

## Computer Science

Degree	<b>Bachelor of Science (B. Sc.)</b>
Type of study	<b>Cooperative</b>
Standard period of study	<b>6 semester (incl. internship)</b>
Commencement of studies	<b>Winter semester (1 Oct)</b>
Credits (ECTS)	<b>210</b>
Language of instruction	<b>German</b>
Department / Central Institute	<b>Department of Cooperative Studies</b>

### Degree programme

Computer Science is about far more than just computers. Analysis, development, system integration and maintenance: the tasks of a Computer Scientist are many and varied. Indeed, they involve responsibilities which are decisive to the functioning of almost all areas of society. Seeking to prepare them for the complex and varied challenges which they will face, the cooperative studies Bachelor's degree programme Computer Science deploys its students in project work from the onset of their degree: they are led through the solutionfinding process in a step-by-step fashion. In addition to well-grounded subject expertise, students need to be able to work in a team and be in possession of well-developed communication skills in order to be able to engage with end users.

The wide range of potential tasks which a graduate of this course may be required to master, means that we have developed a wide range of industry contacts who we integrate in the teaching and practical experience phases of the degree programme. Deployed in these companies, students are able to learn important prioritization skills, gather creative insights and work on challenging projects.

### Professional field

This combined studies approach provides the ultimate preparation for a successful later career in Software Development and System Administration. Some 60 per cent of value creation in the Aeronautical development sector is due to Software and Communications Technology. In the Automobile industry, this figure amounts to 90 per cent.

Graduates of this course predominantly find employment in the development departments of Software companies; IT service providers; and internal company IT departments.

### Degree structure

In addition to comprehensive programming and software engineering practice, the foundation stage teaches its students the mathematical, theoretical and technical principles of Computer Science. They are also introduced to a range of interdisciplinary issues related to Computer Science, such as aspects of Law, Sociology and Business Administration.

In the advanced study period, students study selected aspects of Computer Science such as Operating Systems, Databases and Networks in greater depth. They can also choose from a range of electives from the areas Graphics/Multimedia, Artificial Intelligence and Mobile Systems.

### Division Director

Department of Cooperative Studies

**Prof. Dr. Dagmar Monett Díaz**

Professor of Computer Science

**+49 30-30877-2120**

**dagmar.monett-diaz@hwr-berlin.de**

### Guidance for prospective students

Department of Cooperative Studies

**Personal counselling for dual study programmes**

**+49 30 30877-2000**

**studienberatung.dual@hwr-berlin.de**

Office hours (without advance notice)

Thu 15.00 -17.00

Study counselling by telephone

Thu 14.00 -15.00

1

/ 6



Students learn to work both independently and as part of a team; they are deployed in real-life company projects, working under the supervision of the teaching staff.

## Course contents

### Principles

- Mathematics
- Theoretical foundations of computer science
- Technical foundations of computer science

### Interdisciplinary sections

- Presentation, learning and working techniques
- Social and Legal Issues in Computer Science
- Project Management
- Business Administration

### Subject-specific basics

- Programming
- Digital technology
- Embedded Systems
- Software Engineering
- Operational hardware and software systems
- Databases
- Networks

### Electives

- Graphics/Multimedia
- Artificial Intelligence
- As well as other elective subjects from the HWR Berlin offer

## Admission requirements

- University entrance qualification or an entrance qualification for a University of Applied Sciences
- Study agreement with a partner company

## Application procedure and deadlines

The application is to be submitted to the partner company.

### Application period:

Up to a year before commencement of study

## Accreditation

Programmakkreditiert durch den Akkreditierungsrat



## Fees and grants

---

Tuition fees	<b>None</b>
Semesterfee	<b>ca. € 300 per semester (incl. local transport semester ticket)</b>

---