

Are you eager to learn about materials and fascinated by different production technologies in an excellent industrial oriented study environment? Do you simply enjoy far reaching research in different production methods and new materials? Then you should decide Stuttgart as the best place to continue your studies!

## Master in Mechanical Engineering/ Materials and Production Engineering

We are looking for committed and motivated students who envision a long-term career in mechanical engineering between production technologies, materials and computer science! Does this fit to your future study plans? For sure Stuttgart is the most appropriate study place for you!

The Master's program in Mechanical Engineering/ Materials and Production Engineering (MPE) at the University of Stuttgart offers you an individual choice of your preferred courses. For this 4-semester master's program we are looking for graduates with a technical bachelor's degree, preferably from the following disciplines:

- Mechanical Engineering
- Materials science
- Automotive Engineering
- Aerospace engineering
- Mechatronics
- Technical cybernetics
- Electrical Engineering and Information Technology
- Technology Management



### In fact, in Stuttgart we do offer ...

...a broad choice of study courses at one of the most well-known universities in production engineering located in Germany with unique links to automotive, medical and AI businesses in Baden-Württemberg. This includes in particular the automotive and its supplier industry, aerospace and numerous global players in materials science, the newly established cyber valley with multiple disciplines in Artificial Intelligence plus a lot more. The equipment of the institutes and their fields of scientific work in research are world leading. The lecturers enable you to gain knowledge and opportunities in terms of:

- between mechanical engineering and materials science
- of a strong research orientation
- of a broad range of courses across all faculties
- of getting competences in sustainability and circular economy
- for interdisciplinary problem-solving competence
- in a solid network of industry and research contacts for internships and students support programs
- of a Double Master's Degree in cooperation with the Universidad Politécnica de Cartagena in Spain
- in semesters spent abroad within the framework of ERASMUS and ISAP partnerships

### Admission? – So easy!

You will be admitted after you have completed at least a six-semester bachelor's degree program in the above-mentioned fields of study at a university. You can find out more about the admission procedure, the possibility of admission without a complete degree (you are allowed to submit the Bachelor certificate later after your immatriculation) and other conditions of admission regulations of the University of Stuttgart at <https://www.uni-stuttgart.de/studium/bewerbung/master/zulassung/index.html>

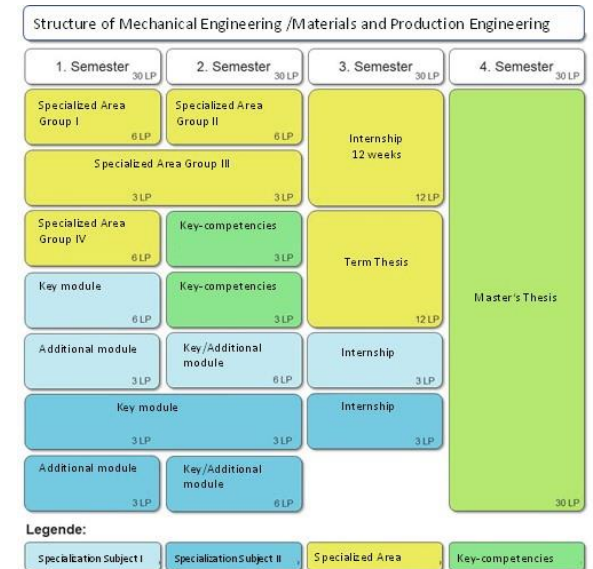
**We also perform short interviews to ensure a fair admission process for all our applicants. So please be ready to make a trip to Stuttgart for interview objectives on 18<sup>th</sup> February 2022 if invited. Apply for a visa therefor in time!**

**Application Deadline: 15<sup>th</sup> January 2022**

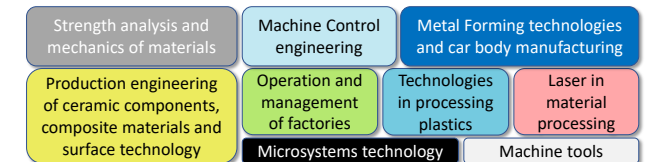
We are also happy to inform you personally! Please contact us at [zulassung@ifu.uni-stuttgart.de](mailto:zulassung@ifu.uni-stuttgart.de) or 0711 685 - 83877. You can get further information from our advisor apl. Prof. Seidenfuß at 0711 685 - 62590 or [michael.seidenfuss@imwf.uni-stuttgart.de](mailto:michael.seidenfuss@imwf.uni-stuttgart.de).

### Structure of your Master's program MPE in Stuttgart

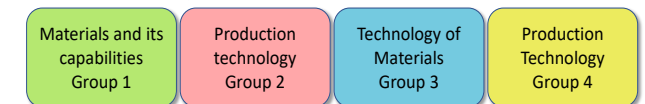
Due to the modular structure of the curriculum, we / you can largely adapt your course of studies to your personal interests. It is important to us that your master's degree would be completed in four semesters. One possibility to structure your studies is shown in the following macrostructure of the entire study programme:



The Specialization courses (Group I & II) in the MPE study program are the core of the program and may prepare you intensively for your future career. Here you can choose from a wide range of courses to learn in dept knowledge:



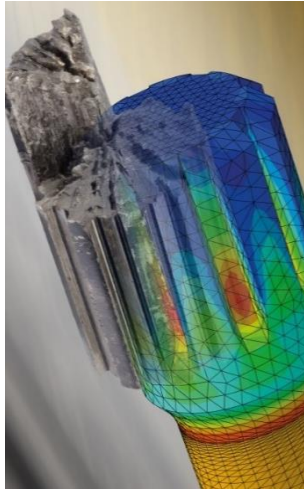
Other important modules are the Specialized Area. They are subdivided into four module containers (groups), within each you can choose between different modules (lectures). This way, you can adapt your study plan to your personal interests.



Please find further information on the particular lectures published on the individual institute's websites, by asking the study advisors or visiting the general homepage of our study program in Stuttgart <https://www.uni-stuttgart.de/wpt>

## Your future study contents at the University of Stuttgart

The Master's program in Mechanical Engineering/ Materials and Production Engineering (MPE) offers you a wide range of opportunities to develop and to deepen your strengths! Based on the open structured and well balanced study program, in Stuttgart you can combine your fields of expertise with plenty of opportunities at and around the university! Simply arrange appointments with the participating institutes and try to get access to the overwhelming offers and opportunities provided by Porsche, Audi, BOSCH, Mercedes-Benz and many others businesses strongly linked with the University of Stuttgart! Build your profile of competences:



### **Material engineering, Material synthesis**

(e.g. composites, nanostructures, functional surfaces)

### **Sheet Metal and Bulk Forming / Car Body Manufacturing**

(e.g. Fundamentals in forming sheet metals, technologies in car body plants)

### **Joining of metallic parts**

(e.g. laser and friction stir welding)

### **Machining technologies, Additive Manufacturing**

(e.g. machining, additive manufacturing processes)

### **Control Engineering**

(e.g. robot kinematics, IT architecture of Control Engineering)

### **Material simulation and Engineering design**

(e.g. finite elements, particle simulation)

### **Technology and knowledge management**

(eg. Internet of Things, Machine Learning, Data Science in production)

### **Microsystems technologies**

(e.g. fabrication of semiconductors, Surface micromechanics)

In Stuttgart lecturers and professors strongly stick to the connection of theoretical background and practical insights in their lectures as shown in the photo below taken during the lecture "Car body manufacturing".

Dean Prof. Liewald invited students to understand the use of high strength materials in car bodies and to explore specific sheet metal forming technologies.



In addition to your studies, your personal cooperation in current research and development projects is also wanted in Stuttgart! At the institutes you can apply for a job as a student assistant to be involved in exciting developments and visionary ideas with partners from industry. This way you will get familiar with material engineering as well as corresponding engineering and manufacturing processes of future products. In many cases new approaches in modern computer science (AI, big data and machine learning) are developed further. This makes it easy to put your lecture knowledge into practical work, to prepare you for your exams and finally, to come into contact with your future employer!



## Your Career prospects

Your career prospects as a graduate of the M.Sc. Mechanical Engineering/ Materials and Production Engineering (MPE) program are excellent. The unique combination of freely configurable compulsory and elective modules gives you the opportunity to develop individually and to expand your specialist knowledge to related fields. Involved institutes also will help to find suitable internships during the master's program and will arrange your compulsory student works. In addition, the institutes' networks and their ongoing cooperation with numerous software-, engineering and manufacturing companies in fact do offer many opportunities to establish contact to industry objecting your future employment.

## Shape your own future!

With your Master degree in Stuttgart, you are well prepared to shape the future. Exciting topics are waiting for you,

- in mechanical engineering
- in factory planning / technology management
- in micro- and nanosystem technology
- in metal forming, machining and joining technology
- in automotive engineering and sustainability
- Internet of Things applications in production
- Medical device engineering.....

plus a lot more.

What you waiting for? We are looking forward to greeting you next semester!

## Further information is available

[www.uni-stuttgart.de/wpt](http://www.uni-stuttgart.de/wpt)

[https://www.uni-](https://www.uni-stuttgart.de/studium/bewerbung/master/zulassung/index.html)

[stuttgart.de/studium/bewerbung/master/zulassung/index.html](https://www.uni-stuttgart.de/studium/bewerbung/master/zulassung/index.html)

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