

## Automotive Engineering (M.Sc.)

Please note

The degree programme "Automotive Engineering" has been renamed for the winter semester 2022/23. New name: "**Automotive Engineering and Mobile Systems**".

### General Information

This page contains information for students who started their studies from winter semester 2014/15 and **before** winter semester 2022/23. Special documents and downloads for the programme (admission regulations, course handbook, etc.), also for students who started their studies before WS 2014/15, can be found on the page [Documents](#).

### Structure of the Master's degree programme

The Master's degree programme builds on the undergraduate Bachelor's programmes of the Faculty of Mechanical Engineering. Ideally, students haven chosen the specialisation Automotive Engineering as early as possible in the Bachelor's programme. The diagram provides an overview. For detailed information, please refer to the [in-depth structure](#) of the programme and the course handbook (MHB).

1st Semester	2nd Semester	3rd Semester	4th Semester
Core Modules			Master's Thesis
Specialisation Modules			
Interdisciplinary Electives			
Laboratory			
Elective Modules			
Student Research Project			

Structure of the Masters' programme Automotive Engineering

### Core Modules

In the core area the module Modeling and Numerics of Differential Equations (5 CP) is mandatory. In addition, two modules must be selected from a limited catalogue.

## **Interdisciplinary Electives**

Teaching programmes in the extent of 9 CP are taken here. These primarily serve the acquisition of methodological and social competences (interdisciplinary qualification with professionalisation) and consist of modules with interdisciplinary and action-oriented offers for the teaching of interdisciplinary qualifications or competences. These modules can be selected from a list drawn up by the examination board and conclude with an attended course. You can also take language courses in the interdisciplinary profile development. It is decisive that the modules may NOT be part of the curricula Master's programme Automotive Engineering and Bachelor's programme Mechanical Engineering and that they MUST conclude with an examination event.

As these subjects are part of your certificate, you should use the opportunity to prove the acquisition of corresponding competences in your certificate. Graded certificates are noted on the report.

## **Master's thesis**

The **Master's thesis** has a volume of 28 CP and includes preparation of a written thesis including literature research. It concludes with a **presentation** of the results (2 CP). The processing period is 6 months. Both sub-modules must be passed separately. For the module grade the Master's thesis is weighted with 90 % and the presentation with 10 %. Only those who have passed all examinations and who have successfully completed the Student Research Project can be admitted to the Master's thesis. The Master's thesis can also be written in a company.

Important: The supervisor must be a professor of the Faculty of Mechanical Engineering. The supervisor will issue the topic and review the Master's thesis.

## **Specialisation modules**

In the specialisation area a large selection is offered. Here you have the possibility to set your own individual focus or to set up a wide range of knowledge. Three modules for 15 CP in total have to be taken.

## **Elective Modules**

In the elective area, modules of 15 CP have to be completed, which can be chosen freely within the entire Master's programmes offered by the Faculty of Mechanical Engineering (5 CP for each module). All modules are listed in Annex 2 of the Special Examination Regulations (BPO).

## **Laboratory Modules**

In the laboratory area, modules with laboratories are combined. You choose three 7 CP laboratory modules: 5 CP each, plus corresponding laboratory with 2 CP each.

## **Student Research Project**

The Student Research Project has a volume of 13 CP and must be submitted in written form after a processing time of usually three months. It concludes with a presentation (2 CP) of the results. The Student Research Project demonstrates the ability to develop, implement and present concepts. You should demonstrate that you can define goals for a larger task and develop interdisciplinary solutions and concepts. The Student Research Project can be done at any institute of the Faculty of Mechanical Engineering and is usually registered with the supervising institute. The registration and submission dates are also recorded there. Like the Master's thesis, the Student Research Project can also be carried out in a company.

Important: The supervisor must be a professor of the Faculty of Mechanical Engineering. The topic of the thesis will be handed out and evaluated by the supervisor.

**Service and advice**

Faculty of Mechanical Engineering

Serviceteam

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