

# Industrial Engineering (work-integrated)

Bachelor

## PROGRAMME OBJECTIVES

Students of all nationalities learn to:

- combine engineering and economic principles with sustainability aspects and diversity
- develop holistic solutions for economic, logistical, ecological and social challenges
- assess, organize and optimize business processes economically as well as technically

Being part of the company from the very beginning offers the possibility to

- combine academic training with professional practice
- become familiar with the respective company's culture and
- achieve a high degree of efficiency in the job



## PROFESSIONAL FIELDS

Industrial engineers can put the skills and competencies they have acquired into practice in a wide range of areas. In addition to the aforementioned interdisciplinary approach balancing technology and business-related courses, topics such as sustainability and diversity also enhance the graduates' profiles.

Based on their broad education, graduates will be able to assess company processes not only technically, but also economically, and thereby start and control optimisation processes. Career options after graduation are manifold. Industrial engineers work in purchasing, production planning, product management, quality and project management or technical sales. Later on, they often also fill positions in marketing, finance and controlling.

## PROGRAMME CONTENT

All courses are taught in English.

1st Semester	2nd Semester	3rd Semester	4th Semester	5th Semester	6th Semester	7th Semester
<ul style="list-style-type: none"> <li>– Principles of Economics</li> <li>– Future Technologies &amp; Sustainability</li> <li>– Introduction to German Culture &amp; Language OR Intercultural Communication</li> <li>– Basics of Programming</li> <li>– Mathematics I</li> </ul>	<ul style="list-style-type: none"> <li>– Accounting and Finance</li> <li>– Procurement, Production &amp; Logistics</li> <li>– Physics</li> <li>– Innovation &amp; Project Management</li> <li>– Mathematics II</li> </ul>	<ul style="list-style-type: none"> <li>– Basics of Mechanical Design</li> <li>– Basics of Electrical Engineering</li> <li>– Engineering Mechanics – Statics and Strength of Materials</li> <li>– Databases</li> <li>– Statistics</li> </ul>	<ul style="list-style-type: none"> <li>– Cost and Investment Accounting</li> <li>– Lean Production &amp; Industrial Engineering</li> <li>– Business Process Modelling and IT Systems</li> <li>– Operations Research</li> <li>– Work-Related Project 1</li> </ul>	<ul style="list-style-type: none"> <li>– Controlling</li> <li>– Industrial Automation Technology</li> <li>– Materials Engineering</li> <li>– Production Planning and Control</li> <li>– Work-Related Project 2</li> </ul>	<ul style="list-style-type: none"> <li>– Marketing and Technical Sales</li> <li>– Control Technology</li> <li>– Microcontroller Programming</li> <li>– Supply Chain Management</li> <li>– Work-Related Project 3</li> </ul>	<ul style="list-style-type: none"> <li>– Human Resources Management</li> <li>– Industrial Communication</li> <li>– Quality Management</li> <li>– Bachelor Thesis</li> </ul>



## WORK-INTEGRATED STUDY PROGRAMME

In the work-integrated study programme, students are employed by a company throughout the entire duration of the programme. Being part of the company from the very beginning equips students not only with academic training but also with professional practice. Theoretical knowledge is put into practice and vice versa. Students become familiar with their respective company's culture and achieve a high degree of efficiency in their job.

Please find information on current offers and application processes in the company portal.

➤ [www.hsbi.de/quetersloh/unternehmensportal](http://www.hsbi.de/quetersloh/unternehmensportal)

## PROGRAMME ORGANIZATION

Students enrolled in the work-integrated study programme Industrial Engineering are at the same time employed by a company, which is the peculiarity of the work-integrated programme.

Each semester consists of an academic term and a work term.

The academic term comprises lectures, seminars and laboratory courses at the university.

The subsequent work term takes place in the respective company for which the student is working. During that period, theoretical knowledge obtained at the university can be applied to day-to-day business at the company. During the work-related projects (4th and 5th semesters) students examine specific subjects and elaborate and submit their findings in form of a scientific term paper. The work-related project during the 6th semester is not graded.

The relevant work experience integrated into the programme is beneficial for both the student and the company and can provide a solid foundation for a possible permanent position in the company after having achieved the bachelor's degree.

## FACTS

### Admission Requirements

- Proof of a practical placement with a cooperating company over the entire duration of studies
- Abitur, Fachhochschulreife or an equivalent school leaving certificate or educational background that qualifies for higher education.
- B2 level in English

### Application / Start of Studies

The application deadline is August 31.  
Start of study: winter semester

### For more Requirements on Admission and Application:



### Duration of Study

7 Semester (180 credit points)

### Degree

Bachelor of Engineering

### Cost

The current contribution amount  
➤ [www.hsbi.de/kosten](http://www.hsbi.de/kosten)

### Place of Study

Hochschule Bielefeld – University of Applied Sciences and Arts (HSBI)  
Faculty of Engineering and Mathematics  
Gütersloh Campus  
– Gleis 13, Haus III  
Langer Weg 9 a  
33332 Gütersloh  
– Flöttmanngebäude  
Schulstraße 10  
33330 Gütersloh  
➤ [www.hsbi.de/quetersloh](http://www.hsbi.de/quetersloh)

## CONTACT

Hochschule Bielefeld – University of Applied Sciences and Arts  
Interaktion 1, 33619 Bielefeld

General Questions on Studies  
Student Advising and Counselling  
(Zentrale Studienberatung, ZSB)  
Phone +49 521.106-7758  
➤ [zsb@hsbi.de](mailto:zsb@hsbi.de)  
➤ [www.hsbi.de/zsb](http://www.hsbi.de/zsb)

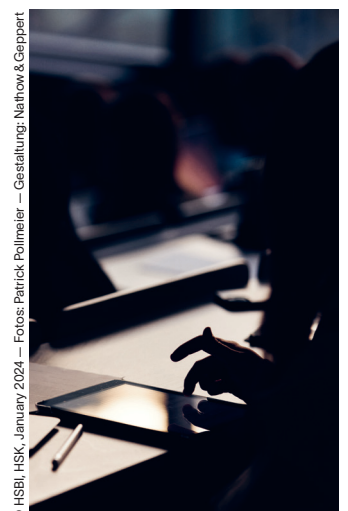
### Questions about the Degree Program

– Prof. Dr. Mariam Dopslaf  
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– Dr. Maria Kobert  
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➤ [www.hsbi.de/quetersloh](http://www.hsbi.de/quetersloh)

### Questions on Applications/ Admission

– Weronika Ludwig  
Phone +49 521.106-70797  
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➤ [www.hsbi.de/internationales](http://www.hsbi.de/internationales)

Information about internship offers and how to apply to the companies can be found on the company portal and via our e-mail distribution list for prospective students. All information and current events can be found at  
➤ [www.hsbi.de/praxisintegriertes-studium/studieninteressierte](http://www.hsbi.de/praxisintegriertes-studium/studieninteressierte)



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