

Electrical Engineering Curriculum (full-time)

Valid from Autumn Semester 2025/2026 / 21.02.2025

| Semester | Context Modules | Project Modules | Subject-Specific Modules | | | | Mathematics and Natural Science Modules | | |
|------------|------------------------------------|--|--|---|--------------------------|--------------------------------------|---|---------------------------------------|--|
| Semester 6 | Elective Module Context 2 | Bachelor Thesis: Electrical Engineering DE/EN 12 | Elective Module 2 4 | Elective Module 4 4 | Elective Module 6 4 | Elective Module 8 4 | | | |
| Semester 5 | Elective Module Context 2 | Elective Module Context 2 | Project Thesis: Electrical Engineering DE/EN 6 | Elective Module 1 4 | Elective Module 3 4 | Elective Module 5 4 | Elective Module 7 4 | Elective Module Cross-Curricular 4 | |
| Semester 4 | Elective Module Communication 2 | Electronics Project 2 EN 4 | Digital Signal Processing 1 DE 4 | Control Engineering Fundamentals DE 4 | Electronics 2 DE 4 | Computer Engineering 2 DE 4 | | Numerics DE 4 | Physics 3: Fields and Waves DE 4 |
| Semester 3 | Elective Module Communication 2 | Electronics Project 1 EN 4 | Signals and Systems 1 DE/EN 4 | Power Engineering and Drive Technology DE 4 | Electronics 1 DE 4 | Computer Engineering 1 DE/EN 4 | Stochastics and Statistics DE 4 | Analysis 3 DE 4 | |
| Semester 2 | Communication Compet. Basic 2 | Digital Technology Project DE 4 | Digital Communication Networks DE 4 | | Electricity 2 DE 4 | Computer Science 2 DE 4 | Linear Algebra 2 DE 4 | Analysis 2 DE 4 | Physics 2 DE 4 |
| Semester 1 | Business Administration DE 2 | Metrology Project DE 4 | Digital Technology DE 2 | Materials for Electrical Engineering DE 2 | Electricity 1 DE 4 | Computer Science 1 DE 4 | Linear Algebra 1 DE 4 | Analysis 1 DE 4 | Physics 1 DE 4 |

Module Name
Language of Instruction
Credits

Overview of Electrical Engineering elective modules

During your third year of study, you will choose eight of the following elective modules: This will allow you to create an individual profile, for example in the following areas:

- Automation, Drives and Energy Systems
- Computer Engineering
- Wireless Communications, Signal Processing and Sensor Electronics

| Semester | Module | Language |
|-----------------------------|---|----------|
| Semester 6 | Automation 2 | EN |
| | Communication Networks and Services 2 | EN |
| | Internet of Things 2 | EN |
| | Power Electronics and Electrical Drives 2 | DE |
| | Biomedical Engineering 2 | DE |
| | Microcomputer Systems 2 | DE |
| | Control Theory 2 | DE |
| | Robotics and Mechatronics 2 | DE |
| | Wireless Communication 2 | DE |
| | Advanced Electronics | DE |
| | Multicore und Parallel Computing | |
| Optoelectronics | | |
| Sensors | | |
| Semester 5 | Automation 1 | EN |
| | Communication Networks and Services 1 | EN |
| | Digital Image Processing 1 | EN |
| | Internet of Things 1 | EN |
| | Power Electronics and Electrical Drives 1 | DE |
| | Biomedical Engineering 1 | DE |
| | Microcomputer Systems 1 | DE |
| | Control Theory 1 | DE |
| | Robotics and Mechatronics 1 | DE |
| | Wireless Communication 1 | DE |
| | Embedded Software Engineering | DE |
| | Cryptology | DE |
| | System on Chip Design | |
| Digital Signal Processing 2 | DE | |