

## Selecting compulsory elective subjects for the master's programme Electrical Engineering and Information Technology

**The selected compulsory elective subjects must encompass a minimum 15 awardable ECTS credits. Students wishing to switch their area of specialisation at DIT from that of their bachelor's degree programme must select the harmonisation courses and also one subject with a minimum 5 awardable ECTS credits. Courses attended in other faculties will be reviewed to determine if they meet the evaluation criteria determined by this Faculty and will be accepted for these courses by the examination board overseeing the master's programme Electrical Engineering and Information Technology. Please note: High-Frequency Electronics, Communications Engineering 2, Power Electronics and Control Techniques 2 may only be selected as compulsory elective subjects if you did not take the subject in question as part of your bachelor's degree programme!!**

PO	No.	Module/Subject	ECTS	Language	From study prog.	Sem
ET-B_WS20/21	ET-34/ ET-37	Harmonisation Course ENS (only mandatory if bachelor's specialisation was not NT or TE) Subjects: High-Frequency Electronics and Communications Technology 2	5+ 5	GERMAN	Bachelor's in Electrical Engineering and Information Technology	SS
	ET-30/ ET-26	Harmonisation Course AT (only mandatory if Bachelor's specialisation was not AUT or EAT) Subjects: Power Electronics and Control Engineering 2	5+ 5	GERMAN		SS
	ET-34	High-Frequency Electronics as a compulsory elective subject	5	GERMAN		SS
	ET-37	Communications Technology 2 as a compulsory elective subject	5	GERMAN		SS
	ET-30	Power Electronics as a compulsory elective subject	5	GERMAN		SS
	ET-26	Control Engineering 2 as a compulsory elective subject	5	GERMAN		SS
ET-M_WS20/21	MET-09	Selected topics in Microelectronics and Nanoelectronics (only for VR AT)	5	ENGLISH	Master's in Electrical Engineering and Information Technology	WS
	MET-10	Selected topics in Optoelectronics and Laser Technology (only for VR AT)	5	ENGLISH		SS
	MET-11	High-Frequency and Radio Technology Systems (only for VR AT)	5	ENGLISH		WS
	MET-12	Special Modules and Switches (only for VR AT)	5	ENGLISH		WS
	MET-13	Communications Technology Signals and Systems (only for VR AT)	5	ENGLISH		WS
	MET-14	Advanced Modelling and Simulation (only for VR ENS)	5	ENGLISH		SS
	MET-15	Selected Topics in Control Engineering (only for VR ENS)	5	ENGLISH		WS
	MET-17	Automotive and Industrial Electric Motor Systems (only for VR ENS)	5	ENGLISH		WS
	MET-18	Advanced Automation Technology (only for VR ENS)	5	ENGLISH		WS
ET-M_WS20/21	MET-04	Project for Electrical Engineering 1 - Requirement: topic approved by lecturer	5		Pool for Master's in Electrical Engineering and Information Technology	SS/WS
	MET-04	Project for Electrical Engineering 2 - Requirement: topic approved by lecturer	5			SS/WS
	MET-04	Digital Television and Radio Technology	5	GERMAN/ ENGLISH		WS
	MET-04	Advanced Circuits Lab (Circuitry Hands-On Training) (only for international students!!)	5	ENGLISH		SS/WS
	MET-04	Power Supply Circuits	5	ENGLISH		WS
	MET-04	Regenerative Energies (PO2012 only for VR ENS)	5	ENGLISH		WS
	MET-04	Optical Measurement and Sensor Technology	5	ENGLISH		WS
MT-M-SS22	MTP-02	Media Theory and Media Management	5	GERMAN	Master's in Media Technology	SS
	MTP-04	Event Conception	5	GERMAN		SS
	MTP-07	Special Computer Science Tools	5	GERMAN		SS
	MTP-10	Advanced Audio Production Topics	5	GERMAN		WS
	MTP-11	Hearing and Psychoacoustics	5	GERMAN		WS

AI-M_WS20/21	MAI-01	Theoretical Computer Science	8	ENGLISH	Master's Applied Computer Science	SS
	MAI-02	Practical Computer Science	8	ENGLISH		SS
	MAI-03	Selected Topics in Embedded Software Development I	5	ENGLISH		SS
	MAI-04	Selected Topics in Embedded Software Development II	5	ENGLISH		WS
	MAI-11	FPGA Programming	5	ENGLISH		SS
AID-M_SS2021	AID-01	Artificial Intelligence and Software Development	5	ENGLISH	Master's Artificial Intelligence and Data Science	SS
	AID-02	Theoretical Fundamentals of Artificial Intelligence	8	ENGLISH		SS
	AID-03	Advanced Machine Learning	5	ENGLISH		SS
MCS-M_SS2021	MCS-1	Module: Cyber Physical Systems MCS 1101 Structure and Functions of Cyber Physical Systems (4) MCS 1102 Business Models for CPS (2 ECTS)	6	ENGLISH	Master's in Mechatronics and Cyber Physical Systems	WS
	MCS-4	Advanced Modelling and Simulation	4	ENGLISH		WS
	MCS-5	Case Study Mechatronic System Simulation	6	ENGLISH		WS
	MCS-11	Module: Functional Safety MCS 3101 Principles of Functional Safety (4 ECTS) MCS 3102 Design of Safe Systems (2 ECTS)	6	ENGLISH		WS
MB-M_SS2018	DM-1	Advanced Mathematics	7	GERMAN	Master's in Mechanical Engineering	SS
	DM-2	Technical Databases	5	GERMAN		WS
	DM-3	Fluid/Thermodynamics	6	GERMAN		SS
	DM-4	Dynamic Systems	5	GERMAN		SS
	DM-5	FEM/MKS	7	GERMAN		SS
	DM-6	Numerical Methods	7	GERMAN		WS
	DM-7	Drive Systems	5	GERMAN		WS
	DM-8	CAD / CAM / Rapid Prototyping	7	GERMAN		WS
	DM-9	Virtual Testing	6	GERMAN		WS
	DM-10	Innovation Management	5	GERMAN		SS
TEM-M-WS 2021/22	TE-1	Corporate Innovation – TE1101 Project Management 2 (2 ECTS) / TE1102 Business Development and Market Research - Innovation Tools (4 ECTS)	6	GERMAN	Master's in Technology Management	WS
	TE1103	TE-1 Corporate Innovation - TE1103 Case Study Innovation (PstA)	6	GERMAN		WS
	TE-2	Corporate Leadership – TE1104 Hot Topics in Economics (4 ECTS) / TE1105 Corporate Legal Issues (4 ECTS)	8	GERMAN		WS
	TE1106	TE-3 Product Planning – TE1106 Specification and FMEA	4	GERMAN		WS
	TE1107	TE-3 Product Planning – TE1107 Case Study Specification and FMEA (PstA)	6	GERMAN		WS
	TE-4	Corporate Engineering – TE2101 Tools for Development (4 ECTS) / TE2102 Quality and Controlling II (4 ECTS)	8	GERMAN		SS
	TE2130	TE-4 Corporate Engineering – TE2103 Case Study Engineering (PstA)	3	GERMAN		SS
	TE-5	Production Engineering – TE2104 Selected Topics on Production (4 ECTS) / TE2105 Logistics (2 ECTS)	6	GERMAN		SS
	TE2106	TE-5 Production Engineering: TE2106 Case Study Production Engineering (PstA)	5	GERMAN		SS
	TE-6	Corporate Statistics	4	GERMAN		SS
TE-8	Sustainability – TE3101 Values and Strategic Development (2 ECTS) / TE3102 Process Control and Optimisation Methods (4 ECTS)	6	GERMAN	WS		
BU-M_WS22/23	MBU-17	Recycling and Waste Management	5	GERMAN	Master's civil and environmental engineering	WS
	MBU-26W	Regenerative Energies 2	5	GERMAN		WS

Abbreviations:

PstA Project assignment  
VR Area of specialisation