Courses offered in the winter term 2026/27 for M.Sc. Computer Science

Course	Lecturer	AUT					STE					VC				
		Obligatory	Core	Extended	Breadth	Elective	Obligatory	Core	Extended	Breadth	Elective	Obligatory	Core	Extended	Breadth	Elective
Foundation Models	M. Niepert, S. Staab		x	x		x				x	x				x	x
Advanced mathematics for signal and information processing	B. Yang					x					x					x
Advanced Reinforcement Learning	J. Kober					x					x					x
Computer Vision	A. Bruhn		x	x		x				x	x		x	x		x
Correspondence Problems in Computer Vision	A. Bruhn				x	x				x	x		x	x		x
Critically Reflecting on Intelligent Systems in Society (Part 1 of the module "Ethical Implications of Intelligent Systems in Society")	M. Wirzberger					x					x					x
Data-Warehousing, Data-Mining und OLAP	B. Mitschang				x	x		x	x		x				x	x
Datenbanken und Informationssysteme	H. Schwarz					x					x				x	x
Digitale Systeme/Digital System Design	S. Simon		x	x		x				x	x				x	x
Distributed Systems: Foundations	M. Aiello		x	x		x				x	x				x	x
Electronic design Automation	I.Polian			x		x				x	x				x	x
Information Retrieval und Text Mining	A. Falenska					x					x					x
Information Visualization and Visual Analytics	S. Koch				x	x				x	x		x	x		x
Introduction to Modern Cryptography	R. Küsters				x	x				x	x				x	x
Machine Perception and Learning	A. Bulling		x	x		x				x	x		x	x		x
Mathematical Foundations of Post-Quantum Cryptography	R. Küsters				x	x				x	x				x	x
Mobile Robotics	K. Arras		x	x		x				x	x				x	x
Modellierung Software-intensiver Systeme	A. Wortmann					x					x					x
Probabilistic Machine Learning	S. Staab		x	x		x				x	x				x	x
Real-time Concepts for Embedded Systems	F. Dürr		x	x		x				x	x				x	x
Selbstorganisierende und adaptive Systeme (Self-Organizing and Adaptive Systems)	C. Becker			x		x				x	x				x	x
Service Management and Cloud Computing, and Evaluation	K. Klöckner				x	x		x	x		x				x	x
Signal processing and Analysis of human brain potentials (EEG)	B. Ehinger				x	x				x	x			x		x
Simulation Software Engineering	B. Uekermann				x	x				x	x				x	x
Software-Architektur	S. Becker							x	x							
Speech Signal Processing and Microphone Array Processing	W. Wokurek					x					x					x
Theoretical and Methodological Foundations of Autonomous Systems	M. Niepert	x				x				x	x				x	x
Theoretical and Methodological Foundations of Service Technology and Engineering	S. Funke				x	x	x				x			x		x
Theoretical and Methodological Foundations of Visual Computing	D. Weiskopf			x		x				x	x	x				x

Advanced seminars	
Course	**Lecturer**
Advanced Topics in Collaborative AI	A. Bulling, F. Kögel
Advanced Topics in Post-Quantum Cryptography	P. Reisert, R. Küsters
AI for Image Processing	S. Simon
AI Planning for Intelligent Systems	I. Georgievski, E. Alnazer
Aktuelle Trends in Verteilten und Kontextsensitiven Systemen	M. Heck
Ausgewählte Themen der Quanteninformatik	J. Barzen, L. Stiliadou
Deep Learning for the Sciences	M. Niepert
Graph database management	S. Staab, R. Thapa
Hardware-Oriented Computer Science	M. Gay, I. Polian
Recent Advances in Computer Vision	A. Bruhn
Research Topics for Intelligent Interactive Robots	K. Arras, wiss. MA

Not listed are the optional lab courses, the optional research project and the thesis.