Chair of Materials Engineering of Additive Manufacturing
TUM School of Engineering and Design
Technical University of Munich

# HIWI Position
# Preparation of Teaching Materials and Support for the Course "Additive Manufacturing for Sustainability"

**Motivation**

The course *Additive Manufacturing for Sustainability* introduces students to sustainable practices in fabrication by applying additive manufacturing (AM) technologies. It emphasizes energy efficiency, material use, and environmental impact while fostering interdisciplinary collaboration and practical problem-solving.

To ensure excellent teaching and student learning outcomes, we are seeking a motivated student assistant (HiWi) to support the preparation of teaching materials, exercises, and course organization.

**Objective**

The aim of this HiWi position is to assist the teaching team in developing and supporting educational materials and resources that:

- Introduce and illustrate sustainable practices in AM.
- Provide guidance for life cycle assessment (LCA) and sustainable design methods.
- Facilitate student group work, report writing, and poster presentations.
- Connect industry-academia collaborations (Bavaria Makes) with course content.

**Tasks**

- Prepare lecture slides, exercises, and workshop content.
- Develop templates and instructions for student reports and posters.
- Support the integration of case studies.
- Organize course resources and teaching materials (readings, databases, software manuals).
- Assist the teaching team during the project week (poster and prototype workshops).

**Your profile**

- Enrolled student at TUM with a valid work permit.
- Background in mechanical engineering, materials science, industrial engineering, or related fields.

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- Strong interest in sustainability, additive manufacturing, and life cycle assessment.
- Good organizational and communication skills.
- Ability to work independently and meet deadlines.
- Proficiency in English (written and spoken); German is a plus.

**What we offer you**

- An exciting role at the interface of additive manufacturing and sustainability.
- Insight into the teaching process in a interdisciplinary course.
- Practical experience with project-based learning and LCA tools.
- Close collaboration with scientific staff and course instructors.
- Flexible working hours (~8 hours/week).
- Payment according to TUM guidelines (link).

**Application:** If you are interested, please send your application documents (**cover letter, CV, and relevant certificates**) to **application.mat@ed.tum.de**

**Contact**

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