English taught courses, summer term 2014

Master level

Faculty:	Arts and Humanities			
Title	Type of course	Lecture hours per week	ECTS credits	Language of instruction
1914. War experience in a multiborder region	Seminar			English
Conference Englisch for Doctoral Candidates (Advanced)	Language course (SK)	2		English
Conference English for Doctoral Candidates (Intermediate)	Language course (SK)	2	According to study regulations	English
Creating Learning Environments and Development of Teaching Materials for Content and Language Integrated Learning	Practical course (Ü)	2	0	English
Eugene O'Neill	Seminar (HS)	2	According to study regulations	English
Higher Education Jobs	Language course (SK)			English
Kolloquium B: The Return of the Reader - New Developments in Cognitive Reception Theory	Research colloquium (FK)	2		English and German
Language and Society	Seminar (HS)	2	According to study regulations	English
Life after dissertation - hunting and applying for jobs (academic and commercial positions) in the English-speaking world	Language course (SK)			English
Linguistic Methods (formerly: Introduction to Computer-Based Linguistics)	Practical course (Ü)	2	2/4	English
Masterkolloquium: Statistics in linguisticsTeil 2	Research colloquium (FK)	2		English / German
Metaphor, Cognition, and Identity	Seminar (HS)	2	According to study regulations	English
MK 5 Academic Skills 1.a	Language course (SK)	2	According to study regulations	English
MK 5 Technical English 1.a	Language course (SK)	2	According to study regulations	English

MK 6 Academic Skills 2.a	Language course (SK)	2	According to study regulations	English
MK 6 Technical English 2	Language course (SK)	2	According to study regulations	English
MK 7 Academic Skills 3.a	Language course (SK)	2	According to study regulations	English
MK 7 Technical English 3.a	Language course (SK)	2	According to study regulations	English
MK 8 Academic Skills 4.a	Language course (SK)	2	According to study regulations	English
MK 8 Technical English 4.a	Language course (SK)	2	According to study regulations	English
Poetry Analysis (American and Canadian Poetry) (Group 2)	Practical course (Ü)	2		English
Poetry Analysis (English Poetry)	Practical course (Ü)	2	0	English
Scientific Writing for Doctoral Candidates Module 1.a: The Language of Scientific Writing	Language course (SK)	2	According to study regulations	English
Scientific Writing for Doctoral Candidates Module 2.a: Essential Techniques for Writing Good Scientific Texts	Language course (SK)	2		English
Scientific Writing for Doctoral Candidates Module 3.a: Writing and Publishing Scientific Research Papers	Language course (SK)	2		English
Second Language Phonology	Seminar (HS)	2	According to study regulations	English
Seminar: Selected Aspects of Foreign Language Teaching (French/Spanish)	Seminar	2		English and German
The Gothic Novel	Seminar (HS)	2	According to study regulations	English
The Theatre of the Absurd	Seminar (HS)	2	According to study regulations	English
Usage-Based Approaches to Language Learning	Seminar (HS)	2	According to study regulations	English
Vorlesung American Literature and Culture: A Survey (einmalig im SoSe 2014)	Lecture (V)	2		English

Vorlesung: American and Canadian Studies: Their Development, Methodologies, and Critical Potential	Lecture (V)	2	According to study regulations	English
Vorlesung: Introduction to English Linguistics II	Lecture (V)	2		English
Vorlesung: Linguistic Theories	Lecture (V)	2		English

Faculty:	Business and Economics			
Title	**Type of course**	**Lecture hours per week**	**ECTS credits**	**Language of instruction**
Algorithmic Game Theory	Lecture (V)	4	6	English
Applied Economic Policy Evaluation	Lecture/practical course (VÜ)	2+2	6	English
Behavioral Management Accounting	Lecture (V)	4	5	English
Behavioral Management Accounting	Practical course (Ü)			English
Classroom Sessions "Quantitative Innovation Research"	Lecture/practical course/seminar (VPS)	2	5	German or English
Coaching "Organisation Theory"	Working group (AG)	1		English or German
Current Research on E-Business	Working group (AG)	2	0	German / English
Economics of Technical Change	Lecture (V)	2	4	English
Entrepreneurial Finance	Lecture/practical course (VÜ)	V2 + Ü2	5	English
Excercise for Lecture Economics of Technical Change	Practical course (Ü)	2		English
Lab Sessions "Quantitative Innovation Research"	Working group (AG)	2		German and/or English
Lecture "Organisation Theory"	Lecture (V)	2	5	English
Managing the Innovation Process - Lecture	Lecture (V)	2+1	5	English
Marketing-Management	Lecture/practical course (VÜ)			English
Project Module: Innovation, Strategy and Organisation	Working group (AG)	4	10	German and/or English
Service Marketing Innovation (Innovation und Management von Dienstleistungen)	Lecture/practical course (VÜ)	4	5	English
Strategy for the Information Economy	Lecture (V)	2	5	English

Faculty:	Civil Engineering			
Title	Type of course	Lecture hours per week	ECTS credits	Language of instruction
Advanced Numerical Methods for Engineers	Lecture/practical course (VÜ)	3	5	English
Finite Element Technology	Lecture/practical course (VÜ)	3	6	German / English
Non-linear finite element method in Civil Engineering	Lecture/practical course (VÜ)	3	4	German (English on demand)
Nonlinear Finite Element Methods for Solids	Lecture/practical course (VÜ)	4	5	English
Numerical Methods	Lecture/practical course (VÜ)	2	3	English
Theory of plasticity and fracture mechanics	Lecture/practical course (VÜ)	3	6	German / English

Faculty:	Electrical Engineering and Information Technology			
Title	Type of course	Lecture hours per week	ECTS credits	Language of instruction
Ad Hoc Networks: Architectures and Protocols	Lecture/practical course (VÜ)	V2/Ü1		English
Analogue and Mixed-Signal Electronics 2	Lecture (V)	2		English
Automation of Complex Power Systems	Lecture/practical course (VÜ)	V2/Ü1		English
Design of Micro- and Millimeter-Wave Circuits	Practical course (P)	4	4	German / English
Digital Mobile Receiver Design: Synchronization and Detection	Practical course (ÜP)	4	4	English
DSP Design Methodologies and Tools	Lecture (V)	2	3	English
DSP Design Methodologies and Tools	Practical course (Ü)	1	1/5	English
Dynamik Elektrischer Maschinen (Electrical Machines 2)	Lecture (V)	2	see exam	English
Dynamik Elektrischer Maschinen (Electrical Machines 2)	Practical course (Ü)	1	see exam	English
Electromagnetic Field Simulation for Electrical Energy Applications	Lecture/practical course (VÜ)	3	see exam	English or German on demand
Electronic Design Automation	Lecture (V)	2	4	German / English
Electronic Design Automation	Practical course (Ü)	1	2	German / English
Electronic Noise in Devices and Circuits	Lecture (V)	2	4	English
Electronic Noise in Devices and Circuits	Practical course (Ü)	1		English
Excursion	Excursion (E)	0		German / English
Excursion to Munich (Excursion Week)	Excursion (E)			German / English

Course	Type	SWS 1	SWS 2	Language
Excursions	Practical course (Ü)	2	0	German and English
Exercises High Voltage Engineering - Insulation Systems	Practical course (Ü)	1	0	English
Exploring Modular Design of SDR Transceivers	Lecture/practical course (VÜ)	V2/Ü1		English
Faults and Stability in Power Systems (Master Course Electrical Power Engineering)	Practical course (Ü)	1	1	English
Faults and Stability in Power Systems (Master Course of Studies Electrical Power Engineering)	Lecture (V)	2	4	English
Forward Error Correction and Digital Modulation	Lecture (V)	2		English
Forward Error Correction and Digital Modulation	Practical course (Ü)	1		English
GaN: Material, Technology and Devices	Lecture/practical course (VÜ)	3	see lecture	English or German on demand
High Frequency Electronics	Seminar (HS)	4	4	English
High Voltage Engineering - Insulation Systems	Lecture (V)	2	0	English
High Voltage Lab Course - English	Practical course (P)	4	0	English
Independent project work	Practical course (Ü)	depending on project	depending on project	German / English
Institute Project 4. Semester (SSS - Microcontroller)	Practical course (P)	3	3	German and/or English
Internship Seminar	Seminar	1	18	German / English
Lab Course: Power Electronic Devices	Practical course (P)	4		English or German on demand
Laboratory Acoustic Virtual Reality	Practical course (P)	4	4	English
Laboratory Analog- and Mixed-Signal-Electronic	Practical course (P)	4	4	German / English
Laboratory Communications Technology	Practical course (P)	4	3	German and English
Laboratory Exercise on Power Engineering II	Practical course (P)	4	4	German / English
Laboratory: Network Programming	Practical course (P)	4		English
Laboratory: SMEAGOL - Small Embedded Advanced and GEneric Objects Laboratory	Practical course (P)	4		English

Laboratory: Wireless Communications: Software Radio Implementations	Practical course (P)	4		English
List of projects offered by the Integrated Photonics Laboratory (Summer 2014)	Practical course (P)	3		English
Measurement Techniques and Distributed Intelligence for Power Systems	Lecture/practical course (VÜ)	V2/Ü1		English
Medical Acoustics 2	Lecture/practical course (VÜ)	3	4 (including practical course)	German / English
Mobile Radio Networks 2	Lecture/practical course (VÜ)	V2/Ü1		English
Modern Control Systems	Lecture/practical course (VÜ)	V2/Ü1		English
Multimedia Communication Systems 2: Multimedia Content Analysis	Lecture (V)	2	5 (including practical course)	English
Optical Telecommunications II: Systems	Lecture/practical course (VÜ)	4	4	English
Optimization Lab for Communication and Signal Processing Using MATLAB	Practical course (P)	4		English
Oxide thin films for information technology	Lecture (V)	2	0	German (English on demand)
Oxide thin films for information technology	Practical course (ÜP)	1	0	German (English on demand)
Power Economics in Liberalised Electricity Markets	Lecture (V)	2	4	English
Power Economics in Liberalised Electricity Markets	Practical course (Ü)	1	1	English
Power Economics in the Liberalised Electricity Market	Lecture (V)	2	4	English
Power Economics in the Liberalised Electricity Market	Practical course (Ü)	1	1	English
Power Electronic Devices	Lecture/practical course (VÜ)	3		English
Principles and Architectures of Cognitive Radios	Lecture/practical course (VÜ)	V2/Ü1		English
Project Circuit Design and RF Systems	Practical course (ÜP)	4	3/4	German / English
Project Mechatronics	Practical course (ÜP)	4	4	German (English on demand)
Project: "Algorithms and Practice in Signal Processing"	Practical course (Ü)	4		German / English
Project: "Microelectronic circuits for medical engineering"	Practical course (ÜP)	4	4	German / English

Project: "Microsystem technology in practice"	Seminar	2	2	German / English
Project: "Production processes in microsystem technology"	Seminar	4	4	German / English
Project: "Sensor technology in practice"	Practical course (ÜP)	4	4	German / English
Project: Current Topics of Compound Semiconductor Devices and Technology	Practical course (ÜP)	4	4	German / English
Project: Design and Implementation of C/C++ compilers	Practical course (P)	4	5	German / English
Project: Organic Electronics and Optoelectronics	Practical course (ÜP)	4	4	German / English
Revision Course Electrical Drives	Practical course (Ü)	0		English
Seminar "Power Generation and Energy Trading"	Seminar	3	4	English
Seminar "Selected Topics in Communications Engineering"	Seminar	3 or 4		German / English
Seminar Embedded System Design: Multicore Programming	Seminar	2	3 (BSc.) 4 (MSc.)	English or German on demand
Seminar Mixed Signal Circuits	Seminar	4	3/4	German / English
Seminar The Future of Energy Supply (Seminar The Future of Energy Supply)	Seminar	3 or 4	3 or 4	German and English
Seminar: Current Topics of Compound Semiconductor Devices and Technology	Seminar	4	4	German / English
Seminar: Current Trends in Wireless Communications	Seminar	3		English
Seminar: Organic Electronics and Optoelectronics	Seminar	4	4	German / English
Seminar: Wireless Internet Systems	Seminar	4		English
Seminary on Technical Acoustics	Seminar	3/4	3/4	German / English
Signal Processing in Multi-Antenna (MIMO) Communication System	Lecture (V)	2	4	English
Signal Processing in Multi-Antenna (MIMO) Communication System	Practical course (Ü)	1	1	English
System and Processor Architectures of Mobile Devices	Lecture (V)	2	4	English
System and Processor Architectures of Mobile Devices	Practical course (Ü)	1	1	English

Whitsun Excursion	Excursion (E)	0		German / English

Faculty:	Georeresources and Materials Engineering			
Title	**Type of course**	**Lecture hours per week**	**ECTS credits**	**Language of instruction**
Advanced Physical Metallurgy	Lecture/practical course (VÜ)	V2/Ü2	0	English
Crystal physics I	Lecture (V)	2	2,5	German / English
From Molecular to Continuum Physics II	Lecture/practical course (VÜ)	V3/Ü2	5	English
Hydrothermal Systems	Lecture/practical course/seminar (VPS)	2		English
Laboratory Course Neutron Scattering	Lecture/practical course (VÜP)	9	5	English
Laboratory in Melt Treatment and Continuous Casting	Practical course (P)	1	5	English
Materials Characterisation	Practical course (ÜP)	3	3	English
Melt Treatment and Continuous Casting	Lecture/practical course (VÜ)	2/1	0	English
Metallic Materials (Ferrous Materials)	Lecture/practical course (VÜ)	V2/Ü1	8	English
Metallic Materials (Microstructure, Microscopy, Modelling)	Lecture/practical course (VÜ)	3	4	English
Micromechanics of Materials	Lecture/practical course (VÜ)	V3/Ü2	0	English
Mineral Resources and Sustainability for Geosciences		2	3	German and English
Ore formig processes	Lecture/practical course/seminar (VPS)	2		English
Petroleum technology, well site geology, well planning	Lecture (V)	2		English
Reservoir Petrology	Lecture/practical course (VÜ)	2	3	English
Seminar I	Practical course (Ü)	1	0	English
Seminar II	Practical course (Ü)	1	0	English
Thermochemistry and kinetics of mineral materials	Lecture/practical course (VÜ)	2/3		English
Transport Phenomena II	Lecture/practical course (VÜ)	3	0	English

Faculty:	Mathematics, Computer Science and Natural Science			
Title	**Type of course**	**Lecture hours per week**	**ECTS credits**	**Language of instruction**
Advanced Data Models	Lecture/practical course (VÜ)	V3/Ü1	6	English
Advanced Internet Technology	Seminar	2	4	English
Advanced Learning Technologies	Lecture/practical course (VÜ)	3+2	6	English

Advanced Methods in Automatic Speech Recognition	Lecture/practical course (VÜ)	3/1	6	English
Advanced Topics in Transport Theory	Lecture/practical course (VÜ)	3	4,5	English
Algorithmic Game Theory	Lecture (V)	4	6	English
Algorithmic Game Theory and the Internet	Seminar	2	4	English
Algorithmic Model Theory 2	Lecture (V)	2	4	German or English
Algorithms for Data Compression and Resilient Internet Transmission	Practical course (P)	5	10	English
Analysis of Algorithm (Exercises)	Practical course (Ü)	2		English
Analysis of Algorithms	Lecture (V)	4		English
Applied Automata Theory	Lecture (V)	3	6	English
Applied Automata Theory	Practical course (Ü)	2		English
Astroparticle Physics	Lecture/practical course (VÜ)	6	10	English
Automatic Generation and Analysis of Algorithms	Lecture/practical course (VP)	V3/ÜE1	6	English
Biocatalysis in non-conventional media	Lecture (V)	2		English
Biophysics II: Molecular biophysics- structure and dynamics of bio-molecules	Lecture/practical course (VÜ)	3	5	English (German)
Biospectroscopy: practical lab course	Practical course (P)	4	5	English (German)
Catalyst immobilisation and multiphase catalysis	Lecture (V)	2	3	English
CES Seminar: Presentation	Seminar	2	4	German (English on demand)
Club i10	Research colloquium (FK)	2		English
Colloquium "Life Science"	Colloquium (K)	1		German / English
Colloquium in Zoology	Lecture/Colloquium (VK)	2	0	German or English
Combinatorial Problems in Scientific Computing	Lecture/practical course (VÜ)	2+2	4	English
Computational Complexity	Seminar	2	4	English
Computational Group Theory	Lecture (V)	3	6	German or English
Computational Physics	Lecture/practical course (VÜ)	6		English
Correlated Electrons	Lecture/practical course (VÜ)	3	5	English
Cortical Structure and Function	Seminar (HS)	2		English
CSCW and groupware: concepts and systems for computer supported cooperative work	Lecture/practical course (VÜ)	V2/Ü1	4	English
Current Topics in Algorithm Theory	Seminar	2		English

Current Topics in Cryptographie	Seminar	2		English
Current Topics in Media Computing and HCI	Lecture/practical course (VÜ)	V2/Ü3	6	English
Data Communication, Internet Technology and Mobile Devices	Practical course (P)	5	10	English
Data Mining Algorithms II	Lecture/practical course (VÜ)	3+2	6	English
Data Mining and Multimedia Retrieval	Seminar	2	5	German and English
Designing Interactive Systems II	Lecture/practical course (VÜ)	V3/Ü2	6	English
Environmental Microbiology	Lecture (V)	2	3	English
Esecurity: secure internet & e-passports	Lecture/practical course (VÜ)	V4/Ü2 (or V3/Ü2)	8 (or 6)	English
Excercise Introduction to statistical Classification	Practical course (Ü)	2	0	English
Exercise to Model-based Estimation Methods	Practical course (Ü)	2		English / German
From Target via Active Component to the Pharmaceutical Product	Lecture (V)	2	4	English or German on demand
Functional Programming	Lecture (V)	3	6	English
Functional Programming	Practical course (Ü)	2		English
Game AI	Lecture/practical course (VÜ)	V4/Ü2	8	English
Generative Software Engineering	Lecture/practical course (VÜ)	3+2	6	English
Genome Research Seminar	Seminar	2		English
Geometry Processing	Lecture (V)	3	6	German / English
Geometry Processing	Practical course (Ü)	2	0	German / English
Global Illumination and Image-Based Rendering	Lecture (V)	3	6	German / English
Global Illumination and Image-based Rendering	Practical course (Ü)	2	0	German / English
Implementation of a board game including AI	Lecture/practical course (VP)	4	8	English
Infinite Games	Lecture (V)	3	6 (lecture + exercises)	English
Infinite Games	Practical course (Ü)	2		English
Inline Spectroscopy for Chemical Processes	Lecture (V)	2	3	English
Institute Seminar on Experimental Elementary Particle Physics. III. Phys. Inst.	Seminar	3		German or English
Internet Algorithms	Seminar	2	4	English
Introduction to Biophysics	Lecture/practical course (VÜ)		3	German / English
Introduction to Statistical Classification	Lecture (V)	4	8	English or German on demand

Introduction to Transport Theory	Lecture/practical course (VÜ)	3	4,5	English
Lab Classes Astro-Particle Physics	Practical course (P)	2	5	German or English
Lab Course "Data Mining Algorithms in Matlab and R"	Practical course (P)	4	7	English / German
Lab Cryptography	Practical course (P)	5	10	English
Lab on Performance Network Measurement in High Performance Low Lantency Networks	Practical course (P)	4	7	English
Laboratory Course Neutron Scattering	Lecture/practical course (VÜP)	9	5	English
Laboratory Course Particle Physics	Practical course (P)	4		German / English
Lehrstuhlseminar Advanced Topics in Speech and Language Processing	Seminar	2	0	German / English
Machine Listening	Lecture/practical course (VÜ)	V2/Ü1	4	English
Materials Science and Processing	Lecture (V)	2	3	English
Materials Science and Processing	Practical course (Ü)	1	1,5	English
Mathematical Models in Science and Engineering (PDEs)	Lecture/practical course (VÜ)	4	6	German or English
Medical Image Processing: Lecture	Lecture (V)	2	3	English
Mobile Communication	Lecture/practical course (VÜ)	V2Ü2	4	English
Mobile Internet Technology	Lecture/practical course (VÜ)	3+1	6	English
Mobile Internet Technology	Seminar	2	4	English
Model-based Estimation Methods	Lecture (V)	2		English / German
Modeling and Verification of Probabilistic Systems	Lecture (V)	3	6	English
Molecular Biology of the Sensory System	Lecture (V)	1		English or German on demand
Molecular Genetics / Gene Technology III; Qualifying Profile Molecular Medicine (signal transduction)	Lecture (V)	2	3	English
Multicore Programming	Practical course (P)	4	7	English
Multimodal Media Madness	Lecture/practical course (VP)	V1/P3	7	German / English
Nanoferronics news	Seminar	2	5	English
Nano-optics II	Lecture (V)	2		English
Network Security	Lecture/practical course (VÜ)	V2/Ü2	4	English
Numerical Methods for the Geo-Sciences I (NGS1)	Lecture (V)	4	9	English or German
Numerical Methods for the Geo-Sciences I (NGS1)	Practical course (Ü)	2	0	English or German

Numerical Multilinear Algebra	Lecture (V)	2	4	German or English
Numerical Multilinear Algebra Exercises	Practical course (Ü)	1	0	German or English
Oberseminar Computer Security	Seminar (OS)	3	0	English
Object-Oriented Software Construction	Lecture/practical course (VÜ)	V3/Ü1	6	English
Parallel Programming II	Lecture (V)	3	6	English
Parallel Programming II	Practical course (Ü)	2	6	English
Particles, Fields, and Strings	Seminar	2	5	German and English
Particles, Fields, and Strings (Tutorial)	Practical course (Ü)	4		German and English
Physics of Novel Materials	Seminar	2		English
Plant Cell Biology	Seminar	2	4	German and English
Post-Desktop User Interfaces	Seminar	2	4	English
Practical Lab: Data Collection and Analytics in Mobile Learning Environments	Practical course (P)	4	7 (10 for Media Informatics with additional tasks)	English
Process Management	Lecture/practical course (VÜ)	V2/Ü1	4	English
Proseminar: Roots of Computer Science	Introductory seminar (PS)	2	4	German / English
Quantum Information	Lecture/practical course (VÜ)	6		English
Reaction engineering	Lecture (V)	2	3	English
Recent topics in Numerical Analysis I	Seminar	2	0	German or English
Research Practical	Practical course (P)	3	0	German and English
Research Seminar Molecular Phytopathology	Research colloquium (FK)	1	2	German and English
Safety and Reliability of Software-controlled Systems	Lecture/practical course (VÜ)	V3/Ü1	6	English
Scanning Probe Microscopy	Lecture (V)	2		German or English
Scanning probe microscopy (supplement for material science students)	Lecture (V)	1		German or English
Scientific Visualization	Lecture/practical course (VÜ)	V4/Ü2	8	English
Security in the Internet of Things	Lecture (V)	1	2	English
Security Lab	Practical course (P)	4	8	English
Selected Topics in Human Language Technology and Pattern Recognition	Seminar	2	4	German / English
Seminar Advanced Topics in Cryptography	Working group (AG)	2	4	English

Software Architectures	Lecture (V)	3	6	German / English
Software Architectures	Practical course (Ü)	2	6	German / English
Software Engineering Laboratory: Model-based Development of Robotics Applications	Practical course (P)	4	7	English
Software Project Lab "Data Mining Algorithms in Matlab and R"	Practical course (P)	4	7	English / German
Software Project Management (Managing Software Development Projects)	Lecture (V)	2	4	English
Software Project Management (Managing Software Development Projects)	Practical course (Ü)	1	0	English
Spectral Methods for Partial Differential Equations	Seminar	2	3	English
Speech Technology	Lecture/practical course (VÜ)	V2/Ü1	4	English
Stochastic Analysis (Exercise session)	Practical course (Ü)	2		German or English
Study Group Image Recognition	Practical course (Ü)	2	0	German / English
Study Group Machine Translation	Practical course (Ü)	2	0	German / English
Study Group Speech Recognition	Practical course (Ü)	2	0	German / English
The art of cryptography: Cryptanalytic world records	Lecture/practical course (VÜ)	V4/Ü2 (or V3/Ü2)	8 (or 6)	English
The Logic of Knowledge Bases	Lecture/practical course (VÜ)	3	6	English
The Media Computing Project (in Bonn)	Practical course (P)	2	7 (10 possible for added work)	English
Theoretical Physics III : Quantum Mechanics (Tutor Group 3) in ENGLISH	Practical course (Ü)	2		English
Topics in Automation, Compilers, and Code-Generation	Seminar	2	4	English
Topological Transport	Seminar	2	5	English
Tutorial in Quantitative Biology	Tutorial (TuT)	2		German or English
Uncertainty Quantification	Lecture/practical course (VÜ)	3	4,5	English
User-Centered Technology Design	Practical course (P)	5	10	English
Web Science Seminar	Seminar	2	4	English
Working group Advanced Community Information Systems	Working group (AG)	2	0	English
Working Group Cognitive Robotics	Practical course (Ü)	2	0	German / English
Working Group Model Management	Working group (AG)	2		English

Faculty:	Mechanical Engineering			
Title	**Type of course**	**Lecture hours per week**	**ECTS credits**	**Language of instruction**
Advanced Software Engineering	Lecture (V)	2	3	English
Advanced Software Engineering	Practical course (Ü)	2	3	English
Alternative and electrified vehicle propulsion systems (Alternative Vehicle Propulsion Systems)	Lecture (V)	2	3	English
Alternative and electrified vehicle propulsion systems (Alternative Vehicle Propulsion Systems)	Practical course (Ü)	1	1,5	English
Automotive Engineering - Practical Course II	Lab course (LÜ)	2	2	English
Automotive Engineering II	Lecture (V)	2	3	English
Automotive Engineering II	Practical course (Ü)	2	3	English
Automotive System Evaluation	Lecture (V)	2	3,5	English
Automotive System Evaluation	Practical course (Ü)	1	1,5	English
Biocatalysis in non-conventional media	Lecture (V)	2		English
CES Mechanics II	Lecture (V)	3	4,5	English / German
CES Mechanics II Recitation	Practical course (Ü)	2	3	English / German
CES Seminar: Presentation	Seminar	2	4	German (English on demand)
Colloquium Biomedical Engineering and Allied Fields	Seminar			German / English
Computer Science in Mechanical Engineering I	Lecture (V)	2	3	German / English
Computer-Aided Process Design	Lecture/practical course (VÜ)	3	3	English
Continuum Mechanics	Lecture (V)	2	3	English
Continuum Mechanics	Practical course (Ü)	2	2	English
Dynamics of Machines II (Piston engines)	Lecture (V)	2	3	English
Dynamics of Machines II (piston engines)	Practical course (Ü)	2	3	English
Energy Economics for Int. ACADEMY	Lecture (V)	2	4,5	English
Energy Economics for Int. ACADEMY	Practical course (Ü)	1	0	English
Exercise Manufacturing Technology II	Practical course (Ü)	2	0	English
Exercise to Model-based Estimation Methods	Practical course (Ü)	2		English / German
Factory Planning	Lecture/practical course (VÜ)	L2/E2	6	English
Failure of Structures and Structural Elements	Practical course (Ü)	1	2	English

Fast Iterative Solvers	Lecture (V)	2	3	English
Fast Iterative Solvers	Practical course (ÜP)	1	1	English
Field trip Medical Engineering	Excursion (E)		2	German / English
Finite Element Methods in Lightweight Design II	Lecture (V)	2	3	English
Finite Element Methods in Lightweight Design II	Practical course (Ü)	1	1,5	English
From Molecular to Continuum Physics II	Lecture/practical course (VÜ)	V3/Ü2	5	English
Hypersonic Flight: Computational Propulsion Design	Lecture/practical course (VÜ)		4	English
Innovation Management for Long-distance Freight Transport Technologies	Lecture (V)	2	3	English
Internal Combustion Engines I	Lecture (V)	2	0	English
Internal Combustion Engines I	Practical course (Ü)	2	0	English
Introduction to Molecular Simulations	Lecture/practical course (VÜ)	3	5	English
Manufacturing Technology II	Lecture (V)	2	0	English
Materials Science and Processing	Lecture (V)	2	3	English
Materials Science and Processing	Practical course (Ü)	1	1,5	English
Model-based Estimation Methods	Lecture (V)	2		English / German
Modeling Technical Systems	Lecture/practical course (VÜ)	3	4,5	English
Modelling, Model Reduction and Simulation in Laser Processing I	Lecture/practical course (VÜ)	2	4	English
Multi Body Dynamics	Lecture (V)	2	3	English
Multi Body Dynamics	Practical course (Ü)	2	3	EnglISH
Nonlinear Structural Mechanics	Lecture (V)	2	3	English
Nonlinear Structural Mechanics	Practical course (Ü)	2	2	English
Parallel Computing for Computational Mechanics	Lecture (V)	3	4,5	English
Piston Compressors	Lecture (V)	2	3	English
Piston Compressors	Practical course (Ü)	1	1,5	Englisch
Process Chains for the replication of complex optical elements	Lecture (V)	2	3	English
Production Management B	Lecture (V)	2	3	English
Production Management B	Practical course (Ü)	2	3	English
Selected Aspects of Medical Engineering	Seminar	2	2	English and/or German on demand
Seminar Data-driven Modeling	Seminar	2		German or English

Title	Type of course	Lecture hours per week	ECTS credits	Language of instruction
Seminar exercise of modeling technical systems	Practical course (Ü)	1	0	English
Structural Design of Vehicles	Lecture (V)	2	3	English
Structural Design of Vehicles	Practical course (Ü)	1	1,5	English
Tensor Algebra and Tensor Analysis for Engineers II	Lecture (V)	2	3	English
Tensor Algebra and Tensor Analysis for Engineers II	Practical course (Ü)	2	2	English
Ultra precision technology I	Lecture/practical course (VÜ)	4	6	English
Vehicle Acoustics	Lecture (V)	2	3	English
Vehicle Acoustics	Practical course (Ü)	2	3	English
Welding and Joining Technology	Lecture (V)	2		English
Welding and Joining Technology	Practical course (Ü)	2		English

Faculty:	Medicine			
Title	**Type of course**	**Lecture hours per week**	**ECTS credits**	**Language of instruction**
Basic Electrical Engineering (Exercise)	Practical course (Ü)	2		English
Basic Electrical Engineering (Lecture)	Lecture (V)	2		English
Basic Physiology Lecture	Lecture (V)	1,5	4	English
Biochemistry and Cell Biology seminar	Practical course (Ü)			German / English
Colloquium Biometry	Colloquium (K)	2	0	German / English
Colloquium in Neuroscience	Colloquium (K)	2	0	German and English
experimental hepatology: immunology	PhD colloquium (DoK)			English
experimental hepatology: signal transduction	Research colloquium (FK)			English
Experimental Medicine	Lecture (V)	2		English
Experimental Medicine (Practical Course)	Practical course (ÜP)			English
Intensive Care Monitoring	Lecture (V)	0,5		English
Intensive Care Monitoring	Seminar	0,5		English
Lecture Special aspects of artificial organs	Lecture (V)	1	2	English
Medical Image Processing: Exercise	Practical course (Ü)	1	1	English
Medical Image Processing: Lecture	Lecture (V)	2	3	English
Medical Imaging (Master Course BME)	Lecture (V)	2	3	English
Medical Imaging (Master Course BME)	Practical course (Ü)	2	0	English
Medical Imaging Part II (for Natural Sc., Engineering and Medicine)	Lecture/practical course (VP)	2	4	English

Molecular Genetics / Gene Technology III; Qualifying Profile Molecular Medicine (signal transduction)	Lecture (V)	2	3	English
Neuro-psychiatric research colloquium of the IRTG 1328	Seminar	2		English
PhD student colloquium in experimental surgery of Prof. Tolba's research group	PhD colloquium (DoK)	1		English
postgraduates' progress reports	Seminar			English
Practical Course Physiology	Practical course (P)	1,5	4	English
Scientific writing and publishing in Life Sciences	Lecture/practical course (VÜP)	2		German / English
Seminar on molecular and pathophysiological mechanisms of cytokines and their receptors	Practical course (Ü)			German / English
Speech and Debate	Seminar	3	2	English
Theoretical neuroscience - Correlation structure of neuronal networks	Lecture/practical course (VÜ)	3	5	English

Faculty:	**n/a**			
Title	**Type of course**	**Lecture hours per week**	**ECTS credits**	**Language of instruction**
Applied Supercomputing in Engineering	Lecture/practical course (VÜ)			English
Industrial Logistics	Lecture/practical course (VÜ)	V2/Ü1	5 (Production Engineering), 4,5 (other courses)	English