



BSc Software Engineering

School of Computer Science & Digital Technologies

Methodical development of reliable, maintainable and scalable software systems.

Methodical development of reliable, maintainable and scalable software systems. The programme combines scientific foundations with project-based engineering practice, delivered in structured semesters with supervised teaching.

Qualification	Recognised secondary qualification or equivalent
Academic credits	180
Duration	6 semesters
Language of instruction	Deutsch / English
Start	1 October 2027
Tuition	EUR 2,450 per semester, EUR 14,700 in total
Application deadline	15 July 2027

Curriculum

Semester 1

- Calculus I
- Programming I (Python)
- Discrete Mathematics
- Algorithms and Data Structures
- Academic Skills and Scientific Writing

Semester 2

- Linear Algebra
- Programming II (C/C++)
- Object-Oriented Software Development
- Database Systems
- Probability and Statistics

Semester 3

- Software Engineering
- Operating Systems
- Web and Application Architecture
- Human-Computer Interaction
- Foundation Laboratory

Semester 4

- Software Architecture
- Computer Networks
- Software Quality and Test Automation
- DevOps and Continuous Delivery
- Interdisciplinary Team Project

Semester 5

- Distributed Systems
- Cloud Computing
- Secure Software Development
- Machine Learning
- Capstone Project

Semester 6

- Industrial Placement Semester
 - Elective Modules
 - Bachelor's Thesis and Colloquium
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Learning outcomes

- Apply scientific method to technical problems
- Design, model and evaluate complex systems
- Communicate results to specialist and international audiences
- Assess technological developments in ethical and legal terms

Admission requirements

- Recognised secondary qualification or equivalent — higher education entrance qualification including mathematics and one natural science (overall grade 2.5 or better)
- Evidence of proficiency in the language of instruction — English C1 (IELTS 7.0 / TOEFL iBT 95) or German C1 (TestDaF 4x4 / DSH-2), depending on the language of instruction
- Complete application documentation — transcripts, language certificate, CV and identity document

Career opportunities

- Development and design roles in technology-driven organisations
- Research and development in institutes and industry
- Project and systems responsibility in interdisciplinary teams
- Progression to master's or doctoral study

Contact and application

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