



Deutscher Akademischer Austauschdienst  
German Academic Exchange Service



## Table of Contents

<b>Master's degree .....</b>	<b>2</b>
<b>Materials Science • University of Stuttgart • Stuttgart .....</b>	<b>2</b>

# Master's degree



**Materials Science**

University of Stuttgart • Stuttgart

## Overview

Degree	Master of Science
Teaching language	<ul style="list-style-type: none"><li>English</li></ul>
Languages	The programme can be completely studied in English. Optionally, German modules can be chosen.
Programme duration	4 semesters
Beginning	Winter and summer semester
Application deadline	15 July for the following winter semester 15 January for the following summer semester
Tuition fees per semester in EUR	Varied
Additional information on tuition fees	EU citizens do not pay tuition, whereas non-EU citizens pay a tuition of 1,500 EUR per semester.
Combined Master's degree / PhD programme	No
Joint degree / double degree programme	Yes
Description/content	<p>Knowledge of synthesis, properties, and the relation between the structure and properties of materials plays a crucial role for developing new technologies. To obtain a broad and fundamental understanding of materials science, the Master's course of study provides the background for understanding material behaviour for a broad spectrum of material classes (metals, ceramics, polymers, biomaterials, nanomaterials, etc.).</p> <p>Lectures devoted to material synthesis and production/engineering routes, thermodynamic and kinetics of materials (e.g., phase transformations), and structural (strength) and functional (conductivity, magnetic) properties are cornerstones of the Master's course of study.</p>

## Course Details

Course organisation	To finish the Master's degree, modules must be completed in the total amount of 120 CP (CP = credit point; 1 CP equals a workload of 30 hours).
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## Compulsory Modules

### Winter semester:

- Synthesis and Properties of Inorganic Materials
- Advanced Materials Science Laboratory
- Practical Skills and Project Planning (related to topic of Master's thesis)
- Advanced Science Seminar

### Summer semester:

- Atomic Transport and Phase Transformations
- Polymer Materials Science

## Materials Science Specialisation (Compulsory Options)

The specialisation subjects represent the core of the scientific education. Presently, they can be chosen from the following:

- Advanced Materials Characterisation
- Functional Materials
- Inorganic Materials Chemistry
- Materials Theory and Simulation
- Metals and Structural Materials
- Nanomaterials and Surfaces
- Plastics Engineering
- Soft Matter and Biomaterials

Each of these subjects offers a choice of different related modules that can be selected in accordance to the Materials Science Specialisation subject catalogue.

## Optional courses

## Master's thesis

Information on the Materials Science curriculum is available on the following website:  
[https://www.mawi.uni-stuttgart.de/studium/master\\_okt16.en.html](https://www.mawi.uni-stuttgart.de/studium/master_okt16.en.html).

» PDF Download

International elements	<ul style="list-style-type: none"><li>• Courses are led with foreign partners</li></ul>
Description of other international elements	Double degree programme in Materials Science / Materials Engineering with the Chalmers University of Technology
Course-specific, integrated German language courses	No
Course-specific, integrated English language courses	No

## Costs / Funding

Tuition fees per semester in EUR	Varied
Additional information on tuition fees	EU citizens do not pay tuition, whereas non-EU citizens pay a tuition of 1,500 EUR per semester.

**Semester contribution**

Approx. 200 EUR per semester

**Costs of living**

Living expenses amount to about 940 EUR per month. You will have to demonstrate that you have sufficient finances to cover your living expenses for 12 months. EU citizens may apply for state-guaranteed loans during the time of enrolment. For more information, see the links on our websites.

**Funding opportunities within the university**

Yes

**Description of the above-mentioned funding opportunities within the university**

Please check our website on financial aid and scholarships: <https://www.uni-stuttgart.de/en/study/living-in-stuttgart/finances/index.html>.

## Requirements / Registration

**Academic admission requirements**

Bachelor's degree in materials science or a similar subject

**Language requirements**

One of the following English language test levels is required:

- TOEFL PBT: 575 points
- TOEFL CBT: 225 points
- TOEFL iBT: 90 points
- IELTS min. 6.5
- Cambridge ESOL CAE/CPE

For German high school graduates, five years of English education "Sekundarstufe I und II" with an average mark of at least 3.5 in the last two years is necessary.

Graduates of an English-taught Bachelor's course of study have to provide a certificate that English was the language of instruction.

**Application deadline**

15 July for the following winter semester  
15 January for the following summer semester

**Submit application to**

Application information can be found here: <https://www.uni-stuttgart.de/en/study/study-programs/Materials-Science-M.Sc-00001/>

The application portal can be found here: <https://campus.uni-stuttgart.de/cusonline/webnav.ini>

## Services

**Possibility of finding part-time employment**

Please be aware that it may be very challenging to finance your whole studies by working. Non-EU citizens are allowed by law to work for a maximum of 120 days per year. Only students who are employed by the university in one of the institutes or departments ("Studentische/Wissenschaftliche Hilfskräfte") are exempt from this regulation, but other restrictions apply.

For more detailed information, please consult our websites:

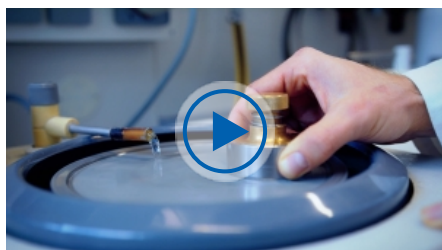
[International students: Financing your studies](#) and [Working During Your Studies](#)

#### Accommodation

Both the campus in Stuttgart-Vaihingen and the campus in the centre of Stuttgart have on-site halls of residence. Dorm rooms (ranging from 240 to 350 EUR per month) are furnished. Some are equipped with a sink, and all have access to kitchen and sanitary facilities, telephone and Internet. From the campus in Stuttgart-Vaihingen, the city of Stuttgart can be reached by suburban railway within ten minutes.

#### Support for international students and doctoral candidates

- Welcome event
- Buddy programme
- Tutors
- Accompanying programme
- Cultural and linguistic preparation
- Pick-up service
- Specialist counselling
- Visa matters
- Help with finding accommodation
- Support with registration procedures



## The Materials Science MSc study programme

Get an insight into the MSc programme Materials Science in just 120 seconds. Two students from the University of Stuttgart explain what is special about this programme and why they chose Stuttgart.

» more:  
[https://www.youtube.com/watch?v=K\\_pBx8qTEmw](https://www.youtube.com/watch?v=K_pBx8qTEmw)

# University of Stuttgart

#### Intelligent systems for a sustainable society

The University of Stuttgart is one of the leading technically oriented universities in Germany with global significance. Located centrally in an economically strong region with vast cultural integration, the university sees itself as a hub of university-based, extramural and industrial research. Furthermore, it takes a role as a leader in research-based teaching, focused on quality and holism. The university is dedicated to researching and strengthening the interfaces between technology, society and culture in an interdisciplinary manner, defined as the "Stuttgart Way". This means the integration of engineering, natural sciences, humanities and social sciences based on the

fundamentals of cutting-edge research at a disciplinary level.

### **Excellent research and teaching**

The University of Stuttgart implements innovative concepts in research and teaching in order to provide knowledge and strategies for a meaningful and sustainable development. It focuses on basic research that is both knowledge-oriented and application-related. To facilitate this research, the university is actively part of regional, national and international research networks.

The university is committed to the principle of unity between research and teaching. Students acquire knowledge, expertise and the power of judgement, in accordance with the guidelines of scientific research and awareness. The university fosters fascination for the sciences, supporting its students and junior researchers at all stages of their careers. It promotes independent thinking and provides an environment for responsible action. In doing so, it educates individuals into exceptional experts who think in an integrative and global manner and act responsibly in the sciences, economics and society.

### **A powerful region**

Founded in 1829, at the beginning of the Industrial Age, the University of Stuttgart continues to prepare the way for innovation within an economically and scientifically powerful region and contributes to the economic success and prosperity of our society. This process combines the requirements of a social and cultural change, which allows an early and extensive input of social interests in research and design as well as teaching and further education.

### **Open-mindedness**

The University of Stuttgart stands for open-mindedness, individuality and community spirit. It brings together students that are eager to learn, highly motivated employees, outstanding teachers, and excellent researchers as well as visionary thinkers and inventors. By means of its culture of integration, the university creates and conveys knowledge for shaping the future of our society.



## **University location**

The University of Stuttgart is nestled in one of Europe's most vibrant industrial regions. This fosters many forms of interdisciplinary collaboration – for instance, in numerous Collaborative Research Centres (also known as CRC or sometimes CRC/TRR) and in application-oriented research assignments. The University of Stuttgart sets up a close relationship and a successful transfer of knowledge and technology between its research institutions and business enterprises in the region and beyond. This very practical orientation benefits research and teaching. At the same time, economic players profit from rapid access to new scientific knowledge and contact to experts in their specialised fields. There are numerous possibilities of collaboration for businesses. Furthermore, the university also maintains a close relationship with non-university research institutions such as the Max Planck Society, the Fraunhofer Society, the German Aerospace Center and the German Literature Archive Marbach. Thus, the optimal prerequisites for cutting-edge research at the highest level are all to be found in Stuttgart.

# Contact

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🌐 Course website: <https://www.student.uni-stuttgart.de/en/study-programs/Materials-Science-M.Sc-00001/>

📘 <https://www.facebook.com/Universitaet.Stuttgart>

🐦 [https://twitter.com/Uni\\_Stuttgart](https://twitter.com/Uni_Stuttgart)

📷 <https://www.instagram.com/unistuttgart/>

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# International Programmes in Germany - Database

[www.daad.de/international-programmes](http://www.daad.de/international-programmes)  
[www.daad.de/sommerkurse](http://www.daad.de/sommerkurse)

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## GATE-Germany

Consortium for International Higher Education Marketing  
[www.gate-germany.de](http://www.gate-germany.de)

## Disclaimer

The data used for this database was collected and analysed in good faith and with due diligence. The DAAD and the Content5 AG accept no liability for the correctness of the data contained in the "International Programmes in Germany" and "Language and Short Courses in Germany".

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