Faculty of Mechanical Engineering – English Modules Winter Term 2023/24					
Cycle of Study	Module	Type	Lecturer	Institute	ECTS
Master Mechanical Engineering / Mechatronics	Aspects of Process Design in Forming Technology	Lecture/Theoretical exercise	Prof. Behrens, Dr. Richards	IFUM Institute for Forming Technology and Forming Machines	5
Bachelor and Master	Meteorology and Climatology	Lecture	Prof. Maronga	IBM Institute of Vocational Sciences in Metals Technology	5
Master OT / Nanotechnology	Proseminar Biophotonics	Lecture	Prof. Roth, Dr. Wollweber	Institute of Quantum Optics	3
Master OT	Fundamentals and Configuration of Laser Beam Sources	Lecture	Prof. Overmeyer	ITA, Institue of Transport and Automation Technology	5
Bachelor ME	Introduction to Mechanical Vibrations	Lecture/Theoretical exercise	Prof. Wangenheim	IDS, Institute of Dynamics and Vibration Research	5
Master OT / Nanotechnology	Introduction to Nanophotonics	Lecture/Theoretical exercise	Prof. Calà Lesina	ITA, Institue of Transport and Automation Technology	5
Master OT	Laser measurement technology	Lecture	Prof. Roth		5
Bachelor ME / PROLO	Micro- and Nanosystems	Lecture/Theoretical exercise	Prof. Wurz	IMPT / Institute of Micro Production Technology	5
Master ME /BIOMT	Machine Learning for Material and Structural Mechanics	Lecture	Prof. Aldakheel	Institute of Continuum Mechanics	5
Bachelor ME / Master ME, PROLO	Sustainability assessment II	Lecture/Theoretical exercise	Prof. Endres	Institute for Plastics and Circular Economy	5
Master OT	MasterLab: Augmented Reality Lab Quantum Cryptography	Theoretical exercise	Prof. Overmeyer	ITA, Institue of Transport and Automation Technology	1
Master OT	MasterLab: Attenuation in optical fibers	Theoretical exercise	Herr Pflieger	ITA, Institue of Transport and Automation Technology	1

Master OT	MasterLab: Video Project Technology	Theoretical exercise	Herr Dai, Herr Glück		1
Master OT, BIOMT, ME, NANO	Optical Measurement Technology	Lecture/Theoretical exercise	Prof. Reithmeier		5
Master ME, PROLO, BIOMT,	Physics of ultrasound and its applications	Lecture/Theoretical exercise	Herr Twiefel	IDS, Institute of Dynamics and Vibration Research	5
Master ME, PROLO, BIOMT,	Production of Optoelectronic Systems	Lecture/Theoretical exercise	Prof. Overmeyer	ITA, Institue of Transport and Automation Technology	5
Bachelor ME / Master ME, PROLO	Sustainability assessment I	Lecture/Theoretical exercise	Prof. Endres	Institute for Plastics and Circular Economy	5
Bachelor / Master	Sustainable Combustion	Lecture/Theoretical exercise	Prof. Dinkelacker	Institute for Technical Combustion	5
Bachelor and Master	Computational Biomechanics	lecture/practice course	Dr. Soleimani	Institute of Continuum Mechanics	5
Master	Data and AI-driven Methods in Engineering	lecture/practice course	Prof. Seel	Institute of Mechatronics Systems	5
Master	MasterLab for Optical Technologies (HOT): Speckle Interferometer	Theoretical exercise	Mr. Wetzel	HOT (Hannoversches Zentrum für Optische Technologien)	1
	Programming and Software for Optics	seminar/excursion, field trip	Prof. Lachmayer, Prof. Calà Lesina, Prof. Zhuang	ITA, Institue of Transport and Automation Technology	4
Master	Cryoengineering and Cryobiology	experimental work	Prof. Glasmacher, Dr. Rittinghaus		5
Master	MOOC Aircraft Engines	Lecture	Dr. Herbst, Herr Suchla	Institute of Turbomachinery and Fluid Dynamics	3

Selection of English Modules taught from other Faculties/Institutes Winter Term 2023/24

Cycle of Study	Module	Type	Lecturer	Institute	ECTS
BA Sustainable Engineering	Economics of Development and Environment	Lecture	Prof. Grote, Dr. Nguyen	Institute of Environmental Economics and World Trade /Faculty of Economics and Management	8
BA Sustainable Engineering	Introduction to Sustainability Economics	Lecture	Dr. Nguyen	Institute of Environmental Economics and World Trade /Faculty of Economics and Management	4
BA OT, MA Mechatronic	Laserscanning – Modelling and Interpretation	lecture/seminar/theoretical-constructive practice course	Prof. Brenner / Mr. Schimansky	Faculty of Civil Engineering and Geodetic Science / Institute of Cartography and Geoinformatics	5
BA OT	Photonik	Lecture	Prof. Chichkov	Faculty of Mathematics and Physics / Institute of Quantum Optics	4
BA OT	Radar Remote Sensing	lecture/seminar/theoretical-constructive practice course	Prof. Motagh / Dr. Haghshenas Haghighi	Faculty of Civil Engineering and Geodetic Science / Institute of Photogrammery and Geoinformation	5
BA Mechatronic	Applied Machine Learning in Genomic Data Science	Lecture	Dr. Voges	Automatic Image Interpretation Section / Faculty of Electrical Engineering and Computer Science	x
MA Energy Technology	Electrical Machines for eAutomotive Traction Applications	Lecture	Dr. Dotz	Faculty of Electrical Engineering and Computer Science / Institute of Drive Sytems and Power Electronics	x
MA Nanotechnology	Energy Storage materials and devices	Lecture	Prof. Zhang	Faculty of Mathematics and Physics / Institute of Solid State Physics	x
MA Nanotechnology	Advanced Solid State Physics	Lecture	Prof. Ding	Faculty of Mathematics and Physics / Institute of Solid State Physics	x

BA Industrial Engineer	Introduction to scientific work at IUW for BSc	theoretical practice group	Dr. Nguyen	Institute of Environmental Economics and World Trade /Faculty of Economics and Management	x
MA Mechanical Engineering	Data- and Learning-Based Control	Lecture	Prof. Müller, Dr. Lilge, Dr. Lopez Mejia	Faculty of Electrical Engineering and Computer Science / Institute of Automatic Control	x
MA Mechanical Engineering	Hydropower Engineering	Module	Dr. Abdel-Rahman, Dr. Schendel	Faculty of Civil Engineering and Geodetic Science / Institute of Soil Mechanics, Foundation Engineering and Waterpower Engineering	6
MA Production and Logistics	Excercise in Operations Research	theoretical practice group	Mr. Pöch	Faculty of Economics and Management /Institute of Production Management	x
MA Production and Logistics	Operations Research	Lecture	Prof. Helber	Faculty of Economics and Management /Institute of Production Management	5
MA Mechatronics	Image Analysis II	lecture/seminar/theoretical-constructive practice course	Prof. Rottensteiner	Institute of Photogrammetry and GeoInformation	5
MA Mechatronics	Image Sequence Analysis	lecture/seminar/theoretical-constructive practice course	Prof. Heipke	Faculty of Civil Engineering and Geodetic Science / Institute of Photogrammery and GeoInformation	5
MA Biomedical Engineering	Audio and Speech Signal Processing	Lecture	Prof. Nogueira Vazquez	Faculty of Electrical Engineering and Computer Science	x
MA Energy Technology	Electrical Machines and Drives	Lecture	N.N.	Faculty of Electrical Engineering and Computer Science	5
MA Energy Technology	Nonlinear Control	lecture	Prof. Müller	Faculty of Electrical Engineering and Computer Science	5
MA Industrial Engineer	Innovation Management	seminar	Prof. Foege, Dr. Maibaum	Faculty of Economics and Management /Centre for Continuing Education in Industrial Science	5

MA Industrial Engineer	Teammanegement	seminar	Prof. Piening, Ms. Zentgraf	Faculty of Economics and Management / Institute of Human Resources and Organizational Behavior	5
MA Industrial Engineer	Pricnciples of Entrepreneurship	Lecture	Prof. Foege	Faculty of Economics and Management /Centre for Continuing Education in Industrial Science	5
MA Industrial Engineer	International Business Relations	Lecture	Prof. Grote		5
BA/MA	Workshop Series on Academic Writing	Workhops	Dr. Ramos-Gonzalez	Leibniz Language Center	each workhop 0,5 ECTS
BA/MA	English for Mechanical Engineering	seminar/language practice group	Mr. Hicks	Leibniz Language Center	2 or 4
BA/MA	Preparation Block Course: English for Science, Engineering and technology (B2)	seminar/language practice group	Mr. Traynor	Leibniz Language Center	2
BA/MA	German for Engineers: reading and writing scientific texts (B2)	seminar/language practice group	Dr. Muallem	Leibniz Language Center	4
BA/MA	Deutsch für Studierende der Ingenieurwissenschaften: Leseverstehen, Hörverstehen und Mündliche Kommunikation	seminar/language practice group	Mr. Schimmel	Leibniz Language Center	2