

**English taught courses, winter term 2016/17**

**Master level**

<b>Faculty:</b>	<b>Arts and Humanities</b>				
<b>Course of Study</b>	<b>Title</b>	<b>Type of course</b>	<b>Lecture hours per week</b>	<b>ECTS credits</b>	<b>Language of instruction</b>
English (MEd-BK)	Linguistic Analysis	Exam colloquium (EK)	2		English and German
English Studies (M.A.)	Masterkolloquium: Current Issues in Narratology	Research colloquium (FK)	2		English and German
English (MEd-BK)	Mainseminar (A): Language change	Seminar (HS)	2	MA English Studies: cf. exam regulations	English
English (MEd-BK)	Mainseminar (B): Translation Studies	Seminar (HS)	2	cf. exam regulations	English
English (MEd-BK)	Mainseminar (C): Formulaic language and its role in language acquisition	Seminar (HS)	2	cf. exam regulations	English
English (MEd-BK)	Mainseminar A: Fictions of Memory and Identity - Swift, McEwan, Ishiguro	Seminar (HS)	2	cf. exam regulations	English
English (MEd-BK)	Mainseminar B: American Drama	Seminar (HS)	2	cf. study regulations	English
English (MEd-BK)	Mainseminar C: Postcolonial Literature: Contemporary Aboriginal Prose	Seminar (HS)	2	cf. study regulations	English
English (MEd-BK)	Mainseminar D: What is Cognitive Narratology?	Seminar (HS)	2	MA: LN 15; Master: 9 bzw. 4 (cf. exam regulations)	English
English (MEd-BK)	Mainseminarr:	Seminar (HS)	2	cf. exam regulations	English
English (MEd-BK)	Mainseminar: Cohesion and Coherence	Seminar (HS)	2	cf. exam regulations	English
English Studies (M.A.)	Master-Colloquium: Colloquium about current Research topics of English Language Sciences	Colloquium (K)		cf. study regulations	English
English (MEd-BK)	Creating Learning Environments and Development of Teaching Materials for Content and Language Integrated Learning	Seminar (S)	2	none	English

Politik (MEd-BK)	Doing Peace after War Today: Crisis or Hope for the Future of International State-building?	Seminar (S)	2	cf. exam regulations	English
English (MEd-BK)	Zusatzqualifikation "Bilinguales Lernen": Principles of Content and Language Integrated Learning	Seminar (S)	2	none	English
Psychologie (M.Sc.)	Introduction to Python	Practical course (Ü)	2		English
English (MEd-BK)	Practical Course: Poetry Analysis (für StaatsexamenskandidatInnen)	Practical course (Ü)	2	none	English
English (MEd-BK)	additional qualification "Bilingual Learning": English for Specific Purposes	Practical course (Ü)	2	none	English
Digitale Medienkommunikation (M.A.) (Ein-Fach-Master)	Corpus Linguistics	Lecture (V)	2		English
Politikwissenschaft - (M.A.) (Ein-Fach-Master)	Introduction to Cultural Studies	Lecture (V)	2	Magister Artium: 3; BA: 2	English
Empirische Bildungsforschung (M.A.) (Ein-Fach-Master)	Introduction to English Linguistics I	Lecture (V)	2	cf. exam regulations	English
English (MEd-BK)	Literary Theory: A Survey for Advanced Students	Lecture (V)	2	Master: 2	English
English (MEd-BK)	Lecture: Theories of Language Acquisition	Lecture (V)	2		English

<b>Faculty:</b>	<b>Business and Economics</b>				
<b>Course of Study</b>	<b>Title</b>	<b>Type of course</b>	<b>Lecture hours per week</b>	<b>ECTS credits</b>	<b>Language of instruction</b>
Wirtschaftsingenieurwesen - FR Maschinenbau (M.Sc.)	Coaching "Corporate Governance"	Working group (AG)	1		English or German
Wirtschaftsingenieurwesen - FR Maschinenbau (M.Sc.)	Project Module: Innovation, Strategy and Organisation	Working group (AG)	4	10	German and/or English
Wirtschaftsingenieurwesen - FR Maschinenbau (M.Sc.)	Prüfung "Innovation Research Seminar"	Exam colloquium (EK)			German and English
Informatik (M.Sc.)	Colloquium Development of IT Standards	Colloquium (K)		6 (Lecture (V) 2/ Practical Course (Ü) 2/ Colloquium (K) 1)	English

Informatik (M.Sc.)	Colloquium Management of Enterprise Resource Planning and Interorganizational Information Systems	Colloquium (K)		6 (Lecture (V) 2/ Practical Course (Ü) 2/ Colloquium (K) 1)	English
Wirtschaftsingenieurwesen - FR Maschinenbau (M.Sc.)	Innovation Research Seminar	Seminar (S)	2	5	German and/or English
Angewandte Geowissenschaften (M.Sc.)	Foandations of Entrepreneurship (Exercise)	Practical course (Ü)	2	5 (including Lecture (V))	English
Mathematik (M.Sc.)	International Economics	Practical course (Ü)	1	4	English
Management and Engineering in Electrical Power Systems (M.Sc.)	MME Entrepreneurial Strategy (Tutorial)	Practical course (Ü)	2	5 (including Lecture (V))	English
Mathematik (M.Sc.)	Programming, Algorithms, Data Structures	Practical course (Ü)	4		German or English
Angewandte Geographie (M.Sc.)	The Global Economy: Trade and Investment	Practical course (Ü)	2		English
Informatik (M.Sc.)	Tutorial Development of IT Standards	Practical course (Ü)	1	5 (Lecture (V) 2/Practical Course (Ü) 1) or 6 (Lecture (V) 2/ Practical Course (Ü) 1/ Colloquium (K) 1)	English
Informatik (M.Sc.)	Tutorial Management of Enterprise Resource Planning and Interorganizational Information Systems (Group 1)	Practical course (Ü)	2	5 (Lecture (V) 2/ Practical Course (Ü) 2) or 6 (Lecture (V) 2/ Practical Course (Ü) 2 Colloquium (K) 1)	English

Informatik (M.Sc.)	Tutorial Management of Enterprise Resource Planning and Interorganizational Information Systems (Group 2)	Practical course (Ü)	2	5 (Lecture (V) 2/ Practical Course (Ü) 2) or 6 (Lecture (V) 2/ Practical Course (Ü) 2 Colloquium (K) 1)	English
Wirtschaftsingenieurwesen - FR Maschinenbau (M.Sc.)	Consumer-Centric New Product Development I: Generating a Branded Product	Lecture (V)	2		German and English
Informatik (M.Sc.)	Development of IT Standards	Lecture (V)	2	5 (Lecture (V) 2/ Practical Course (Ü) 1) or 6 (Lecture (V) 2/ Practical Course (Ü) 1/ Colloquium (K)1)	English
Angewandte Geowissenschaften (M.Sc.)	Foandations of Entrepreneurship	Lecture (V)	2	5 (includes Practical Course (Ü))	English
Wirtschaftsingenieurwesen - FR Elektrische Energietechnik (M.Sc.)	Interactive Value Creation	Lecture (V)	2	5	English
Wirtschaftsingenieurwesen - FR Maschinenbau (M.Sc.)	Lecture "Corporate Governance"	Lecture (V)	3	5	English
Informatik (M.Sc.)	Management of Enterprise Resource Planning and Interorganizational Information Systems	Lecture (V)	2	5 ( Lecture (V) 2/ Practical Course (Ü) 2) or 6 (Lecture (V) 2/ Practical Course (Ü) 2/ Colloquium (K) 1)	English
Wirtschaftsingenieurwesen - FR Maschinenbau (M.Sc.)	Principles of Technology and Innovation Management	Lecture (V)	2	5	English
Wirtschaftsingenieurwesen - FR Bauingenieurwesen (M.Sc.)	Success factors and practices of managing innovation and technology	Lecture (V)	4	5	German and English

Angewandte Geographie (M.Sc.)	The Global Economy: Trade and Investment	Lecture (V)	2	6	English
Management and Engineering in Electrical Power Systems (M.Sc.)	Strategic Technology Management (Academy/MME)	Lecture/practical course/seminar (VPS)	4	5	English
Wirtschaftsingenieurwesen - FR Maschinenbau (M.Sc.)	Consumer Behavior	Lecture/practical course (VÜ)	4	5	English
Wirtschaftsingenieurwesen - FR Maschinenbau (M.Sc.)	Internationalization of Automotive Companies	Lecture/practical course (VÜ)	3	5	English
Wirtschaftsingenieurwesen - FR Maschinenbau (M.Sc.)	Service Design & Engineering	Lecture/practical course (VÜ)	4	5	English
Informatik (M.Sc.)	Strategic Technology Management	Lecture/practical course (VÜ)	4	5	English
Wirtschaftsingenieurwesen - FR Maschinenbau (M.Sc.)	Principles of Technology and Innovation Management				English
Wirtschaftsingenieurwesen - FR Maschinenbau (M.Sc.)	Principles of Technology and Innovation Management (PT2)				English
Wirtschaftsingenieurwesen - FR Maschinenbau (M.Sc.)	Project module "Innovative Business Model in Mobility"		3	5	English (if requested German)

<b>Faculty:</b>	<b>Civil Engineering</b>				
<b>Course of Study</b>	<b>Title</b>	<b>Type of course</b>	<b>Lecture hours per week</b>	<b>ECTS credits</b>	<b>Language of instruction</b>
Bauingenieurwesen (M.Sc.)	Diversity and Innovation	Seminar (S)	2		German or English
Bauingenieurwesen (M.Sc.)	Examination: Reshaping Engineering Culture with Design Thinking	Seminar (S)	2		English
Bauingenieurwesen (M.Sc.)	Reshaping Engineering Culture with Design Thinking	Seminar (S)	2		English
Bauingenieurwesen (M.Sc.)	Skills for Social and Sustainable Technology Design	Seminar (S)	2		German or English
Bauingenieurwesen (M.Sc.)	Advanced Structural Analysis	Practical course (Ü)	1		German or English
Bauingenieurwesen (M.Sc.)	Advanced Structural Analysis	Lecture (V)	2		German or English
Bauingenieurwesen (M.Sc.)	Structural Control and Health Monitoring	Lecture (V)	2		English

Bauingenieurwesen (M.Sc.)	Expanding Engineering Limits: Culture, Diversity and Gender - Lecture Part	Lecture/practical course/seminar (VPS)	2		English
Automotive Engineering (M.Sc.)	Environmental Sustainability in Transport Engineering	Lecture/practical course (VÜ)	4	6	English
Bauingenieurwesen (M.Sc.)	Introduction to Scientific Computing II	Lecture/practical course (VÜ)	2	3	English
Bauingenieurwesen (M.Sc.)	Numerical Methods	Lecture/practical course (VÜ)	2	3	English

<b>Faculty:</b>		<b>Electrical Engineering and Information Technology</b>			
<b>Course of Study</b>	<b>Title</b>	<b>Type of course</b>	<b>Lecture hours per week</b>	<b>ECTS credits</b>	<b>Language of instruction</b>
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Consultation-Hour Fundamentals of Integrated Power Electronics and Power Management	Q&A Session (F)			English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Consultation-hour RF Systems	Q&A Session (F)			English or German by arrangement
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	CAD Lab course: Simulation of semiconductor devices	Practical course (P)	4	4	English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Communications Engineering Laboratory	Practical course (P)	3	3	German and English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	High Voltage Lab Course - English	Practical course (P)	4	4	English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Lab Course: Power Electronic Devices	Practical course (P)	4		German or English (depending on participants)
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Project: Please seek our Homepage <a href="http://www.isea.rwth-aachen.de">www.isea.rwth-aachen.de</a> for detailed informations !	Practical course (P)	4		German or English

Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Radar Laboratory	Practical course (P)	4	4	German and/or English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Stochastic Networks - Analysis and Evaluation Supported by Morn Simulation Tools	Practical course (P)	4	4	English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Current Topics of Compound Semiconductor Technology and Devices	Seminar (S)	4	4	German or English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Internship Seminar	Seminar (S)	2	0	German and English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Project: "Microsystem technology in practice"	Seminar (S)	2	2	German or English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Project: "Production processes in microsystem technology"	Seminar (S)	4	4	German or English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Seminar "Batteries, Storage Systems, Fuel Cells and Power Generators" - Focus: Energy Storage Systems	Seminar (S)	3/4		English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Seminar "The Future of Energy Supply"	Seminar (S)	3 (B.Sc.) or 4 (M.Sc.)	0	German or English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Seminar Communication Theory	Seminar (S)	3/4		German and English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Seminar Mixed Signal Circuits	Seminar (S)	4	3-4	English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Seminar on Communications Engineering	Seminar (S)	3		English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Seminar on Medical Acoustics	Seminar (S)	3/4	3/4	English

Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Seminar on Technical Acoustics	Seminar (S)	3/4	3/4	German or English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Seminar: Selected Topics in Communications Engineering (de/en)	Seminar (S)	3/4		German or English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Seminar: Wireless Internet Systems	Seminar (S)	4		English
Automatisierungstechnik (M.Sc.)	Advanced Control Systems	Practical course (Ü)	1		English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Antenna Engineering (Master Course Communications Engineering)	Practical course (Ü)	1	0	English
Biomedical Engineering Science (M.Sc.)	Biomedical Sensors and Microsystems: Exercise	Practical course (Ü)	1	2	English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Electrical Machines 1	Practical course (Ü)	1	cf. Lecture Electrical Machines 1	English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Electronic and Optical Measurement Technologies	Practical course (Ü)	1	cf. Lecture (V)	English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Exercises High Voltage Engineering - Test Systems and Diagnosis	Practical course (Ü)	1	0	English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Fandamentals of Big Data Analytics	Practical course (Ü)	1		English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Fandamentals of Integrated Power Electronics and Power Management	Practical course (Ü)	1		English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	HF Systems and Transmission Technology 1	Practical course (Ü)	1		English or German
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Information Theory and Source Coding	Practical course (Ü)	1		English



Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Multimedia Communication Systems 1	Practical course (Ü)	1	cf. Lecture (V)	English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Operation of Interconnected Power Systems	Practical course (Ü)	1	1	English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Optimization in Engineering	Practical course (Ü)	1		English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Power Cable Engineering	Practical course (Ü)	1		English (if requested German)
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Project: "Algorithms and Practice in Signal Processing"	Practical course (Ü)	4	4	German or English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Project: Planning of Long-term Optimal Medium Voltage Networks	Practical course (Ü)	4	4	English and German
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	RF Systems	Practical course (Ü)	1		English or German
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Safety precautions and protection in electric grids and facilities	Practical course (Ü)	1	0	English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Signals, Systems and Communication	Practical course (Ü)	1	1	English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Project "Communications Engineering and Multimedia"	Practical course (ÜP)	4 after agreement	4	German or English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Project: "Sensor technology in practice"	Practical course (ÜP)	4	4	German or English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Project: Current Topics of Compound Semiconductor Technology and Devices	Practical course (ÜP)	4	4	German or English

Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Project: Organic Electronics and Optoelectronics	Practical course (ÜP)	4	4	German or English
Automatisierungstechnik (M.Sc.)	Advanced Control Systems	Lecture (V)	2		English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Antenna Engineering (Master Course Communications Engineering)	Lecture (V)	2	4	English
Biomedical Engineering Science (M.Sc.)	Biomedical Sensors and Microsystems: Lecture	Lecture (V)	2	2	English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Electrical Machines 1	Lecture (V)	2	cf. Examination	English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Fandamentals of Big Data Analytics	Lecture (V)	2	4	English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Fandamentals of Integrated Power Electronics and Power Management	Lecture (V)	2		English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	High Frequency Systems and Transmission Technology 1	Lecture (V)	2		English / German optional
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Information Theory and Source Coding	Lecture (V)	2		English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Lecture Master course: High Voltage Engineering - Test Systems and Diagnosis	Lecture (V)	2	5	English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Media Security and Media Forensics	Lecture (V)	2	5 (including Practical Course (Ü))	English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Multimedia Communication Systems 1	Lecture (V)	cf. Module Catalogue	cf. Module Catalogue	English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Optimization in Engineering	Lecture (V)	2	4,5	English

Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Power Cable Engineering	Lecture (V)	2	4	English (if requested German)
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	RF Systems	Lecture (V)	2		English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Safety precautions and protection in electric grids and facilities	Lecture (V)	2	4	English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Signal Processing for Radar and Imaging Radar	Lecture (V)	2	4 (including Practical Course (Ü))	English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Signals, Systems and Communication	Lecture (V)	2	2	English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Acoustic Virtual Reality (AVR)	Lecture/practical course (VÜ)	3	4	English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Battery Storage Systems	Lecture/practical course (VÜ)	3		English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Electrical Drives	Lecture/practical course (VÜ)	3		English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Electrothermal Process Technology - Basics, Materials, High Power Applications	Lecture/practical course (VÜ)	3		English or German
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	High Frequency Electronics	Lecture/practical course (VÜ)	3	4	German or English
Angewandte Geowissenschaften (M.Sc.)	International Patent Law	Lecture/practical course (VÜ)	3	4	English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Measurement Techniques and Distributed Intelligence for Power Systems	Lecture/practical course (VÜ)	extend of one Lecture (V) 2 Practical Course (Ü) 1		English

Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Medical Acoustics I	Lecture/practical course (VÜ)	3	4 (including Practical Course (Ü))	German or English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Modeling and Simulation of Complex Power Systems	Lecture/practical course (VÜ)	extend of Lecture (V) 2 Practical Course (Ü) 1	4	English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Optical Telecommunications 1: Devices	Lecture/practical course (VÜ)	4	4	English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Power Electronic Devices	Lecture/practical course (VÜ)	3		English
Management and Engineering in Electrical Power Systems (M.Sc.)	Power Electronics - Fundamentals, Topologies and Analysis	Lecture/practical course (VÜ)	3		English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Power Systems Dynamics	Lecture/practical course (VÜ)	extend of Lecture (V) 2 Practical Course (Ü) 1	4	English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Satellite Navigation	Lecture/practical course (VÜ)	3	4	German or English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Video Coding: Algorithms and Specification	Lecture/practical course (VÜ)	3	4	English

<b>Faculty:</b>		<b>Georesources and Materials Engineering</b>			
<b>Course of Study</b>	<b>Title</b>	<b>Type of course</b>	<b>Lecture hours per week</b>	<b>ECTS credits</b>	<b>Language of instruction</b>
Entsorgungsingenieurwesen (M.Sc.)	Guidance to self-dependent scientific studies	Exam colloquium (EK)	4		German or English
Entsorgungsingenieurwesen (M.Sc.)	Field trips to mines and mining equipment manufactures	Excursion (E)	1		German or English
Angewandte Geowissenschaften (M.Sc.)	Practical Course: Petroleum Geochemistry - Course A	Practical course (P)	2		English or German

Angewandte Geowissenschaften (M.Sc.)	Practical Course: Petroleum Geochemistry - Course B	Practical course (P)	2		English or German
Angewandte Geowissenschaften (M.Sc.)	Reservoir Quality Prediction Modeling (PO 11) / Reservoir Modeling (PO 15)	Seminar (S)	2		English
Angewandte Geowissenschaften (M.Sc.)	Seminar Inorganic Environmental Geochemistry	Seminar (S)	2	3	English
Angewandte Geowissenschaften (M.Sc.)	Characterization of aqueous interfaces in Mineralogy	Practical course (Ü)	4	8	English or German
Bergbau (D)	Excursions	Practical course (Ü)	8	0	English or German
Entsorgungswesen (M.Sc.)	Guidance to self-dependent scientific studies (Master thesis)	Practical course (Ü)	8		German or English
Applied Geophysics (M.Sc.)	Petroleum Systems Modelling	Practical course (Ü)	2		English
Metallurgical Engineering (M.Sc.)	Physical Metallurgy - Exercise	Practical course (Ü)	2	0	English
Metallurgical Engineering (M.Sc.)	Process Metallurgy and Recycling (Part Fe Metallurgy) (Basic course M.Sc.) Exercise	Practical course (Ü)	1	0	English
Metallurgical Engineering (M.Sc.)	Process Metallurgy and Recycling of Non-Ferrous Metals (Basic Course M.Sc.)	Practical course (Ü)	1	0	English
Metallurgie and Werkstofftechnik (D)	Seminar II	Practical course (Ü)	1	0	German or English
Angewandte Geowissenschaften (M.Sc.)	Geophysical Logging and Log Interpretation - Group A	Practical course (ÜP)	2		English
Angewandte Geowissenschaften (M.Sc.)	Geophysical Logging and Log Interpretation - Group B	Practical course (ÜP)	2		English
Angewandte Geowissenschaften (M.Sc.)	Geophysical Logging and Log Interpretation - Group C	Practical course (ÜP)	2		English
Angewandte Geowissenschaften (M.Sc.)	Geothermics - Practicals and Exercises	Practical course (ÜP)	2		English
Angewandte Geowissenschaften (M.Sc.)	Geothermics - Practicals and Exercises - Group B	Practical course (ÜP)	2		English
Angewandte Geowissenschaften (M.Sc.)	Geothermics - Practicals and Exercises - Group C	Practical course (ÜP)	2		English
Angewandte Geowissenschaften (M.Sc.)	Petrophysics	Practical course (ÜP)	2		English

Metallurgical Engineering (M.Sc.)	Physical Metallurgy Laboratory	Practical course (ÜP)	Practical Course (Ü) 1 (P) 5		English
Angewandte Geowissenschaften (M.Sc.)	Crystal Engineering	Lecture (V)	2		English
Metallurgical Engineering (M.Sc.)	Fundamentals and Solving Methods in Metal Forming // Metal Forming Technology	Lecture (V)	2		English
Angewandte Geowissenschaften (M.Sc.)	Geophysical Logging and Log Interpretation	Lecture (V)	2		English
Angewandte Geowissenschaften (M.Sc.)	Geothermics	Lecture (V)	2		English
Angewandte Geowissenschaften (M.Sc.)	Lecture: Inorganic Environmental Geochemistry	Lecture (V)	2	2	English
Materialwissenschaften-Materials Science (M.Sc.)	Nanoscale Energy Transport Phenomena	Lecture (V)	3	5	English
Angewandte Geowissenschaften (M.Sc.)	Petrophysics	Lecture (V)	2	6	English
Metallurgical Engineering (M.Sc.)	Physical Metallurgy - Lecture	Lecture (V)	4	0	English
Metallurgical Engineering (M.Sc.)	Process Metallurgy and Recycling (Part Fe Metallurgy) (Basic course M.Sc.)	Lecture (V)	2	0	English
Metallurgical Engineering (M.Sc.)	Process Metallurgy and Recycling of Non-Ferrous Metals (Basic Course M.Sc.)	Lecture (V)	2	0	English
Angewandte Geowissenschaften (M.Sc.)	Theory of aqueous interfaces in mineralogy	Lecture (V)	1	2	English or German
Entsorgungsingenieurwesen (M.Sc.)	Colloquium for Mining Engineers (current R&D results, selected topics on excavation + mining equipment)	Lecture/Colloquium (VK)	3		German or English
Angewandte Geowissenschaften (M.Sc.)	Hydrogeophysics	Lecture/Colloquium (VK)	2	3	English
Applied Geophysics (M.Sc.)	Engineering Geophysics	Lecture/practical course/seminar (VPS)	2	3	English
Applied Geophysics (M.Sc.)	Geophysics Special Methods: NMR	Lecture/practical course/seminar (VPS)	2	3	English

Applied Geophysics (M.Sc.)	Geophysics Special Methods: SIP	Lecture/practical course/seminar (VPS)	2	3	English
Angewandte Geowissenschaften (M.Sc.)	Mineral Exploration	Lecture/practical course/seminar (VPS)	2		English
Materialwissenschaften-Materials Science (M.Sc.)	Computational Materials Science	Lecture/practical course (VÜ)	3	5	English
Werkstoffingenieurwesen (M.Sc.)	Computer Simulation of Materials	Lecture/practical course (VÜ)	4	5	English
Angewandte Geowissenschaften (M.Sc.)	Crystal physics II: Phenomena	Lecture/practical course (VÜ)	2	2,5	German or English
Metallurgical Engineering (M.Sc.)	Crystallography of Mineral Materials	Lecture/practical course (VÜ)	2		English
Angewandte Geowissenschaften (M.Sc.)	Data analyses in geosciences	Lecture/practical course (VÜ)	Lecture (V) 1 Practical Course (Ü) 1	2,5	English
Applied Geophysics (M.Sc.)	Energy Resources Management	Lecture/practical course (VÜ)	2	3	English
Angewandte Geographie (M.Sc.)	Environmental Issues in Mining	Lecture/practical course (VÜ)	2	3	German or English
Metallurgical Engineering (M.Sc.)	Industrial Furnaces (Process Technology of Metals)	Lecture/practical course (VÜ)	4		English
Angewandte Geowissenschaften (M.Sc.)	Introduction to Texture Analysis - Lecture/Exercise	Lecture/practical course (VÜ)	Lecture (V) 2 Practical Course (Ü) 1	0	English
Metallurgical Engineering (M.Sc.)	Mineral materials: Glass	Lecture/practical course (VÜ)	2	0	English
Angewandte Geographie (M.Sc.)	Mining Waste, Emissions and Environment	Lecture/practical course (VÜ)	3	4	English
Angewandte Geowissenschaften (M.Sc.)	Natural gas and isotope geochemistry	Lecture/practical course (VÜ)	2		English or German
Applied Geophysics (M.Sc.)	Neotectonics and Earthquake Geology	Lecture/practical course (VÜ)	2	3	English
Angewandte Geowissenschaften (M.Sc.)	Petroleum Geochemistry	Lecture/practical course (VÜ)	2		English or German



Georessourcenmanagement (M.Sc.)	Planning-Realization-Optimization in Georesources Management	Lecture/practical course (VÜ)	2	3	English
Angewandte Geowissenschaften (M.Sc.)	Portfolio Management	Lecture/practical course (VÜ)	2		English
Angewandte Geowissenschaften (M.Sc.)	Prospect evaluation and Risk analysis	Lecture/practical course (VÜ)	2		English
Georessourcenmanagement (M.Sc.)	Refinement and Trade of Fossil Fuels	Lecture/practical course (VÜ)	2		German or English
Angewandte Geowissenschaften (M.Sc.)	Remote Sensing of sedimentary basins	Lecture/practical course (VÜ)	2	3	English
Angewandte Geowissenschaften (M.Sc.)	Well Log Analysis in Exploration - Group A	Lecture/practical course (VÜ)	2		English
Angewandte Geowissenschaften (M.Sc.)	Well Log Analysis in Exploration - Group B	Lecture/practical course (VÜ)	2		English
Computer Aided Conception and Production in Mechanical Engineering (M.Sc.)	Micro and Macro Simulation of Casting Processes		Lecture (V) 1 Practical Course (Ü) 1	3	English

<b>Faculty:</b>	<b>Mathematics, Computer Science and Natural Science</b>				
<b>Course of Study</b>	<b>Title</b>	<b>Type of course</b>	<b>Lecture hours per week</b>	<b>ECTS credits</b>	<b>Language of instruction</b>
Mathematik (M.Sc.)	Research Seminar on Logic and Automata	Working group (AG)	2		German and English
Software Systems Engineering (M.Sc.)	Working Group Speech Recognition	Working group (AG)	2	0	German or English
Informatik (M.Sc.)	Seminar: Visual and Interactive Recommender Systems	Seminar (HS)	2	4	English
Biotechnologie-Molekulare Biotechnologie (M.Sc.)	Colloquium "Life Science"	Colloquium (K)	1		German or English
Simulation Sciences (M.Sc.)	SiSc Laboratory	Lab course (LÜ)	3	6	English
Informatik (M.Sc.)	3D Printing	Practical course (P)	4	7 (10 for Media Informatics students, see below)	German or English
Informatik (M.Sc.)	Communication Systems Lab	Practical course (P)	4	7	English



Media Informatics (M.Sc.)	Computer Networks, Mobile Communication and Network Security	Practical course (P)	Practical Course (P) 5	10	English
Informatik (M.Sc.)	Development of modern distributed web-based applications	Practical course (P)	5	10	English
Informatik (M.Sc.)	Lab Course Automatic Speech Recognition	Practical course (P)	4	7 (Master Computer Science), 10 (Master Media Informatics)	English
Biologie (D)	Lab Course in Neurobiology/Developmental Biology	Practical course (P)	12	8	German (English by arrangement)
Biologie (D)	lab course neuromodulation	Practical course (P)	8 SWS	12	German or English
Biologie (M.Sc.)	Molecular parasitology	Practical course (P)	8 (duration Practical Course 6-8 weeks)	9	German or English
Informatik (M.Sc.)	Online IDE and MontiArc	Practical course (P)	4	7	German or English
Biologie (M.Sc.)	practical course: cellular neurobiology (module ZSN1)	Practical course (P)	4	6	German or English (by arrangement)
Biologie (D)	Practical Genetics of Plant-Microbe-Interaction	Practical course (P)	8	9	English
Biologie (D)	Research internship "Molecular cell biology"	Practical course (P)			German and/or English
Informatik (M.Sc.)	State set representation techniques for hybrid systems	Practical course (P)	4	7	German or English
Biologie (D)	Actual Topics of Molecular Biology of the Neural System	Seminar (S)	1		German or English (by arrangement)
Informatik (M.Sc.)	Analysis and Verification of Pointer Programs	Seminar (S)	2	4	German or English
Computational Engineering Science (M.Sc.)	CES Seminar: Presentation	Seminar (S)	2	5	German (English by arrangement)

Media Informatics (M.Sc.)	Computational Complexity	Seminar (S)	2	4	English
Biologie (M.Sc.)	Current Topics in Cellular and Developmental Biology	Seminar (S)	2	3	English
Informatik (M.Sc.)	Current Topics in Physically-Based Animation	Seminar (S)	2	4	German or English
Materialwissenschaften-Materials Science (M.Sc.)	Dynamics of amorphous semiconductors	Seminar (S)	2		English
Informatik (M.Sc.)	Full-scale Software Engineering	Seminar (S)			English
Informatik (M.Sc.)	Hybrid systems verification	Seminar (S)	2		German and English
Informatik (M.Sc.)	Medical Image Processing: Seminar	Seminar (S)	2	4	English
Physik (M.Sc.)	Nanoferronics news	Seminar (S)	2	5	English
Informatik (M.Sc.)	Probabilistic Programs	Seminar (S)	2	4	German or English
Informatik (M.Sc.)	Satisfiability Checking	Seminar (S)	2		German and English
Informatik (M.Sc.)	Selected Topics in Human Language Technology and Pattern Recognition	Seminar (S)	2	4	German or English
Computational Engineering Science (M.Sc.)	Seminar "Recent topics in Numerical Analysis II"	Seminar (S)	2	0	German or English
Media Informatics (M.Sc.)	Seminar Advanced Topics in Cryptography	Seminar (S)	Seminar (S) 2	4	English
Informatik (M.Sc.)	Seminar Big Data Integration and Quality	Seminar (S)	2	4	English
Biologie (M.Sc.)	Seminar Cell biology 1	Seminar (S)	2	0	German and English
Biologie (M.Sc.)	Seminar on Environmental Sciences	Seminar (S)	2		German or English
Biologie (D)	Seminar Plant Sciences	Seminar (S)	2		German and English
Physik (M.Sc.)	Seminar Scattering Methods in Condensed Matter Science	Seminar (S)	2	no statement	English
Informatik (M.Sc.)	Seminar: Advanced Internet Technology	Seminar (S)	2	4	English
Informatik (M.Sc.)	Seminar: Current Topics in High-Performance Computing (HPC)	Seminar (S)	2	4	German or English
Informatik (M.Sc.)	Seminar: Current Topics of Virtual Reality	Seminar (S)	2	4	German or English
Informatik (M.Sc.)	Seminar: Mobile Internet Technology	Seminar (S)	2	4	English
Informatik (M.Sc.)	Software Engineering Seminar: Selected Topics in Software Engineering	Seminar (S)	2	4	German or English

Physik (M.Sc.)	STUDENT SEMINAR New Results from Particle and Astroparticle Physics	Seminar (S)	2	10	English
Media Informatics (M.Sc.)	Technical Writing	Seminar (S)	2	4	English
Informatik (M.Sc.)	The Art of Software Testing	Seminar (S)			English
Biologie (M.Sc.)	Topics in ethology	Seminar (S)	2	3	German or English
Informatik (M.Sc.)	Advanced Internet Technology: Exercise	Practical course (Ü)	1	6 (including Lecture (V))	English
Computational Engineering Science (M.Sc.)	Automatic Speech Recognition	Practical course (Ü)	2	0 cf. Lecture	English
Biologie (D)	Consultancy in statistical data analysis for undergraduates, graduates and postdocs (privatissime)	Practical course (Ü)	1	0	German or English
Simulation Sciences (M.Sc.)	Data Analysis and Visualization	Practical course (Ü)	1	0	English
Computational Engineering Science (M.Sc.)	Finite Volume and Finite Element Schemes II	Practical course (Ü)	1	1	German or English
Informatik (M.Sc.)	Infinite Computations and Games	Practical course (Ü)	2		English
Biologie (M.Sc.)	Introduction to Computational Neuroscience (Exercise)	Practical course (Ü)	2	3	English
Simulation Sciences (M.Sc.)	Introduction to hyperbolic conservation laws	Practical course (Ü)	2	3	English or German
Mathematik (M.Sc.)	Multiscale Techniques II	Practical course (Ü)	1	1	German or English
Computational Engineering Science (M.Sc.)	Numerical Analysis IV exercises	Practical course (Ü)	2	2	German or English (by arrangement)
Computational Engineering Science (M.Sc.)	Object-Oriented Software Construction	Practical course (Ü)	2	0	English
Computational Engineering Science (M.Sc.)	Parallel Programming	Practical course (Ü)	Practical Course (Ü) 2	2	English
Computational Engineering Science (M.Sc.)	Statistical Classification	Practical course (Ü)	2	0	English
Mathematik (M.Sc.)	Theoretical Physics II (Tutorial Group 2)	Practical course (Ü)	2	cf. Lecture (V)	English
Mathematik (M.Sc.)	Theoretical Physics II (Tutorial Group 7)	Practical course (Ü)	2	cf. Lecture (V)	English

Informatik (M.Sc.)	Tutorial Foundations of Data Science	Practical course (Ü)	2		English
Software Systems Engineering (M.Sc.)	Working Group Cognitive Robotics	Practical course (Ü)	2	0	German or English
Applied Geophysics (M.Sc.)	Numerical Methods for Geophysical Flows	Practical course (ÜP)	2	0	English
Informatik (M.Sc.)	Advanced Internet Technology	Lecture (V)	3	6 (including Practical Course (Ü))	English
Informatik (M.Sc.)	Advanced Machine Learning	Lecture (V)	3+1	6	English
Informatik (M.Sc.)	Advanced Model Checking	Lecture (V)	3	6	English
Mathematik (M.Sc.)	Algorithms for hard graph problems	Lecture (V)	4	9	German or English
Computational Engineering Science (M.Sc.)	Applied Software Engineering within the life cycle of Automotive Electronics	Lecture (V)	Lecture (V) 1 Practical Course (Ü) 1		English
Computational Engineering Science (M.Sc.)	Automatic Speech Recognition	Lecture (V)	4 (for Master Computer Science, SSE, and MI) or 3 (for Bachelor Computer Science)	8 (for Master Computer Science, SSE, and MI) or 6 (for Bachelor Computer Science)	English
Computational Engineering Science (M.Sc.)	Basic Techniques in Computer Graphics	Lecture (V)	3	6	German or English
Physik (M.Sc.)	Basics for imaging electronic systems	Lecture (V)	2		English
Biologie (D)	Biological information processing (Neurobiology)	Lecture (V)	2		English
Biomedical Engineering Science (M.Sc.)	Chemistry/Biochemistry: Lecture	Lecture (V)	2	2	English
Simulation Sciences (M.Sc.)	Data Analysis and Visualization	Lecture (V)	2	4	English
Mathematik (M.Sc.)	Decision Theory and Bayesian Inference	Lecture (V)	4		English
Computational Engineering Science (M.Sc.)	Finite Volume and Finite Element Schemes II	Lecture (V)	2	3	German or English
Informatik (M.Sc.)	Foundations of Data Science	Lecture (V)	3	6	English
Informatik (M.Sc.)	Generative Aspects of Software Development in the Automotive Domain	Lecture (V)	Lecture (V) 2		English
Informatik (M.Sc.)	Graph Decompositions and Algorithmic Applications	Lecture (V)	3	6	English

Mathematik (M.Sc.)	Hierarchical Matrices	Lecture (V)	4	6	German or English (by arrangement)
Informatik (M.Sc.)	Infinite Computations and Games	Lecture (V)	3	6	English
Biologie (M.Sc.)	Introduction to Computational Neuroscience (Lecture)	Lecture (V)	1	2	English
Simulation Sciences (M.Sc.)	Introduction to hyperbolic conservation laws	Lecture (V)	2	3	English or German
Biologie (M.Sc.)	Lecture Cell Biology 1	Lecture (V)	2		German or English
Mathematik (M.Sc.)	Mathematical heuristics for discrete optimization problems (Part 2)	Lecture (V)	2	9	English or German
Chemie (M.Sc.)	mechanism of molecular catalysis	Lecture (V)	2		English
Biologie (D)	Molecular Biology of the Neural System	Lecture (V)	1		German or English (by arrangement)
Biologie (D)	Molecular Genetics / Gene Technology II (Regulation of gene expression)	Lecture (V)	2	0	English
Biologie (M.Sc.)	MSc lecture on cellular and systems neurobiology	Lecture (V)	2	3	German or English
Mathematik (M.Sc.)	Multiscale Techniques II	Lecture (V)	2	5	German or English
Physik (M.Sc.)	Nano-optics I	Lecture (V)	2 Lecture (V)+1 Seminar (S)	5	English
Computational Engineering Science (M.Sc.)	Numerical Analysis IV	Lecture (V)	4	8	German or English (by arrangement)
Applied Geophysics (M.Sc.)	Numerical Methods for Geophysical Flows	Lecture (V)	2	6	English
Computational Engineering Science (M.Sc.)	Object-Oriented Software Construction	Lecture (V)	3	6	English
Computational Engineering Science (M.Sc.)	Parallel Programming	Lecture (V)	Lecture (V) 3	4	English
Informatik (M.Sc.)	Probabilistic Programming	Lecture (V)	2		English
Biologie (D)	Regulation of protein structure , expression and function	Lecture (V)		3	English
Informatik (M.Sc.)	Software Architectures	Lecture (V)	3	6	German or English
Physik (MEd-BK)	Special Relativity	Lecture (V)	2	4	English

Computational Engineering Science (M.Sc.)	Statistical Classification	Lecture (V)	4 (for Master Computer Science, SSE and MI)/3 (for Bachelor Computer Science)	8 (für Master Computer Science, SSE and MI)/6 (für Bachelor Computer Science)	English
Biologie (M.Sc.)	Theory of plant cell wall biology	Lecture (V)	2	3	German and English
Physik (M.Sc.)	Astronomy and Astrophysics	Lecture/practical course (VÜ)	6		English
Media Informatics (M.Sc.)	Bridging Course in Foundations of Informatics	Lecture/practical course (VÜ)	2		English
Informatik (M.Sc.)	Communication Systems Engineering	Lecture/practical course (VÜ)	Lecture (V) 3/ Practical Course (Ü) 1	6	English
Computational Engineering Science (M.Sc.)	Computational Differentiation	Lecture/practical course (VÜ)	4	6	English
Computational Engineering Science (M.Sc.)	Computer Vision	Lecture/practical course (VÜ)	3+1	6	German or English
Physik (M.Sc.)	Condensed Matter Physics I	Lecture/practical course (VÜ)	6		English
Media Informatics (M.Sc.)	Cryptography	Lecture/practical course (VÜ)	Lecture (V) 4/ Practical Course (Ü) 2 (or V3/Ü2 see below)	8 (or 6)	English
Media Informatics (M.Sc.)	Data Communication and Internet Technology	Lecture/practical course (VÜ)	Lecture (V) 3/ Practical Course (Ü) 1	6	English
Physik (M.Sc.)	Density Functional Theory and Electronic structure	Lecture/practical course (VÜ)	6		English
Informatik (M.Sc.)	Designing Interactive Systems I	Lecture/practical course (VÜ)	Lecture (V) 3/ Practical Course (Ü) 2	6	English

Media Informatics (M.Sc.)	Designing Interactive Systems I (in Bonn)	Lecture/practical course (VÜ)	Lecture (V) 3/ Practical Course (Ü) 2	6	English
Media Informatics (M.Sc.)	eBusiness - Applications, architecture and standards	Lecture/practical course (VÜ)	2+1	4	English
Physik (M.Sc.)	EUV and X-Ray Optics	Lecture/practical course (VÜ)	4	5	English
Informatik (M.Sc.)	Formal Methods for logic control software	Lecture/practical course (VÜ)	2+2	6	English
Media Informatics (M.Sc.)	Foundations of Audio Signal Processing	Lecture/practical course (VÜ)	Lecture (V) 2/ Practical Course (Ü) 2	4	English
Media Informatics (M.Sc.)	Image Processing, Retrieval, and Analysis (I)	Lecture/practical course (VÜ)	Lecture (V) 4/ Practical Course (Ü) 2	8	English
Physik (M.Sc.)	Introduction to Accelerator Physics	Lecture/practical course (VÜ)	3	5	English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Introduction to Artificial Intelligence	Lecture/practical course (VÜ)	Lecture (V) 3 Practical Course (Ü) 2	6	English
Media Informatics (M.Sc.)	Introduction to Computer Graphics	Lecture/practical course (VÜ)	Lecture (V) 4/ Practical Course (Ü) 2	8	English
Elektrotechnik, Informationstechnik u. Technische Informatik (M.Sc.)	Introduction to Virtual Reality (VR I)	Lecture/practical course (VÜ)	3+1	6	German and English
Media Informatics (M.Sc.)	Media, Culture and Mind	Lecture/practical course (VÜ)	Lecture (V) 2/ Practical Course (Ü) 1	4	English
Physik (M.Sc.)	Particle Physics I	Lecture/practical course (VÜ)	6		English
Informatik (M.Sc.)	Physically-Based Animation	Lecture/practical course (VÜ)	3+1	6	German or English
Media Informatics (M.Sc.)	Principles of Distributed Systems	Lecture/practical course (VÜ)	Lecture (V) 2/ Practical Course (Ü) 2	4	English

Physik (M.Sc.)	Quantum Field Theory of Particle Physics I	Lecture/practical course (VÜ)	6	10	English
Physik (M.Sc.)	Quantum Optics	Lecture/practical course (VÜ)	2+1	5	English
Media Informatics (M.Sc.)	Randomized and Approximation Algorithms	Lecture/practical course (VÜ)	Lecture (V) 2/ Practical Course (Ü)2	4	English
Informatik (M.Sc.)	Research Focus Class on Communication Systems	Lecture/practical course (VÜ)	Lecture (V) 3+ Practical Course (Ü)2	6	English
Informatik (M.Sc.)	Satisfiability Checking	Lecture/practical course (VÜ)	Lecture (V) 3 Practical Course (Ü) 1	6	English or German
Physik (M.Sc.)	Single molecule techniques in life sciences -Advanced experimental methods in morn biophysics	Lecture/practical course (VÜ)	3	5	English
Physik (M.Sc.)	Statistical mechanics of neural networks	Lecture/practical course (VÜ)	3	5	English
Physik (M.Sc.)	Theoretical Hydrodynamics	Lecture/practical course (VÜ)	3+1	5	English
Physik (M.Sc.)	Ultrafast Lasers and X-Ray Generation	Lecture/practical course (VÜ)	4	5	English
Computational Engineering Science (M.Sc.)	Uncertainty Quantification	Lecture/practical course (VÜ)	3	4,5	English

<b>Faculty:</b>	<b>Mechanical Engineering</b>				
<b>Course of Study</b>	<b>Title</b>	<b>Type of course</b>	<b>Lecture hours per week</b>	<b>ECTS credits</b>	<b>Language of instruction</b>
Automotive Engineering (M.Sc.)	Automotive Engineering - Practical Course I	Lab course (LÜ)	2	3	English
Simulation Sciences (M.Sc.)	SiSc Laboratory	Lab course (LÜ)	3	6	English
Computational Engineering Science (M.Sc.)	CES Seminar: Presentation	Seminar (S)	2	5	German (English by arrangement)
Simulation Sciences (M.Sc.)	Simulation Sciences Seminar	Seminar (S)			English



Automatisierungstechnik (M.Sc.)	Advanced Software Engineering	Practical course (Ü)	2	cf. exam regulations of course of studies	English
Computer Aided Conception and Production in Mechanical Engineering (M.Sc.)	Advanced Software Engineering - International Academy	Practical course (Ü)	2	cf. exam regulations of course of studies	English
Allgemeiner Maschinenbau (M.Sc.)	Applied Molecular Thermodynamics	Practical course (Ü)	1	4,5	English
Automotive Engineering (M.Sc.)	Automotive Engineering I	Practical course (Ü)	2	3	English
Automotive Engineering (M.Sc.)	Automotive Engineering III	Practical course (Ü)	1	1,5	English
Automotive Engineering (M.Sc.)	Control Engineering (International Academy) Excercise	Practical course (Ü)	2	2.0	English
Combustion Engines (M.Sc.)	Exercise Machine Tools	Practical course (Ü)	2	0	English
Automotive Engineering (M.Sc.)	Exercise Manufacturing Technology I	Practical course (Ü)	2	0	English
Combustion Engines (M.Sc.)	Exercise Mechatronics and Control for Production Plants M.Sc.	Practical course (Ü)	2	5	English
Allgemeiner Maschinenbau (M.Sc.)	Finite Elements in Fluids Exercise	Practical course (Ü)	1	1	English
Combustion Engines (M.Sc.)	Fluid Dynamics	Practical course (Ü)	2	3	English
Allgemeiner Maschinenbau (M.Sc.)	Foandations of Finite Element Methods for Engineers	Practical course (Ü)	2	5	English
Automotive Engineering (M.Sc.)	Fandamentals of Fluid Power	Practical course (Ü)	2	3	English
Computer Aided Conception and Production in Mechanical Engineering (M.Sc.)	Fandamentals of Lightweight Design	Practical course (Ü)	1	1,5	English
Production Systems Engineering (M.Sc.)	Gear and Transmission Technology	Practical course (Ü)	2	2	English
Combustion Engines (M.Sc.)	Heat and Mass Transfer (in English)	Practical course (Ü)	2		English

Computer Aided Conception and Production in Mechanical Engineering (M.Sc.)	Machine Design Process	Practical course (Ü)	2		English
Biomedical Engineering Science (M.Sc.)	Mechanics, Biomechanics / Fluid Mechanics	Practical course (Ü)	2	3	English
Allgemeiner Maschinenbau (M.Sc.)	Membrane Processes	Practical course (Ü)	2		English
Allgemeiner Maschinenbau (M.Sc.)	Numerical Methods in Mechanical Engineering	Practical course (Ü)	2		English
Computer Aided Conception and Production in Mechanical Engineering (M.Sc.)	Practical Applications of Computer-Aided Engineering Tools	Practical course (Ü)	1		English
Combustion Engines (M.Sc.)	Production Management A	Practical course (Ü)	1	3	English
Computational Engineering Science (M.Sc.)	Selected Topics in Turbomachinery	Practical course (Ü)	2	3	German or English
Allgemeiner Maschinenbau (M.Sc.)	Selected Topics of Inelasticity Theory	Practical course (Ü)	2	0	English
Computational Engineering Science (M.Sc.)	Simulation Techniques in Manufacturing Technology	Practical course (Ü)	1	0	English
Allgemeiner Maschinenbau (M.Sc.)	Tensor Algebra and Tensor Analysis for Engineering Students I	Practical course (Ü)	2	5	English
Automotive Engineering (M.Sc.)	Control Engineering (International Academy) Lecture	Lecture (V)	2	2.0	English
Automatisierungstechnik (M.Sc.)	Advanced Software Engineering	Lecture (V)	2	cf. exam regulations of course of studies	English
Computer Aided Conception and Production in Mechanical Engineering (M.Sc.)	Advanced Software Engineering - International Academy	Lecture (V)	2	cf. exam regulations of course of studies	English
Allgemeiner Maschinenbau (M.Sc.)	Applied Molecular Thermodynamics	Lecture (V)	2	4,5	English
Automotive Engineering (M.Sc.)	Automotive Engineering I	Lecture (V)	2	3	English
Automotive Engineering (M.Sc.)	Automotive Engineering III	Lecture (V)	2	3	English

Allgemeiner Maschinenbau (M.Sc.)	Finite Elements in Fluids	Lecture (V)	2	4	English
Combustion Engines (M.Sc.)	Fluid Dynamics	Lecture (V)	2	3	English
Allgemeiner Maschinenbau (M.Sc.)	Foandations of Finite Element Methods for Engineers	Lecture (V)	2	5	English
Automotive Engineering (M.Sc.)	Fandamentals of Fluid Power	Lecture (V)	2	3	English
Computer Aided Conception and Production in Mechanical Engineering (M.Sc.)	Fandamentals of Lightweight Design	Lecture (V)	2	3	English
Production Systems Engineering (M.Sc.)	Gear and Transmission Technology	Lecture (V)	2	3	English
Biomedical Engineering Science (M.Sc.)	Image Guided Therapy / Molecular Imaging Lecture	Lecture (V)	2	3	English
Allgemeiner Maschinenbau (M.Sc.)	Innovation Management for Long-distance Freight Transport Technologies	Lecture (V)	2	cf. exam regulations of course of studies	English
Combustion Engines (M.Sc.)	Lecture Machine Tools	Lecture (V)	2	5	English
Combustion Engines (M.Sc.)	Lecture Mechatronics and Control for Production Plants M.Sc.	Lecture (V)	2	5	English
Computer Aided Conception and Production in Mechanical Engineering (M.Sc.)	Machine Design Process	Lecture (V)	2		English
Automotive Engineering (M.Sc.)	Manufacturing Technology I	Lecture (V)	2	0	English
Biomedical Engineering Science (M.Sc.)	Mechanics, Biomechanics / Fluid Mechanics	Lecture (V)	2	3	English
Allgemeiner Maschinenbau (M.Sc.)	Membrane Processes	Lecture (V)	2	3	English
Allgemeiner Maschinenbau (M.Sc.)	Numerical Methods in Mechanical Engineering	Lecture (V)	3		English
Production Systems Engineering (M.Sc.)	Process Chains for the replication of complex optical components	Lecture (V)	2	3	English
Combustion Engines (M.Sc.)	Production Management A	Lecture (V)	2	3	English
Computational Engineering Science (M.Sc.)	Selected Topics in Turbomachinery	Lecture (V)	2	3	German or English

Allgemeiner Maschinenbau (M.Sc.)	Selected Topics of Inelasticity Theory	Lecture (V)	2	0	English
Computational Engineering Science (M.Sc.)	Simulation Techniques in Manufacturing Technology	Lecture (V)	2	3-6	English
Allgemeiner Maschinenbau (M.Sc.)	Tensor Algebra and Tensor Analysis for Engineering Students I	Lecture (V)	2	5	English
Fahrzeugtechnik and Transport (M.Sc.)	Transportation Design - Advanced Design and Presentation Techniques	Lecture/Colloquium (VK)	2	2	German (English by arrangement)
Allgemeiner Maschinenbau (M.Sc.)	Practical Introduction to FEM-Software I	Lecture/practical course (VP)	3	3	English
Biomedical Engineering Science (M.Sc.)	Image Guided Therapy I	Lecture/practical course (VÜ)	2		English
Automotive Engineering (M.Sc.)	Industrial Engineering and Ergonomics, Participants International Academy	Lecture/practical course (VÜ)	2/2		English
Automotive Engineering (M.Sc.)	Industrial Engineering and Ergonomics, Participants Master students RWTH Aachen University	Lecture/practical course (VÜ)	2/2		English
Produktionstechnik (M.Sc.)	iPodia - Principles and Practices of Global Innovation	Lecture/practical course (VÜ)	3	5	English
Allgemeiner Maschinenbau (M.Sc.)	Isogeometric Analysis	Lecture/practical course (VÜ)	3	6	English
Computational Engineering Science (M.Sc.)	Lattice-Boltzmann Methods	Lecture/practical course (VÜ)	4	5	English
Allgemeiner Maschinenbau (M.Sc.)	Mechanics of living tissues	Lecture/practical course (VÜ)	3	5	English
Production Systems Engineering (M.Sc.)	Modeling, Model Reduction and Simulation in Laser Processing - Applications (Lecture/Excercise)	Lecture/practical course (VÜ)	4	5 (through exam)	English
Computational Engineering Science (M.Sc.)	Numerical Methods for Fluid-Structure Interaction	Lecture/practical course (VÜ)	Lecture (V) 2/ Practical Course (Ü) 1	4	English
Simulation Sciences (M.Sc.)	Numerical Methods for Lubricated Contact Problems	Lecture/practical course (VÜ)	3	5	English
Simulation Sciences (M.Sc.)	Numerical Methods for Partial Differential Equations	Lecture/practical course (VÜ)	4+2	8	English
Automotive Engineering (M.Sc.)	Quality Management (Lecture/Exercise)	Lecture/practical course (VÜ)	2/2	5-6 (depends on course of studies)	English

Computer Aided Conception and Production in Mechanical Engineering (M.Sc.)	Simulation of Discrete Event Systems, Participants International Academy	Lecture/practical course (VÜ)	2/2		English
Entwicklung und Konstruktion (M.Sc.)	Simulation of Discrete Event Systems, Participants Master students RWTH Aachen University	Lecture/practical course (VÜ)	2/2		English

<b>Faculty:</b>	<b>Medicine</b>				
<b>Course of Study</b>	<b>Title</b>	<b>Type of course</b>	<b>Lecture hours per week</b>	<b>ECTS credits</b>	<b>Language of instruction</b>
Medizin (Lehrangebot nach Fächern)	experimental hepatology: immunology	PhD colloquium (DoK)			English
Medizin (Lehrangebot nach Fächern)	PhD student colloquium in experimental surgery of Prof. Tolba's research group	PhD colloquium (DoK)	1		English
Informatik (M.Sc.)	Colloquium Medical Informatics	Research colloquium (FK)	2	2	German or English
Medizin (Lehrangebot nach Fächern)	experimental hepatology: signal transduction	Research colloquium (FK)			English
Biomedical Engineering Science (M.Sc.)	BME: Cell Culture and Tissue Engineering (Prac Class)	Practical course (P)	1	2	English
Biomedical Engineering Science (M.Sc.)	Chemistry/Biochemistry: Practice	Practical course (P)			English
Biologie (D)	Scientific course in immunology	Practical course (P)	full-day after agreement	0	German or English
Biologie (D)	Supervision for PhD-Thesis	Practical course (P)	full-day	0	German or English
Medizin (Lehrangebot nach Fächern)	Supervision of Doctoral Thesis (MD)	Practical course (P)	full-day	0	German or English
Biologie (D)	Supervision of Master Thesis	Practical course (P)	full-day	0	German or English
Biologie (D)	Advanced Immunology	Seminar (S)	2	3	German or English
Informatik (M.Sc.)	Medical Image Processing: Seminar	Seminar (S)	2	4	English
Biologie (D)	Methods in Immunology	Seminar (S)	2	0	German or English
Medizin (Lehrangebot nach Fächern)	Neuro-psychiatric research colloquium of the IRTG 1328	Seminar (S)	2		English

Medizin (Lehrangebot nach Fächern)	postgraduates' progress reports	Seminar (S)			English
Biologie (D)	Seminar of the Institute of Immunology and Journal-Club	Seminar (S)	2	0	German or English
Biologie (D)	Seminar: "Identifizierung und Charakterisierung pathophysiologisch aktiver Biomoleküle"	Seminar (S)	0.5	0.75	English
Biomedical Engineering Science (M.Sc.)	Image Processing and Management: Exercise	Practical course (Ü)	1	2	English
Biomedical Engineering Science (M.Sc.)	Medical Biology Practical course	Practical course (ÜP)	1 SWS	2	English
Biomedical Engineering Science (M.Sc.)	BME: Cell Culture and Tissue Engineering (Lecture)	Lecture (V)	2	3	English
Biomedical Engineering Science (M.Sc.)	Chemistry/Biochemistry: Lecture	Lecture (V)	2	2	English
Biomedical Engineering Science (M.Sc.)	Image Guided Therapy / Molecular Imaging Lecture	Lecture (V)	2	3	English
Biomedical Engineering Science (M.Sc.)	Image Processing and Handling: Lecture	Lecture (V)	2	3	English
Biomedical Engineering Science (M.Sc.)	Immunology and Microbiology (2L)	Lecture (V)	1		English
Biomedical Engineering Science (M.Sc.)	Medical Biology Lecture	Lecture (V)	2	3	English
Biologie (D)	Molecular Genetics / Gene Technology II (Regulation of gene expression)	Lecture (V)	2	0	English
Biologie (D)	Regulation of protein structure , expression and function	Lecture (V)		3	English
Allgemeiner Maschinenbau (M.Sc.)	Medical Imaging Part I (for Natural Sc., Engineering and Medicine)	Lecture/practical course (VP)	2	4	English