

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)):

16-May-2024 (2024-49)

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					
	Referred to in LPO I	§ 22 II Nr. 3 b)					
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					
	Referred to in LPO I	§ 22 II Nr. 3 b)					
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							
Compulsory Electives (55 ECTS credits)								
KI Methods (20 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=TAI1-242-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-mo1	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-mo1	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-mo1	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						
Referred to in LPO I	§ 22 II Nr. 3 b)							
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						
Referred to in LPO I	§ 22 II Nr. 3 b)							
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						
	Referred to in LPO I	§ 22 II Nr. 3 b)						

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: German and/or English creditable for bonus						
	Referred to in LPO I	§ 22 II Nr. 3 b)						
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 90 minutes) or b) project work: report (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-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 90 minutes) or b) project work: report (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						

General KI Applications (10 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					
	Referred to in LPO I	§ 22 II Nr. 3 b)					
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					
Referred to in LPO I	§ 22 II Nr. 3 b)						

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 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						
Referred to in LPO I	§ 22 II Nr. 3 b)							
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						
Referred to in LPO I	§ 22 II Nr. 3 b)							
10-l=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						
Referred to in LPO I	§ 22 II Nr. 3 b)							

10-I=DRLOC-221-mo1	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-mo1	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						
	Referred to in LPO I	§ 22 II Nr. 3 b)						
10-AI=SAC-242-mo1	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 90 minutes) or b) project work: report (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						
	Participants and allocation of places							
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						
	Participants and allocation of places							

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 English creditable for bonus						
	Additional Information	possible majors for MA 120 Computer Science: LR,IN						
Referred to in LPO I	§ 22 II Nr. 3 b)							
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								
04-GEO-OMA23-242-m01	Information sciences in Remote Sensing							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	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	graduate
	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-mo1	Enterprise AI							
	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) 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-mo1	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	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						
	Participants and allocation of places	50 (lot)						
Computer Science								
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						
	Referred to in LPO I	§ 22 II Nr. 3 b)						
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						
	Referred to in LPO I	§ 22 II Nr. 3 b)						

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). 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,IT,KI					
Referred to in LPO I		§ 22 II Nr. 3 b)						
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). 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,IT,KI					
Referred to in LPO I		§ 22 II Nr. 3 b)						
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). 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,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). 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,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) project work (report (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						
	Referred to in LPO I	§ 22 II Nr. 3 b)						
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 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							
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 (o)						
Method of assessment	final colloquium (approx. 60 minutes) Language of assessment: German and/or English							