

MATERIALS SCIENCE

MSI-2024



SCAN FOR MORE

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MAJOR SUBJECTS

- Metals
- Heat treatment of metals
- Continuum mechanics
- Polymer materials
- Solid state physics
- Powder metallurgy
- Fracture mechanics
- Refractory ceramics
- Micro-nano fabrication technology
- Non-metallic binders
- Properties, testing and analytics of micro-nano materials

CAREER OPPORTUNITIES

- Medical engineering
- Automotive industry
- Metallurgical industry
- Aerospace industry
- Semiconductor industry
- Power plant construction
- Tool manufacturing
- Research institutions
- Continue to study in an international Ph.D. program.

Catalyze change and innovation through materials mastery

**DURATION**

Full-time | Four semesters (Two years)

**DOUBLE DEGREE
MASTER OF SCIENCE**English-language master program at Vietnamese-German
University and the Otto von Guericke University of Magdeburg**Admission Requirements**

Bachelor degree in relevant disciplines:

- Material Engineering
- Physics
- Chemistry
- Civil Engineering
- Mechanical Engineering
- Mechatronics
- or related engineering fields

Benefits of the program

Graduates will equip professional knowledge and skills (both technical and soft skills) in:

- Develop knowledge about the basic structure of materials
- Well-founded comprehension about material treatment and resulting material properties
- Know-how about different manufacturing processes of materials
- Versatile knowledge of different types of materials
- Ability of analyzing microstructures and conclude material properties on macro scale
- Expertise about modern materials and their specialized applications
- Scientific knowledge and methodology for PhD program
- Improved English skills due to English-speaking courses

ABOUT PARTNER UNIVERSITY AND PROGRAM

The Otto von Guericke University of Magdeburg focuses on research topics in the engineering and natural sciences. The development, modeling and characterization of materials in the fields of semiconductor-nanostructures, high-temperature materials or biomedical applications play an important role. The Master's program in Materials Science is designed to provide a profound knowledge of various materials and their applications. Students will gain an in-depth understanding of the composition, structure, description and characterization of materials such as metals, ceramics and polymers. In this context, knowledge of the manufacturing processes of various materials, in particular powder metallurgy and micro- nanotechnology is also imparted. In addition, knowledge of the relationship between material design and the resulting requirements and material properties for the material is included. With the Master's degree in Materials Science, students are able to apply the knowledge they have acquired in industry, potential employers include the metallurgical, automotive and aerospace industry as well as semiconductor industry. There is also the opportunity to work on research projects at universities in Germany.

