned approach. It also should describe expected correlations, e.g. which variations of the material and/or of the conditions during analysis are adjustable, and contain a schedule.
- Declare any intended payment/salary.
- Clarify all aspects regarding non-disclosure/right to publish before you start.
- The external tutor has to hand an “Application for External Thesis Tutoring” to the chair of (download from the Master web page). The university tutor has to sign his/her approval on the form. If the external tutor holds a PhD, he/she may use the form to ask the faculty council (Fachbereichsrat, FBR) for a teaching assignment (“Lehrauftrag”) to act as a second referee (alternatively, two university referees are needed and the external tutor will be asked for a written statement about the student's achievements). This form may also be used to ask for a limited-time non-disclosure agreement (NDA) to delay public access to the MT.

Administrative procedure:
- Request a “certificate of non-objection” (“Bescheinigung über das Vorliegen der Voraussetzungen für den Beginn einer Masterarbeit”) from the Materials Science study office. Let the external tutor fill out and sign the form “Application for External Thesis Tutoring” and take both documents to your university tutor, who should sign on the form “Application for External Thesis Tutoring” his/her willingness to supervise your work.
- Submit both documents to the office of studies and WAIT UNTIL YOU OBTAIN THE PERMISSION TO GO!
- Take this permission to your university tutor, fill out together with him/her the form “Issuance of a Thesis Subject” and define a deadline for submission of your MT. This deadline is binding. It may only be extended in exceptional cases. Late submission of a MT may result in a fail grade.
- Submit the permission and the filled-out form “Issuance of a Thesis Subject” to the study office.
**Recommended procedure during your research:**

- Present your results to your university tutor at least twice.
- Give an oral presentation in the seminar of the university tutor's research group.
- After 4 months, discuss the outline of your MT with your university tutor.
- 3 weeks before the deadline, discuss a first draft with your university tutor. This draft should already contain an overview of the relevant literature, experimental procedures and results, and a discussion. No final layout is necessary at this stage.
- In case of a delay, the university tutor needs to be informed in a timely manner to allow for due action.
- Paper and pdf file of the thesis have to be identical and must not contain any blackenings, even if commercial protection requirements exist.

The chair of the exams commission and
PD Dr. Boris Kastening, study coordinator
Status November 2019