SRH University Heidelberg

Applied Computer Science Master of Science

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Your motivation

You want to expand your knowledge in the field of applied computer science and software engineering.

How is computer science applied in business and research? Enhance your knowledge and, after graduation, embark on a career with the employer of your choice, or pursue a doctorate.

Your prospects

Outstanding chances of an exciting job in the software and IT industry.

Having a degree in this Master's programme will give you an excellent chance to secure an exciting and well-paid job in the software and IT industry. Graduates from previous years have gone on to work for major companies such as ABB, Accenture, Adidas, Airbus, Audi, BASF, BMW, Bosch, Deloitte, Deutsche Börse, DKFZ, EY, Porsche, PWC, SAP, Triumph, and Verivox, as well as for numerous successful SMEs. Our programme will also qualify you for a position in the public sector, for work in research, or for a doctorate.

Possible fields of work:

- Software engineer and architect
- Full-stack software developer
- Full-stack IT consultant

— Systems analyst
— Systems designer
— UI/UX designer
— IT project manager
— IT consulting

Course content and skills

A good mixture of high-level knowledge and practical focus.

To be able to apply computer science to business and research, you need to possess sound and up-to-date knowledge that goes beyond your undergraduate degree. In our Master's programme in Applied Computer Science, we'll teach you this knowledge and the skills needed to pursue your professional career – at a high level and with a focus on real-world practice. With specialisation lectures, a mandatory internship (or research project) and your Master's thesis, you will build your own individual profile. Professional work experience of up to nine months will add to your qualifications and help you achieve your career goals.

You can deepen your profile by focusing on:

— Business Computing
— Mobile Computing
— Usability Engineering and UX Design

Apply now!
Scan the QR code

At a glance

Degree
Master of Science (M.Sc.)
Credit points
120 ECTS
Start of academic programme
Summer and winter semester
Duration of study
4 semesters
Tuition fees
— € 750 per month full-time
— One-time enrolment fee of € 750
— One-time enrolment fee of € 1,000 for applicants from non-EEA countries
State-accredited university
Accredited by ZEvA; state-accredited
Admission requirements
— A Bachelor's degree (180 ECTS) or a German Diplom in Computer Science or in the subjects of Virtual Realities, Applied Computer Science, Business Computing, Information Management, IT, Software Development, or a comparable degree
— Good knowledge of object-oriented programming languages (Java / C++ / Python, etc.) and databases (MySQL, PostgreSQL or Oracle)
— English language proficiency: IELTS 6.5 / TOEFL 80 / Duolingo Certificate 95 / PTE Academics 58 or equivalent
— Successful participation in the university's own application process

Your course schedule.

Design your Master's degree programme the way you want to: In the first semester, you choose one of three areas of specialisation: "Business Computing", "Mobile Computing" or "Usability Engineering and UX Design". During the first three semesters, you then take mandatory and elective modules, selecting from a wide range of courses, as well as completing either a research project or an internship in a company of your choice.

Semester					
01	International Project Management	Software Development Practice	Advanced Databases	♥ Specialisation Block I	
Examination & Credits	PA I 8 ECTS	KomP I 8 ECTS	PA I 8 ECTS	8 ECTS	
02	Software Architecture and Development	Advanced Computer Science	♥ Specialisation Block II	Current Topics in Computer Science	
Examination & Credits	Ref I 8 ECTS	Ref I 8 ECTS	8 ECTS	Ref I 4 ECTS	
03	IT Security	♥ Specialisation Block III	♥ Research Project or Internship		
Examination & Credits	Lab I 8 ECTS	8 ECTS	Research Project: PA I 14 ECTS; Internship: KomP I 14 ECTS		
04	Master's Thesis Seminar	Master's Thesis			
Examination & Credits	WP I 4 ECTS	Th & Ko I 26 ECTS			

The university reserves the right to make changes.

Explanation

PA: Project Work
KomP: Combined Examination
Ref: Report/Presentation
Lab: Laboratory

WP: Scientific Poster Presentation
Th: Thesis
Ko: Colloquium

♥ Specialisation Block: In this part, you take elective modules from your chosen specialisation.
♥ Mandatory Internship or Research Project

Electives
Sharpen your profile.

Your interests and priorities guide your study programme, even in the first semester. This means choosing elective courses from the lists on the left and below, allowing you to define your unique profile and specialise in your chosen field.

Business Computing

Module	ECTS
Applied Research	8
Business Information System Programming (SAP ABAP)	8
Business Information System Technology (SAP Technology)	8
In Memory Databases (SAP HANA)	8
Internet and Network Technologies	8
Service Engineering and Management	8

Usability Engineering and UX Design

Module	ECTS
Applied Research	8
Fundamentals towards UX	8
Internet- and Network Technology	8
Usability Testing and Verification	8
UX-Design and Implementation	8

Mobile Computing

Module	ECTS
Advanced Game Design	8
Applied Artificial Intelligence	8
Applied Research	8
Developing Mobile Applications Systems	8
Developing Mobile Games	8
Developing Smart Learning Systems	8
Internet and Network Technologies	8