

Faculty of Electrical Engineering and Information Technology

Catalogue of Elective Modules

for the Master's program

Electrical Engineering and Information Technology

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This Document is for information only.

The German version is legally binding.

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Elective modules

Elective modules in the extent specified in the study regulations have to be chosen. The required number of credit points must be achieved.

Technical elective modules

Technical elective modules can be chosen from the list provided, whereby it is recommended to set a focus on one specific area.

Non-technical elective modules

Modules from the entire range of OvGU can be selected - but without engineering modules. Explicitly allowed are also foreign languages, for example German for foreign students.

Attachment: Study- and Examination Schedule of the Master's Degree Program in Electrical Engineering and Information Technology for elective modules

Legend for the study and examination schedule

<p>SWS = Semester hour per week (time required for the course per week)</p> <p>V = Lecture</p> <p>Ü = Tutorial</p> <p>P = Internship</p> <p>S = Seminar</p> <p>CP = Credit Points</p> <p>VL = Type of examinations prerequisite</p> <p>PL = Type of examination performance</p>	<p>SoSe = Summer semester</p> <p>WiSe = Winter semester</p> <p>K = Written examination (stated duration in minutes)</p> <p>M = Oral examination</p> <p>ÜS = Tutorial certificate</p> <p>PRO = Research Project</p>
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Module overview of the technical elective modules

Allocation: Choice of modules according to the study plan. The required number of CP can be taken from the programme-specific study and examination regulation.

Master Electrical Engineering and Information Technology	SWS		Semester												CP Σ
			1. (WiSe)			2. (SoSe)			3.			4.			
			CP	VL	PL	CP	VL	PL	CP	VL	PL	CP	VL	PL	
Modules	V Ü P S	V Ü P S													
Automation Systems													25		
Automation Lab	0 0 2 0								5		M				5
Digital Automation Systems	2 1 0 0								5		K90				5
Non-linear Control	2 1 0 0					5		M							5
Process Control	2 1 0 0					5		M							5
State Estimation	2 2 0 0					5		K90							5
Total credit points by semester in this field						15			10						

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Master Electrical Engineering and Information Technology	SWS		Semester												CP Σ							
			1. (WiSe)			2. (SoSe)			3.			4.										
			V	Ü	P	S	V	Ü	P	S	CP	VL	PL	CP		VL	PL	CP	VL	PL	CP	VL
Modules		V	Ü	P	S	V	Ü	P	S	CP	VL	PL	CP	VL	PL	CP	VL	PL	CP	VL	PL	
Information and Communication Technology																			35			
Digital Information Processing Laboratory	0	0	2	1					5	PS	M										5	
FPGA and Microcontroller Programming 1 u. 2	0	0	2	0	0	0	3	0	2			3		M							5	
Image Coding	2	1	0	0								5		M							5	
Introduction to RF Communication Systems	2	1	0	0					5		K90										5	
Medical Imaging CT	2	1	0	0					5		M										5	
Speech Recognition	2	1	1	1	0				5	ÜS	K90										5	
Theoretical Neuroscience II	3	2	0	0					5		M										5	
Total credit points by semester in this field																			27	8		
Microsystems																						
The field "Microsystems" is currently not offered																						
Power and Energy																			30			
Control of AC Drives	2	1	0	0								5		K90						5		
Digital Protection of Power Networks	2	1	0	0					5		K120										5	
Electromagnetic Compatibility (EMC)	2	2	0	0								5		M							5	
Power Electronic Components and Systems	2	1	0	0								5		M							5	
Power System Economics and Special Topics	2	1	0	0								5		K90							5	
Renewable Energy Resources	2	1	0	0					5		K90										5	
Total credit points by semester in this field																			10	20		
General																			25			
Integrated Project	0	0	0	6								10		PRO							10	
Introduction into Medical Imaging Technologies	2	1	0	0								5	ÜS	K90							5	
Power Systems Control and Optimization	2	1	0	0					5		M										5	
Ultrasonic Sensors for Imaging	2	1	0	0					5		M										5	
Total credit points by semester in this field																			10	15		