



Computer Science (B.Sc.)

Bachelor's Program

Department of Computer Science



**Hochschule
Hof**

University of
Applied Sciences

Computer Science – The right choice for you?

The Bachelor Computer Science is targeted at international students with first skills in German language (level A2) who are not yet fluent enough to fully study in German but ready to work on their language skills. In addition, you should be interested in new technologies, enjoy solving problems and working in interdisciplinary teams. If you also have fun in logical and abstract thinking and in dealing with complex problems, this Bachelor program is the right choice for you.

Course content

Building on the necessary fundamentals in Computer Science, you will learn to develop large software systems that are required in all areas of modern life. The use of the latest methods and tools of modern information technology will be practically applied in teams throughout the program.

Thanks to this early practical experience and the close cooperation between Hof University and regional enterprises, you can start your professional life within exciting and diverse areas of responsibility after completing your degree.



What do I gain with this B.Sc.?

With this Bachelor's program, you gain

- _ expertise in major technology trends and IT skills to positively change the world
- _ excellent career perspectives and the chance to work in interdisciplinary teams
- _ German language skills of approx. level B2

In addition, you benefit from

- _ an innovative mix of teaching methods - virtual learning, blended learning, practical exercises and interdisciplinary projects,
- _ development of your intercultural competence,
- _ valuable work experience gained during the internship semester.

**Further information is available on
www.hof-university.de**



Fast facts



Degree awarded

Bachelor of Science (B.Sc.)



Duration

8 semesters in total



Language of instruction

Semester 1 and 2: taught in English language

Semester 3 - 7: mainly taught in German language

Semester 8: internship in a company



Internship

Mandatory internship in industry (semester 8)



Tuition fees

No tuition fees; just an administrative fee of approx. € 150 per semester



Services and support for international students

- _ organisational support before and during your studies at Hof University
- _ assistance in finding accommodation
- _ Orientation Week prior to the start of your studies
- _ social integration
- _ career-promoting activities such as intercultural trainings, field trips, and company visits
- _ free public transportation in the city of Hof

Special features

Internship

Our B.Sc. spend the eighth semester doing a paid practical internship in industry (e.g. as software developers, web developers, data scientists or security experts).

The Bachelor thesis is also project-based and done in cooperation with a company. Thus, you can immediately apply your knowledge and gain profound professional experience.

German language skills

During the first and second semester, we place special emphasis on the German language education of our students. Thus, the transition from modules taught in English (semester 1 and 2) to German as the main teaching language (from semester 3 onwards) is prepared and eased.

In addition, students train their intercultural competence in interactive workshops and international group projects.



What do I need to bring?

Academic requirements

- _ General higher education entrance qualification or subject-linked university entrance qualification, University of Applied Sciences entrance qualification or professional qualification
- _ If you are not sure about your university entrance qualification, please check www.uni-assist.de and www.anabin.de

Language requirements

You need to prove your **proficiency in English**. This can be done with either of the following:

- _ TOEFL minimum 90
- _ IELTS 6.5 or above

In addition: **Basic language skills in German**, proven by official test score documents - **minimum level A2**

When and how can I apply?

Online application

You register in our online portal Primuss and fill in the application form with your personal details. If you acquired your university entrance certificate abroad, **uni-assist** must assess the certificate before you can send it to Hof University. We advise you to send your documents to uni-assist **at least 4 weeks before our application deadline.**



Application deadline

EU: November 5 - January 15
Non-EU: November 5 - November 30



Get your admission letter from Hof University

in December/January



Online enrolment

in March



Orientation Week in Hof

first two weeks of March



Start of your studies at Hof University

March 15

The standard duration of this Bachelor's program is 8 semesters. The first seven semesters provide practice orientated theory (practical exercises, working in labs, interdisciplinary projects etc.).

Semester 1 and 2

- _ basic subjects of computer science taught in English language (e.g. Mathematics, Operating Systems and Introduction to Programming)
- _ intensive German language training and intercultural preparation

Semester 3 to 5

- _ mainly taught in German language
- _ modules in the core areas of computer science like Web Development, Software Engineering, Artificial Intelligence, Data Science or IT Security

Semester 6 and 7

- _ elective modules to deepen your expertise on individual topics
- _ freely choose 10 electives from our extensive subject catalogue (e.g. RESTful Web Services, Robotics, Internet of Things or Data Analysis and Data Mining)

Semester 8: practical project and final thesis

After successful completion of the program, Hof University of Applied Sciences awards the academic degree Bachelor of Science (B.Sc.).

1

Fundamentals of Information Technology

Operating Systems

Intercultural competence

German as a Foreign Language I

2

Fundamentals of Programming

Discrete Mathematics

Studying with Success

German as a Foreign Language II

3

Software Engineering

Algorithms and Data Structures

Computer Networks

Fundamentals of Web Development

Statistics

Design, Communication and Presentation

4

Software System Development

Applied Artificial Intelligence

IT Security

Full Stack Web Development

Database Systems

Mathematics for Computer Scientists

5

Advanced Topics of Programming

Advanced Concepts of Artificial Intelligence

Cloud Computing

Data Science

Efficient Programming with C/C++

Digital Ethics

6

Software Architecture

RESTful Web Services*

.NET Programming in C#*

Data Analysis and Data Mining*

Cryptology*

Model Flying*

7

Modern App and Web Development*

Applied Machine Learning*

Internet of Things*

Architecture of Mobile Applications*

Robotics*

Interdisciplinary Software Development Project

8

Internship with Project Thesis and Bachelor Thesis



Computer Science competences



General competences

* Examples for elective modules; you can freely choose your ten favourite modules from the module catalogue during your 6th and 7th semester.

What are my career perspectives?

As a graduate, you...

- _ have acquired up-to-date IT skills and competencies and also proficient German language and intercultural skills,
- _ are able to analyze complex problems and use computer systems to develop strategies for their solution, which is required everywhere in science and business,
- _ are qualified for many different jobs in the IT industry.

... Entry positions?

You are ready to work as

- _ Software Developer
- _ IT Project Manager
- _ Software Architect
- _ Web Developer
- _ IT Consultant
- _ Database Developer
- _ Network Specialist
- _ Requirements Engineer
- _ Security Expert
- _ Data Scientist



„The professors are very knowledgeable and helpful, and due to the small class size, questions are easily clarified.“

Esther from Nigeria
Student Bachelor Computer Science

What do you like about the study program?

„I really love the international Bachelor's degree program in computer science because of its very rich curriculum. It covers every aspect of computer science to a level that is not comparable to other universities. I would recommend the program to anyone wishing to study computer science in Germany at the Bachelor's degree level.“

Why did you choose Hof?

I chose Hof because it is a small city which provides the possibility to meet and interact with the locals and thereby improve one's language skills. This is something that is almost impossible in bigger cities. Also, the fact that Hof is cost-effective for international students was really important to me.“

How important is the German language?

„The importance of the German language cannot be over-emphasized as it has mostly positive implications and makes it easy for one to communicate and integrate into the labor market after studies. This was one of the reasons why I applied for this degree program at Hof.“

Any advice to fellow students?

„My advice to other students who are not sure if they should apply or not, I would say go for it and you won't regret it. When I started, I was afraid that I would not be able to cope with the language but after one semester, my knowledge of the language has improved and I can now communicate better, thanks to my really nice and patient German teacher at Hof University.“

Who can I contact with further questions?



Head of B.Sc. Program

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