Exclosure to Subject Specific Regulations
from 25.07.2018
for Master-Programme Informatik-Ingenieurwesen
at TUHH
Programme Director: Prof. Görschwin Fey
Total: 120 CP
Number of Specilisations to choose: 4

Course Scheme Master Computer Science in Engineering (IIWMS)

Consolidated Version
for Study Cohort: WiSe22/23
en_head_sda
and Approval of Chair from:
11.01.2023
Replaces Version from: 20.04.2022
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.

	Module							Examination			Course Work		
	Re-com. Term	Module Name (German / English)	Language	ModuleResponsability	Institute	C/EC (1)	CM/ OM (2)	CP (4)	Grade	Exami-nation Form(3)	Compulsory	Course Work Type	Bonus (in %)
Core Qualification Compulsory Courses: 24 LP Optional Courses: 0 LP													
	3	Forschungsprojekt / Research Project	DE / EN	Prof. Fey	SD-E	C	CM	12	Y	STA			
	1-3	Betrieb & Management / Business & Management	DE / EN	Prof. Meyer	W-1	C	OM	6	Selection out of seperatly published Catalogue				
	1-3	Nichttechnische Angebote im Master / Non-technical Courses for Master	DE / EN	Richter	0-TUHH	C	OM	6	Selection out of seperatly published Catalogue				
Specialisation I. Computer Science Compulsory Courses: 0 LP Optional Courses: 18 LP													
	1	Sicherheit von Cyber-physischen Systemen / Security of Cyber-Physical Systems	EN	Prof. Fröschle	E-15	EC	CM	6	Y	KL	N	ÜA	10
	1	Software-Sicherheit / Software Security	EN	Prof. Scandariato	E-22	EC	CM	6	Y	KL			
	1	Softwareverifikation / Software Verification	EN	Prof. Schupp	E-16	EC	CM	6	Y	KL	Y	ÜA	15
	2	Advanced Internet Computing / Advanced Internet Computing	EN	Prof. Schulte	E-19	EC	CM	6	Y	FFA	Y	FFST	20
	2	Algorithmische Spieltheorie / Algorithmic Game Theory	DE / EN	Prof. Mnich	E-11	EC	CM	6	Y	KL			
	2	Autonomous Cyber-Physical Systems / Autonomous Cyber-Physical Systems	EN	Prof. Renner	E-24	EC	CM	6	Y	KL	N	TE	10
	2	Constraint Satisfaction Problems / Constraint Satisfaction Problems	EN	Prof. Mottet	E-EXK6	EC	CM	6	Y	MP			
	2	Entwurf von Dependable Systems / Design of Dependable Systems	DE / EN	Prof. Fey	E-13	EC	CM	6	Y	MP	Y	FFST	0
	3	Kommunikationsnetze / Communication Networks	EN	Prof. Timm-Giel	E-4	EC	CM	6	Y	RE			
	3	Massiv parallele Systeme: Architektur und Programmierung / Massively Parallel Systems: Architecture and Programming	EN	Prof. Lal	E-EXK5	EC	CM	6	Y	MP	Y	FFST	20
	3	Medizinische Bildgebung / Medical Imaging	DE / EN	Prof. Knopp	E-5	EC	CM	6	Y	KL			

	Module							Examination			Course Work		
	Re-com. Term	Module Name (German / English)	Language	ModuleResponsability	Institute	C/EC (1)	CM/ OM (2)	CP (4)	Grade	Exami-nation Form(3)	Compulsory	Course Work Type	Bonus (in %)
Specialisation II. Engineering Science Compulsory Courses: 0 LP Optional Courses: 12 LP													
	1	Digitale Nachrichtenübertragung / Digital Communications	DE / EN	Prof. Bauch	E-8	EC	CM	6	Y	KL	Y	SA	0
	1	Elektrische Energiesysteme II: Betrieb und Informationssysteme elektrischer Energienetze / Electrical Power Systems II: Operation and Information Systems of Electrical Power Grids	DE	Prof. Becker	E-6	EC	CM	6	Y	MP			
	2	Informationstheorie und Codierung / Information Theory and Coding	EN	Prof. Bauch	E-8	EC	CM	6	Y	KL			
	2	Intelligente Systeme Projekt / Intelligent Systems Lab	DE / EN	Prof. Schlaefer	E-1	EC	CM	6	Y	SA	Y	GD	0
	2	Maschinelles Lernen in der Elektro- und Informationstechnik / Machine Learning in Electrical Engineering and Information Technology	EN	Prof. Bauch	E-8	EC	CM	6	Y	MP			
	3	Digitale Signalverarbeitung und Digitale Filter / Digital Signal Processing and Digital Filters	EN	Prof. Bauch	E-8	EC	CM	6	Y	KL			
Specialisation III. Mathematics Compulsory Courses: 0 LP Optional Courses: 12 LP													
	1	Lineare und Nichtlineare Optimierung / Linear and Nonlinear Optimization	DE / EN	Prof. Mnich	E-11	EC	CM	6	Y	KL			
	1	Mathematische Bildverarbeitung / Mathematical Image Processing	DE / EN	Prof. Lindner	E-10	EC	CM	6	Y	MP			
	2	Numerische Mathematik II / Numerical Mathematics II	DE / EN	Prof. Le Borne	E-10	EC	CM	6	Y	MP			
	2	Randomisierte Algorithmen und Zufällige Graphen / Randomised Algorithms and Random Graphs	DE / EN	Prof. Taraz	E-10	EC	CM	6	Y	MP			
	3	Fortgeschrittenes maschinelles Lernen / Advanced Machine Learning	DE / EN	Dr. Zemke	E-10	EC	CM	6	Y	MP			
Specialisation IV. Subject Specific Focus Compulsory Courses: 0 LP Optional Courses: 24 LP													
	2	Technischer Ergänzungskurs I für IIW / Technical Complementary Course I for Computational Science and Engineering		Prof. Fey	SD-E	EC	OM	12	according to Subject Specific Regulations				
	3	Technischer Ergänzungskurs II für IIW / Technical Complementary Course II for Computational Science and Engineering		Prof. Fey	SD-E	EC	OM	12	according to Subject Specific Regulations				
Thesis Compulsory Courses: 30 LP Optional Courses: 0 LP													

	Module							Examination			Course Work		
	Re-com. Term	Module Name (German / English)	Language	ModuleResponsability	Institute	C/EC (1)	CM/ OM (2)	CP (4)	Grade	Exami-nation Form(3)	Compulsory	Course Work Type	Bonus (in %)
	4	Masterarbeit / Master Thesis		Professoren der TUHH	0-TUHH	C	CM	30	Y	AB			

Explanation:

[1]C=Compulsory, EC=Elective Compulsory
[2]CM=Compulsory Defined Module, OM=Optional Defined Module
[3]KL=Written exam, SA=Written elaboration, FFA=Subject theoretical and practical work, FFST=Subject theoretical and practical work, MP=Oral exam, RE=Presentation, GD=Group discussion, STA=Study work, AB=Thesis, UA=Excercises, SA lt. FPrO=Written elaboration (accord. to Internship Regulations), TE=Attestation
[4]CP=Credit Points
[5]VL=Lecture, SE=Seminar, GÜ=Recitation Section (small), PBL=Project-/problem-based Learning, PR=Practical Course, PK=Projection Course, HÜ=Recitation Section (large)
[6]DE=German, EN=English, DE/EN=German and English
[7]SWS=Contact hours