

Smart Engineering

Cutting Edge Engineering Degree

In an era defined by rapid technological advancements, smart engineering integrates latest technology with traditional engineering principles to design solutions that are efficient, sustainable, and groundbreaking and thus becomes the foundation of a modern society. Robotics and automated production are key enabling technologies for the next decade and require a sound academic qualification. The international friendly bachelor's degree program Smart Engineering offers the unique opportunity to acquire not only a cutting-edge engineering degree but also German language skills and the possibility to enter the European high tech job market. The program offers two German taught specializations in automation engineering and mechanical engineering as well as an English taught specialization electrical engineering.

Career Profile

Automation and mechanical engineers work in development departments, plant management, quality management, production, or technical sales. Thanks to the broad education in the fields of computer science, mechanical engineering, production engineering and electronics, they are in high demand in business and industry.

Study Focus

- Basic mechatronic subjects:
mathematics, mechanics, electronics, informatics
- Three high-tech specializations
 - Automation Engineering (B2 German required)
 - Mechanical Engineering (B2 German required)
 - Electrical Engineering (if German language is not sufficient at the beginning of Sem 5)
- Internship semester at Austrian companies
- Flexible elective modules with the three specializations

German language as door opener!

The degree program is taught in English during the first four semesters and switches to German from the 5th semester onwards. German language courses are firmly integrated into the curriculum to be able to complete the specializations and the professional internship in German.

Degree

- Bachelor of Science in Engineering (BSc)

Duration

- 2 + 6 semester (180 ECTS)

Admission Requirements

- High school leaving certificate or equivalent
- English language certificate B2 (TOEFL, IELTS)
- German language certificate A2
- CV, Letter of Motivation

Application

- Online until 30.06., Non-EU-Applicants: 31.05.
fh-ooe.at/application

Language of Instruction:

- This unique program allows international students to start their studies in English language while acquiring German language skills to start their professional career in the Austrian job market.
- Semesters 1-4 are taught in English.
- The program is taught in German from semester 5 onwards.

Admission Procedure

- Online application
- MS Teams interviews with pre-selected candidates

Mandatory Internship

- Minimum 10 weeks in Austria or abroad

Semester Abroad

- Semesters abroad and internships are encouraged and actively supported
- international@fh-wels.at

Tuition Fees

- Our university is publicly funded. Only a contribution to our running costs is collected from students: 3,888,- EUR for the first year.
- 726,- EUR for every additional semester (reduced by 50% for EU citizens)



Curriculum

Preparation (English)

01 Sem	Social Skills	Mathematics Preparation 1	Physics 1	English	German	
02 Sem	Social Skills	Mathematics Preparation 2	Physics 2	English	German	Applied Informatics

→ Entry for students with A-level/high school diploma or equivalent | German at A2 level

Qualification (English)

03 Sem	Social Skills	Mathematics 1	Mechanics 1	Electrical Engineering 1	German	
04 Sem	Social Skills	Mathematics 2	Mechanics 2	Electrical Engineering 2	German	Programming

Specialization (German)

05 Sem	Project Management	Specialization <u>German</u> Automation Engineering	Specialization <u>German</u> Mechanical Engineering	Specialization <u>English</u> Electrical Engineering
06 Sem	Social Skills	Robotic Systems Machine Vision Control Engineering PLC Programming Embedded Systems Applied AI	FE Simulation CFD Simulation Advanced CAD Modeling Material Sciences Thermo & Fluid Dynamics Digital Product Engineering Manufacturing Engineering	Electrical Machines Measurement Engineering Power Systems High Voltage Engineering Circuit Design PLC Programming Power Grids
07 Sem	German Social Skills	Software Engineering
08 Sem	Social Skills	Professional Internship	Bachelor Thesis	Electives

→ Bachelor of Science in Engineering (BSc)



This degree program has created a solid technical basis for my further academic career. The special thing is its versatility. Whether electrical engineering, image processing, control engineering, drive technology, etc., you get a high-quality education in a wide range of disciplines, both in theory and in practice through a variety of laboratory exercises.

DI Sandra Haas BSc, graduate

Contact

Head of Studies

→ Prof. DI Dr. techn. Roman Froschauer

Program Administration

→ Bozana Galic

University of Applied Sciences Upper Austria
School of Engineering
Stelzhamerstrasse 23, 4600 Wels/Austria
+43 5 0804 43075 | smartengineering@fh-ooe.at