Hochschule Düsseldorf
University of Applied Sciences

Faculty of Mechanical
and Process Engineering

Master of Science

International Industrial Engineering

Profile

As an industrial engineer, you combine expertise from two fields: economics as well as technology. You can solve technical issues with business expertise, think beyond individual departments and coordinate different interests. The study programme is interdisciplinary, combining technical and natural scientific, mathematical and analytical as well as economic and social-scientific contents and competences. This interdisciplinary training enables you to work on technical as well as economic or interdisciplinary tasks.

The three-semester master's programme focuses especially on management competences and production engineering issues. It builds on the engineering basis from the bachelor's programmes of the faculty and expands your knowledge in

comprehensive technological and management competences. These competences qualify you to manage and lead teams.

As the word ‘international’ in the name of the programme already indicates, the programme prepares you for issues in globally active corporations. As a unique feature, the innovative management methods of lifecycle and services management, technical sales, quality management as well as innovation and technology management form part of the syllabus. Scientific, practically orientated project work introduces you to the requirements of state-of-the-art international research structures. As a graduate, you are, thus, qualified to work in research centres or continue with doctoral studies. In the context of the course Engineering Conferences, you present research projects in English on an international in-house conference.

Depending on your bachelor’s degree, you can choose between up to three specialisations: production and innovation, energy and environmental or environmental and process technology.

Please note: The language of instruction is partly English, partly German.

Career Options

The master's programme International Industrial Engineering offers great career entry and future promotion prospects. The latest graduate statistics show that there is a great demand for industrial engineers, especially in the Rhine-Ruhr area with its large number of globally active manufacturing companies. These companies need generalists to optimise their processes from both the technical as well as the economic perspective. Also engineering services and consulting firms are interested in industrial engineers. They need these engineers particularly for strategic management relating to assessment and implementation of innovative technological developments.

Possible professional fields for graduates are diverse, but especially the following fields bear employment options for industrial engineers: production management and optimisation, (international) technical sales, product management, service engineering and management, innovation and technology management, logistics and supply chain management, research centres at higher education institutions and large, globally active enterprises.

SYLLABUS

SEMESTERS 1–2

– Innovation and Technology Management
– Quality Management Methods
– International Technical Sales Management
– Lifecycle and Services Management

Compulsory Elective Modules and Project Work

– Compulsory Elective Module 1
– Compulsory Elective Module 2 or Study Project 2 (Research & Development)
– Study Project 1 and Project Seminar (Research & Development)

SPECIALISATION

Production and Innovation

– Product and Change Management
– Production Optimisation Methods
– Operations Management

Energy and Environmental Technology

– Heating and Cooling – Renewable Energies, Combustion, Heat and Mass Transfer
– Electrical Power – Conversion, Storage, Distribution
– Environment – Noise Protection, Measurement Technology Air

Environmental and Process Technology

– Computer-Aided Process and Process Plant Design
– Energy and Environmental Process Optimisation
– Environment – Noise Protection, Measurement Technology Air

SEMESTER 3

– Engineering Conferences
– Master's Thesis
– Colloquium

Please check the module manual for detailed information on the contents of the study programme.

Further Information

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About the programme, admission requirements
and application:
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Get in Touch

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HSD Invites You

Visit us! Join courses during our yearly trial week (Schnupperstudium) and attend our information events (e.g. *Tag der offenen Tür*, *Hochschulinformationstage*, *Wochen der Studienorientierung*).

Information on all events (in German only):
hs-duesseldorf.de/zsb_veranstaltungen