

information sheet course of study

Applied Computer Sciences

General Information

The course of study Applied Computer Sciences offered at the University of Applied Sciences Amberg-Weiden aims to train Engineers in Computer Sciences for their employment in the industry. The graduates combine skills in programming with a solid Engineering know-how and modern IT-knowledge.

The graduates of Applied Computer Sciences are computer experts with a broad background of Engineering know-how. They understand the language of their employers working in all branches of Engineering, they design clear software structures as IT architects, they program as a team employing the latest software technology and integrate software and hardware to solid systems.

IT engineers utilize their analytical, creative and communicative skills to solve challenging tasks in the high-tech-development or in - often international - various IT projects. Studying "Applied Computer Sciences" opens excellent professional prospects in the field of technical software development and design of industrial IT processes. There are no limits to professional progress: from data bank programming, systems Architecture, advisor in technological matters, from implementation development, real-time expert up to one's own software enterprise.

Course of Study

The studies combine six attendance semesters and one practical semester and will end with the awarding of Bachelor of Engineering.

The first stage sets the foundation in Engineering and Computer Sciences. It consist of the following lectures:

- Physics
- Construction
- Electrical Engineering and Electrical Measurement
- Data Processing Systems
- Programming
- English
- Basics in Business Studies 1
- Mathematics 1 and 2.

The following subjects provide further subject oriented and intensified knowledge in Applied Computer Sciences. Following lectures are included:

- Applied System Technology
- Operation Systems
- Algorithm and Data Structures
- Software Engineering 1 and 2, Software Projects
- Computer Networks
- Automation
- Control Engineering
- Embedded Systems
- Data Bank Systems
- Programming of User-Interfaces
- Project Organisation
- Digital Signal Processing and Digital Circuit Design
- Computer Vision
- Process Control Techniques in Manufacturing Systems
- Numerical Methods
- Basics in Business Studies 2
- Practical Semester.

The lectures will be completed and intensified with internships and projects. The University of Applied Sciences in Amberg therefore provides laboratories with the latest technology for its students. Graduates with high ambition and commitment can afterwards chose to do a consecutive Master Programme „Industrial Information Technology – Industrial IT“ which is three semesters in duration.

The course of study ends with the awarding of **Bachelor of Engineering (B. Eng.)**.

Student Advisory Service in Amberg

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