

Exclosure to Subject Specific Regulations
 from 25.07.2018
 for Master-Programme
 Microelectronics and Microsystems
 at TUHH dual study program
 Programme Director: Prof. Hoc Khiem Trieu
 Total: 150 CP
 Number of Specilisations to choose: 1

Course Scheme Master Microelectronics and Microsystems (IMPMM) dual study program

Consolidated Version
 for Study Cohort: WiSe22/23
 en_head_sda
 and Approval of Chair from:
 04.05.2022
 In Force on: 01.10.2022
 Out of Force on: 30.09.2025

Information regarding the lectures are available in the TUHH modul manuals as well as in the course catalogue.

Re-com. Term	Module						Examination			Course Work		
	Module Name (German / English)	Language	ModuleResponsability	Institute	C/EC (1)	CM/OM (2)	CP (4)	Grade	Examination Form(3)	Compulsory	Course Work Type	Bonus (in %)
Core Qualification Compulsory Courses: 60 LP Optional Courses: 42 LP												
1	Praxismodul 1 im dualen Master / Practical module 1 (dual study program, Master's degree)	DE	Dr. Haschke	0-SLS	C	CM	10	N	SA			
1	Digitale Nachrichtenübertragung / Digital Communications	DE / EN	Prof. Bauch	E-8	EC	CM	6	Y	KL	Y	SA	0
1	Entwurf Integrierter Schaltungen / Integrated Circuit Design	EN	Prof. Kuhl	E-9	EC	CM	6	Y	KL			
1	Mikrosystemtechnik / Microsystem Engineering	EN	Dr. rer. nat. Kusserow	E-7	EC	CM	6	Y	KL	N	RE	10
1	Mikrosystemtechnologie in Theorie und Praxis / Microsystems Technology in Theory and Practice	EN	Prof. Trieu	E-7	EC	CM	6	Y	MP	Y	FFST	0
1	Technischer Ergänzungskurs für IMPMM - Bereich ET (laut FSPO) / Technical Elective Complementary Course for IMPMM - field ET (according to Subject Specific Regulations)		Prof. Trieu	E-7	EC	OM	6	according to Subject Specific Regulations				
2	Praxismodul 2 im dualen Master / Practical module 2 (dual study program, Master's degree)	DE	Dr. Haschke	0-SLS	C	CM	10	N	SA			
2	Erweiterter IC-Entwurf / Advanced IC Design	EN	Prof. Kuhl	E-9	EC	CM	6	Y	KL			
2	Halbleitertechnologie / Semiconductor Technology	DE / EN	Prof. Trieu	E-7	EC	CM	6	Y	MP			
2	Mikrosystementwurf / Microsystem Design	EN	Dr. rer. nat. Kusserow	E-7	EC	CM	6	Y	MP	Y	SA	0
2	Technischer Ergänzungskurs für IMPMM - Bereich TUHH (laut FSPO) / Technical Elective Complementary Course for IMPMM - field TUHH (according to Subject Specific Regulations)		Prof. Trieu	E-7	EC	OM	6	according to Subject Specific Regulations				
3	Praxismodul 3 im dualen Master / Practical module 3 (dual study program, Master's degree)	DE	Dr. Haschke	0-SLS	C	CM	10	N	SA			
3	Projektarbeit IMPMM / Project Work IMPMM		Dozenten des SD E	E-7	C	CM	15	Y	STA			
3	Seminar für IMPMM / Seminar for IMPMM	EN	Prof. Trieu	E-7	C	CM	3	Y	RE			

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1-3	Theorie-Praxis-Verzahnung im dualen Master / Linking theory and practice (dual study program, Master's degree)	DE	Dr. Haschke	0-SLS	C	CM	6	N	SA			
1-3	Betrieb & Management / Business & Management	DE / EN	Prof. Meyer	W-1	C	OM	6	Selection out of seperatly published Catalogue				
Specialisation Communication and Signal Processing Compulsory Courses: 0 LP Optional Courses: 18 LP												
1	Hochfrequenztechnik / Microwave Engineering	DE / EN	Prof. Kölpin	E-3	EC	CM	6	Y	KL	Y	FFST	0
1	Kommunikationsnetze / Communication Networks	EN	Prof. Timm-Giel	E-4	EC	CM	6	Y	RE			
2	Satellitenkommunikation und Navigation / Satellite Communications and Navigation	EN	Prof. Bauch	E-8	EC	CM	6	Y	MP			
2	Weiterführende Konzepte der drahtlosen Kommunikation / Advanced Concepts of Wireless Communications	EN	Dr. Grünheid	E-8	EC	CM	6	Y	KL			
3	Ausgewählte Aspekte der Kommunikation und Signalverarbeitung / Selected Aspects of Communication and Signal Processing	EN	Prof. Trieu	SD-E	EC	CM	6	Y	MP			
3	Bildverarbeitung / Image Processing	DE / EN	Prof. Knopp	E-5	EC	CM	6	Y	KL			
3	Digitale Audiosignalverarbeitung / Digital Audio Signal Processing	EN	Prof. Zölzer	E-8	EC	CM	6	Y	KL			
3	Digitale Signalverarbeitung und Digitale Filter / Digital Signal Processing and Digital Filters	EN	Prof. Bauch	E-8	EC	CM	6	Y	KL			
3	Medizinische Bildgebung / Medical Imaging	DE / EN	Prof. Knopp	E-5	EC	CM	6	Y	KL			
Specialisation Embedded Systems Compulsory Courses: 0 LP Optional Courses: 18 LP												
1	Energieeffizienz in eingebetteten Systemen / Energy Efficiency in Embedded Systems	DE / EN	Prof. Kulau	E-EXK3	EC	CM	6	Y	MP			
1	Rechnerarchitektur / Computer Architecture	DE / EN	Prof. Falk	E-13	EC	CM	6	Y	KL	N	FFST	15
2	Eingebettete Systeme / Embedded Systems	EN	Prof. Falk	E-13	EC	CM	6	Y	KL	Y	FFST	10
2	Entwurf von Dependable Systems / Design of Dependable Systems	DE / EN	Prof. Fey	E-13	EC	CM	6	Y	MP	Y	FFST	0
2	Research Based Learning - Smart Sensing Applications / Research Based Learning - Smart Sensing Applications	DE / EN	Prof. Kulau	E-EXK3	EC	CM	6	Y	SA			
2	Smart Sensors / Smart Sensors	DE / EN	Prof. Kulau	E-EXK3	EC	CM	6	Y	MP			
2	Software für Eingebettete Systeme / Software for Embedded Systems	DE / EN	Prof. Renner	E-24	EC	CM	6	Y	KL	N	TE	10
3	Ausgewählte Aspekte Eingebetteter Systeme / Selected Aspects of Embedded Systems	EN	Prof. Trieu	SD-E	EC	CM	6	Y	MP			

		Module					Examination			Course Work		
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3	Fortgeschrittener Entwurf von Chip-Systemen (Praktikum) / Advanced System-on-Chip Design (Lab)	DE / EN	Prof. Falk	E-13	EC	CM	6	Y	FFA			
3-4	Entwurf Digitaler Schaltungen / Digital Circuit Design	EN	Prof. Kuhl	E-9	EC	CM	6	Y	MP			
Specialisation Microelectronics Complements Compulsory Courses: 0 LP Optional Courses: 18 LP												
1	Silizium Photonik / Silicon Photonics	EN	Dr. Lipka	E-7	EC	CM	6	Y	MP			
1-2	Entwurf Digitaler Schaltungen / Digital Circuit Design	EN	Prof. Kuhl	E-9	EC	CM	6	Y	MP			
2	EMV I: Kopplungen, Gegenmaßnahmen und Prüfverfahren / EMC I: Coupling Mechanisms, Countermeasures and Test Procedures	DE / EN	Prof. Schuster	E-18	EC	CM	6	Y	MP	Y	RE	0
2	Faseroptik und Integrierte Optik / Fibre and Integrated Optics	EN	Prof. Eich	E-12	EC	CM	4	Y	KL			
2	Optoelektronik I - Wellenoptik / Optoelectronics I - Wave Optics	EN	Dr. Petrov	E-12	EC	CM	4	Y	KL			
2	Praktischer Schaltungsentwurf - Digital / Laboratory: Digital Circuit Design	EN	Prof. Kuhl	E-9	EC	CM	6	Y	FFA			
3	Ausgewählte Aspekte der Mikroelektronik und Mikrosysteme / Selected Aspects of Microelectronics and Microsystems	EN	Prof. Trieu	SD-E	EC	CM	6	Y	MP			
3	EMV II: Signalintegrität und Spannungsversorgung elektronischer Systeme / EMC II: Signal Integrity and Power Supply of Electronic Systems	DE / EN	Prof. Schuster	E-18	EC	CM	6	Y	MP	Y	RE	0
3	Mixed-signal Schaltungsentwurf / Mixed-signal Circuit Design	EN	Prof. Kuhl	E-9	EC	CM	6	Y	KL	Y	FFST	5
3	Optoelektronik II - Quantenoptik / Optoelectronics II - Quantum Optics	EN	Dr. Petrov	E-12	EC	CM	4	Y	KL			
3	Praktischer Schaltungsentwurf - Analog / Laboratory: Analog Circuit Design	EN	Prof. Kuhl	E-9	EC	CM	6	Y	FFA			
Thesis Compulsory Courses: 30 LP Optional Courses: 0 LP												
4	Masterarbeit im dualen Studium / Master thesis (dual study program)		Professoren der TUHH	0-TUHH	C	CM	30	Y	AB			

Explanation:

¹C=Compulsory, EC=Elective Compulsory

²CM=Compulsory Defined Module, OM=Optional Defined Module

³KL=Written exam, SA=Written elaboration, FFST=Subject theoretical and practical work, FFA=Subject theoretical and practical work, MP=Oral exam, RE=Presentation, STA=Study work, AB=Thesis, SA It. FPrO=Written elaboration (accord. to Internship Regulations), TE=Attestation

⁴CP=Credit Points

⁵VL=Lecture, SE=Seminar, GÜ=Recitation Section (small), PBL=Project-/problem-based Learning, PR=Practical Course, HÜ=Recitation Section (large)

⁶DE=German, EN=English, DE/EN=German and English

⁷SWS=Contact hours