

information sheet
course of study

Electrical Engineering and Information Technology

General information

Engineers having studied Electrical Engineering and Information Technology are employed in various work fields and have excellent professional perspectives. This contains development, production, quality management, project work as well as distribution, service and expertise. This background in mind the programme aims to convey an education which is close to practical work and which is based on scientific knowledge and methods. This should afterwards enable the student to work self dependant as an expert in Electrical Engineering and Information Technology.

Course of Study

The programme is seven semesters in duration including a basic internship of eight weeks (first practical stage) and a practical semester of 18 weeks (second practical phase, during semester five). The scientific and engineering basic knowledge of Electrical Engineering and Information Technology is set during stage one of the studies (i.e. semester 1 and 2). These are:

- Mathematics 1 and 2
- Physics
- Construction
- Electrical Engineering 1 and 2
- Computer Sciences 1
- Materials
- English
- Basics in Business Sciences 1.

The **following two stages** are meant to transfer, intensify and apply the basics of Electrical Engineering and Information Technology learned in phase one, including one practical semester. Furthermore, the student has to choose between two branches of specialisation and has to write his/her Bachelor Thesis.

- Electrical Engineering 3
- Computer Sciences 2 and 3
- Digital Technology
- Applied System Technology
- Electronic Elements and Circuit Technology
- Electronic Measurement
- Telecommunications (analogue/digital)
- Electrical Devices and Machines
- Embedded Systems
- Practical Semester.

In stage three the student can choose between the following **specialisations**:

- **Media Technology and Communication** (e.g. with lectures like Project Organisation, Digital Signal Processing, Digital Communications, Computer Vision, Video Technology, Computer Networks, Business Basics 2, Practical Semester, specific projects and elective subjects).
- **Electrical Engineering and Automation** (e.g. with lectures like Project Organisation, Control Engineering, Automation, Electrical Machines and Electrical Drives, Programming in Automation, Business Basics 2, Practical Semester, specific projects and elective subjects).

The lectures are complemented and intensified with internships and projects. The University of Applied Sciences in Amberg offers to that purpose laboratories with up-to-date technology. This means Digital and Microcomputer Technology, Digital Signal Processing, Power Engineering, High Voltage Engineering, Power Electronics, Measurement Engineering, Circuit Engineering as well as Audio and Video Technology in the modern Multimedia Laboratories of the Faculty. The Master Programme "Industrial Information Technology" in the same faculty intensifies the Engineering Know-how such as in Automation (Graduation: Master of Engineering). Qualification is a first completion of a course of study.

The course of study Electrical Engineering and Information Technology ends with awarding **Bachelor of Engineering (B. Eng.)**.

Student Advisory Service in Amberg

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