Hochschule Düsseldorf
University of Applied Sciences

Faculty of Mechanical
and Process Engineering

Bachelor of Engineering

Mechanical Engineering – Production Technology

Ready for digitalisation and Industry 4.0!

As a mechanical engineer in production technology, you ensure optimised, cost-efficient and smooth production of components or entire machines. Options in production technology are diverse: cutting manufacturing (turning, milling, grinding etc.), chipless manufacturing (founding, rolling, welding, plastic injection moulding) or even state-of-the-art methods such as 3D printing. The ideal manufacturing technique depends on the form of the product, but also on the kind of material. Metals, plastics, ceramics and special materials require different techniques.

Production engineers also organise the production processes in a plant. This includes the ideal physical configuration and

chronology of the different steps of the production, smooth provision and distribution of the material and proper personnel planning.

In state-of-the-art production technology, computer-based methods (CAD, CAM, ERP) support manufacturing and organisational processes.

To produce a new product, product developers and production engineers work partly simultaneously. First, experts in product development work on the concept: functionality, form and design, choice of material etc. Production engineers consult them in the process and are responsible for smooth, cost-efficient production.

Thanks to their interdisciplinary training, mechanical engineers can work closely in teams with experts across many fields. Many mechanical engineers also use their knowledge acquired in relevant courses and projects at university to take on management responsibilities later on.

Please note: The language of instruction is mainly German.

Career Options

Mechanical engineers specialised in production engineering can work in any company planning to produce new machines, devices or entire systems made of machines and devices. Typical industries include e.g. mechanical engineering, plant engineering, vehicle construction, power engineering, process engineering, aerospace, electrical engineering, medical technology, safety technology, agrotechnology, food technology, engineering services.

Many mechanical engineers work in mid-sized companies. However, there are also options in larger companies or even in self-employment. Due to increasing intercommunication and interdisciplinary division of labour in production, companies tend to work with external engineering services – to supervise the production process. Thus, this field offers more and more interesting job prospects for production engineers.

Admission Requirements

Please check if you meet all requirements for admission to the study programme. Further information:
mv.hs-duesseldorf.de/bpt-en

SYLLABUS

SEMESTERS 1–2

– Mathematics and Computer Science
– Fundamentals of Natural Sciences
– Fundamentals of Engineering
– Fundamentals of Business Administration
– Project Work, Languages, Management

SEMESTERS 3–4

– Electrical Power Engineering
– Fundamentals of Fluid Mechanics
– Materials Technology
– Strength of Materials and Dynamics
– Cutting and Chipless Manufacturing
– Machine Parts
– Control Engineering
– Cost Accounting and Results Accounts
– Scientific Computing
– Enterprise Resource Planning
– Project Management and Problem Solving Methods

SEMESTER 5

– Internship Semester

SEMESTERS 6–7

– Measurement Technology
– Factory Planning and Quality Management
– Product Data Modelling
– Production Metrology
– Design Project: Designing and Manufacturing a Real Product
– Compulsory Elective Modules
– Compulsory Elective Module: Production Engineering
– Bachelor's Thesis
– Colloquium

Please check the module manual (currently only in German) for detailed information on the contents of the study programme.

Further Information

Events for prospective students (in German only)
hs-duesseldorf.de/zsb_veranstaltungen

How to apply
hs-duesseldorf.de/prospectivestudents/degreeseekings/application

Information for international applicants
hs-duesseldorf.de/degreeseeking

About the programme and admission requirements
mv.hs-duesseldorf.de/bpt-en

HSD on social media
facebook.de/hsduesseldorf
instagram.com/hsduesseldorf

Get in Touch

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