

**Courses offered in the summer term 2023 for M.Sc. Computer Science**

Course	hours per week	Lecturer	Profile AUT	Profile STE	Profile VC
Lecture + Exercise Acquisition and Analysis of Eye-Tracking Data	4	B. Ehinger	B, E	B, E	C, Ex, E
Lecture + Exercise Advanced Deep learning in Speech and Language Processing	4	N.T. Vu	B		
Lecture + Exercise Advanced Information Management	4	H. Schwarz	B, E	C, Ex, E	B, E
Lecture + Exercise Analyzing Software using Deep Learning	4	M. Pradel	E	E	E
Lecture + Exercise Correspondence Problems in Computer Vision	4	A. Bruhn	B, E	B, E	C, Ex, E
Lecture + Exercise Data Engineering	4	M. Herschel	B, E	C, Ex, E	B, 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 Digital System Design	4	S. Simon	C, Ex, E	B, E	B, E
Lecture + Exercise Embedded Systems Engineering	4	M. Radetzki	C, Ex, E	B, E	B, E
Lecture + Exercise Grundlagen der Quanteninformatik	4	F. Leymann	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	C, E	E
Lecture + Exercise Knowledge Graphs	4	S. Staab	C, Ex, E	B, E	B, E
Lecture + Exercise Machine Learning	4	S. Staab	C, Ex, E	B, E	Ex, E
Lecture + Exercise Mobile Computing (Lab)	4	F. Dürr	Ex, E	B, E	B, E
Lecture + Exercise Modellbildung und Simulation	4	D. Pflüger	E	E	E
Lecture + Exercise Modelling, Simulation, and Specification	4	M. Radetzki	B, E	B, E	B, E
Lecture + Exercise Post-Quantum sichere Kryptographie	4	R. Küsters	B, E	B, E	B, 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 Scientific Visualization	4	T. Ertl, 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 Software Engineering for AI-Based Systems	4	S. Wagner	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 Virtual and Augmented Reality	4	M. Sedlmair	B, E	B, E	C, Ex, E
Lecture Distributed Systems 2: Algorithms (2nd lecture in winter)	2	C. Becker	C, Ex, E	B, E	B, E

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

**In the summer 2023 these courses will exceptionally NOT be offered**

Quantitative Analyse von Software Designs

Model-Driven Software Development

Signal processing and Analysis of human brain potentials (EEG)

Advanced seminars (you have to attend ONE in your program = compulsory)	hours per week	Lecturer
Advanced seminar Advanced Parallel Computing	2	D. Pflüger
Advanced seminar Advanced Route Planning	2	S. Funke
Advanced seminar AI Planning for Ubiquitous Computing	2	I. Georgievski, M. Aiello
Advanced seminar Behavioral Software Engineering	2	D. Gaziotin
Advanced seminar Data Management for End-to-End Machine Learning	2	B. Mitschang, H. Schwarz
Advanced seminar Deep Learning for Image Processing	2	S. Simon
Advanced seminar Deep Learning for the Sciences	2	M. Niepert
Advanced seminar Future Computing/Intelligent Designs for Machine Learning	2	H. Amrouch
Advanced seminar Recent Advances in Computer Vision	2	A. Bruhn
Advanced seminar Trends in Distributed and Context-Aware Systems	2	C. Becker

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	E	E	E
Fachpraktikum Computational Cognitive Science: Methods in Computational EEG	4	B. Ehinger	E	E	E
Fachpraktikum Theoretische Informatik: Logic App Development	4	M. Kufleitner	E	E	E
Fachpraktikum VS: Software Defined Networking	4	F. Dürr	E	E	E
Fachpraktikum Wissenschaftliches Rechnen	4	D. Pflüger	E	E	E
Lab Course Artificial Intelligence: Deep Learning Lab	4	S. Staab	C, Ex, E	B, E	B, E
Lab Course High Performance Programming with Graphic Cards	4	S. Simon	Ex, E	E	Ex, E
Practical Course Information Systems	4	B. Mitschang, H. Schwarz	B, E	Ex, E	B, E
Practical Course Visual Computing	4	G. Reina	B, E	B, E	C, Ex, E

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