Exclosure to Subject Specific Regulations
from 25.07.2018
for Bachelor-Programme Informatik-Ingenieurwesen
at TUHH dual study program
Programme Director: Prof. Görschwin Fey
Total: 210 CP
Number of Specilisations to choose: 3

Course Scheme Bachelor Computer Science in Engineering (IIWBS) dual study program

Consolidated Version
for Study Cohort: WiSe22/23
en_head_sda
and Approval of Chair from:
29.05.2024
Replaces Version from: 15.11.2023
In Force on: 01.10.2018
Out of Force on: 31.03.2027

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: 168 LP Optional Courses: 0 LP													
	1	Diskrete Algebraische Strukturen / Discrete Algebraic Structures	DE / EN	Prof. Zimmermann	E-13	C	CM	6	Y	KL			
	1	Elektrotechnik I: Gleichstromnetzwerke und elektromagnetische Felder / Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	DE	Prof. Kuhl	E-9	C	CM	6	Y	KL			
	1	Mathematik I / Mathematics I	DE	Prof. Taraz	E-10	C	CM	8	Y	KL	Y	ÜA	10
	1	Praxismodul 1 im dualen Bachelor / Practical module 1 (dual study program, Bachelor's degree)	DE	Dr. Haschke	0-A3	C	CM	6	N	SA			
	1	Prozedurale Programmierung für Informatiker / Procedural Programming for Computer Engineers	DE / EN	Prof. Renner	E-24	C	CM	6	Y	KL			
	2	Automatentheorie und Formale Sprachen / Automata Theory and Formal Languages	EN	Prof. Mnich	E-11	C	CM	6	Y	KL			
	2	Elektrotechnik II: Wechselstromnetzwerke und grundlegende Bauelemente / Electrical Engineering II: Alternating Current Networks and Basic Devices	DE	Prof. Becker	E-6	C	CM	6	Y	KL	N	MT	10
	2	Grundlagen der Betriebswirtschaftslehre / Foundations of Management	DE	Prof. Ihl	W-11	C	CM	6	Y	FFA			
	2	Mathematik II / Mathematics II	DE	Prof. Taraz	E-10	C	CM	8	Y	KL	Y	ÜA	10
	2	Praxismodul 2 im dualen Bachelor / Practical module 2 (dual study program, Bachelor's degree)	DE	Dr. Haschke	0-A3	C	CM	6	N	SA			
	2	Programmierparadigmen / Programming Paradigms	DE / EN	NN	SD-E	C	CM	6	Y	KL			

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	3	Algorithmen und Datenstrukturen / Algorithms and Data Structures	DE / EN	Prof. Mnich	E-11	C	CM	6	Y	KL	N	ÜA	20
	3	Mathematik III / Mathematics III	DE	Prof. Lindner	0-UNIHH-M	C	CM	8	Y	KL			
	3	Numerische Mathematik I / Numerical Mathematics I	EN	Prof. Le Borne	E-10	C	CM	6	Y	KL			
	3	Praxismodul 3 im dualen Bachelor / Practical module 3 (dual study program, Bachelor's degree)	DE	Dr. Haschke	0-A3	C	CM	6	N	SA			
	3	Rechnernetze und Internet-Sicherheit / Computernetworks and Internet Security	EN	Prof. Timm-Giel	E-4	C	CM	6	Y	KL			
	3	Technische Informatik / Computer Engineering	DE / EN	Prof. Falk	E-13	C	CM	6	Y	KL	Y	ÜA	10
	4	Eingebettete Systeme / Embedded Systems	EN	Prof. Falk	E-13	C	CM	6	Y	KL	Y	FFST	10
	4	Praxismodul 4 im dualen Bachelor / Practical module 4 (dual study program, Bachelor's degree)	DE	Dr. Haschke	0-A3	C	CM	6	N	SA			
	4	Seminare Informatik / Seminars Computer Science	DE / EN	Dozenten des SD E	SD-E	C	CM	6	N	RE			
	4	Signale und Systeme / Signals and Systems	DE / EN	Prof. Bauch	E-8	C	CM	6	Y	KL			
	4	Stochastik / Stochastics	DE / EN	Prof. Schulte	E-10	C	CM	6	Y	KL			
	5	Einführung in die Nachrichtentechnik und ihre stochastischen Methoden / Introduction to Communications and Random Processes	DE / EN	Prof. Bauch	E-8	C	CM	6	Y	KL			
	5	Grundlagen der Regelungstechnik / Introduction to Control Systems	DE	Prof. Faulwasser	E-14	C	CM	6	Y	KL			
	5	IIW Praktikum / Practical Course IIW	DE / EN	Prof. Fey	E-13	C	CM	6	Y	FFA			
	5	Praxismodul 5 im dualen Bachelor / Practical module 5 (dual study program, Bachelor's degree)	DE	Dr. Haschke	0-A3	C	CM	6	N	SA			
	1-6	Theorie-Praxis-Verzahnung im dualen Bachelor / Linking theory and practice (dual study program, Bachelor's degree)	DE	Dr. Haschke	0-A3	C	CM	6	N	SA			
Specialisation I. Computer Science Compulsory Courses: 0 LP Optional Courses: 12 LP													
	5	Datenbanken / Databases	EN	Prof. Schulte	E-19	EC	CM	6	Y	KL			
	5	Funktionales Programmieren / Functional Programming	EN	Prof. Schupp	E-16	EC	CM	6	Y	KL	Y	ÜA	15
	5	Introduction to Quantum Computing / Introduction to Quantum Computing	EN	Prof. Kliesch	E-25	EC	CM	6	Y	KL	N	ÜA	15
	5	Rechnerarchitektur / Computer Architecture	EN	Prof. Falk	E-13	EC	CM	6	Y	KL	N	FFST	15
	6	Compilerbau / Compiler Construction	EN	Prof. Schupp	E-16	EC	CM	6	Y	FFA			

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	6	Computability and Complexity Theory / Computability and Complexity Theory (lt. letzter PO Berechenbarkeit und Komplexität)	EN	Prof. Kliesch	E-25	EC	CM	6	Y	KL	Y	ÜA	15
	6	Logic in Computer Science / Logic in Computer Science	EN	Prof. Wiehe	E-EXK6	EC	CM	6	Y	MP			
	6	Maschinelles Lernen I / Machine Learning I	DE / EN	Prof. Ay	E-21	EC	CM	6	Y	KL	N	ÜA	20
	6	Software-Engineering / Software Engineering	EN	Prof. Schupp	E-16	EC	CM	6	Y	KL	Y	ÜA	15
	6	Softwareentwicklung / Software Development	EN	Prof. Schupp	E-16	EC	CM	6	Y	FFA			
	Specialisation II. Mathematics & Engineering Science Compulsory Courses: 0 LP Optional Courses: 6 LP												
	4	Graphentheorie und Optimierung / Graph Theory and Optimization	DE / EN	Prof. Taraz	E-10	EC	CM	6	Y	KL			
	4	Grundlagen Raumfahrtelektronik und Primärmission / Basics space electronics and primary mission	DE / EN	Prof. Kulau	E-EXK3	EC	CM	6	Y	SA			
	5	Elektrische Energiesysteme I: Einführung in elektrische Energiesysteme / Electrical Power Systems I: Introduction to Electrical Power Systems	DE	Prof. Becker	E-6	EC	CM	6	Y	KL			
	5	Elektronische Bauelemente / Electronic Devices	DE	Prof. Trieu	E-7	EC	CM	6	Y	KL	Y	FFST	10
	5	Elektrotechnik III: Netzwerktheorie und Transienten / Electrical Engineering III: Circuit Theory and Transients	DE	Prof. Kölpin	E-3	EC	CM	6	Y	KL	N	TE	10
	5	Kombinatorische Strukturen und Algorithmen / Combinatorial Structures and Algorithms	DE / EN	Prof. Taraz	E-10	EC	CM	6	Y	MP			
	5	Messtechnik und Messdatenverarbeitung / Measurements: Methods and Data Processing	DE	Prof. Schlaefer	E-1	EC	CM	6	Y	KL	Y	ÜA	10
	5	Technische Mechanik I (Stereostatik) / Engineering Mechanics I (Stereostatics)	DE	Prof. Kriegesmann	M-24	EC	CM	6	Y	KL			
	5-6	Green Technologies II / Green Technologies II	DE	Dr. Scherzinger	V-9	EC	CM	6	Y	KL	Y	FFST	0
	6	Einführung in Medizintechnische Systeme / Introduction into Medical Technology and Systems	DE	Prof. Schlaefer	E-1	EC	CM	6	Y	KL	Y	RE	10
											Y	SA	10
	6	Elektrische Maschinen und Antriebe / Electrical Machines and Actuators	DE	Prof. Kern	M-4	EC	CM	6	Y	FFA			
	6	Halbleiterschaltungstechnik / Semiconductor Circuit Design	DE	NN	E-9	EC	CM	6	Y	KL			
	6	Labor Cyber-Physical Systems / Lab Cyber-Physical Systems	EN	Prof. Falk	E-13	EC	CM	6	Y	SA			
	6	Löser für schwachbesetzte lineare Gleichungssysteme / Solvers for Sparse Linear Systems	EN	Prof. Le Borne	E-10	EC	CM	6	Y	MP			

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	6	Mathematik IV / Mathematics IV	DE	Prof. Lindner	0-UNIHH-M	EC	CM	6	Y	KL			
	6	Theoretische Elektrotechnik I: Zeitunabhängige Felder / Theoretical Electrical Engineering I: Time-Independent Fields	DE	Prof. Schuster	E-18	EC	CM	6	Y	KL			
Specialisation III. Subject Specific Focus Compulsory Courses: 0 LP Optional Courses: 12 LP													
	6	Technischer Ergänzungskurs für IIWBS / Technical Complementary Course for Computational Science and Engineering Bachelor		Prof. Fey	SD-E	EC	OM	12	according to Subject Specific Regulations				
Thesis Compulsory Courses: 12 LP Optional Courses: 0 LP													
	6	Bachelorarbeit im dualen Studium / Bachelor thesis (dual study program)		Professoren der TUHH	0-TUHH	C	CM	12	Y	AB			

Explanation:

[1]C=Compulsory, EC=Elective Compulsory
[2]CM=Compulsory Defined Module, OM=Optional Defined Module
[3]KL=Written exam, MT=Midterm, SA=Written elaboration, FFST=Subject theoretical and practical work, FFA=Subject theoretical and practical work, MP=Oral exam, RE=Presentation, AB=Thesis, ÜA=Excercises, TE=Attestation
[4]CP=Credit Points
[5]VL=Lecture, SE=Seminar, GÜ=Recitation Section (small), PBL=Project-/problem-based Learning, PR=Practical Course, PS=Project Seminar, HÜ=Recitation Section (large)
[6]DE=German, EN=English, DE/EN=German and English
[7]SWS=Contact hours