HAWK
HOCHSCHULE
FÜR ANGEWANDTE WISSENSCHAFT UND KUNST
Hildesheim/Holzminden/Göttingen
University of Applied Sciences and Arts

Engineering Sciences (B.Eng.)

Faculty of Engineering and Health
Examination Regulations 2025

Module Overview

- Calculus
- Dynamics
- Computer Science
- Electrical Engineering
- Analytic Geometry and Linear Algebra
- Structural Analysis
- Numerical Mathematics
- Control Systems
- Business Administration for Engineers
- Scientific Research Methods
- Technical English
- Required Projects (Junior, Senior)
- Elective-Compulsory Projects (A, B)
- Basic Required Modules
- Advanced Required Modules
- Advanced Elective-Compulsory Modules
- IPS Modules (HAWK plus)
- Bachelor's Practical Project
- Bachelor's Thesis
- Bachelor's Seminar with Final Colloquium

Specialization in Information Technology

- Computer Networks and Operating Systems
- Specialization in Computer Science
- Algorithms and Data Structures
- Microprocessor Technology
- Communication Technology
- Hardware & Software Design Patterns
- AI-Based Image Analysis

Specialization in Electrical Engineering

- Fundamentals of Electronics
- Technical Computer Science
- Microprocessor Technology
- Measurement and Sensor Technology
- Specialization in Electrical Engineering
- Semiconductors and Digital Electronics
- Digital Signal Processing

Specialization in Mechatronics

- Fundamentals of Electronics
- Design
- Strength of Materials / FEM
- Design
- Microprocessor Technology
- Semiconductors and Digital Electronics
- Materials Science
- Quality Management / Manufacturing Measurement Technology

Specialization in Mechanical Engineering

- Materials Science and Chemistry
- Design
- Strength of Materials / FEM
- Manufacturing Processes
- Fluid Mechanics / Thermodynamics
- Materials Science
- Quality Management / Manufacturing Measurement Technology

Specialization in Sustainable Production Engineering

- Materials Science and Chemistry
- Design
- Fundamentals of Laser Technology
- Manufacturing Processes
- Materials Science
- Industry 4.0
- Industrial Laser Applications

Specialization in Materials Innovation

- Materials Science and Chemistry
- Fundamentals of Plasma Technology
- Strength of Materials / FEM
- Fundamentals of Laser Technology
- Semiconductors and Digital Electronics
- Materials Engineering
- Battery and Fuel Cell Technology

Specialization in Laser and Plasma Technology

- Materials Science and Chemistry
- Vibrations / Waves / Thermodynamics
- Fundamentals of Plasma Technology
- Fundamentals of Laser Technology
- Engineering Optics
- Fundamentals of Quantum Technology
- Industrial Laser Applications