



HSD

Hochschule Düsseldorf
University of Applied Sciences



Faculty of Mechanical
and Process Engineering

Bachelor of Engineering

Energy and Environmental Technology

Profile

Why should I study energy and environmental technology?

I would like to...

- help shape the future.
- use energy efficiently and sustainably.
- conserve our environment and resources.
- help fight climate change.
- choose a topical and innovative professional field.
- have diverse and good career prospects.

What are energy and environmental technology?

Energy technology is about the conversion and use of energy as well as aspects of energy management. Generating electricity in power plants, using renewable energies and applying energy-saving technologies are just a few examples. Environmental technology serves to reduce pollutant emission and noise.

Both areas require specific measurement technology. Holistic, ecological and economic assessment is an essential part.

What to expect from the study programme?

- Practical projects with other students already during the first semester
- Fundamentals of mathematics, computer science, natural sciences, business studies and engineering
- In-depth study of the diverse topics of sustainable energy and environmental technology
- Introduction to transferable skills such as project management, problem solving, teamwork
- Lots of practical work in the laboratory to practise and apply the theoretical knowledge acquired
- Five-month practical experience in a company as part of the syllabus
- Elective and specialisation options in project work, elective modules and bachelor's thesis
- Studying at the new, well-equipped campus in Düsseldorf Derendorf

Please note: The language of instruction is mainly German.

Career Options

What to expect from professional practice?

- You can work in development, product management, project planning or in technical sales for companies producing energy and environmental technology. In this field, the choice of employers is especially diverse. It covers the entire renewable energies industry, companies producing heating, ventilation and air conditioning devices, pumps, turbines, measurement technology etc. as well as process plants and devices in environmental technology.
- In engineering offices, you can conceptualise, plan in detail and perform calculations relevant for the construction of energy and environmental plants.
- For energy suppliers or in companies, you can be in charge of the operation of energy and environmental plants. Alternatively, you could work for a public authority monitoring such plants.
- In larger enterprises, you can be in charge of the corporate energy and environmental management.
- You can work as energy consultant for an energy supplier.
- You can also decide to continue your studies and complete a three-semester, postgraduate master's programme. After that, you could potentially proceed to doctoral studies in one of our research projects in cooperation with a partner university.

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

- Scientific Computing
- Heat Transfer
- Applied Thermodynamics
- Electrical Power Engineering
- Fluid Mechanics and Noise Protection
- Control Engineering
- Inorganic and Organic Chemistry
- Renewable Energies and Efficiency Technologies
- Combustion Engineering
- Mechanical and Thermal Process Engineering
- Project Management and Problem Solving Methods

SEMESTER 5

- Internship Semester

SEMESTERS 6-7

- Practical Training: Energy Engineering
- Energy Economics, Storage and Distribution
- Power Plant Technology
- Air Pollution Control
- Water Purification and Waste Water Treatment
- Environmental Law and Licence Procedures
- Project: Environmental and Power Engineering
- 3 Compulsory Elective Courses
- 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

Faculty contact:

Dean's Office at the Faculty of Mechanical
and Process Engineering

T +49 211 4351-2400

dekanat.mv@hs-duesseldorf.de

About the programme, admission requirements
and application:

mv.hs-duesseldorf.de/beut-en

Get in Touch

Admissions Office

zulassung@hs-duesseldorf.de

hs-duesseldorf.de/zulassungsstelle (in German only)

Student Advisory and Counselling Service (ZSB)

studienberatung@hs-duesseldorf.de

hs-duesseldorf.de/zsb-en

International Office (IO)

international-office@hs-duesseldorf.de

hs-duesseldorf.de/io-en

Family Support Centre

familienbuero@hs-duesseldorf.de

hs-duesseldorf.de/fam-en

Office of Counselling and Disability Services (ABS)

barrierefrei@hs-duesseldorf.de

hs-duesseldorf.de/abs-en

Psychological Counselling Service (PSB)

info.psb@hs-duesseldorf.de

hs-duesseldorf.de/psb-en

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

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

Publisher: Hochschule Düsseldorf – University of Applied Sciences
Student Advisory and Counselling Service (ZSB)
in cooperation with the Department of Communication and Marketing
and the Department of Strategy and Innovation
Last updated: April 2019