

Annex SFB

Studienfachbeschreibung (subject description, SFB) for the subject Computer Science as a Master's with 1 major with the degree "Master of Science" (120 ECTS credits)

Responsible: Faculty of Mathematics and Computer Science Responsible: Institute of Computer Science Examination regulations version: 2016 Examination regulations version: 2016

Abbreviations used:	Course types: \mathbf{E} = field trip, \mathbf{K} = colloquium, \mathbf{O} = conversatorium, \mathbf{P} = placement/lab course, \mathbf{R} = project, \mathbf{S} = seminar, \mathbf{T} = tutorial, $\ddot{\mathbf{U}}$ = exercise, \mathbf{V} = lecture
	Term: SS = summer semester, WS = winter semester
	Methods of grading: NUM = numerical grade, B/NB = (not) successfully completed
	Regulations: (L)ASPO = general academic and examination regulations (for teaching-degree programmes), FSB = subject-specific provisions, SFB = list of modules
	Other: A = thesis, LV = course(s), PL = assessment(s), TN = participants, VL = prerequisite(s)
Conventions for the modules in this SFB:	Unless otherwise stated, courses and assessments will be held in German, assessments will be offered every semester and modules are not cre- ditable for bonus.
Information on assessment procedures:	Should there be the option to choose between several methods of assessment, the lecturer will agree with the module coordinator on the me- thod of assessment to be used in the current semester by two weeks after the start of the course at the latest and will communicate this in the customary manner.
	Should a module comprise more than one graded assessment, all assessments will be equally weighted, unless otherwise stated below.
	Should the assessment comprise several individual assessments, successful completion of the module will require successful completion of all individual assessments.

In accordance with the general regulations governing the degree subject described in this module catalogue:

ASPO2015

associated official publications (FSB (subject-specific provisions)/SFB (list of modules)):

15-Dec-2015 (2015-261) except for mandatory electives added 10-I=DB2-161 and 10-I=STM-162 in Fast Track procedure, 10-I=PRJAK-161 replaced by 10-I=PRJAK-162 and 10-I-MA-MK-161 replaced by 10-I-MA-MK-162 and in module 10-I-MA-161 added exam language "German and/or English" at a later time

10-Nov-2016 (2016-106) except for mandatory elective added 10-I=STM-162 in Fast Track procedure, 10-I=PRJAK-161 replaced by 10-I=PRJAK-162 and 10-I-MA-MK-161 replaced by 10-I-MA-MK-162 at a later time

11-Aug-2016 (2016-96)

This module handbook seeks to render, as accurately as possible, the data that is of statutory relevance according to the examination regulations of the degree subject. However, only the FSB (subject-specific provisions) and SFB (list of modules) in their officially published versions shall be legally binding. In the case of doubt, the provisions on, in particular, module assessments specified in the FSB/SFB shall prevail.

Abbreviation	Module title										
	ECTS		Duration	(in semesters)	Method of grading		Module level				
	Courses		To be sp	To be specified in the form X (y) with course type X abbreviated as specified above and number of weekly contact hours y							
	Method of as	sessme	ent								
	Only after su completion o		Il if applic	able							
	Other prereq	uisites	if applic	if applicable							
	Participants a on of places		ocati- if applic	if applicable							
	Additional in	formati	on if applic	if applicable							
	Referred to in	ו LPO I	if applic	able (examination re	gulations for teachin	g-degree programmes)					

Every module will be described using the following form:

Compulsory Course	es (20 ECTS cre	dits)								
10-I=SEM3-161-	Seminar 1 - Cu	urrent Top	ics in (Computer Science						
m01	ECTS 5	Duratio	n	1 semester Method of grading numerical grade Modul level graduate						
	Courses		S (2)	S (2)						
	Method of ass	sessment	puter science Language of assessment: German and/or English							
	Additional Info		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): AT, SE, IT, IS, ES, LR, HCI´, GE.							
10-I=SEM4-161-	Seminar 2 - Cu	urrent Top	ics in Computer Science							
m01	ECTS 5	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate		
	Courses		S (2)							
	Method of ass	sessment			s) and presentation German and/or Eng		sequent discussior	n on the topic of the seminar		
	Additional Info	ormation	Focus LR, H		dents of the Master's	programme Informatik (Co	mputer Science, 12	o ECTS credits): AT, SE, IT, IS, ES,		
10-I=PRAK-161-	Practical cour	se - Curre	nt Topi	cs in Computer Scie	ence					
m01	ECTS 10	Duratio	n	1 semester	Method of grading	(not) successfully comple	ted Modul level	graduate		
	Courses		P (6)							
	Method of ass	sessment		paper (5 to 15 pages lage of assessment:) : German and/or Eng	lish				
	Additional Info	ormation		ses available for stud CI, GE	dents of the Master's	programme Informatik (Co	mputer Science, 12	o ECTS credits): AT, SE, IT, IS, ES,		
Compulsory Electiv	ves (70 ECTS cre	edits)								
10-l=3D-161-m01	3D Point Clou	d Process	ing							
	ECTS 5	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate		
	Courses		V (2) + Ü (2) Module taught in: English							
	Method of ass		If ann of on date) Separ Langu credit	Module taught in: English written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi- date). Separate written examination for Master's students. Language of assessment: German and/or English creditable for bonus						
	Additional Info	ormation		es available for stud HCI,GE	dents of the Master's	programme Informatik (Co	mputer Science, 12	o ECTS credits):		

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10-I=BS-161-m01	Ope	erating Systems											
	ECTS	5 5	Duratio	n	1 semester	Method of grading numerical grade	Modul level	graduate					
	Cour	rses		V (2)	+ Ü (2)								
	Meth	nod of	assessment			rox. 60 to 120 minutes).							
					If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination								
				of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi- date).									
				/	Separate written examination for Master's students.								
					Language of assessment: German and/or English creditable for bonus								
	Addi	itional	Information	Focus	cuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): SE,ES,GE								
10-I=DM-161-m01	Data	Minin	ıg										
	ECTS	5 5	Duratio	n	1 semester	Method of grading numerical grade	Modul level	graduate					
	Cour	rses		V (2)	+ Ü (2)								
	Meth	nod of	assessment			rox. 60 to 120 minutes).							
						rer at the beginning of the course, the written exam pprox. 20 minutes) or an oral examination in groups							
				date)		pprox. 20 minutes) of an orac examination in groups		approx. 15 minutes per candi-					
				Sepa	rate written examina	ation for Master's students.							
					lage of assessment: able for bonus	: German and/or English							
	Addi	itional	Information	Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): IT, IS, HCI, GE.									
10-I=DB-161-m01	Data	bases	;										
	ECTS	5 5	Duratio	n	1 semester	Method of grading numerical grade	Modul level	graduate					
	Cour	rses		V (2)	+ Ü (2)								
	Meth	nod of	assessment			rox. 60 to 120 minutes).							
						irer at the beginning of the course, the written exam							
				date)		pprox. 20 minutes) or an oral examination in groups	s of 2 candidates	6 (approx. 15 minutes per candi-					
						ation for Master's students.							
					lage of assessment: able for bonus	: German and/or English							
	Addi	itional	Information			dents of the Master's programme Informatik (Comp	uter Science 12	ECTS credits). SE IS HCL GE					
	Luan	nonat	mornation	liocus		dents of the master 5 programme mornatik (compl	ater Science, 120	\mathcal{I}					

10-l=DB2-161-m01	Datab	abases 2										
	ECTS	5	Duration	1	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Cours	es		V (2) +	(2) + Ü (2)							
		od of asse		written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi- date). Language of assessment: German and/or English creditable for bonus								
		onal Info			ocuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): SE, IS, HCI.							
10-l=lCG-161-m01			nputer Gr	-								
	ECTS	5	Duration		1 semester	Method of grading	numerical grade	Modul level	graduate			
	Cours			V (2) -								
				written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi- date). Separate written examination for Master's students. Language of assessment: German and/or English creditable for bonus								
	Additi	onal Info	rmation	Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): HCI.								
10-I=KT-161-m01		_	Complex	ity								
	ECTS	5	Duration		1 semester	Method of grading	numerical grade	Modul level	graduate			
	Cours			V (2) -								
		od of asso		written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi- date). Separate written examination for Master's students. Language of assessment: German and/or English creditable for bonus Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): AT, IT, IS, ES, GE.								

10-I=KD-161-m01	Crypto	graphy	and Data	Securi	ecurity								
	ECTS	5	Duratio	1	1 semester	Method of grading numerical grade	Modul level	graduate					
	Course	S	_	V (2) ·	+ Ü (2)								
	Methoo	d of asse	essment	lf ann of one date). Sepai Langu	Separate written examination for Master's students. Language of assessment: German and/or English creditable for bonus								
	Additio	nal Info	rmation	Focus	ocuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): AT, SE, IT, IS, GE.								
10-I=APR-161-m01	Advanc	ed Prog	ramming										
	ECTS	5	Duration	1	1 semester	Method of grading numerical grade	Modul level	graduate					
	Course	S		V (2) ·	+ Ü (2)								
				of one date) Langu credit	Language of assessment: German and/or English creditable for bonus								
	Additional Information			Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): SE,IS,LR, HCI, ES,GE									
10-I=00P-161-m01	Object	oriente	d Progran	nming									
	ECTS	5	Duration		1 semester	Method of grading numerical grade	Modul level	graduate					
	Course	-		. ,	V (2) + Ü (2)								
	Methoo	d of asse	essment	written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi- date). Separate written examination for Master's students. Language of assessment: German and/or English creditable for bonus									
	Additio	nal Info	rmation	Focus	es available for stu	udents of the Master's programme Informatik	(Computer Science, 120	ECTS credits): SE, IS, LR, HCI.					

10-I=RAK-161-m01	Compu	ter Arch	nitecture									
	ECTS	5	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Course	s		V (2)	$(2) + \ddot{U}(2)$							
	Methoo	l of ass	essment	lf ann of one date) Separ Langu	written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi- date). Separate written examination for Master's students. Language of assessment: German and/or English creditable for bonus							
	Additio	nal Infc	ormation									
10-I=RK-161-m01	Compu	ter Netv	works and	orks and Communication Systems								
	ECTS	8	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Course	S		V (4) ·	+ Ü (2)							
				of one date) Separ Langu credit	If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi- date). Separate written examination for Master's students. Language of assessment: German and/or English creditable for bonus							
				Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): IT, ES, LR.								
10-I=WBS-161-m01		dge-ba	sed Syste	ems								
	ECTS	5	Duratio		1 semester	Method of grading	numerical grade	Modul level	graduate			
	Course			· · ·	V (2) + Ü (2)							
	Methoo	l of ass	essment	written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi- date). Separate written examination for Master's students. Language of assessment: German and/or English creditable for bonus								
	Additio	nal Info	ormation	Focus	ses available for stu	udents of the Master's p	orogramme Informatik ((Computer Science, 120	ECTS credits): SE, IT, IS, HCI, GE.			

10-I=PRJAK-162-	Project - Curre	oject - Current Topics in Computer Science										
m01	ECTS 5	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate				
	Courses		P (4)									
	Method of ass	essment	Each Asses Langu	project is offered o sment can, therefo lage of assessmen	ne time only. The proj	the project offered in t ish	iinutes) I; there will not be anot he respective semester		ame topic.			
	Additional Info	ormation		cuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): AT, SE, IT, IS, ES, , HCI, GE.								
10-l=AA-152-m01	Advanced Aut	omation										
	ECTS 8	Duratio		1 semester	Method of grading	numerical grade	Modul level	graduate				
	Courses		V (4) -	+ Ü (2)								
	Method of ass	essment	writte credit	n examination (ap able for bonus	prox. 60 to 120 minute	9S)						
	Additional Info	ormation		es available for stu S,LR,GE	udents of the Master's	programme Informatik	(Computer Science, 12	o ECTS credits):				
	Referred to in	LPO I	§ 22	I Nr. 3 b)								
10-I=AGIS-161-m01	Algorithms for	r Geograp	hic Info	ormation Systems								
	ECTS 5	Duratio		1 semester	Method of grading	numerical grade	Modul level	graduate				
	Courses		V (2) -	+ Ü (2)								
	Method of ass	essment	If ann of one date). Langu	written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi- date). Language of assessment: German and/or English creditable for bonus								
	Additional Info	ormation		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): AT,IS,HCI								
10-I=AG-161-m01	Computationa	l Geometr	y									
	ECTS 5	Duratio		1 semester	Method of grading	numerical grade	Modul level	graduate				
	Courses			+ Ü (2)								
	Method of ass	essment	lf ann of one date). Langu	written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi- date). Language of assessment: German and/or English creditable for bonus								
	Additional Info	ormation	Focus AT,HC		udents of the Master's	programme Informatik	(Computer Science, 12	o ECTS credits):				
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10-I=APA-161-m01	Approx	imation	Algorith	ms	5									
	ECTS	5	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate					
	Course	S		V (2) ·	+ Ü (2)									
	Methoo	d of asse		If ann of one date). Langu credit	nguage of assessment: German and/or English editable for bonus									
		-			Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): AT,IT,GE									
		d to in L	-	§ 22	l Nr. 3 b)									
10-I=AUT-161-m01	Automa	ata Theo	ory											
	ECTS	5	Duratio		1 semester	Method of grading	numerical grade	Modul level	graduate					
	Course	S		V (2) ·	+ Ü (2)									
	Method of assessment			If ann of one date) Langu credit	Language of assessment: German and/or English creditable for bonus									
				Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): AT, IT, ES, HCI, GE										
10-I=AVS-161-m01	Avionic	s Syste	ms											
	ECTS	5	Duratio		1 semester	Method of grading	numerical grade	Modul level	graduate					
	Course			• • •	+ Ü (2)									
	Methoo	d of asse	essment	If ann of one date) Langu	written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi- date). Language of assessment: German and/or English creditable for bonus									
	Additio	nal Info	rmation	Focus ES,LR		udents of the Master's	programme Informatik	(Computer Science, 120	o ECTS credits):					

10-HCI=M-	Multimo	odal Us	er Interfa	ces							
MUI-161-m01	ECTS	5	Duration	า	1 semester	Method of gradins	g numerical grade	Modul level	graduate		
	Courses	;		V (2)	+ Ü (2)		<u>.</u>	•	,		
	Method	ofass	essment			results (approx. 40 m					
				Language of assessment: German and/or English creditable for bonus							
	Addition	nalinfa	rmation			udante aftha Mastar	a nyagyamma Informati	ik (Computer Science 10	a FCTS aredita), USLOF		
	Additional InformationFocuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits):Referred to in LPO I§ 22 II Nr. 3 b)										
10-I=BER-161-m01											
10-I=DER-101-III01		5	Duration		1 semester	Mothod of grading	g numerical grade	Modul level	graduate		
	I	-	Duration					Modulilevel	gladuate		
	CoursesV (2) + Ü (2)Method of assessmentwritten examination (approx. 60 to 120 minutes).										
	Methou	01 0550	essment					ten examination may be	replaced by an oral examination		
				ofone	e candidate each (s (approx. 15 minutes per candi-		
				date)		at. Cormon and lar En	aliah				
					table for bonus	nt: German and/or Eng	3050				
	Additior	nal Info	rmation			udents of the Master'	s programme Informati	ik (Computer Science, 12	o ECTS credits):		
					E,IT,IS,GE			(
07-BI-161-m01	Bioinfor	rmatics	;								
	ECTS	5	Duration	1	1 semester	Method of grading	g numerical grade	Modul level	undergraduate		
	Courses	;		V (2)	+ Ü (2)						
	Method	of asse	essment			prox. 60 to 120 minu					
					If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi-						
				date).							
				Language of assessment: German and/or English							
				creditable for bonus							
10-I=CB-161-m01			truction				· · · · ·				
		5	Duration		1 semester	Method of grading	g numerical grade	Modul level	graduate		
	Courses	-		<u>``</u>	+ Ü (2)				_		
	Method of assessment				written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination						
									s (approx. 15 minutes per candi-		
				date).				0			
						nt: German and/or Eng	glish				
	۸ ما دا : ۱:	nol luf-	wm at:		table for bonus	udanta aftha Mastar	a nya aya mara lafa	ik (Computor Coieras	a FCTC avadita)		
	Addition	ial info	ormation	Focus SE,IT,		udents of the Master'	s programme informati	ik (Computer Science, 12	o ECIS credits):		
				52,17,	10,02						

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10-I=DDB-161-m01	Deductive Data	abases								
	ECTS 8	Duration	n	1 semester	Method of grading	numerical grade	Modul level	graduate		
	Courses		V (4) +	- Ü (2)						
	Method of ass	essment	lf anno of one date). Langu	written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi- date). Language of assessment: German and/or English creditable for bonus						
	Additional Info	rmation		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): AT,SE,IT,IS						
10-I=EL-161-m01	E-Learning	ł								
	ECTS 5	Duration	n	1 semester	Method of grading	numerical grade	Modul level	graduate		
	Courses		V (2) +	- Ü (2)						
	Method of ass	essment	written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi- date). Language of assessment: German and/or English creditable for bonus							
	Additional Info	rmation	Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): SE,IT,IS,HCI,GE							
10-I=HCI-161-m01	Introduction in	ito Humai	n-Comp	outer Interaction						
	ECTS 5	Duration	n	1 semester	Method of grading	numerical grade	Modul level	graduate		
	Courses		V (3) +	- Ü (1)						
	Method of ass	essment	presentation of project results (approx. 30 minutes) Language of assessment: German and/or English creditable for bonus							
	Additional Info		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): HCI.							
10-I=ES-161-m01	Embedded Sys	tems								
	ECTS 8	Duration		1 semester	Method of grading	numerical grade	Modul level	graduate		
	Courses		V (4) +							
	Method of ass		written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi- date). Language of assessment: German and/or English creditable for bonus							
	Additional Info	rmation		es available for stuc ,ES,LR,GE	dents of the Master's	programme Informatik (Com	puter Science, 12	o ECTS credits):		

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10-I=PA-161-m01	Analysis and Design of Programs											
	ECTS 5		Duration		1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses			V (2) +	- Ü (2)							
	Method of	fasses		written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi- date). Language of assessment: German and/or English creditable for bonus								
	Additiona	l Inforr		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): SE,IS,ES,GE								
10-l=lR-161-m01	Informatio	on Reti	rieval									
	ECTS 5 Duratio			ı	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses			V (2) +	- Ü (2)			·				
	Method of	f asses		written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi- date). Language of assessment: German and/or English creditable for bonus								
	Additional Information			Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): IT,IS,HCI,GE								
10-HCI=3DUI-161-	3D User Interfaces											
m01	ECTS 5		Duration	ı	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses			V (2) +								
	Method of assessment			presentation of project results (approx. 30 minutes) Language of assessment: German and/or English creditable for bonus								
	Additiona	l Inforr	nation	Focus	es available for stuc	lents of the Master's	programme Informatik (Con	nputer Science, 12	o ECTS credits): HCI,GE.			
	Referred t	o in LP	01	§ 22	Nr. 3 b)							
10-I=KT2-161-m01	Computat	ional (Complex	kity II								
	ECTS 5		Duration		1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses			V (2) +	.,							
	Method of assessment			written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi- date). Language of assessment: German and/or English creditable for bonus								
	Additional Information			Focus	es available for stuc	lents of the Master's	programme Informatik (Con	nputer Science, 12	o ECTS credits): AT, SE, IT, ES			
Master's with 1 major Cor	nnuter Science	(2016)					IMII Würzburg • generated 10-Ar	nr-2025 ● exam_reg_data.r	ecord 88/0701-1-1H12016 nage 12 / 21			

10-l=Kl1-161-m01	Artificia	Artificial Intelligence 1											
	ECTS	5	Duration	ก	1 semester	Method of grading	numerical grade	Modul level	graduate				
	Courses	S	-	V (2) -	+ Ü (2)								
	Method of assessment			lf ann of one date). Langu	vritten examination (approx. 60 to 120 minutes). f announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi- date). .anguage of assessment: German and/or English :reditable for bonus								
	Additio	nal Info	ormation		ses available for st ,IS,HCI	udents of the Master's	programme Informatik	(Computer Science, 120	c ECTS credits):				
10-l=Kl2-161-m01	Artificia	al Intell	ligence 2										
	ECTS 5 Duratio			n	1 semester	Method of grading	numerical grade	Modul level	graduate				
	Courses	S		V (2) ·	+ Ü (2)								
	Method of assessment			If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candidate). Language of assessment: German and/or English creditable for bonus									
				Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): AT,SE,IS,HCI,GE									
10-I=LVS-161-m01	Perforn	nance E	valuation	of Dis	tributed Systems								
	ECTS	8	Duration		1 semester	Method of grading	numerical grade	Modul level	graduate				
	Courses	S		V (4) ·	+ Ü (2)								
	Method	l of ass	essment	written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi- date). Language of assessment: German and/or English creditable for bonus									
	Additio	nal Info	ormation		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): AT,IT,GE								

Master's with 1 majo	or Computer	r Science	(2016)
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10-I=ML-161-m01	Mathe	Mathematical Logic											
	ECTS	5	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate				
	Course	25		V (2) ·	+ Ü (2)								
	Metho	Method of assessment			written examination (approx. 60 to 120 minutes). f announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi- date). Language of assessment: German and/or English creditable for bonus								
	Additic	Additional Information			ses available for stu I,IS,ES	udents of the Master's	programme Informatik	(Computer Science, 120	o ECTS credits):				
10-I=MI-161-m01	Medica	Medical Informatics											
	ECTS 5 Duratio			n	1 semester	Method of grading	numerical grade	Modul level	graduate				
	Courses			V (2) ·	(2) + Ü (2)								
		Method of assessment			If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi- date). Language of assessment: German and/or English creditable for bonus								
				Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): SE,IT,IS,HCI,GE									
10-I=PEB-161-m01	Perform	mance F	Ingineerin	g & Be	enchmarking of Cor	mputer Systems							
	ECTS	5	Duratio		1 semester	Method of grading	numerical grade	Modul level	graduate				
	Course			. ,	+ Ü (2)								
	Metho	d of ass	essment	written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi- date). Language of assessment: German and/or English creditable for bonus									
	Additic	onal Info	ormation		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): SE,IT,ES,HCI,GE								

Master's with a	i major Co	mputer Science	(2016)
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10-I=PM-161-m01	Professional Project Management												
	ECTS	5	Duratior	า	1 semester	Method of grading	numerical grade	Modul level	graduate				
	Course	S		V (2)	•								
	Methoo	lethod of assessment			ounced by the lea e candidate each age of assessme		of the course, the writ an oral examination		replaced by an oral examination s (approx. 15 minutes per candi-				
	other p	oreregui	sites		reditable for bonus imultaneous completion of module 10-I=PRJ is recommended.								
	other prerequisites Additional Information				Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): SE, IT, IS, ES, LR,								
10-I=RAM-161-m01	Compu	Computer Arithmetic											
	ECTS 5 Duratio			า	1 semester	Method of grading	numerical grade	Modul level	graduate				
	Courses			V (2) -	+ Ü (2)			•					
	Method of assessment Additional Information				ounced by the lea e candidate each		of the course, the writ an oral examination		replaced by an oral examination s (approx. 15 minutes per candi-				
					Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): AT,ES								
10-I=R01-152-m01	Roboti												
	ECTS	8	Duration		1 semester	Method of grading	numerical grade	Modul level	graduate				
	Course	-		V (4) -	. ,								
	Method of assessment			written examination (approx. 60 to 90 minutes) creditable for bonus									
	Additic	onal Info	ormation	Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): IS,ES,LR,HCI									
	Referre	ed to in L	POI	§ 22 II Nr. 3 b)									
10-l=R02-152-m01	Roboti	CS 2											
	ECTS	8	Duratior	า	1 semester	Method of grading	numerical grade	Modul level	graduate				
	Course	S		V (4) + Ü (2)									
	Methoo	Method of assessment			written examination (approx. 60 to 90 minutes) creditable for bonus								
	Additio	onal Info	ormation	Focus	es available for s	tudents of the Master's	programme Informat	ik (Computer Science, 12	o ECTS credits): IT, ES, LR				
	Poforro	Referred to in LPO I		§ 22 II Nr. 3 b)									

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10-l=ST-161-m01	Discrete Ev	vent Simulati	on	n						
	ECTS 8	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate		
	Courses		V (4) ·	V (4) + Ü (2)						
	Method of	assessment	writte	written examination (approx. 60 to 120 minutes).						
				If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination						
			date).	of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi-						
			· · ·	anguage of assessment: German and/or English						
				creditable for bonus						
	Additional	Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): IT,IS,ES,GE						
10-HCI=RIS-161-	Real-Time	Interactive S	ystems							
m01	ECTS 5	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate		
	Courses		V (2) ·	- + Ü (2)	•		•			
	Method of	assessment	writte	n examination (appi	rox. 60 to 120 minute	es).				
			lf ann	ounced by the lectu	rer at the beginning	of the course, the written exam	ination may be	replaced by an oral examination		
			date).	of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi-						
			· ·	Language of assessment: German and/or English						
				creditable for bonus						
10-I=SAR-161-m01	Software A	rchitecture								
	ECTS 5	Duratio		1 semester	Method of grading	numerical grade	Modul level	graduate		
	Courses			+ Ü (2)						
	Method of	assessment		written examination (approx. 60 to 120 minutes).						
				If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination						
			date).	of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi- date).						
			Langu	Language of assessment: German and/or English						
			creditable for bonus							
	Additional	Information	Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): SE,IT,ES							
	Referred to	in LPO I	§ 22	§ 22 II Nr. 3 b)						
10-I=SSD-152-m01	Spacecraft	System Des	ign							
	ECTS 8	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate		
	Courses		V (4) ·	+ Ü (2)						
	Method of assessment				rox. 60 to 120 minute	es)				
				able for bonus						
		Information			lents of the Master's	programme Informatik (Compu	uter Science, 12	o ECTS credits): ES, LR		
	Referred to	in LPO I	§ 22	l Nr. 3 b)	,					

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10-HCI=M-	Machine Learning (for User Interfaces)										
LUI-161-m01	ECTS 5	Duratio	1 1	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses		V (2) +	Ü (2)							
	Method of asse	essment	Langua	presentation of project results (approx. 40 minutes) anguage of assessment: German and/or English preditable for bonus							
	Additional Info	rmation	Focuses	ocuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): HCI,GE.							
	Referred to in L	PO I	§ 22	§ 22 Nr. 3 b)							
10-l=VG-161-m01	Visualization o	f Graphs									
	ECTS 5	Duratio	1 1	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses		V (2) + I	Ü (2)			а 				
	Method of asse		If annou of one o date). Langua credital	ritten examination (approx. 60 to 120 minutes). announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi- ate). anguage of assessment: German and/or English editable for bonus							
	Additional Info		AT,IT,H	Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): AT,IT,HCI,GE							
	Referred to in L			§ 22 Nr. 3 b)							
10-l=lCG-152-m01	Interactive Con	nputer Gr	aphics								
	ECTS 5	Duratio		1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses		V (2) +								
	Method of asse	essment	If annou of one o date). Langua	unced by the lectu candidate each (a		of the course, the written exar r an oral examination in group		replaced by an oral examination s (approx. 15 minutes per candi-			
	Additional Info	rmation	Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): HCI								
10-I=RSE-161-m01	Space Systems	Design									
	ECTS 8	Duration	1 1	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses	÷	R (3)								
	Method of asse		Each pr Assessi Langua	project report (10 to 15 pages) and presentation of project (15 to 30 minutes) Each project is offered one time only. The project will not be repeated; there will not be another project with the same topic. Assessment can, therefore, only be offered for the project offered in the respective semester. Language of assessment: German and/or English Assessment offered: In the semester in which the course is offered							
	Additional Info	rmation	Focuses	s available for stu	dents of the Master's	programme Informatik (Com	puter Science, 12	o ECTS credits): LR.			
Master's with 1 major Co	Master's with 1 major Computer Science (2016) JMU Würzburg • generated 19-Apr-2025 • exam. reg. data record 88 079 - - H 2016 page 17 / 2										

10-I=EPB-161-m01	Design of Planetary Bases and Orbital Stations									
	ECTS 8 Duration		n	1 semester	Method of grading	numerical grade	Modul level	graduate		
	Courses	5		R (3)	_					
	Method	of ass	essment	project report (10 to 15 pages) and presentation of project (15 to 30 minutes) Each project is offered one time only. The project will not be repeated; there will not be another project with the same topic. Assessment can, therefore, only be offered for the project offered in the respective semester. Language of assessment: German and/or English Assessment offered: In the semester in which the course is offered						
	Additio	nal Info	rmation	Focus	Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): LR.					
10-I=PRT-161-m01	Practica	al cours	se - Rocke	t Engi	neering and Payload	ds				
	ECTS	5	Duratio	n	1 semester	Method of grading	(not) successfully completed	Modul level	graduate	
	Courses	5		P (3)						
	Method	of ass	essment	placement report (4 to 5 pages) and presentation of results (15 to 30 minutes) Language of assessment: German and/or English						
				Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): LR.						
10-I=AKA-161-m01	ļ,	d Topic	s in Algo	ithms						
	ECTS	5	Duratio		1 semester	Method of grading	numerical grade	Modul level	graduate	
	Courses		,		+ Ü (2)				_	
	Method	of ass	essment	written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi- date). Language of assessment: German and/or English creditable for bonus						
			ormation	Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): AT						
10-I=AKT-161-m01	L	d Topic	s in Theo							
	I	5	Duratio		1 semester	Method of grading	numerical grade	Modul level	graduate	
	Courses		_	· · ·	+ Ü (2)					
	Method of assessment			written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi- date). Language of assessment: German and/or English creditable for bonus						
	Additional Information			Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): AT						

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10-I=AK-	Selected Topics in Software Engineering										
SE-161-m01	ECTS 5	Duration	n 1	1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses		V (2) +	Ü (2)	•	-	•				
	Method of ass		written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi- date). Language of assessment: German and/or English creditable for bonus								
	Additional Information Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): SE.										
10-I=AKIT-161-m01	· · ·			net Technologies							
	ECTS 5	Duration		1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses		V (2) +	.,							
	Method of ass		written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi- date). Language of assessment: German and/or English creditable for bonus								
	Additional Info				dents of the Master's	programme Informatik (Compu	iter Science, 12	o ECTS credits): IT.			
10-I=AKIS-161-m01				ystems							
	ECTS 5	Duration		1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses	_	V (2) + Ü (2)								
	Method of ass	essment	written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi- date). Language of assessment: German and/or English creditable for bonus								
	Additional Info	ormation	Focuse	s available for stu	dents of the Master's	programme Informatik (Compu	iter Science, 120	o ECTS credits): IS.			
10-I=A-	Selected Topic	cs in Embe	edded Systems								
KES-161-m01	ECTS 5	Duration		1 semester	Method of grading	numerical grade	Modul level	graduate			
	Courses		V (2) +	Ü (2)							
	Method of ass		written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi- date). Language of assessment: German and/or English creditable for bonus								
	Additional Info	ormation	Focuse	s available for stu	dents of the Master's	programme Informatik (Compu	iter Science, 120	o ECTS credits): ES.			
Master's with 1 major Co	mputer Science (2016))				JMU Würzburg • generated 19-Apr-20	25 • exam. reg. data re	ecord 88 079 - - H 2016 page 19 / 21			

10-I=AKL- R-161-m01	Selected Topics in Aerospace Engineering										
	ECTS 5 Duration		Duration	n 1 semester	Method of grading numerical grade	Modul level	graduate				
	Courses			V (2) + Ü (2)							
			essment	written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi- date). Separate written examination for Master's students. Language of assessment: German and/or English creditable for bonus							
			rmation	Focuses available for	students of the Master's programme Informatik ((Computer Science, 12	o ECTS credits): LR.				
10-I=AKH-		ed Topic	s in HCI								
Cl-161-m01	ECTS	5	Duration	n 1 semester	Method of grading numerical grade	Modul level	graduate				
	Course	S		V (2) + Ü (2) Course type: alternatively S (2) or R (2) instead of Ü (2)							
	Method of assessment			written examination (60 to 120 minutes) If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi- date). Language of assessment: German and/or English creditable for bonus							
	Additio	nal Info	rmation	Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): HCI.							
10-I=AKII-161-m01	Selected Topics in Computer Science										
	ECTS 5 Duratio			n 1 semester	Method of grading numerical grade	Modul level	graduate				
	Course	s		V (2) + Ü (2)							
	Method	d of ass	essment	written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi- date). Language of assessment: German and/or English creditable for bonus							

10-I=STM-162-m01	NLP an	d Text N	Nining								
	ECTS	CTS 5 Duration		n	1 semester	Method of grading	numerical grade	Modul level	graduate		
	Courses			V (2) +	V (2) + Ü (2)						
	Method	d of asse	essment	written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi- date). Language of assessment: German and/or English							
	Additional Information			Focus	Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): AT, IT, HCI.						
	Referre	Referred to in LPO I			§ 22 II Nr. 3 b)						
Thesis (30 ECTS cre	edits)										
10-I-MA-MK-162-	Concluding Colloquium Computer Science										
m01	ECTS	5	Duration	n	1 semester	Method of grading	(not) successfully completed	Modul level	graduate		
	Course	S		К (о)							
	Methoo	d of asse	essment	final colloquium (approx. 60 minutes) Language of assessment: German and/or English							
10-I-MA-161-m01	Master	's Thesi	s Compu	ter Science							
	ECTS 25 Duratio			n	1 semester	Method of grading	numerical grade	Modul level	graduate		
	Courses			No courses assigned to module							
	Method of assessment			Master's thesis (50 to 100 pages) Language of assessment: German and/or English							
	Additional Information			Time to complete: 6 months							