

Master's degree

The master's degree offers the opportunity to deepen or supplement a previous undergraduate degree in a scientific manner. The master's degree entitles the holder to a doctorate at a university and creates the prerequisites for access to careers in the higher civil service.

Requirements

- Bachelor of Engineering (B.Eng.), Bachelor of Science (B.Sc.) or Diplomingenieur (Dipl.-Ing.) of a university degree in the field of applied materials science with a bachelor's or diploma degree or a comparable engineering or natural science degree with at least 180 LP of study and an overall grade of 2,0 or better.
- For other degrees, an aptitude test determines admission.

Please refer to the university examination regulations.



About us

Material Engineering and Industrial Heritage Conservation Master of Science

M.Sc.

In today's professional world, engineers are looking into a bright job future. Studying at Technische Hochschule Georg Agricola University (THGA) means you are close to the practical matters of business and industry. We enjoy an excellent reputation among companies, and the components of our study modules are designed in close collaboration with the industry – thus, they focus on what is really demanded by the labour market. Nearly all of our students are writing their dissertations in a company and thus manage to secure their first employment once they obtain their degrees.

Around 2,500 students are currently enrolled at THGA. The advantage: small courses instead of packed auditoria and excellent advice and tutoring. The city of Bochum hosts eight universities with a total number of 56,000 students – so it deservedly can be called a real students' town. Bochum's pub and culture scene is legendary and thrives on creativity and diversity. THGA is located next to the city centre. Therefore, essential shopping areas, sights and leisure attractions can be reached either on foot or by subway.



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Master of Science

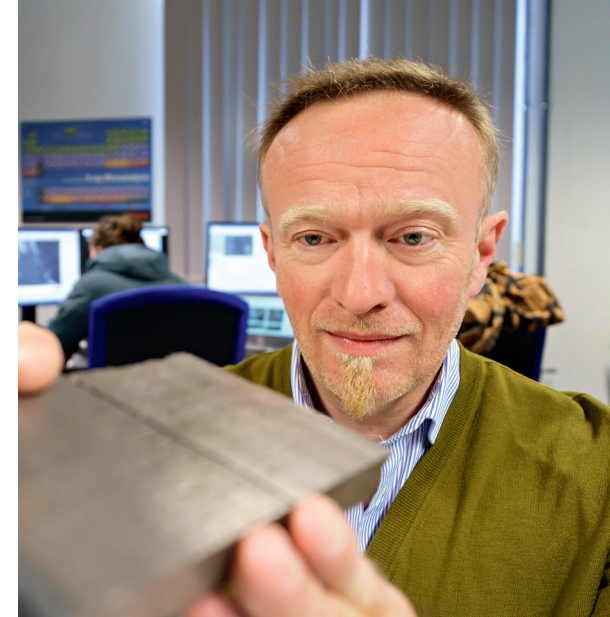
Material Engineering and Industrial Heritage Conservation M.Sc.

„Those who do their master’s in materials science have excellent career prospects and, with MEIHC, a chance to broaden their view for issues of sustainability.“



Materials science is a cross-sectional discipline in engineering that accompanies products throughout their entire life span. In this context, aspects of sustainability are gaining importance: materials produced using renewable energies or new manufacturing technologies through additive manufacturing. Aging, corrosion, and abrasion are analyzed when determining the possible life circle. At the end of their lifespan, objects with heritage qualities face the question of their preservation. Instead of demolition, collieries, plants, and large mining equipment can be reused. For a new purpose, material science and humanities interact: What do engineers need to know about the history of the materials and the buildings constructed from them? How does this knowledge help them to develop appropriate coating systems and apply substitute materials? To what extent can they control decay?

- The master’s degree program in Materials Engineering and Industrial Heritage Conservation (MEIHC) continues your graduate studies in applied materials science or a comparable program, completed with a bachelor’s or diploma degree.
- You will have a choice of either Industrial Heritage Conservation or Materials Engineering.
- You will gain an understanding of related engineering and humanities disciplines.
- The education is rounded off by cross-sectional qualifications.
- MEIHC includes practical modules at the Zollverein Foundation on the UNESCO World Heritage Zollverein.
- The cooperation with the Deutsches Bergbau-Museum Bochum enables the students to use the infrastructures and the professional exchange with its stuff.



Start of study

The program is designed to begin in the winter semester. The application deadline is July 15 annually. If you wish to enroll for the summer semester, please contact the Student Advisory Service as early as possible. In this case, the application deadline is January 15.

Duration of studies

This course of study can be completed on a full-time or part-time basis. The standard period of study is 4 semesters (full-time) or 6 semesters (part-time). All courses are held in the evening or on Saturdays.

Prospects

With the Master of Materials Engineering and Industrial Heritage Conservation, graduates acquire an internationally recognized additional qualification that enables them to take on demanding specialist and management tasks in industry, the trades, and the public sector. The master’s degree also entitles graduates to pursue a doctorate at a university and grants them access to careers in the higher civil service.

Modules of the program

Modules of the program (selection)

- Industrial Heritage
- Material Cultural History
- Surface Technologies
- Corrosion and Tribology
- Practice Course: The example Zollverein 1 & 2
- Consolidation in Practice: Damage Analysis
- Cultural History and Sustainable Theory
- Sustainable Management and Communication

Selective modules

Master thesis and colloquium