

At a Glance

Target Group

Tech-savvies interested in smart production, digitalisation and in production management.

Degree

Bachelor of Engineering (B. Eng). Mechanical Engineering / Manufacturing Engineering and Management

Time of Studies

You will be awarded a Bachelor of Engineering after an average of seven semesters (210 ECTS credits). In the 5th semester you perform a practical semester ("coop").

Admission Requirements

- General or specialised university entrance qualification
- Ten weeks of previous internship (to be performed before the fourth semester commences; technical school or training is recognised)
- Passing the entrance test English level B2 (proof is required until the end of the third semester at the latest)

Start of Lectures

- Winter semester: early October

Specific Features

- Combination of mechanical engineering, production technology, basics of digitalisation and management
- Modular design closely interacting with Mechanical Engineering / Industrial Engineering and Management
- Practical enhancement of the curriculum in various labs
- Self-directed project work Accompanying excursions to market-leading companies of the most diverse industries

Application and Queries

Exchange or degree-seeking students please contact our International Relations Office:

✉ incomings@hs-aalen.de

Aalen University

Close to working life, innovative and strong in research: At Aalen University, almost 6,000 students are currently studying in more than 50 bachelor and master courses to become the specialists of tomorrow. The theoretical principles, which the students learn in lectures, can be tested and put to work in state-of-the-art laboratories, workshops or the Innovation-Center right on one of the most attractive campuses in Germany. Through close cooperation with the regional economy, which includes many international market leaders as well as hidden champions, students are given the opportunity to build a network during their studies. Therefore, graduates of Aalen University are equipped with the best chances when starting their professional life.



hs-aalen.de/mbp



Contact

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Mechanical Engineering /
Manufacturing Engineering
and Management
Bachelor of Engineering (B.Eng.)

Mechanical Engineering / Manufacturing Engineering and Management

This programme is much more than classic mechanical engineering! It combines sound mechanical engineering with smart production technology and trendsetting management methods for a digitized world. The programme provides broad and in-depth knowledge for production technologists and production managers of tomorrow because it relies on three pillars: rock-solid mechanical engineering, practical production methods (including Industry 4.0) and trendsetting management methods. During basic studies, you will learn the basics of mechanical engineering, digitalisation of value chains and business management that you will use in your fifth semester during your 6-month (industrial) internship at home or abroad. In the main studies, you will learn about important production technologies and modern management methods, developing you into the smart factory manager of tomorrow.

Study Overview

Semester	Main Studies	7	Bachelor Thesis		Studium Generale	Technology II		Management II	Further qualification Master Technology Management (M.Eng.) Product Development and Manufacturing (M.Eng.) Industrial Management (M.Eng.) Data Management in Product Development and Production (M.Sc.)	
		6	Statistics	Control Engineering	Project Work	Technology I	Management I			
		5	Practical Semester							
		4	Applied Math II Scientific Computing	Measuring Technology	Technology I			Management I		
		3	Applied Math I Programing	Electrical Engineering	Mechanics of Materials II	Construction III	Quality Management	Cost Accounting		
		2	Mathematics II	Technical Mechanics 2 Dynamics	Mechanics of Materials I	Construction II	Thermodynamics	Basics of Business Management		
		1	Mathematics I	Technical Mechanics 1 Statics	Material Sciences	Construction I	CAD	Production Processes		
		30 credit points can be obtained in each semester, 210 credit points in total.								
		<div><div></div> Compulsory Module <div></div> Optional Compulsory Module <div></div> Project Work</div>								

Programme Content

After your basic studies, you may choose out of several subjects in production engineering (laser processing, robotics, additive manufacturing, machining, innovative metal forming and casting) and management (production-, supply chain-, quality-, project-, value- and general management). In the later progress, these subjects are further enhanced.



Course Process

Educational Format and Didactical Concept

The curriculum and knowledge of the subject are brought home to you with the help of modern media in lectures. Another part of the programme is independent elaboration of technical contexts in teams. These lectures are supported by practical laboratory exercises. In addition, you will be given the opportunity to repeat and enhance the acquired theoretical content in practical excursions.

Expertise

With your graduation, you will have acquired important professionalism, methodological and social skills:

- Basic machine-design
- Basics of digitalisation
- Basic business management knowledge
- Management methods and tools
- Methods of engineering
- Smart production technologies
- Teamwork capability by many projects

After Graduation

Graduates of this programme are decision-makers and managers in the smart factories of tomorrow. They have the best career options because they understand processes in companies comprehensively and develop professionally in many fields:

- Production planning or management
- Quality management or lean management
- Project planning and control
- Process development
- Production control
- Product development or product project management

The programme is perfectly linked up with the strong and internationally oriented local industry. This gives our graduates many interesting options.