

Industrial internship guidelines for students at D-MATL

Ausführungsbestimmungen zu "Studienreglement 2023 für den Master-Studiengang Materialwissenschaft, Departement Materialwissenschaft, vom 5. Juli 2022"

Art. 17 Übersicht über die Kategorien

⁴ Industriepraktikum: Das Industriepraktikum dient der Anwendung der im Studium erworbenen Kenntnisse und Fähigkeiten in einem industriellen oder Beratungsumfeld.

Art. 27 Forschungsprojekt und Industriepraktikum

¹ Zu den Lerneinheiten «Forschungsprojekt» und «Industriepraktikum» gehört je eine Leistungskontrolle. Diese wird mit dem Prädikat «bestanden» oder «nicht bestanden» bewertet.

² Die weiteren Modalitäten der Leistungskontrollen werden im Vorlesungsverzeichnis festgelegt.

³ Ein nicht bestandenenes Forschungsprojekt bzw. Industriepraktikum kann einmal wiederholt werden.

PLEASE NOTE: ONLY THE GERMAN VERSION OF THE GUIDELINES IS LEGALLY BINDING.

General

The industrial internship is a mandatory part of the Master's degree programme in Materials Science and Engineering. It must be carried out in a materials science and engineering environment¹. During the industrial internship the students shall gain insight into

- large-scale manufacturing processes,
- materials properties and characterization in the industrial context,
- materials selection and product design, and/or
- the industrial workplace.

Duration and timing

The industrial internship must have a minimum duration of the equivalent of 12 weeks full-time work. The duration of the internship may be divided into shorter stays or may be carried out part-time. On request the internship may be conducted abroad.

The industrial internship can be done at any point once 150 ECTS credit points of the Bachelor's degree studies have been obtained and preferably before the start of the Master's thesis.

Internship objectives

The following objectives are meant as a guideline and must be adapted to the specific situation and possibilities of the company:

- to promote professional competence and expertise in
 - manufacturing and processing,
 - materials selection,
 - materials characterization,
 - applications, or
 - instrumentation;
- to foster social competences, such as teamwork or communication with different stakeholders;
- to develop process- and consumer-oriented thinking;
- to raise awareness for ecological and safety-related challenges;
- to raise awareness for economical and cost-related issues;
- to experience different work methods and project management tools;
- to gain an insight into the requirements and mechanisms of a company; and
- to gain (first) experience with job applications and the job market.

¹ Examples for companies are given on the website of the study programme. The director of studies needs to approve internships that cannot be clearly associated with materials science and engineering.

Financial aspects

The employer may contribute to the student's expenditures with a financial compensation. In turn, interns are subject to the company-specific guidelines.

Approval of the internship and decree of the ECTS credit points

Students must submit a final report to the D-MATL Study Administration Office together with a copy of the job reference letter or employment certificate. The report may be subject to revisions. If all requirements are met, the ECTS credit points are decreed.

Final report

The final report should include the following sections:

- company and industrial sector,
- project and activities (description for a non-specialist reader),
- acquired subject-specific, methodical, social and personal competences,
- personal reflections (for example: Were there surprising or challenging aspects of the internship? Will this internship inform future career-related decisions?).

The report (less than 10 pages) must have a cover page detailing the duration of the internship, place of work and name/e-mail address of direct supervisor. Reports in which passages are blackened for the purpose of nondisclosure are not accepted. If the company has doubts regarding confidentiality, please contact the D-MATL Study Administration Office to discuss how to proceed.

Problems with the organization of the industrial internship

Students who have difficulties finding an internship (e.g., repeated unsuccessful applications) should contact the D-MATL Study Administration Office.

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