M.Sc. in Resource-Efficient and Sustainable Building
Department of Architecture | Faculty of Civil, Geo and Environmental Engineering

Key facts about the study programme

The aim of this Master’s degree programme is a profound transfer of extensive knowledge in the subject areas of resource efficiency and sustainability in the built environment. Today it is essential to seek solutions to tackle climate change, environmental destruction, rivalry for resources, demographic change and urbanisation to fulfil the statutory requirements coming into force in 2020 to ensure building operation with nearly zero CO2 emissions.

The study programme imparts multi- and interdisciplinary engineering knowledge and skills. This requires networked and system-orientated thinking, particularly due to the complexity of interactions between the factors involved. This includes conveying the basic foundations in specific fields of expertise including resource scarcity, energy efficiency, renewable energy, innovative building materials, material efficiency and life cycle analysis.

The study programme creates a new, independent career field that closes the gap that used to exist between the traditional professions of civil engineer / architect and environmental engineer while opening up career opportunities in a vibrantly developing branch of industry, also at international level.

Areas of expertise

- Sustainability in architecture, city and landscape
- Building services engineering and renewable energy
- Building physics and energy efficiency
- Construction engineering and life cycle engineering

Short profile of the study programme

Degree

Master of Science (M.Sc.)

Standard period of study / credits

4 semesters / 120 credits, full-time programme
Study programme begins:

Each winter semester

Application:

April 1 – May 31

Target group

Graduates with a Bachelor’s degree in architecture, civil engineering, environmental engineering, building technology or a similar programme of study

Requirements for admission

University degree (e.g. Bachelor’s degree) granting professional qualification in one of the subject areas mentioned above

Teaching languages

German and English

Number of students

30 - 40 per year

Costs per semester

130 €

Career prospects

Research, design/architecture/engineering firms, construction companies at national and international levels, technical management at federal, state and local levels