



## Guidelines External Master Thesis in Materials Science

The Master Thesis (MT) is an integral part of the study program master materials science at TU Darmstadt. The MT summarizes a research project of 26 weeks. 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) or industry.

The research towards the MT is usually carried out in one of the research groups of the Materials Science department under the supervision of a professor, an “apl.” professor, a “Habilitierter,” a “Privatdozent,” or the junior leader of a research group at the Materials Science department of TU Darmstadt. The supervision by a professor of another department or another university may be requested by sending an informal application to the chair of the exams commission. The cases described above count as university or “internal” preparation of a MT, even if the research for the MT does not take place inside a university.

An “external” MT is on hand, if it is supervised by a person that does not belong to the circle of persons mentioned above. This is for instance the case if a scientist of a research institute (e.g. Fraunhofer or Max Planck Society) or of an industrial research lab supervises the thesis work. You need the permission of the chair of the exams commission to carry out such an “external” MT. In the following guidelines we summarize the necessary steps and general recommendations. As you can see, the formal procedure will take some time. Thus, in order to avoid delays, we recommend to start this process as early as possible.

Disclaimer: Please note that this document tries to summarize the administrative procedure as documented in the university regulations (APB) of TU Darmstadt and the departmental study regulations (AB) of the Master in Material Science Program. Legally binding are only the German versions of the APB and the AB.

### General advice:

- Please observe the general university regulations (APB), the study regulations applicable to you (AB from 2011 or 2015), the general guidelines for a MT in Materials Science, and the TU information sheet for an external thesis, all available [here](#).
- The TU Darmstadt has a [civil clause](#) that disallows research on military applications.
- 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 “Habilitierter,” a “Privatdozent,” or the junior leader of a research group at the Materials Science department of TU Darmstadt.
- 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 (ARL) 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 (exclusively Prof., apl. Prof. or PD).
- Define a preliminary 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 contain a schedule and describe which variations of the material and/or of the conditions during analysis are possible.
- Intended payment/salary to you
- All aspects regarding non-disclosure and/or the right to publish
- The external tutor has to hand an “Application for External Thesis Tutoring” to the chair of the exams commission (form for 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 lock flag to temporarily prohibit 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 office of student affairs.
- 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 student affairs 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 enter issuance date and deadline for submission of your MT. This deadline is binding. It may only be extended in exceptional cases and should timely be applied for (about 4 weeks before the deadline). 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 office of student affairs or send scans to [studienbuero@mawi.tu-darmstadt.de](mailto:studienbuero@mawi.tu-darmstadt.de) .

**Implementation of your research after clarification of the above issues:**

- 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.
- Submit you MT in the pdf/A format to the TUbama portal. Your MT must not contain any blackenings, even if commercial protection requirements exist. No paper version of your MT is needed.

The chair of the exams commission and  
PD Dr. Boris Kastening, study coordinator  
Status March 2022