

Overview

Target Group

Digitally inclined with an interest in innovative production processes, digital production technologies and solutions.

Degree Awarded

Bachelor of Engineering (B.Eng.)

Duration of Study

- 7 semesters standard period of study
- Scope of study: 210 ECTS
- Practical study semester in the 5th semester (in Germany or abroad)

Admission

Requirements

- University entrance qualification (§ 58 LH)
- Successful completion of an English placement test B2 (by the end of the third semester at the latest)

Unique Features

- Optional international semester, without extending the period of study
- GreenTech specialization or certification available

- Comprehensive engineering education in the field of production environment with a focus on digital processes and solutions

Beginning of Studies

- Winter semester, beginning of October

Application/Admission



Step into the Future with Aalen University of Applied Sciences!

Practice-oriented, innovative, and research-driven: Aalen University of Applied Sciences currently educates nearly 4,500 students across more than 70 degree programs to become the skilled professionals of tomorrow.

Our hands-on approach bridges theory and practice, allowing you to apply what you learn in state-of-the-art labs, workshops, and our Innovation Center as well as through many student-led initiatives. Through close cooperation with regional businesses – including many global market leaders – students have the opportunity to build strong connections with local companies during their studies. Join us at Aalen University of Applied Sciences and unlock your potential for success!



hs-aalen.de/mbx-en



Prädikat
Familienbewusstes
Unternehmen



Contact

Questions regarding Visa, Travel, Bursaries

Contact our International Relations Office:
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More Information

Instagram

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Dean of Studies



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Digital Processes and Systems Innovation

Study program Process Engineering und Management
Bachelor of Engineering (B.Eng.)



Aalen University
of Applied Sciences

Digital Processes and Systems Innovation

Where Technology meets Business

Are you interested in innovative solutions in the production environment and curious about which digital processes can be used? Then you've come to the right place!

This program offers the perfect preparation for a product engineer, production technologist or as an engineer in the smart factory.

What opportunities await you? The "Digital Processes and Systems Innovation" degree offers a modern technical focus for all those aiming for a promising career in the field of digital production and smart technologies.

Highlights: Gain a global perspective with the "International Semester" without extending the duration of your studies. The "Green Technology and Economy" certification provides expertise in energy efficiency, sustainable mobility and resource efficiency.

Study Program

Smart Digital Learning

Why is this a perfect match? Possibility of specialization through individual focus areas after an comprehensive foundation phase in order to evaluate digital production processes and implement innovative solutions for companies!

1st-3rd semester: Technical and digital fundamentals to build a comprehensive understanding of innovative production methods and company processes.

4th semester: Deep-dive into advanced technical and digital topics including initial laboratory and workshop projects.

5th semester: (Industry) internship in Germany or abroad.

6th-7th semester: Continued specialization selected in the 4th semester and completion of the Bachelor's thesis.



Course of Study

Study Format and Teaching Concept

The advantage? The focus is on practice - no dry cramming. The basics are taught in an interactive way and digital production processes and technologies are covered during the course. In addition, the technical knowledge is put into practice, e.g. as part of a (international) semester or internship lasting several months. Beyond the technical focus, students can work independently with smart technologies as part of laboratory and workshop projects. Our degree program utilizes a large number of laboratories for this purpose. These include the Industry 4.0 Center and the Additive Manufacturing Laboratory.

Key Competences

Excellent preparation for your professional future and for strong career entry and promotion opportunities.

Fundamental engineering know-how paired with an in-depth understanding of digital production processes and technologies in the smart factory sector.

Overview

Semester	7	Bachelor Thesis		Studium Generale	Technology II or Management II	Digital Production II	Digital Production II	Further qualification opportunities Master Technology Management (M.Eng.) Product Development and Manufacturing (M.Eng.) Data Science and Business Analytics (M.Sc.) Data Management in Product Development and Production (M.Sc.)
	6	Applied Math II Scientific Computing	Industrial and Digital Control Engineering	Project Work	Technology I or Management I	Digital Production I		
	5	Practical Semester						
	4	Applied Math I / Programming	Industrial and Digital Measurement Technology	Technology I	Management I	Digital Production I	Digital Production I	
	3	Statistics	Electrical and Digital Technology	Production Processes	Construction III	Quality Management	Cost Accounting and Accounting	
	2	Mathematics II	Engineering Mechanics II Dynamics	Strength of Materials I	Construction II	Thermodynamics	Basics of Business Administration	
	1	Mathematics I	Engineering Mechanics I Statics	Materials Science	Construction I	CAD	Managerial & Digital Economics	
<div>30 CP can be achieved per semester, 210 CP in total</div> <div><div><div>Regular Module</div><div>STEM basics of digitalization</div><div>Elective Module</div><div>Modules for the "Green Technology and Economy" qualification programme</div></div><div>International semester: elective courses in the 4th, 6th or 7th semester can be completed abroad.</div></div>								



Top Career Prospects

As an interdisciplinary graduate with expertise in the future-oriented field of production-related digitalization, you will be well-positioned to launch a career in the following areas in particular:

- Big Data and Machine Learning
- Supply Chain Management
- Product and Project Management
- Process Development, Production Planning and Process Control