study facts

Optimise your academic success
A mix of small groups, individual support and manifold learning formats offers ideal study conditions and prepares you most effectively for your career.

Professional experience as part of your studies
A practical semester and projects with real clients help you to establish contacts in the professional world at an early stage.

Benefit from the practical experience of our teaching staff
They come from the professional world, impart up-to-date knowledge and prepare you for the demands of the industry.

State University
Our study programmes are accredited and therefore quality-assured. As a state university we do not charge tuition fees.

Outstanding Place of Learning
According to UNESCO, h_da is an 'Outstanding Place of Learning for Sustainable Development'.

More on studying at h_da:
h-da.de/praktischunschlagbar

Study Programme Mechanical Engineering
Faculty of Mechanical and Plastics Engineering
Schöfferstraße 3, Building C 12
64295 Darmstadt
Phone +49 6151 533-5650
sekretariat.fbmk@h-da.de

Dual Study Programme
Mechanical Engineering can also be pursued as a dual study programme:
h-da.de/dual

Counselling & Advice
The first point of contact for most questions about studying is the Student Service Center, or SSC for short. In addition to study counselling and information on the details of the application procedure, the SSC also offers advice on the organisation or financing of your studies.

Student Service Center
Schöfferstraße 3, Building C 23
64295 Darmstadt
Phone +49 6151 533-5555
studienberatung@h-da.de
h-da.de/studienberatung

BAföG Student Grant & Student Accommodation
studierendenwerkdarmstadt.de

Study Abroad
international.h-da.de

All information about the study programme:
fbmk.h-da.de/maschinenbau-master

h_da
hochschule darmstadt

also offered as a dual programme

Mechanical Engineering

Master of Science

member of
EUT+
EUROPEAN UNIVERSITY OF TECHNOLOGY

Course Outline

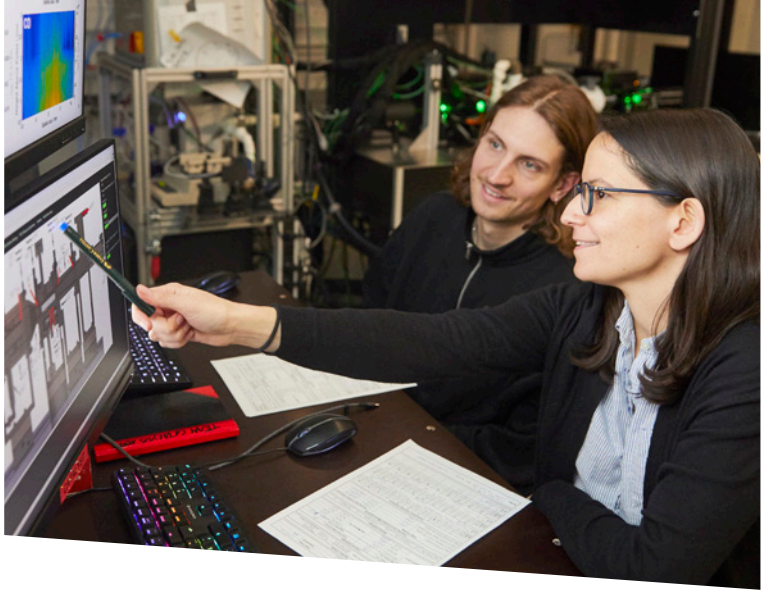
The master's programme in Mechanical Engineering builds on basic engineering knowledge with a focus on sustainable product development over four semesters. Students can follow their individual interests by choosing modules from a wide range of core electives, e.g. Eco-Design, Regenerative Energy Conversion, Statistical Methods/AI or Process Control.

Practical activities in laboratories, on machines and with modern modelling and simulation tools complement theoretical knowledge in an application-oriented manner. In scientific project work, students contribute independently to current research topics, training their skills in methodical work and critical thinking in scientific contexts and with interdisciplinary references. Furthermore, the programme imparts leadership and teamwork skills.

Numerous industry contacts and the EUT+ university alliance ensure practical relevance, up-to-date content and international networking. A dual study programme with vocational and academic elements as well as a part-time programme alongside work are available.

"The balanced mix of theoretical knowledge and practical application prepared me perfectly for my career start. The holistic approach taught during my studies has been particularly helpful in project management and has opened numerous doors for me in the course of my working life."

Dipl.-Ing. Thorsten Kaebernick
Technical Applications Director, Coryton
Graduate of Darmstadt University of Applied Sciences



Entry Requirements

Admission to the master's programme is granted to candidates having obtained a first degree in a technical engineering subject (bachelor's degree or diploma, e.g. in Mechanical Engineering, Mechatronics, Automotive Engineering, Polymer Engineering, etc.) with an overall grade of "good". In special cases, the Examination Board will decide on admission individually.

The programme usually starts in the winter semester. A start in the summer semester is also possible.

Career Prospects

Industries (selection):

- mechanical and electrical engineering
- plant engineering
- automotive engineering
- medical and environmental technology
- aerospace technology

Activities (selection):

- research and development
- design and production
- management positions
- employed or self-employed

The Master's degree provides an opportunity to pursue a doctorate and qualifies graduates for higher civil service positions.

Mechanical Engineering Master of Science

1st semester	2nd semester	3rd semester	4th semester
Production Systems, 5 CP	Advanced Thermodynamics & Renewable Energies, 5 CP	Component Optimisation and Hybrid Lightweight Construction, 5 CP	Master's Seminar on Scientific Publishing, 5 CP
Multibody Systems, 5 CP	Structural Durability, 5 CP	Ecological Assessment of Technical Products, 5 CP	Master's Thesis with Colloquium, 25 CP
Mechanical Engineering Core Elective, 5 CP	Mechanical Engineering Core Elective, 5 CP	Mechanical Engineering Core Elective or Research Project, 5 CP	
Mechanical Engineering Core Elective, 5 CP	Mechanical Engineering Core Elective or Research Project, 5 CP	Mechanical Engineering Core Elective or Research Project, 5 CP	
Mechanical Engineering Core Elective, 5 CP	Engineering Research Project, 5 CP	Economics and Sustainability in Enterprises, 5 CP	
Mechanical Engineering Core Elective or Research Project, 5 CP	Interdisciplinary Challenges of Social Developments, 5 CP	Economics and Sustainability in Enterprises Core Elective, 5 CP	

Entry requirements:

A qualified bachelor's degree or diploma in one of the fields of mechanical engineering, polymer engineering, process engineering, or mechatronics with an overall grade of 2.5 or better and at least 180 CP.

- The faculty offers qualification courses for applicants lacking basic knowledge (e.g. in the fields of mathematics, engineering mechanics, thermodynamics) for the core subjects of the master's programme. Participation in and successful completion of these qualification courses may be defined by the Examination Board as additional courses to the regular master's programme for those applicants.
- In individual cases, applicants with a grade of better than 3.0 and an ECTS grade of "C" or better may be admitted on application. The prerequisite for this is that candidates show a clear affinity to the field of study, in particular through good performance in basic subjects.
- English language skills are recommended.

For detailed and binding information, please refer to the BBPO.

Career Prospects:

The master's degree

- qualifies graduates e.g. for positions in
  - research and development,
  - design and production,
  - management positions,
  - employed or as a freelancer

  in the following industries (selection)
  - mechanical and electrical engineering,
  - plant engineering,
  - automotive engineering,
  - medical and environmental technology,
  - aerospace technology,
- qualifies graduates for higher civil service positions and
- provides an opportunity to pursue a doctorate.

The Diploma Supplement, which assigns an ECTS grade from A to E to the grade, simplifies the recognition of the degree abroad.

CP: The size of the module blocks corresponds to the average amount of studying and learning required. Credit points (CP) are awarded for modules completed - usually 30 CP per semester.
Colour legend: standard module, final thesis, practical phase, core elective, specialisations, interdisciplinary qualifications