HHN

HEILBRONN UNIVERSITY
OF APPLIED SCIENCES

MASTER OF SCIENCE (M. SC.)

SOFTWARE ENGINEERING

computer science

english

FACULTY INFORMATICS

Enter the exciting world of Software Engineering and experience how the technical, organizational and entrepreneurial aspects of software development unite in a master's programme.

CAREER PERSPECTIVES

The global world is heavily characterised by steadily expanding worldwide networks and at the same time, by a global shortage of IT experts. As a result, there is a large and growing demand for software engineers and the job prospects for masters graduates in this field are highly promising. Prospective employers of our graduates are internationally operating companies that require a broad range of skills as well as specific expertise in software development. Alternatively, there are job openings in small and medium-sized enterprises. In addition, our graduates also will be well equipped to set up their own business.

COURSE CONTENT

The Master of Software Engineering can be obtained in three semesters. The first two semesters are characterized by great flexibility in the choice of subjects within the Profiles M1 and M2.

There is also an elective catalog with a variety of courses from the fields of:
› Advanced Software Engineering and Data Science
› Human-Computer Interaction
› IT Management

The final semester is dedicated to the masters thesis, which is accompanied by a colloquium.

COURSE FOCUS

The M. Sc. Software Engineering offers a number of specific benefits and advantages such as

› lectures delivered exclusively in English
› an excellent student-lecturer ratio
› an interdisciplinary curriculum
› integration of management and engineering practices
› a clearly structured and time-efficient schedule
› sustained teaching quality through systematic student appraisal
› state-of-the-art facilities
› innovative forms of teaching
› creative forms of learning, e. g. problem-based and blended learning

COURSE OF STUDY (FULL TIME)

| Bachelor 180*/210 Credits | 1ST SEMESTER — 1 | 2ND SEMESTER — 2 | 3RD SEMESTER — 3 | Master M. Sc. 300 Credits | career entry or PhD-student |

Choose your focus

For any Profile (M1), any combination of courses assigned to the according profile can be chosen for fulfillment of M1. All courses that are not chosen for M1 can be chosen for Advanced Computer Science (M2) – regardless of the profile.

Principles

› **M1 Profile**
– e.g. Cybersecurity
– Machine Learning

› **M2 Advanced Computer Science**
– e.g. Realtime 3D-Engines
– Cloud Computing

› **M3 Portfolio Optimization**
– Scientific Writing
– German as a foreign language
– Advised Studying

Research

› **M1 Profile**
– e.g. Mixed Reality Lab
– Usability Evaluation and Testing
– Digital Transformation – Case Studies
– Digital Transformation – Strategies and Technologies

› **M2 Advanced Computer Science**
– e.g. Task Analysis & User Requirements Engineering
– Designing User Interfaces

Thesis

› **M4 Master Thesis with colloquium**
– Master Colloquium
– Master Thesis

ADMISSION REQUIREMENTS

1. Bachelor Degree
› Bachelor's degree in computer science or a closely-related field

2. Grade
› A good European first degree (210 ECTS credits and a German average grade of 2.5 or better). Your certificate of the "Studienkolleg – Center for International Students" is necessary
› *Applicants with a first degree in computer science who have achieved a min. of 180 ECTS credits may also apply. They will be requested to obtain an extra 30 ECTS credits in appropriate Bachelor programmes at Heilbronn University or within an internship at a research institute or an external company.

3. Prerequisite Knowledge and Experience
› Good programming skills in at least one modern programming language
› Sound knowledge of mathematics, ability of abstract logical thinking and first experiences in software development

4. Language Skills
› High proficiency in English must be proven with a language test (e.g.TOEFL, IELTS, Cambridge, AACSB or Oxford Test)

START OF PROGRAMME

Winter and summer semester
Closing date for applications:
› 15 January for summer semester
› 15 July for winter semester

PLEASE NOTE

Non-German first-degree applicants have to apply to "Studienkolleg Konstanz" first.

APPLICATION

You will find all information you need for your application at
hs-heilbronn.de/en/master-application

ADVICE

Academic advice
Prof. Dr.-Ing. Gerrit Meixner
Programme Dean
E-Mail: gerrit.meixner@hs-heilbronn.de
Tel.: +49 7131 504-6731
hs-heilbronn.de/en/sem

CONTACT

Heilbronn University of Applied Sciences
Campus Sontheim
Max-Planck-Straße 39 | 74081 Heilbronn
Tel.: +49 7131 504-0 | hs-heilbronn.de

PEFC
PEFC/04-31-0819