

Courses taught in English for exchange students 2024/25

Last Update: 14.03.2024

Department of Applied Natural Sciences

Course ID	Course title	Study Programme	level	semester	ECTS	remark
	Audiological Acoustics	Audiological Acoustics	B	Fall	2	available upon request
	Anatomy and Physiology	Biomedical Engineering	M	Fall	4	
	Artificial Intelligence	Biomedical Engineering	M	Fall	4	elective*
	Biomechanics	Biomedical Engineering	M	Fall	2	
	Biophysics	Biomedical Engineering	M	Fall	2	
	Design Methodology	Biomedical Engineering	M	Fall	2	
	Design Methodology - Lab	Biomedical Engineering	M	Fall	2	
	Material Science	Biomedical Engineering	M	Fall	4	
	MatLab - Project	Biomedical Engineering	m	Fall	4	
	Medical Electronics	Biomedical Engineering	M	Fall	5	
	Medical Technology	Biomedical Engineering	M	Fall	6	
	Medical Technology - Lab	Biomedical Engineering	M	Fall	2	
	Microbiology and Hygiene	Biomedical Engineering	M	Fall	4	
	Numerical Methods in Medicine	Biomedical Engineering	M	Fall	3	
	Photonics	Biomedical Engineering	M	Fall	3	
	Signal Processing	Biomedical Engineering	M	Fall	2	
	Signal Processing - Lab	Biomedical Engineering	M	Fall	2	
	Signals and Systems in Medical Imaging	Biomedical Engineering	M	Fall	3	
	Medical Robotics	Biomedical Engineering	M	Spring	4	elective*
	Biophysics Lab	Biomedical Engineering	M	Spring	2	elective*
	Clinical Application - Project/excursion	Biomedical Engineering	M	Spring	2	elective*
	Computer Aided Techniques in Design	Biomedical Engineering	M	Spring	5	elective*
	Health Technology Assessment	Biomedical Engineering	M	Spring	2	elective*
	Human Biochemistry - Lab	Biomedical Engineering	M	Spring	4	elective*
	Computer Vision	Biomedical Engineering	M	Spring	4	elective*
	Nuclear Imaging	Biomedical Engineering	M	Spring	3	elective*
	Image Processing	Biomedical Engineering	M	Spring	3	
	Imaging	Biomedical Engineering	M	Spring	3	
	Implantable Hearing Devices	Biomedical Engineering	M	Spring	3	elective*
	Innovation Management and Marketing	Biomedical Engineering	M	Spring	2	elective*
	Medical Electronics - Project	Biomedical Engineering	M	Spring	2	
	Medical Technology - Selected Topics	Biomedical Engineering	M	Spring	4	elective*
	Numerical Methods - Lab	Biomedical Engineering	M	Spring	2	
	Photonics II	Biomedical Engineering	M	Spring	4	elective*
	Quality Management in Healthcare	Biomedical Engineering	M	Spring	2	elective*
	Regulatory Affairs (online)	Biomedical Engineering	M	Spring	2	
	Scientific Writing	Biomedical Engineering	M	Spring	2	
	Specialized Biomechanics	Biomedical Engineering	M	Spring	2	elective*
	Successful Negotiation and Communication	Biomedical Engineering	M	Spring	2	elective*
	Anaesthesia	Biomedical Engineering	M	Spring	4	elective*
	Ecology	Environmental Engineering	B	Fall	2.5	elective*
	Environmental Chemistry	Environmental Engineering	B	Fall	5	
	Environmental Process Engineering	Environmental Engineering	B	Fall	7.5	4 hours lecture and 2 hours lab work
	Hygiene	Environmental Engineering	B	Fall	2.5	elective*
	Toxicology	Environmental Engineering	B	Fall	2.5	elective*
	Circular Economy and Resource Management	Environmental Engineering	B	Fall	5	
	Waste Water Processes	Environmental Engineering	B	Fall	5	

	Air Pollution Control	Environmental Engineering	B	Spring	5	3 hours lecture and 1 hours lab work
	Control Systems	Environmental Engineering	B	Spring	5	elective*
	Design Methodology	Environmental Engineering	B		2.5	
	Environmental Microbiology	Environmental Engineering	B	Spring	2.5	
	Innovation Management and Marketing	Environmental Engineering	B		2.5	elective*
	Renewable Energies	Environmental Engineering	B	Spring	5	3 hours lecture and 1 hours lab work
	Sensors	Environmental Engineering	B	Spring	2.5	elective* - not decided yet if offered in fall or spring
	Water Chemistry and Water Analysis	Environmental Engineering	B	Spring	5	2 hours lecture and 2 hours lab work
	Energy Conversion and Power Plants	Environmental Engineering	B		2.5	elective*
	Energy Economics	Environmental Engineering	B		2.5	elective*
	Environmental Engineering Management	Environmental Engineering	B		2.5	elective*
	Fundamentals of Environmental Biochemistry	Environmental Engineering	B	Spring	2.5	
	X-Ray Technology	Environmental Engineering	B		2.5	elective*

Department of Architecture and Civil Engineering

Course ID	Course title	Study Programme	level	semester	ECTS	remark
	Graphic Information Systems	Urban Planning	B	Spring	5	
BB 2220	Engineering Hydrology	Civil Engineering	B	Spring	5	
WEM1110	Higher Mathematics, Data Science	Water Engineering	M	Fall	3	
WEM1120	Research Methods	Water Engineering	M	Fall	3	
WEM1130	Water Regulation	Water Engineering	M	Fall	3	
WEM1140	Advanced Waste Water Treatment	Water Engineering	M	Fall	3	
WEM1150	Urban Water Protection	Water Engineering	M	Fall	6	
WEM1160	Hydraulic Engineering	Water Engineering	M	Fall	6	
WEM1170	Simulation and Modeling I	Water Engineering	M	Fall	6	
WEM1210	Geographic Information Systems	Water Engineering	M	Spring	6	
WEM1220	Applied Freshwater Ecology	Water Engineering	M	Spring	6	
WEM1230	Sustainable Urban Systems	Water Engineering	M	Spring	6	
WEM1240	Hydrological Engineering	Water Engineering	M	Spring	6	
WEM1250	Simulation and Modeling II	Water Engineering	M	Spring	6	

Department of Electrical Engineering and Computer Science

Course ID	Course title	Study Programme	level	semester	ECTS	remark
	Analog Electronics II	ISE Electrical Engineering	B	Fall	5	
	Control System Basics	ISE Electrical Engineering	B	Fall	5	
	Humanities I	ISE Electrical Engineering	B	Fall	5	
	Communication Engineering	ISE Electrical Engineering	B	Fall	5	
	Radio Frequencies	ISE Electrical Engineering	B	Fall	5	
	Signals and Systems	ISE Electrical Engineering	B	Fall	5	
	German language and culture I	ISE Electrical Engineering	B	Fall	5	
	Computer Aided Design	ISE Electrical Engineering	B	Spring	5	
	Digital Control Systems	ISE Electrical Engineering	B	Spring	5	
	Humanities II	ISE Electrical Engineering	B	Spring	5	
	Microwaves	ISE Electrical Engineering	B	Spring	5	
	Communication Networks	ISE Electrical Engineering	B	Spring	5	
	Renewable Energy	ISE Electrical Engineering	B	Spring	5	
	German language and culture II	ISE Electrical Engineering	B	Spring	5	prerequisite: GLC I
	Computer Networks	Information Technology	B	Spring	5	
	Distributed Systems	Information Technology	B	Spring	5	
	Software Engineering II	Information Technology	B	Spring	5	
	Automation Systems - PLC-Systems	Information Technology	B	Spring	5	
	Internet Programming	Information Technology	B	Spring	5	
	Digital Signal Processing	Information Technology	B	Fall	5	
	Information Systems	Information Technology	B	Fall	5	
	Principles of Compilers	Information Technology	B	Fall	5	
	Artificial Intelligent Systems	Information Technology	B	Fall	5	was not offered in WiSe 2023/2024
	Human Machine Interaction	Information Technology	B	Fall	5	
	Automation Systems - Industrial Robots	Information Technology	B	Fall	5	
	Special Topic of Automation Systems	Information Technology	B	Fall/Spring	5	elective, probably not offered*
	Special Topic of Computer Science	Information Technology	B	Fall/Spring	5	elective, probably not offered*
	Special Topic of Electrical Engineering	Information Technology	B	Fall/Spring	5	elective, probably not offered*
	Softwareverification	Computer Science	B	Fall	5	English online course 4h/week
	Computer Networks	Computer Science	B	Fall	5	starting 24/25
	Cooperative Systems and Social Media	Computer Science / Information Technology & Design	B	Fall	5	English videos / English tutorials and practical exercises
	AI Applications	Cross-curricular	B	Fall	2,5/5	online
	Advanced Machine Vision	Computer Science	B	Fall	5	
	Interactive Virtual Worlds	Computer Science / Information Technology & Design	B	Spring	5	online
	Theory of Computing	Computer Science	B	Spring	5	English MOOC / Videos / English tutorials on demand
	Software and Web Engineering II	Computer Science	B	Spring	5	
	Theoretical Computer Science	Computer Science	B	Spring	5	
	Software Architecture	Computer Science	B	Spring	5	
	Data Management	Computer Science	B	Spring	5	
	Usability / User Experience Design [Human-Computer Interaction]	Computer Science / Information Technology & Design	B	Spring	5	English videos / English tutorials and practical exercises
	Software Engineering Project	Computer Science	B	Spring	10	
	Analog Integrated Circuits	Applied Information Technology	M	Spring	5	elective*
	Wireless Localization	Applied Information Technology	M	Spring	5	elective*
	Scientific Project	Applied Information Technology	M	Fall	10	
	Digital Processing of Stochastic Signals	Applied Information Technology	M	Fall	5	elective*
	Process Integration	Applied Information Technology	M	Fall	5	elective*
	Autonomous Vehicles	Applied Information Technology	M	Fall	5	elective*
	Process Optimization	Applied Information Technology	M	Fall	5	elective*
	Applied FPGA and VLSI Design	Applied Information Technology	M	Fall	5	elective*

Wireless Network for Cyber Physical Systems	Applied Information Technology	M	Fall	5	elective*
Supply Chain Management	Applied Information Technology	M	Fall	5	elective*
Business Process Management	Applied Information Technology	M	Fall	5	elective*
Real-Time Systems	Applied Information Technology / Computer Science/SEDS	M	Fall	5	elective*
Mobile Applications	Applied Information Technology / Computer Science/SEDS	M	Fall	5	elective*
Human-Computer Interfaces	Applied Information Technology / Computer Science/SEDS	M	Fall	5	elective*
Advanced Machine Vision	Applied Information Technology / Computer Science/SEDS	M		5	elective*
Scientific Project I	Computer Science/Software Engineering for Distributed Systems	M	Spring	5	offered in German/English -> ask lecturer on demand
Cloud-native Architectures	Computer Science/Software Engineering for Distributed Systems	M	Spring	5	offered in German/English -> ask lecturer on demand
Special Topics in Distributed Systems I	Computer Science/Software Engineering for Distributed Systems	M	Spring	5	elective*, offered in German/English -> ask lecturer on demand
Hardware-based IT-Security	Computer Science/Software Engineering for Distributed Systems	M	Fall	5	elective*
Cloud-native Programming	Computer Science/Software Engineering for Distributed Systems	M	Fall	5	offered in German/English -> ask lecturer on demand
Scientific Project II	Computer Science/Software Engineering for Distributed Systems	M	Fall	5	offered in German/English -> ask lecturer on demand
Seminar Distributed Systems	Computer Science/Software Engineering for Distributed Systems	M	Fall	5	offered in German/English -> ask lecturer on demand
Special Topics in Distributed Systems II	Computer Science/Software Engineering for Distributed Systems	M	Fall	5	offered in German/English -> ask lecturer on demand

Department of Mechanical Engineering and Business Administration

Course ID	Course title	Study Programme	level	semester	ECTS	remark
N3B2400	Selected Topics in Information Technology	International Business	B	Fall	5	
N3B2440	Management in the Global Economy	International Business	B	Fall	5	= International Management
N3B2430	International Accounting and Law	International Business	B	Fall	5	
N3B2410	Entrepreneurship	International Business	B	Fall	5	
N3B2420	Advanced English Communication	International Business	B	Fall	3	
N3B2500	International Markets	International Business	B	Fall	5	
N3B2510	Corporate Finance	International Business	B	Fall	5	
N3B2520	Marketing in the Global Economy	International Business	B	Fall	5	
N3B2530	Supply Chain Management	International Business	B	Fall	2	
N3B2490	Academic Writing and Research Seminar	International Business	B	Fall	7	
	SoftSkills and Leadership II (Teamwork, Leadership, Conflict Mgt)	International Business	B	Fall	5	
	SoftSkills and Leadership I (Communication, Self Mgt, Presentations)	International Business	B	Spring	5	
N3B2450	Methods of Market Research	International Business	B	Spring	5	
N3B2470	Management of Innovation	International Business	B	Spring	2	
N3B2480	International Economic Policies	International Business	B	Spring	5	
MB1810	Automatic Control Systems	ISM Mechanical Engineering	B	Fall	4	
MB1840	Fluid Mechanics	ISM Mechanical Engineering	B	Fall	4	
MB1830	Instrumentation/Measurement	ISM Mechanical Engineering	B	Fall	4	
MB1940	Principles of Thermodynamics I	ISM Mechanical Engineering	B	Fall	4	
MB1930	Intermediate Mechanics of Materials	ISM Mechanical Engineering	B	Fall	4	
MB1910	Design of Machine Components	ISM Mechanical Engineering	B	Fall	4	
MB1950	Project Management	ISM Mechanical Engineering	B	Fall	2	
MB1820	Humanities I	ISM Mechanical Engineering	B	Fall	4	
MB1970	Principles of Thermodynamics II	ISM Mechanical Engineering	B	Spring	2	
MB1980	Product Development/ Engineering Design	ISM Mechanical Engineering	B	Spring	4	
MB1850	Heat Transfer	ISM Mechanical Engineering	B	Spring	4	
MB1870	Modelling and Numeral Analysis	ISM Mechanical Engineering	B	Spring	4	
MB1880	Vibration Control	ISM Mechanical Engineering	B	Spring	4	
MB1860	Humanities II	ISM Mechanical Engineering	B	Spring	4	
MB2120	Selected Topics in Social Science	ISM Mechanical Engineering	B	Spring	3	
MB1450	Professional Behaviour	ISM Mechanical Engineering	B	Spring	3	
WB2010	International Management	ISW Engineering and Business Management	B	Fall	5	= Mgmt in the Global Economy
WB2510	Project Management with Business Project	ISW Engineering and Business Management	B	Fall	5	
WB2540	Operations Management	ISW Engineering and Business Management	B	Fall	5	
WB2550	Planning of Technological Investments and Simulations	ISW Engineering and Business Management	B	Fall	5	
WB2520	International Business Finance	ISW Engineering and Business Management	B	Spring	5	
WB2530	Quantitative Methods in Business	ISW Engineering and Business Management	B	Spring	5	
WB2560	Integrated Systems (SAP)	ISW Engineering and Business Management	B	Spring	5	
WB2570	Materials Handling	ISW Engineering and Business Management	B	Spring	5	
MM1520	Seminar 1: Current Research Topics	Mechanical Engineering	M	Fall	5	only for students who write the Master thesis at THL
MM1220	Product Development in Production	Mechanical Engineering	M	Fall	5	please check pre-requisites
MM1310	Simulation and Control	Mechanical Engineering	M	Fall	5	elective*; **
MM1320	Composite Materials	Mechanical Engineering	M	Fall	5	elective*
MM1340	Toolbox for Fluid Mechanical Design	Mechanical Engineering	M	Fall	5	elective*, please check pre-requisites
MM1370	Polymer Science	Mechanical Engineering	M	Fall	5	elective*, please check pre-requisites
MM1380	Prototyping & Virtual Reality	Mechanical Engineering	M	Fall	5	elective*
MM1390	Surface Engineering and Tribology	Mechanical Engineering	M	Fall	5	elective*, please check pre-requisites
MM1350	Selected Topics in Mechatronics	Mechanical Engineering	M	Fall	5	elective*, please check pre-requisites
MM1315	Biomechanics & Biophysics	Mechanical Engineering	M	Fall	5	elective*

MM1325	Medical Technology	Mechanical Engineering	M	Fall	5	elective*
MM1335	Mechanics of Solids	Mechanical Engineering	M	Fall	5	elective*
MM1410	Ethics	Mechanical Engineering	M	Fall	5	elective*
MM1420	Product & Business Plan	Mechanical Engineering	M	Fall	5	elective*
MM1395	Data Science for Predictive Maintenance	Mechanical Engineering	M	Fall	5	elective*
MM1385	Mobile Mechatronic Systems	Mechanical Engineering	M	Fall	5	elective*
MM1130	Material Science	Mechanical Engineering	M	Spring	5	please check pre-requisites, **
MM1210	Advanced Product Development	Mechanical Engineering	M	Spring	5	please check pre-requisites
MM1620	Management & Leadership	Mechanical Engineering	M	Spring	5	
MM1230	Computer Aided Techniques in Design	Mechanical Engineering	M	Spring	5	please check pre-requisites, **
MM1330	Advanced Material Testing	Mechanical Engineering	M	Spring	5	please check pre-requisites, **
MM1110	Selected Topics of Finite Element Methods	Mechanical Engineering	M	Spring	5	please check pre-requisites
MM1120	Selected Topics in Engineering Mathematics	Mechanical Engineering	M	Spring/ Fall	5	please check pre-requisites
* please check which courses will be finally offered, places are limited						
** courses include a lab, places are limited						

Language Center

Course ID	Course title	Study Programme	level	semester	ECTS	remark
1210	Technical English I	B1/B2	B/M	Spring/Fall	5	Registration required, space is limited
1540	Effective English Communication for Science and Engineering	B2/C1	B/M	Spring/Fall	5	Registration required, space is limited
1240	Business English I	B2	B/M	Spring/Fall	5	Registration required, space is limited
1270	Business English II	B2/C1	B/M	Spring/Fall	5	Registration required, space is limited
na	English for International Certificates	B2/C1	B/M	Spring/Fall	0	Registration required, space is limited
div	German as a foreign language on various levels	A1.1 - C1.2	B/M	Spring/Fall	5	Registration required, space is limited
tba	Humanities II: Intercultural Communication		B/M	Spring/Fall	5	Registration required, space is limited
1500	German Language for Engineers	B2/C1	B/M	Spring	5	Registration required, space is limited