



Hochschule  
Augsburg University of  
Applied Sciences

Fakultät für  
Elektrotechnik

# Studying at the Faculty for Electrical Engineering University of Applied Sciences Augsburg



# Faculty of Electrical Engineering



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23 professors  
18 academic support staff  
18 administration staff

800 bachelor students  
50 master students  
8 Ph.D. students

14 laboratories



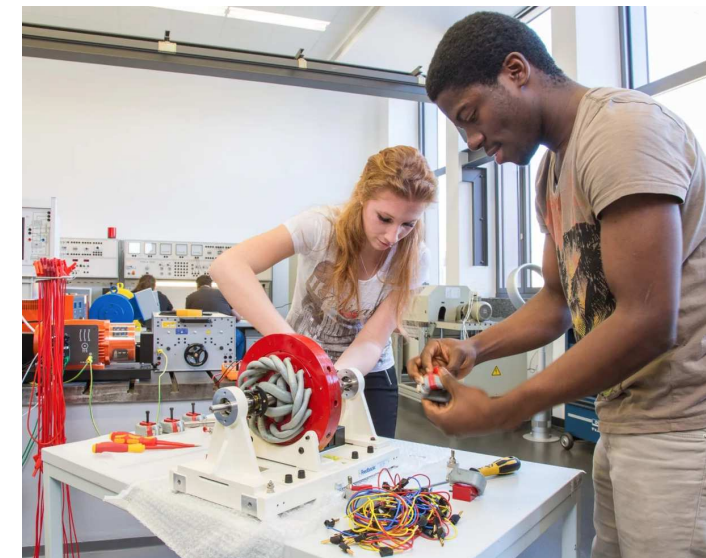
**Bachelor programs (7 semesters,  
including 1 semester internship):**

- Electrical Engineering
- Mechatronic Engineering
- International Management  
& Engineering  
Mandatory semester abroad  
cooperation with Faculty of Business
- Computer Engineering  
cooperation with Faculty of Computer Science
- Creative Engineering  
cooperation with Faculty of Design



## Master programs (3 semesters):

- Mechatronic Systems M.Eng.  
Mandatory semester abroad  
Double degree with University of Ulster, UK
- Applied Research M.Eng.  
research/development cooperation  
with companies
- Industrial Safety M.Eng.
- new from 2024/25:  
Electrotechnics M.Eng.



# English courses



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## Faculty of Electrical Engineering

### Bachelor level:

- Computer Science
- Electronics
- Matlab/Simulink
- LabView
- Projects
- Lab course Electro-technical Basics
- Lab course Renewable Energies
- Lab course Measurement

### Master level:

- Power Electronics & Electrical Drives
- Electric Power Systems
- VLSI Design
- Control & Automation
- Communications
- Mechatronics
- MEMS Materials & System Simulations
- Renewable Energy & Smart Grids
- Introduction to Safety, Security & Human Machine Interaction
- Cryptography and IT-Security
- Embedded Security

## Other faculties (selection): open to all exchange students

- Basics of Electrical Energy Storages
  - Flight Mechanics
  - Pneumatics
  - Regenerative Power Engineering II
  - Tribology
  
  - Advanced Visualization & Image Processing
  - International Project Management
  - Computer Games Development
  
  - Urban Planning
  - Facade Technology
  - Energy-efficient Design
- Managerial Accounting
  - Production & Logistics
  - Lean Management
  - International Marketing
  - Human Resource Management
  - Strategic Management
  
  - Everyday Chemistry
  - Nanomaterial & Nanotechnology
  - Intercultural Competence
  - German as a foreign language
  - Language courses (Spanish, Japanese, Danish, ...)

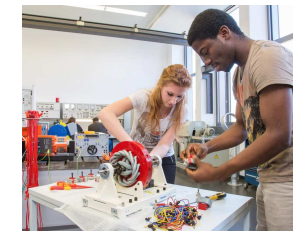
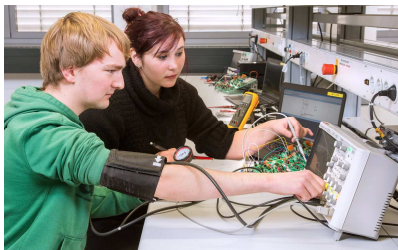
<https://www.hs-augsburg.de/en/international/Courses-recommended-for-Exchange-Students.html>



# Projects

Open for everyone

- flexible: 2-8 ECTS
- single or groups
- in one of 14 modern laboratories
- participation in larger projects possible (Formula Student etc.)



# Benefits for exchange students

## Service (International Office):

- Accommodation
- Introduction week
- Help with formalities

## Augsburg – an old young city:

- Culture & history
- Pubs, restaurants & entertainment



## Bavaria:

- Alps, castles, lakes, ...





HSA\_ired / Research / High frequency systems

## High frequency systems



- + Radar sensors for the digital traffic infrastructure
- + Gigabit transmission over rotary joints
- + Gigabit transmission over twisted-pair cables
- + Laboratory for high frequency engineering



# Nearby Companies



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KUKA Robots (Augsburg)



MAN (Augsburg)



BMW (Munich)



Rohde & Schwarz (Munich)







**Thank you  
for your attention!**

# Formula Student



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Design competition under  
the patronage of the  
Association of German  
Engineers

Task: to work as a team to design and manufacture a single-seat Formula racing car in order to compete against teams from all over the world.

Aim: to be the team with the best overall package with regard to design, racing performance, financial planning and selling points rather than having the fastest car.

## Academic Calendar:

- **Winter semester**
  - orientation week: end-Sept
  - start of lectures: Oct 1<sup>st</sup>
  - exam period: mid-Jan – mid-Feb
- **Summer semester**
  - orientation week: mid-Mar
  - start of lectures: Mar 15<sup>th</sup>
  - exam period: July





# Bachelor programs: Electrical Engineering



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Basic phase  
(sem. 1+2)

Math1+2, Electrical Engineering 1+2, Computer Science 1, Physics, Mechanics, Materials, Digital Technology, Construction, English

Comprehensive phase  
(sem. 3)

Signals+Systems, Electronic Components, Microcomputers, Electrical Engineering 3, El. Measurement 1, EM Fields

Specialization phase  
(sem. 4-7)

**Selection of:** Communications, Communication Systems, RF, Computer Science 2, Digital Signal Processing, Data Processing, Automation 1+2, High Voltage Technology, Power Electronics, Electric Power Systems, Electric Machines, Electronic Circuits, Control Theory, Systems Engineering, El. Measurement 2,

Internship

**+ Electives**

Final thesis

20 w. in a company + 3 complementary courses

Autonomous work in company or university

# Bachelor programs: Mechatronic Engineering



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Basic phase  
(sem. 1+2)

Math1+2, Electrical Engineering 1+2, Computer Science 1, Physics, Mechanics, Materials, Digital Technology, Construction, English

Specialization phase  
(sem. 3-7)

**Selection of:** Automation, Process Engineering, Control Theory, Machine Elements, Mechanics 2, El. Measurement 1+2, Signals+Systems, Electronic Components, Computer Science 2, Electric Drives, Systems Engineering, Microcomputers  
**+ Electives**

Internship

20 w. in a company + 3 complementary courses

Final thesis

Autonomous work in company or university

# Bachelor programs: Int'l Management & Engineering



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Basic phase  
(sem. 1+2)

Math1+2, Electrical Engineering, Materials, Mechanics,  
Electronics, English 1+2;

*Business Administration, Accounting, Marketing*

Comprehensive phase  
(sem. 3+4)

Automation 1+2, Computer Science, Electrical Power  
Engineering, Lab course;

*Production & Logistics, Economics, Finance & Investment, HR  
Management, Controlling; 2<sup>nd</sup> foreign language*

Specialization phase

Technical & Business Electives;

**1 semester abroad mandatory** (study or internship)

Internship

20 w. in a company

(sem. 5-7)

Final thesis

Autonomous work in company or university