Studienprofil

Design and Development in Automotive and Mechanical Engineering
Hochschule Esslingen
Master of Engineering

Program

Study in the heart of the European Automotive Industry

The Design and Development in Automotive and Mechanical Engineering program (DDM) is focused on the design and development of complex engineering systems.

It aims to prepare students for a challenging job in the core areas of design and development within the globalized mechanical engineering and automotive engineering industry. Strong focus is placed on the ability to communicate confidently in the international environment of modern industry.

Graduates of the DDM program usually aim to work in the following areas: the automotive industry and its component suppliers; manufacturer of machines and equipment, the mechanical engineering industry; the process engineering industry; and engineering consultancy.

Application details are published on our website >

Flyer (PDF) >

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Study

1. Semester
- Integrity of Structures (Integrity of Structures, Failure Analysis)
- Numerical Methods in CAE (Numerical Mathematics, CAE Methods and Algorithms)
- Dynamics (Multi Body Systems, Simulation of Multi Body-Systems)
- Design and Development 1 (Design Methodology, Ecologic and Economic Design, Reliability)
- Advanced Strength of Materials (Lightweight Design, Advanced Finite Element Method)
- Vibration and Acoustics 1 (Vibration and Acoustics Measurement/Lab)

2. Semester
- Vibrations and Accoustics 2 (Vibration, NVH in Automotive Systems/Lab Computer-Aided Vibration Analysis (CAT))
- Design for Manufacturing (Production-Oriented Product Design/ Product Life Cycle Management with Lab)
- Design and Development 2 (Advanced CAD, Design of Experiments)
- Project Work

3. Semester
- Soft Skills for Engineers
- Master’s Thesis

Application
Careers

As the Esslingen University of Applied Sciences is located in the very heart of the automotive industry, students benefit greatly from the close links to the technological and industrial leaders situated in the area, such as Bosch, Daimler, Audi, Festo, Porsche, Mahle Behr, and Trumpf. These are especially important when it comes to master’s thesis placement.

Learn to work in an interdisciplinary and intercultural environment

Some DDM students have the possibility to work on interdisciplinary projects commissioned by the industry. One example of this is the Bike2Go (Fahrrad2Go), which aimed to improve the availability of public transportation for cyclists. After winning the prestigious ÖPNV Innovation Prize, this innovative concept is now operating in the streets of Esslingen.

Location

The city of Esslingen has a population of over 93,000 inhabitants, and lies nestled in the vineyards overlooking the Neckar valley. Stuttgart, the capital city of Baden-Wuerttemberg, is only 20 kilometres away.

Near the university, there are many hiking paths through the vineyards and forests that can be explored on foot, by bicycle or segway. Within the city, there are many parks, the city castle, waterways, street cafés and theatres. In the winter, the old city centre lights up with a Christmas market; in the summer, live music, open-air cinemas and artisan’s markets make Esslingen come to life. Esslingen’s historical city centre, with its half-timbered houses, its cafés and its diverse cultural life, is an ideal surrounding for a successful study time.

Esslingen has a history reaching back over 1,200 years, a history in which tradition and progress have gone hand in hand. Since its industrialisation, Esslingen has been a major centre for engineering education, and it is this mixture of technical prowess and cultural tradition that makes Esslingen an ideal place to study.