Mechanical Engineering

Degree	**Bachelor of Engineering (B.Eng.)**
Type of study	**Cooperative**
Standard period of study	**6 semester (incl. internship)**
Commencement of studies	**Winter semester (1 Oct)**
Credits (ECTS)	**210**
Language of instruction	**German**
Department / Central Institute	**Department of Cooperative Studies**

Degree programme

Machine Construction is one of the central pillars of the German economy. The traditional image of Machine Construction Engineers beavering away in isolation at the drawing board has outlived reality; today's industry is a globally-networked and increasingly digitalized organization attuned to the needs of their customers. The constantly growing set of challenges facing the branch – flexibility, innovation and responsiveness – translate into the requirements placed on recruits. In addition to specialist expertise, modern day engineering graduates need the methodological, personal and social skills requisite to facing the challenges of today and tomorrow.
In response, the HWR Berlin has developed the cooperative studies degree programme Mechanical Engineering to meet the needs of modern industry. Working in close collaboration with a range of partner companies, we provide students with the opportunity to apply their knowledge in a prac- tical context, thereby graduating ready for the world of work. The alternating theoretical training and practical phases enable the students to move between a range of specialisms to provide a well-grounded overview of their chosen profession.

Professional field

Once on the employment market, our graduates are able to deploy a flexible response to the many and various challenges with which they are presented. These can range from service provision over development and design up to manufacturing planning and organization. They are also called upon to perform a range of management tasks.
Working in planning offices, small and medium suppliers and inter- nationally-active companies, our graduates find employment in a variety of branches ranging from Automotive Manufacturing to Machine Construction and Medical Technology.

Degree structure

Part One of the degree programme focuses on the Principles of Mathematics and Mechanics as well as providing an overview of Machine Construction: Manufacturing Processes; the Principles of Design; Technical Drawing; and Materials Science.
Part Two of the degree mixes a range of specializations (e. g. Production Systems and Production Management; Design Methods) with interdisciplinary subjects (e. g. Business Administration, Quality and Project Management) and example specializations (e. g. Measurement and Control Engineering and Renewable Energies) with a close association to Engineering practice.

Division Director
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- **Contact profile**
  Rate on MeinProf

Guidance for prospective students
Department of Cooperative Studies
Personal counselling for dual study programmes

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studienberatung.dual@ hwr-berlin.de

Office hours (without advance notice)
Thu 15.00 -17.00

Study counselling by telephone
Thu 14.00 -15.00

Course contents

Scientific and Business Administration principles:

- Mathematics/Physics
- Business Administration
- Foreign Languages

Technical foundation subjects:

- Mechanics (Statics/Strength of Materials/Kinematics and Kinetics/ Mechanical Vibrations)
- Production Procedures and Technology
- Design and Machine Elements
- Technical Drawing and CAD (Computer-Aided Design)
- Materials Science
- Thermodynamics and Fluid Mechanics
- Computer Science
- Electrical Engineering/Electronics
- Measurement and Control Systems

Students learn the principles and methods of both product development and production.

Specialist modules:

- Design Methods
- Production Systems and Control
- Numerical Calculation Methods (e. g. Finite Element Method – FEM)
- Quality and Project Management
- Renewable Energies

Admission requirements

- University entrance qualification or an entrance qualification for a University of Applied Sciences
- A contract (on a form) with a suitable apprenticeship institution/ company

Application procedure and deadlines

Those interested in a dual study program do not apply to the HWR Berlin but directly to the dual partners using the partner database on our website. These partners select their future dual students from the applicants and conclude a study agreement with them.

Apply in time: Many companies select their dual students more than one year before the start of studies.

The cooperation partners of this study programme are listed at the end of this page.

Accreditation

Programmakkreditiert durch den Akkreditierungsrat

Fees and grants

Tuition fees	**None**
Semesterfee	**ca. € 300 per semester (incl. local transport semester ticket)**