Annex SFB

Studienfachbeschreibung (subject description, SFB) for the subject
Artificial Intelligence 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: 2024
Examination regulations version: 2024

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)):

??-???-2024 (2024-??)

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 (35 ECTS credits)							
10-AI=IAI-242-m01	**Introduction in AI**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + Ü (2) Module taught in: German and/or 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 Creditable for bonus				
10-AI=ML-242-m01	**Machine Learning**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + Ü (2) Module taught in: German and/or 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 Creditable for bonus				
10-AI=SEM1-242-m01	**Seminar Artificial Intelligence**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		S (2) Module taught in: German and/or English				
	Method of assessment		Term paper (10 to 15 pages) and presentation (30 to 45 minutes) followed by a discussion on the topic Language of assessment: German and/or English Creditable for bonus				
10-AI=P1-242-m01	**AI Project 1**						
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		R (6) Module taught in: German and/or English				
	Method of assessment		Project: report (approx. 10 to 20 pages) with presentation (30 to 45 minutes) followed by a discussion on the topic Language of assessment: German and/or English Creditable for bonus				

10-AI=P2-242-m01	**AI Project 2**							
	ECTS	10	Duration		1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		R (6) Module taught in: German and/or English						
	Method of assessment		Project: report (approx. 10 to 20 pages) with presentation (30 to 45 minutes) followed by a discussion on the topic Language of assessment: German and/or English Creditable for bonus						

Electives Field (55 ECTS credits)

KI Methods (min. 20 to max. 40 ECTS credits)

10-AI=DS1-242-m01	**Data Science 1**							
	ECTS	5	Duration		1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + Ü (2) Module taught in: German and/or 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 Creditable for bonus						

10-AI=DS2-242-m01	**Data Science 2**							
	ECTS	5	Duration		1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + Ü (2) Module taught in: German and/or 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 Creditable for bonus						

10-AI=AM-L1-242-m01	**Advanced Machine Learning 1**							
	ECTS	5	Duration		1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + Ü (2) Module taught in: German and/or 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 Creditable for bonus						

10-AI=AM-L2-242-m01	**Advanced Machine Learning 2**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + Ü (2) Module taught in: German and/or 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 Creditable for bonus				

10-AI=NLP1-242-m01	**Natural Language Processing 1**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + Ü (2) Module taught in: German and/or 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 Creditable for bonus				

10-AI=NLP2-242-m01	**Natural Language Processing 2**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + Ü (2) Module taught in: German and/or 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 Creditable for bonus				

10-AI=TAl1-242-m01	**Theory of Artificial Intelligence 1**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + Ü (2) Module taught in: German and/or 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 Creditable for bonus				

10-AI=TAI2-242-m01	**Theory of Artificial Intelligence 2**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + Ü (2) Module taught in: German and/or 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 Creditable for bonus				
10-AI=CV1-242-m01	**Computer Vision 1**						
	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-AI=CV2-242-m01	**Computer Vision 2**						
	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=MLN1-232-m01	**Machine Learning for Networks 1**						
	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				
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): AT,IT,SE,KI,HCI,IN				

10-I=MLN2-232-m01	**Machine Learning for Networks 2**						
	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					
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): AT,IT,SE,KI,HCI,IN					
10-I=IP-222-m01	**Image Processing and Computational Photography**						
	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=RLCD-M-232-m01	**Reinforcement Learning and Computational Decision Making**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + Ü (2) Module taught in: German and/or 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 Creditable for bonus					
10-I=M-NLP-232-m01	**Multilingual NLP**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + Ü (2) Module taught in: German and/or 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-AI=A-KAIM1-242-m01	**Selected Topics in AI Methods 1**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + Ü (2) Module taught in: German and/or English				
	Method of assessment		a) written examination (approx. 60 to 120 minutes) or b) project: report (approx. 20 pages) with presentation (30 to 45 minutes) followed by a discussion on the topic or c) oral examination of one candidate each (approx. 20 minutes) or d) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate). Language of assessment: German and/or English Creditable for bonus				
10-AI=A-KAIM2-242-m01	**Selected Topics in AI Methods 2**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + Ü (2) Module taught in: German and/or English				
	Method of assessment		a) written examination (approx. 60 to 120 minutes) or b) project: report (approx. 20 pages) with presentation (30 to 45 minutes) followed by a discussion on the topic or c) oral examination of one candidate each (approx. 20 minutes) or d) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate). Language of assessment: German and/or English Creditable for bonus				

General KI Applications (min. 10 to max. 20 ECTS credits)

10-I=3D-232-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 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-LURI=PHO-TO-232-m01	**Photogrammetric Machine Vision**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + Ü (2) Module taught in: German and/or 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 Creditable for bonus				
10-LU-RI=AMS-232-m01	**Autonomous Mobile Systems**						
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (4) + Ü (2) Module taught in: German and/or 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 Creditable for bonus				
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): IT, KI, ES, LR, GE				
10-LU-RI=RO1-232-m01	**Robotics 1**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + Ü (2) Module taught in: German and/or 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				
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): KI, ES, LR, HCI, GE				

10-LU-RI=RO2-232-m01	**Robotics 2**							
	ECTS	10	Duration		1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (4) + Ü (2) + P (1) Module taught in: German and/or 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 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=DB2-242-m01	**Databases 2**							
	ECTS	5	Duration		1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + Ü (2) Module taught in: German and/or 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 Creditable for bonus					
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): SE,KI,HCI					
10-I=DRLOC-221-m01	**Deep Reinforcement Learning for Optimal Control**							
	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=IR-242-m01	**Information Retrieval**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + Ü (2) Module taught in: German and/or 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 Creditable for bonus				
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): IT, KI, HCI, GE				
10-AI=SAC-242-m01	**Self-aware Computing**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + Ü (2) Module taught in: German and/or 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 Creditable for bonus				
10-I=ICG-232-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). 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.				

07-MLBI-202-m01	**Machine Learning in Bioinformatics**						
	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				
	Participants and allocation of places		10 places. Should the number of applications exceed the number of available places, places will be allocated by lot.				
10-AI=AKA-KI-242-m01	**Selected Topics in AI Application & Technologies**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + Ü (2) Module taught in: German and/or English				
	Method of assessment		a) written examination (approx. 60 to 120 minutes) or b) project: report (approx. 20 pages) with presentation (30 to 45 minutes) followed by a discussion on the topic or c) oral examination of one candidate each (approx. 20 minutes) or d) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate). Language of assessment: German and/or English Creditable for bonus				
10-I=MIR-232-m01	**Music Information Retrieval**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + Ü (2) Module taught in: German and/or English				
	Method of assessment		a) written examination (approx. 60 to 120 minutes) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups of up to 3 candidates (approx. 15 minutes) Language of assessment: German and/or English Creditable for bonus				
10-I=RRS-232-m01	**Remote Sensing**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + Ü (2) Module taught in: German and/or 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 EnglishCreditable for bonus				
	Additional Information		possible majors for MA 120 Computer Science: LR,IN				

10-AI=SEM2-242-m01	**Seminar AI Applications**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		S (2) Module taught in: German and/or English				
	Method of assessment		Term paper (10 to 15 pages) and presentation (30 to 45 minutes) followed by a discussion on the topic Language of assessment: German and/or English Creditable for bonus				

KI Applications form Application-oriented Subjects (min. 0 to max. 10 ECTS credits)

04-GEO-OMA23-242-m01	**Information sciences in Remote Sensing**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	
	Courses		S (1) + Ü (1) Module taught in: English				
	Method of assessment		a) presentation (approx. 30 minutes) or b) preparing a poster (approx. 10 hours total) or c) term paper (15 pages) Language of assessment: English or German (assessment will be held in English; in addition, the examiner may, where possible, decide to hold assessment in German) creditable for bonus				

04-GEO-OMA25-242-m01	**AI approaches in Earth Observation**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	
	Courses		S (1) + Ü (1) Module taught in: English				
	Method of assessment		a) presentation (approx. 30 minutes) or b) preparing a poster (approx. 10 hours total) or c) term paper (15 pages) Language of assessment: English or German (assessment will be held in English; in addition, the examiner may, where possible, decide to hold assessment in German) creditable for bonus				

12-M-EAI-242-m01	**Enterprise AI**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	
	Courses	V (2) + Ü (2) Module taught in: English					
	Method of assessment	a) written examination (approx. 60 minutes) or b) term paper (approx. 15 pages) or c) oral examination of one candidate each (approx. 20 minutes) or d) portfolio (approx. 50 hours) Language of assessment: English Assessment offered: In the semester in which the course is offered creditable for bonus					
	Participants and allocation of places	Number of places: 35. Should the number of applications exceed the number of available places, places will be allocated as follows: (1) Students who already have successfully completed courses offered by the supervising chair will be given preferential consideration. a. Among applicants with the same number of successfully completed modules, places will be allocated according to the total number of ECTS credits achieved in the corresponding modules. b. When places are allocated in accordance with 1.b) and the number of applications exceeds the number of available places, places will be allocated according to the average grade of assessments taken in the corresponding courses. c. Among applicants with the same average grade, places will be allocated by lot. (2) Any remaining places are available to students who have not yet successfully completed any courses of the supervising chair. The selection is made according to study progress (number of semesters); among applicants with the same number of semesters, places will be allocated by lot. A waiting list will be maintained and places re-allocated as they become available.					
12-M-DSS-242-m01	**Decision Support 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	a) written examination (approx. 60 minutes) or b) oral examination (one candidate each: approx. 10 to 15 minutes, groups of 2: approx. 20 minutes, groups of 3: approx. 30 minutes) Language of assessment: English creditable for bonus					

03-M-KI-242-m01	**Medical AI Applications**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	
	Courses		V (2) + Ü (2) Module taught in: German and/or 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 Creditable for bonus				
	Participants and allocation of places		50 (lot)				

Computer Science (min. 0 to max. 10 ECTS credits)

10-I=ST-232-m01	**Discrete Event Simulation**						
	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,KI,ES,GE,IN				

10-I=SSS-232-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). Language of assessment: English creditable for bonus				
	Additional Information		Focuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits): SE,KI,LR, HCI, ES, SEC,IN				

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=SB-212-m01	**Systems Benchmarking**						
	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,ES,HCI,GE				

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=AKII-232-m01	**Selected Topics in Computer Science**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + Ü/S (2)				
	Method of assessment		a) written examination (approx. 60 to 120 minutes) or b) practical project (project documentation (approx. 20 pages) with presentation (30 to 45 minutes) and subsequent discussion on the topic) or c) oral examination of one candidate each (approx. 20 minutes) or d) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) Language of assessment: German and/or English creditable for bonus				
10-HCI-PRIS-212-m01	**Principles of Interactive Systems**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + Ü (2) Module taught in: German and/or English				
	Method of assessment		a) written examination (approx. 90 minutes) or b) oral examination of one candidate each (approx. 30 minutes) Language of assessment: German and/or English creditable for bonus				
10-HCI-MMI-212-m01	**Multimodal Interfaces**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + Ü (2) Module taught in: German and/or English				
	Method of assessment		a) written examination (approx. 90 minutes) or b) presentation of project results (approx. 30 minutes) or c) oral examination of one candidate each (approx. 30 minutes) Language of assessment: German and/or English creditable for bonus				

10-HCI-3DUI-212-m01	**3D User Interfaces**						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V (2) + Ü (2) Module taught in: German and/or English				
	Method of assessment		a) presentation of project results (approx. 30 minutes) or b) oral examination of one candidate each (approx. 30 minutes) Language of assessment: German and/or English creditable for bonus				

Master Project Modules (30 ECTS credits)

10-AI=MA-242-m01	**Master's Thesis Artificial Intelligenz**						
	ECTS	25	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		no courses assigned				
	Method of assessment		Master-Thesis (50 to 100 pages) Language of assessment: German and/or English				
	Additional Information		Time to complete: 6 months.				
10-AI=M-K-242-m01	**Concluding Colloquium Artificial Intelligence**						
	ECTS	5	Duration	1 semester	Method of grading	(not) successfully completed	Modul level	graduate
	Courses		K (0)				
	Method of assessment		final colloquium (approx. 60 minutes) Language of assessment: German and/or English				