

Courses offered in the summer term 2026 for M.Sc. Computer Science

Course	hours per week	Lecturer	Profile AUT	Profile STE	Profile VC
Lecture + Exercise 3D Scanner - Algorithmen und Systeme	4	S. Simon	Ex, E	B, E	B, E
Lecture + Exercise Acquisition and Analysis of Eye-Tracking Data	4	B. Ehinger	B, E	B, E	C, Ex, E
Lecture + Exercise Advanced Information Management	4	H. Schwarz	B, E	C, Ex, E	B, E
Lecture + Exercise Advanced Mobile Robotics	4	K. Arras	C, Ex, E	B, E	B, E
Lecture + Exercise Algorithmische Geometrie	4	S. Funke	E	E	E
Lecture + Exercise Computer Vision	4	A. Bruhn	C, Ex, E	B, E	C, Ex, E
Lecture + Exercise Deep Learning	4	B. Yang	E	E	E
Lecture + Exercise Detection and Pattern Recognition	4	B. Yang	E	E	E
Lecture + Exercise Distributed Systems II	4	C. Becker	C, Ex, E	B, E	B, E
Lecture + Exercise Embedded Systems Engineering	4	M. Radetzki, S. Liu	C, Ex, E	B, E	B, E
Lecture + Exercise Grundlagen der Quanteninformatik	4	F. Leymann	E	E	E
Lecture + Exercise Hardware-oriented Security	4	I. Polian	E	E	E
Lecture + Exercise High Performance Computing	4	M. Bernreuther	E	E	E
Lecture + Exercise High-dimensional data approximation and learning	4	D. Pflüger	B, E	Ex, E	B, E
Lecture + Exercise IT Service Management	4	J. Jähnert	E	Ex, E	E
Lecture + Exercise Knowledge Graphs	4	S. Staab	C, Ex, E	B, E	B, E
Lecture + Exercise Mobile Computing (Lab)	4	F. Dürr	Ex, E	B, E	B, E
Lecture + Exercise Model-driven Software Development	4	S. Becker	E	E	E
Lecture + Exercise Modellbildung und Simulation	4	D. Pflüger	E	E	E
Lecture + Exercise Post-Quantum sichere Kryptographie	4	R. Küsters	B, E	B, E	B, E
Lecture + Exercise Program Analysis	4	M. Pradel	B, E	B, E	B, E
Lecture + Exercise Program Verification	4	M. Heizmann	E	E	E
Lecture + Exercise Quantitative Analyse von Software-Designs	4	S. Becker	E	E	E
Lecture + Exercise Real-Time Graphics	4	D. Schmalstieg	E	E	E
Lecture + Exercise Reinforcement Learning	4	M. Niepert	C, Ex, E	B, E	Ex, E
Lecture + Exercise Robust System Design	4	I. Polian	Ex, E	B, E	B, E
Lecture + Exercise Scalable and sustainable Software Architecture	4	F. Klinaku, S. Becker	E	Ex, E	E
Lecture + Exercise Scientific Visualization	4	G. Reina	B, E	B, E	C, Ex, E
Lecture + Exercise Security and Privacy	4	R. Küsters	B, E	B, E	B, E
Lecture + Exercise Selected Topics in Algorithms: Algorithmic Engineering	4	S. Funke	E	E	E
Lecture + Exercise Smart Cities and Internet of Things	4	M. Aiello	E	E	E
Lecture + Exercise System und Web Sicherheit	4	R. Küsters	B, E	B, E	B, E
Lecture + Exercise Text Technology	4	K. Jung	E	E	E
Lecture + Exercise Type Systems for Correctness and Security	4	B. Hermann	B, E	Ex, E	B, E
Lecture + Exercise Virtual and Augmented Reality	4	M. Sedlmair	B, E	B, E	C, Ex, E

C = Core; Ex = Extended; B = Breadth; E = Elective

Advanced seminars (you have to attend ONE in your program = compulsory)	hours per week	Lecturer
3D Scene Understanding for Robotics and Augmented Reality	2	D. Schmalstieg, wiss. MA
Advanced Route Planning	2	S. Funke
Advanced Topics in Data Management	2	B. Mitschang
Agentic AI: Opportunities and Challenges in Industry	2	H. Agh, B. Hermann
AI in Visualization	2	S. Koch, D. Weiskopf
AI Planning for Intelligent Systems	2	I. Georgievski, M. Aiello
Ausgewählte Themen der Quanteninformatik	2	J. Barzen, F. Leymann
Deep Learning for Image Processing	2	S. Simon
Deep Learning for the Sciences	2	M. Niepert, M. Kalimuthu
ELLIS Unit Stuttgart Distinguished Lecture Series	2	A. Bulling, I. Steinwart
Graph database management	2	S. Staab, R. Thapa
Informationssicherheit und Kryptographie	2	R. Küsters
Interactive Robot Learning	2	J. Kober
Language and Vision	2	C. Silberer
Locomotion and Motion Capture for XR Systems	2	M. Sedlmair
Recent Advances in Computer Vision	2	A. Bruhn
Reproducibility of Research Artifacts	2	B. Hermann
Strategies of Modern High-Performance Computing	2	D. Pflüger, L. Bantel, A. Strack
Trends in Distributed and Context-Aware Systems	2	C. Becker, L. Epple

Practical courses (you are allowed to attend at most 2 in your program)	hours per week	Lecturer	Profile AUT	Profile STE	Profile VC
Fachpraktikum Algorithms for OpenStreetMap data	4	S. Funke	B, E	B, E	B, E
Fachpraktikum Collaborative Artificial Intelligence	4	A. Bulling, C. Jiao	E	E	E
Fachpraktikum Theoretische Informatik: Logic App Development	4	M. Kufleitner	B, E	B, E	B, E
Fachpraktikum VS: Software Defined Networking	4	F. Dürr	B, E	B, E	B, E
Fachpraktikum Wissenschaftliches Rechnen	4	D. Pflüger	B, E	B, E	B, E
Lab Course Artificial Intelligence	4	S. Staab	C, Ex, E	B, E	B, E
Lab Course High Performance Programming with Graphic Cards	4	S. Simon	Ex, E	B, E	Ex, E
Practical Course Implementing Tools for Digital Art and Content Creation	4	A. Fender	E	E	E
Practical Course Information Systems: Data-intensive Computing	4	B. Mitschang, H. Schwarz	B, E	C, Ex, E	B, E
Practical Course Information Visualization	4	S. Koch, T. Blascheck	B, E	B, E	C, Ex
Practical Course Interactive Systems	4	A. Bulling, C. Jiao	B, E	B, E	Ex, E

Not mentioned here are: the Master thesis and, if you are interested in, the Research project.