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 — Examination regulations version: 2021
Responsible: Institute of Computer Science — Examination regulations version: 2021

Abbreviations used:	Course types: **E** = field trip, **K** = colloquium, **O** = conversatorium, **P** = placement/lab course, **R** = project, **S** = seminar, **T** = tutorial, **Ü** = exercise, **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 creditable 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 method 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)):

28-Apr-2021 (2021-43)

15-Feb-2023 (2023-9)

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.

Every module will be described using the following form:

Abbreviation	**Module title**						
	ECTS		Duration	(in semesters)	Method of grading		Module level	
	Courses		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 assessment						
	Only after successful completion of	if applicable					
	Other prerequisites	if applicable					
	Participants and allocation of places	if applicable					
	Additional information	if applicable					
	Referred to in LPO I	if applicable (examination regulations for teaching-degree programmes)					

Compulsory Courses (20 ECTS credits)							

10-I=SEM3-212-m01	**Seminar 1 - Current Topics in Computer Science**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		S (2) Module taught in: German and English The course is offered in parallel in both German and English.					
	Method of assessment		term paper (10 to 15 pages) and presentation (30 to 45 minutes) with subsequent discussion on a topic from the field of computer science Language of assessment: German and/or English					
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): AT,SE,IT,KI,ES,L-R,HCI,GE					

10-I=SEM4-212-m01	**Seminar 2 - Current Topics in Computer Science**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		S (2) Module taught in: German and English The course is offered in parallel in both German and English.					
	Method of assessment		term paper (10 to 15 pages) and presentation (30 to 45 minutes) with subsequent discussion on the topic of the seminar Langua ge of assessment: German and/or English					
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): AT,SE,IT,KI,ES,L-R,HCI,GE					

10-I=PRAK-212-m01	**Practical Course - Current Topics in Computer Science**						
	ECTS	10	Duration	1 semester	Method of grading	(not) successfully completed	Modul level	graduate
	Courses		P (6) Module taught in: German and English The course is offered in parallel in both German and English.					
	Method of assessment		term paper (5 to 15 pages) Language of assessment: German and/or English					
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): AT,SE,IT,KI,ES,LR,HCI,GE					

Compulsory Electives (70 ECTS credits)								
General Compulsory Electives (min. 50 ECTS credits)								
10-I=3D-212-m01	**3D Point Cloud Processing**							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + Ü (2) Module taught in: English					
	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 candidate). Language of assessment: German and/or English Separate written examination for Master's students. creditable for bonus					
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): KI,LR,HCI,GE					
10-I=BS-212-m01	**Operating Systems**							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + 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 candidate). Separate written examination for Master's students 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,ES,GE,SEC					
10-I=DM-212-m01	**Data Mining**							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + 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 candidate). Separate written examination for Master's students 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,KI,HCI,GE,SEC					

10-I=DB2-212-m01	**Databases 2**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + 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 candidate). creditable for bonus Language of assessment: German and/or English			
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): SE,KI,HCI			
10-I=ICG-161-m01	**Interactive Computer Graphics**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + 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 candidate). Separate written examination for Master's students. 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): HCI.			
10-I=KT-212-m01	**Computational Complexity**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + 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 candidate). Separate written examination for Master's students Language of assessment: German and/or English Assessment offered: In the semester in which the course is offered and in the following semester creditable for bonus			
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): AL,IT,KI,ES,GE			

10-I=KD-212-m01	**Cryptography and Data Security**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + 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 candidate). Separate written examination for Master's students Language of assessment: German and/or English Assessment offered: In the semester in which the course is offered and in the following semester creditable for bonus				
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): AL,SE,IT,KI,GE,SEC				
10-I=APR-212-m01	**Advanced Programming**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + 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 candidate). creditable for bonus Language of assessment: German and/or English				
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): SE,KI,LR, HCI, ES,GE,SEC				
10-I=SSS-212-m01	**Security of Software Systems**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + Ü (2) Module taught in: English				
	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 candidate). creditable for bonus Language of assessment: English				
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): SE,KI,LR, HCI, ES, SEC				

10-I=RAK-161-m01	**Computer Architecture**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + 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 candidate). Separate written examination for Master's students. 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, LR, GE.				
10-I=SKS-212-m01	**Control Principles of Modern Communication Systems**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		V (2) + 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 candidate). Separate written examination for Master's students 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,ES,LR				
10-I=SEC-212-m01	**Introduction to IT Security**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	
	Courses		V (2) + Ü (2) Module taught in: English				
	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 candidate). Separate written examination for Master's students Language of assessment: English creditable for bonus				
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): SEC				

10-I=WBS-212-m01	**Knowledge-based Systems**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + 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 candidate). Separate written examination for Master's students 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,KI,HCI,GE					
10-I=PRJAK-212-m01	**Project - Current Topics in Computer Science**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		P (4)					
	Method of assessment		project report (10 to 15 pages) and presentation of project (15 to 30 minutes) Language of assessment: German and/or English Assessment offered: In the semester in which the course is offered (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)					
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): AT,SE,IT,KI,ES,L-R,HCI,GE					
10-I=AMS-212-m01	**Autonomous Mobile Systems**						
	ECTS	8	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (4) + Ü (2) Module taught in: English					
	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 candidate). Creditable for bonus Language of assessment: German and/or English					
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): IT,KI,ES,LR,GE					

10-I=A-GIS-212-m01	**Algorithms for Geographic Information Systems**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + 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 candidate). creditable for bonus Language of assessment: German and/or English				
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): AT,KI,HCI,LR				
10-I=AG-161-m01	**Computational Geometry**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + 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 candidate). 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,HCI,GE				
10-I=APA-161-m01	**Approximation Algorithms**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + 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 candidate). 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,IT,GE				

10-I=AUT-212-m01	**Automata Theory**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + 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 candidate). creditable for bonus Language of assessment: German and/or English Assessment offered: In the semester in which the course is offered and in the following semester			
	Additional Information		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	**Avionics Systems**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + 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 candidate). 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): ES,LR			
10-HCI=M-MUI-161-m01	**Multimodal User Interfaces**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + Ü (2)				
	Method of assessment		presentation of project results (approx. 40 minutes) Language of assessment: German and/or English creditable for bonus			
10-I=BER-212-m01	**Computability Theory**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + 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 candidate). creditable for bonus Language of assessment: German and/or English Assessment offered: In the semester in which the course is offered and in the following semester			
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): AT,SE,IT,KI,GE			

07-BI-202-m01	**Introduction to Bioinformatics**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		V (0,5) + Ü (4)				
	Method of assessment		Log (approx. 30 pages)				

10-I=DDB-212-m01	**Deductive Databases**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + 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 candidate). creditable for bonus Language of assessment: German and/or English				
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): AT,SE,IT,KI				

10-I=LP-212-m01	**Logic Programming**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + 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 candidate). creditable for bonus Language of assessment: German and/or English				
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): AT,SE,IT,KI				

10-I=EL-212-m01	**E-Learning**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + 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 candidate). creditable for bonus Language of assessment: German and/or English				
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): SE,IT,KI,HCI,GE				

10-I=PNN-212-m01	**Programming with neural nets**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + 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 candidate). creditable for bonus Language of assessment: German and/or English				
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): IT,KI,HCI,GE				
10-I=NLP-212-m01	**Machine Learning for Natural Language Processing**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + 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 candidate). creditable for bonus Language of assessment: German and/or English				
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): AT,KI,HCI				
10-I=ES-161-m01	**Embedded Systems**						
	ECTS	8	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (4) + 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 candidate). 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,SE,ES,LR,GE				

10-I=IR-212-m01	**Information Retrieval**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + 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 candidate). creditable for bonus Language of assessment: German and/or English				
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): IT,KI,HCI,GE				
10-HCI=3DUI-161-m01	**3D User Interfaces**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + Ü (2)				
	Method of assessment		presentation of project results (approx. 30 minutes) Language of assessment: German and/or English creditable for bonus				
10-I=KT2-212-m01	**Computational Complexity II**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + 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 candidate). creditable for bonus Language of assessment: German and/or English Assessment offered: In the semester in which the course is offered and in the following semester				
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): AT,SE,IT,ES				
10-I=KI1-212-m01	**Artificial Intelligence 1**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + 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 candidate). creditable for bonus Language of assessment: German and/or English				
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): AT,SE,KI,HCI				

10-I=KI2-212-m01	**Artificial Intelligence 2**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + 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 candidate). creditable for bonus Language of assessment: German and/or English				
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): AT,SE,KI,HCI,GE				
10-I=LVS-161-m01	**Performance Evaluation of Distributed Systems**						
	ECTS	8	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (4) + 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 candidate). 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,IT,GE				
10-I=ML-212-m01	**Mathematical Logic**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + 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 candidate). creditable for bonus Language of assessment: German and/or English Assessment offered: In the semester in which the course is offered and in the following semester				
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): AT,SE,KI,ES				

10-I=MI-212-m01	**Medical Informatics**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + 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 candidate). creditable for bonus Language of assessment: German and/or English				
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): SE,IT,KI,HCI,GE				
10-I=SB-212-m01	**Systems Benchmarking**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	
	Courses		V (2) + 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 candidate). creditable for bonus Language of assessment: German and/or English				
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): SE,IT,ES,HCI,GE				
10-I=PM-212-m01	**Professional Project Management**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (4)				
	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 candidate). creditable for bonus Language of assessment: German and/or English				
	Additional Information		We recommend completing module 10-I=PRJAK in parallel. Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): SE,IT,KI,ES,LR,HCI,GE				

10-I=RO1-212-m01	**Robotics 1**						
	ECTS	8	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (4) + Ü (2) Module taught in: English				
	Method of assessment		written examination (approx. 60 to 90 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 candidate). Separate written examination for Master's students Language of assessment: English creditable for bonus				
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): KI,ES,LR,HCI,GE				
10-I=RO2-212-m01	**Robotics 2**						
	ECTS	8	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (4) + Ü (2) Module taught in: English				
	Method of assessment		written examination (approx. 60 to 90 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 candidate). creditable for bonus Language of assessment: English				
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): IT,ES,LR				
10-I=ST-212-m01	**Discrete Event Simulation**						
	ECTS	8	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (4) + 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 candidate). creditable for bonus Language of assessment: German and/or English				
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): IT,KI,ES,GE				

10-HCI=RIS-182-m01	**Real-Time Interactive Systems**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + 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 candidate). 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): HCI. Cf. Section 3 Subsection 3 Sentence 8 FSB (subject-specific provisions).				
10-I=SAR-161-m01	**Software Architecture**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + 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 candidate). 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				
10-I=SSD-152-m01	**Spacecraft System Design**						
	ECTS	8	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (4) + Ü (2)				
	Method of assessment		written examination (approx. 60 to 120 minutes) creditable for bonus				
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): ES, LR				
10-HCI=M-LUI-161-m01	**Machine Learning (for User Interfaces)**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + Ü (2)				
	Method of assessment		presentation of project results (approx. 40 minutes) Language of assessment: German and/or English creditable for bonus				

10-I=VG-161-m01	**Visualization of Graphs**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + 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 candidate). 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,IT,HCI,GE				
10-I=AGE-191-m01	**Selected Topics of Games Engineering**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + 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 candidate). 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): GE.				
10-I=AKA-161-m01	**Selected Topics in Algorithms**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + 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 candidate). 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				

10-I=AKT-161-m01	**Selected Topics in Theory**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + 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 candidate). 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				
10-I=AK-SE-161-m01	**Selected Topics in Software Engineering**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + 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 candidate). 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=A-KITS-212-m01	**Selected Topics in IT Security**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + Ü (2) Module taught in: English				
	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 candidate). creditable for bonus Language of assessment: English			
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): SE,KI,LR, HCI, ES, SEC				

10-I=AKIT-161-m01	**Selected Topics in Internet Technologies**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + 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 candidate). 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.				
10-I=AKIS-212-m01	**Selected Topics in Intelligent Systems**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + 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 candidate). creditable for bonus Language of assessment: German and/or English				
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): KI				
10-I=A-KES-161-m01	**Selected Topics in Embedded Systems**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + 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 candidate). 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): ES.				
10-I=STM-162-m01	**NLP and Text Mining**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + 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 candidate). Language of assessment: German and/or English				
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): AT, IT, HCI.				

10-I=AKL-R-161-m01	**Selected Topics in Aerospace Engineering**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + 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 candidate). Separate written examination for Master's students. 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): LR.				
10-I=AKH-CI-182-m01	**Selected Topics in HCI**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + 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 candidate). 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): HCI.				
10-I=AKII-182-m01	**Selected Topics in Computer Science**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + 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 candidate). Language of assessment: German and/or English creditable for bonus				
10-I=TSD-212-m01	**Telecommunication Systems**						
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (4) + Ü (2) Module taught in: English				
	Method of assessment		written examination (approx. 90 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 candidate). creditable for bonus Language of assessment: English				
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): LR				

10-I=RRS-212-m01	**Radar Remote Sensing**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	
	Courses		V (2) + Ü (2) Module taught in: English					
	Method of assessment		written examination (approx. 90 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 candidate). creditable for bonus Language of assessment: English					
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): LR					
10-I=QC-221-m01	**Quantum Communications**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	
	Courses		V (2) + V (2) Module taught in: English					
	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 candidate). Language of assessment: English creditable for bonus					
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): LR					
10-I=DRLOC-221-m01	**Deep Reinforcement Learning for Optimal Control**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	
	Courses		V (2) + Ü (2) Module taught in: English					
	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 candidate). Language of assessment: English creditable for bonus					

10-xtAI=CV-202-mo1	**Computer Vision**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + Ü (2) Module taught in: English				
	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 candidate). Language of assessment: English Creditable for bonus				
10-I=M-SIE-221-mo1	**Modeling and Simulation of Smart Energy Systems**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	
	Courses		V (2) + Ü (2)				
	Method of assessment		written examination (approx. 90 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 candidate). creditable for bonus				
10-I=NA-MO-221-mo1	**Sustainable Mobility**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	
	Courses		V (2) + Ü (2)				
	Method of assessment		written examination (approx. 90 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 candidate). creditable for bonus				
10-I=MLN1-221-mo1	**Machine Learning for Networks 1**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	
	Courses		V (2) + Ü (2) Module taught in: English				
	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 candidate). Language of assessment: English creditable for bonus				
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): AT,IT,SE,KI,HCI				

10-I=MLN2-221-m01	**Machine Learning for Networks 2**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	
	Courses		V (2) + Ü (2) Module taught in: English				
	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 candidate). Language of assessment: English creditable for bonus				
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): AT,IT,SE,KI,HCI				

Projects and Tarining (max. 20 ECTS credits)

10-I=RSE-182-m01	**Space Systems Design**						
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		R (6)				
	Method of assessment		project report (10 to 15 pages) and presentation of project (15 to 30 minutes) Assessment offered: In the semester in which the course is offered (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				
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): LR. Cf. Section 3 Subsection 3 Sentence 8 FSB (subject-specific provisions).				
10-I=EPB-182-m01	**Design of Planetary Bases and Orbital Stations**						
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		R (6)				
	Method of assessment		project report (10 to 15 pages) and presentation of project (15 to 30 minutes) Assessment offered: In the semester in which the course is offered (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				
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): LR. Cf. Section 3 Subsection 3 Sentence 8 FSB (subject-specific provisions).				
10-I=PRT-212-m01	**Practical course - Rocket Engineering and Payloads**						
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		P (6)				
	Method of assessment		report on practical course (4 to 5 pages) and presentation of results (15 to 30 minutes) Language of assessment: German and/or English				
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): LR Cf. Section 3 Subsection 3 Sentence 8 FSB (subject-specific provisions).				

10-I=FZB-182-m01	**Aircraft Construction**							
	ECTS	10	Duration		1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		R (6)					
	Method of assessment		project report (10 to 15 pages) and presentation of project (15 to 30 minutes) 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): LR. Cf. Section 3 Subsection 3 Sentence 8 FSB (subject-specific provisions).					
10-I=F-SIM-182-m01	**Flight Simulator**							
	ECTS	10	Duration		1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		R (6)					
	Method of assessment		project report (10 to 15 pages) and presentation of project (15 to 30 minutes) Separate written examination for Master's students. 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): LR. Cf. Section 3 Subsection 3 Sentence 8 FSB (subject-specific provisions).					
10-I=GRL-T-182-m01	**Game Research Lab - Theory**							
	ECTS	10	Duration		1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		R (4)					
	Method of assessment		project report (10 to 15 pages) and presentation of project (15 to 30 minutes) 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): GE. Cf. Section 3 Subsection 3 Sentence 8 FSB (subject-specific provisions).					
10-I=GRAR-182-m01	**Game Research Lab - Architectures**							
	ECTS	10	Duration		1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		R (4)					
	Method of assessment		project report (10 to 15 pages) and presentation of project (15 to 30 minutes) 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): GE. Cf. Section 3 Subsection 3 Sentence 8 FSB (subject-specific provisions).					

10-I=GRDE-182-m01	**Game Research Lab - Design**							
	ECTS	10	Duration		1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		R (4)					
	Method of assessment		project report (10 to 15 pages) and presentation of project (15 to 30 minutes) 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): GE. Cf. Section 3 Subsection 3 Sentence 8 FSB (subject-specific provisions).					

10-I=GRAP-182-m01	**Game Research Lab - Applications**							
	ECTS	10	Duration		1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		R (4)					
	Method of assessment		project report (10 to 15 pages) and presentation of project (15 to 30 minutes) 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): GE. Cf. Section 3 Subsection 3 Sentence 8 FSB (subject-specific provisions).					

10-I-PAT1-182-m01	**Practical Course - Algorithms and Theory 1**							
	ECTS	10	Duration		1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		R (6)					
	Method of assessment		report (3 to 5 pages) and presentation of results (approx. 5 to 10 minutes) 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.					

10-I-PAT2-182-m01	**Practical Course - Algorithms and Theory 2**							
	ECTS	10	Duration		1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		R (6)					
	Method of assessment		report (3 to 5 pages) and presentation of results (approx. 5 to 10 minutes) 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.					

10-I-PSE1-182-m01	**Practical Course - Software Engineering 1**							
	ECTS	10	Duration		1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		R (6)					
	Method of assessment		report (3 to 5 pages) and presentation of results (approx. 5 to 10 minutes) 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-PSE2-182-m01	**Practical Course - Software Engineering 2**							
	ECTS	10	Duration		1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		R (6)					
	Method of assessment		report (3 to 5 pages) and presentation of results (approx. 5 to 10 minutes) 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-PIT1-182-m01	**Practical Course - Internet Technology 1**							
	ECTS	10	Duration		1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		R (6)					
	Method of assessment		report (3 to 5 pages) and presentation of results (approx. 5 to 10 minutes) 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.					

10-I-PIT2-182-m01	**Practical Course - Internet Technology 2**							
	ECTS	10	Duration		1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		R (6)					
	Method of assessment		report (3 to 5 pages) and presentation of results (approx. 5 to 10 minutes) 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.					

10-I-PIS1-212-m01	**Practical Course - Intelligent Systems 1**							
	ECTS	10	Duration		1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		R (6)					
	Method of assessment		report (3 to 5 pages) and presentation of results (approx. 5 to 10 minutes) creditable for bonus Language of assessment: German and/or English					
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): KI					

10-I-PIS2-212-m01	**Practical Course - Intelligent Systems 2**							
	ECTS	10	Duration		1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		R (6)					
	Method of assessment		report (3 to 5 pages) and presentation of results (approx. 5 to 10 minutes) 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): KI.					

10-I-PES1-182-m01	**Practical Course - Embedded Systems 1**							
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		R (6)					
	Method of assessment		report (3 to 5 pages) and presentation of results (approx. 5 to 10 minutes) 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): ES.					
10-I-PES2-182-m01	**Practical Course - Embedded Systems 2**							
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		R (6)					
	Method of assessment		report (3 to 5 pages) and presentation of results (approx. 5 to 10 minutes) 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): ES.					
10-I-PHCI1-182-m01	**Practical Course - Human Computer Interaction 1**							
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		R (6)					
	Method of assessment		report (3 to 5 pages) and presentation of results (approx. 5 to 10 minutes) 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): HCI.					
10-I-PHCI2-182-m01	**Practical Course - Human Computer Interaction 2**							
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		R (6)					
	Method of assessment		report (3 to 5 pages) and presentation of results (approx. 5 to 10 minutes) 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): HCI.					

10-I-EHL1-212-m01	**Practical Course - Ethical Hacking Lab / Software**						
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level
	Courses		R (6) Module taught in: English				
	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 candidate). and report (5-8 pages), weighting: written examination: 100%; The report just has to be passed creditable for bonus Language of assessment: English				
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): SEC				
10-I-EHL2-212-m01	**Practical Course - Ethical Hacking Lab / Networks**						
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level
	Courses		R (6) Module taught in: English				
	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 candidate). and report (5-8 pages), weighting: written examination: 100%; The report just has to be passed creditable for bonus Language of assessment: English				
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): SEC				
10-I=TEL-212-m01	**Telecommunication Systems Lab**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level
	Courses		V (2) + P (4) Module taught in: English				
	Method of assessment		a) written examination (approx. 20 minutes) or b) oral group examination (max. 3 candidates, approx. 15 minutes each) or c) report (4-8pages) Language of assessment: English				
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): LR				

10-I=RSL-212-m01	**Radar Systems Lab**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	
	Courses		V (2) + P (4) Module taught in: English				
	Method of assessment		written examination (approx. 90 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 candidate) or report (4-8 pages) Language of assessment: German and/or English				
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): SEC				
10-I=PCV-221-m01	**Practical Computer Vision**						
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	
	Courses		R (6)				
	Method of assessment		report (10 to 15 pages) and presentation of results (approx. 15 to 30 minutes) 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): KI,LR;HCI				

Thesis (30 ECTS credits)

10-I-MA-MK-212-m01	**Concluding Colloquium Computer Science**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		K (0)				
	Method of assessment		final colloquium (approx. 60 minutes) Language of assessment: German and/or English				
10-I-MA-161-m01	**Master's Thesis Computer Science**						
	ECTS	25	Duration	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				