Englischsprachiges Lehrangebot der Fakultät IV

Study program	Module element	Semester
MA-Chemistry	Inorganic chemistry	Winter semester
MA-Chemistry	Organic chemistry	Winter semester
MA-Chemistry	Physical chemistry	Winter semester
MA-Chemistry	Applied Chemistry I	Winter semester
MA-Chemistry	Applied Chemistry II	Winter semester
MA-Chemistry	Scientific writing	Summer semester
MA-Chemistry	Solid State Chemistry	Summer semester
MA-Chemistry	Special Inorganic Chemistry I	Summer semester
MA-Chemistry	Materials for Energy Storage and Conversion	Summer semester Winter semester
MA-Chemistry	Advanced Magnetic Resonance Spectroscopy	Summer semester Winter semester
MA-Chemistry	Nano structured materials	Summer semester Winter semester
MA-Chemistry	Applied Optical Spectroscopy	Summer semester
MA-Chemistry	Special Inorganic Chemistry II	Winter semester
MA-Chemistry	Aromatic and Heteroaromatic Chemistry	Summer semester
MA-Chemistry	Stereochemistry and Synthesis	Winter semester
MA-Chemistry	Physical Organic Chemistry	Winter semester
MA-Chemistry	Radicals and Radical Ions in Organic Synthesis	Summer semester Winter semester
MA-Chemistry	Advanced Physical Organic Chemistry	Summer semester Winter semester
MA-Chemistry	Electrochem. Methods in Organic and Bioanal. Chem.	Summer semester Winter semester
MA-Chemistry	Applied NMR Spectroscopy	Summer semester Winter semester
MA-Chemistry	Introduction to Bioorganic Chemistry	Summer semester Winter semester
MA-Chemistry	Organic Photochemistry	Summer semester Winter semester
MA-Chemistry	Physics and Chemistry of Interfaces	Summer semester
MA-Chemistry	Atomic Force Microscopy for materials & interface science	Summer semester
MA-Chemistry	Physical chemistry of nanostructured materials	Winter semester
MA-Chemistry	Methods and Techniques of Surface Analysis	Winter semester
MA-Chemistry	Spectroscopy of Cold Molecules	Summer semester
MA-Chemistry	Introduction to Quantum Chemistry	Summer semester

MA-Chemistry	Reaction dynamics and rovibronic spectroscopy	Winter semester
MA-Chemistry	Modern Analytical Chemistry II	Summer semester
MA-Chemistry	Special Topics in Analytical Chemistry	Winter semester
MA-Chemistry	Advanced Chemistry of Building Materials	Summer semester
MA-Chemistry	Special Materials Chemistry	Winter semester
MA-Chemistry	Advanced Methods in Materials Chemistry	Summer semester
MA-Chemistry	Advanced Chemistry of Inorganic Materials	Winter semester
MA-Chemistry	Synthesis of Polymers	Summer semester
MA-Chemistry	Advanced topics in Polymer Chemistry	Winter semester
MA-Mathematics	Specialization Algebra 1	
MA-Mathematics	Specialization Algebra 2	
MA-Mathematics	Specialization Algebra 3	
MA-Mathematics	Specialization Algebra 4	
MA-Mathematics	Specialization Analysis/Modeling 1	
MA-Mathematics	Specialization Analysis/Modeling 2	
MA-Mathematics	Specialization Analysis/Modeling 3	
MA-Mathematics	Specialization Analysis/Modeling 4	
MA-Mathematics	Specialization Discrete Mathematics/Number Theory 1	
MA-Mathematics	Specialization Discrete Mathematics/Number Theory 2	
MA-Mathematics	Specialization Discrete Mathematics/Number Theory 3	
MA-Mathematics	Specialization Discrete Mathematics/Number Theory 4	
MA-Mathematics	Specialization Geometry/Topology 1	
MA-Mathematics	Specialization Geometry/Topology 2	
MA-Mathematics	Specialization Geometry/Topology 3	
MA-Mathematics	Specialization Geometry/Topology 4	

MA-Mathematics	Specialization Numerics/Optimization 1	
MA-Mathematics	Specialization Numerics/Optimization 2	
MA-Mathematics	Specialization Numerics/Optimization 3	
MA-Mathematics	Specialization Numerics/Optimization 4	
MA-Mathematics	Specialization Stochastics 1	
MA-Mathematics	Specialization Stochastics 2	
MA-Mathematics	Specialization Stochastics 3	
MA-Mathematics	Specialization Stochastics 4	
MA-Mechatronics	Embedded Control	Winter semester
MA-Mechatronics	Electrical and Electronic Engineering I	Winter semester
MA-Mechatronics	Materials Science	Winter semester
MA-Mechatronics	Machine Elements	Winter semester
MA-Mechatronics	Electrical Machines and Power Electronics	Summer semester
MA-Mechatronics	Engineering Design I + II	Summer semester
MA-Mechatronics	optional instead of one of the above modules scientific project work as per section 10	Winter semester
MA-Mechatronics	Automation & Industrial Communication	Winter semester
MA-Mechatronics	Fluid Power	Winter semester
MA-Mechatronics	Sensorics	Summer semester
MA-Mechatronics	Project Management Part 1: Methods and Instruments Part 2: International Engineering and Construction Projects	Winter semester, Summer semester
MA-Mechatronics	Introduction to Programming	Summer semester
MA-Mechatronics	Fundamentals of Control Part 1: Linear Control Part 2: State Space Control	Winter semester
MA-Mechatronics	Advanced Control	Summer semester
MA-Mechatronics	Machine Dynamics & Systems Dynamics	Summer semester
MA-Mechatronics	Fundamentals for Mechatronic Applications Part 1: Electrical and Electronic Engineering II Part 2: Mechatronic Design for Production Machines	Summer semester

MA-Mechatronics	S/W Engineering	Winter semester
MA-Mechatronics	Mechatronic Systems	Winter semester
MA-Mechatronics	Actorics	Winter semester
MA-Mechatronics	Modelling and Simulation	Winter semester
MA-Mechatronics	Part 2: Non-technical applications	Summer semester
MA-Mechatronics	Technical applications	Summer semester
MA-Nanoscience and Nanotechnology	Solid state physics	Winter semester
MA-Nanoscience and Nanotechnology	Solid state physics and advanced mathematical methods	Winter semester
MA-Nanoscience and Nanotechnology	Advanced solid state physics	Winter semester
MA-Nanoscience and Nanotechnology	Quantum theory	Winter semester
MA-Nanoscience and Nanotechnology	General chemistry	Winter semester
MA-Nanoscience and Nanotechnology	Nanoelectronic devices	Winter semester
MA-Nanoscience and Nanotechnology	Nano-research course	Winter semester
MA-Nanoscience and Nanotechnology	Nanochemistry	Summer semester
MA-Nanoscience and Nanotechnology	Photonic devices	Summer semester
MA-Nanoscience and Nanotechnology	Nanotechnology	Summer semester
MA-Nanoscience and Nanotechnology	Lab-course Micro and Nanotechnology	Summer semester
MA-Nanoscience and Nanotechnology	Lab-course Nanosynthesis, Nanosafety and Nanoanalytics	Summer semester
MA-Nanoscience and Nanotechnology	Research Lab-course	Winter semester
MA-Physics	Experimental solid state physics	Winter semester Summer semester
MA-Physics	Experimental quantum optics	Winter semester Summer semester
MA-Physics	Experimental particle physics	Winter semester Summer semester
MA-Physics	Quantum information theory	Summer semester
MA-Physics	Theoretical particle physics I	Winter semester
MA-Physics	Theoretical particle physics II	Winter semester
MA-Physics	Statistical methods for data analysis	Winter semester Summer semester

MA-Physics	Detector physics	Summer semester Summer semester
MA-Physics	Accelerator physics II	Winter semester Summer semester
MA-Physics	Laser spectroscopy	Winter semester
MA-Physics	Nano optics	Winter semester Summer semester
MA-Physics	Experimental methods of quantum and nano optics	Winter semester Summer semester
MA-Physics	Quantum theory of light	Winter semester
MA-Physics	Mathematics of quantum mechanics	Winter semester Summer semester
MA-Physics	Astroparticle physics	Summer semester
MA-Physics	Cosmology	Summer semester
MA-Physics	Physics at the LHC	Winter semester
MA-Physics	Flavour physics	Summer semester
MA-Physics	Hadron physics	Winter semester
MA-Physics	Collider physics	Summer semester
MA-Physics	Physics beyond the Standard Model	Winter semester
MA-Informatik / Computer Science	Cutting Edge Research	Winter semester
MA-Informatik / Computer Science	Modeling and Animation	Winter semester
MA-Informatik / Computer Science	Rechnerarchitekturen II	Winter semester
MA-Informatik / Computer Science	Development of Embedded Systems using FPGAs	Winter semester
MA-Informatik / Computer Science	Praktikum Ubiquitous Systems	Winter semester Summer semester
MA-Informatik / Computer Science	StartUp Entrepreneurship	
MA-Informatik / Computer Science	Rendering	
MA-Informatik / Computer Science	GPU Programming	
MA-Informatik / Computer Science	Scientific Visualization	Winter semester
MA-Informatik / Computer Science	Statistical Learning Theory	Summer semester
MA-Informatik / Computer Science	Deep Learning	Winter semester
MA-Informatik / Computer Science	Recent Advances in Machine Learning	Summer semester
MA-Informatik / Computer Science	Convex Optimization for Computer Vision	Summer semester
MA-Informatik / Computer Science	Numerical Methods for Visual Computing	Winter semester

MA-Informatik / Computer Science	Machine Vision	Summer semester
MA-Informatik / Computer Science	Virtual Reality	Summer semester
MA-Informatik / Computer Science	Higher Level Computer Vision	
MA-Informatik / Computer Science	Unsupervised Learning	
MA-Informatik / Computer Science	Advanced Programming in C++	Summer semester
MA-Informatik / Computer Science	Recommender Systems	Winter semester
MA-Informatik / Computer Science	Quantum Complexity Theory	Summer semester
MA-Informatik / Computer Science	Communications and Information Security I	Winter semester
MA-Informatik / Computer Science	Signals and Systems I	Winter semester
MA-Informatik / Computer Science	Digital IC Design	Summer semester
MA-Informatik / Computer Science	Microsystem Fabrication & Test	Winter semester
MA-Informatik / Computer Science	Computational Imaging	Winter semester
MA-Informatik / Computer Science	Introduction to Compressive Sensing	Winter semester
MA Elektrotechnik	Communications Engineering I	Winter semester
MA Elektrotechnik	Communications Engineering II	Summer semester
MA Elektrotechnik	Embedded Control	Winter semester
MA Elektrotechnik	Mechatronic Systems	Winter semester
MA Elektrotechnik	Nanotechnology	Summer semester
MA Elektrotechnik	Robotik I	Winter semester
MA Elektrotechnik	Robotik II	Summer semester
MA Elektrotechnik	Electromagnetic Field Theory	
MA Elektrotechnik	Signals and Systems I	
MA Elektrotechnik	Signals and Systems II	
MA Elektrotechnik	Lightwave Technology	
MA Elektrotechnik	Optoelectronics	
MA Elektrotechnik	Data Communications Technology I	
MA Elektrotechnik	High Frequency Engineering	
MA Elektrotechnik	Practical Course Communications Technology	
MA Elektrotechnik	Semiconductor Electronics Design	
MA Elektrotechnik	Semiconductor Electronics	

MA Elektrotechnik	Analogue Integrated Circuits	
MA Elektrotechnik	Digital IC Design	
MA Elektrotechnik	Embedded Systems	
MA Elektrotechnik	Computational Imaging	
MA Elektrotechnik	Synthetic Aperture Radar	
MA Elektrotechnik	Topics in Computational Imaging	
MA Elektrotechnik	Data Communication Technology II	
MA Elektrotechnik	Communications and Information Security I	
MA Elektrotechnik	Communications and Information Security II	
MA Elektrotechnik	Introduction to Compressive Sensing	
MA Elektrotechnik	Selected Elements of Compressive Sensing	
MA Elektrotechnik	Data Communication Networks	
MA Elektrotechnik	Wireless Communications and Networks	
MA Elektrotechnik	Microelectronics Sensors	
MA Elektrotechnik	Advanced Analogue Circuits	
MA Elektrotechnik	Advanced Semiconductors and Microelectronics	
MA Elektrotechnik	Radio Frequency IC Design	
MA Elektrotechnik	Microelectronics	
MA Elektrotechnik	Microsystem Fabrication & Test	
MA Elektrotechnik	Digital 2D/3D Image Sensors	
MA Elektrotechnik	Signals and Systems I	
MA Elektrotechnik	Signals and Systems II	
MA Elektrotechnik	Photonic Devices	
MA Elektrotechnik	Engineering in Finance	