

Annex SFB

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

Responsible: Institute of Computer Science

Examination regulations version: 2012

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:

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

10-Oct-2012 (2012-177)

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 (56 ECTS credits)								
Space Science (30 ECTS credits)								
10-I=ISP-122-m01	Space Physics (Introduction)							
	ECTS	7	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V + T (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		written examination (approx. 60 to 90 minutes) Language of assessment: English					
10-I=ORO-122-m01	Optics- and Radar-based Observations							
	ECTS	7,50	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V + P + T (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		written examination (approx. 60 to 90 minutes) Language of assessment: English					
10-I=SP-122-m01	Image Processing and Remote Sensing (Space Physics)							
	ECTS	7,50	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V + P + T (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		written examination (approx. 60 to 90 minutes) Language of assessment: English					
10-I=SEI-122-m01	Spacecraft Environment Interactions							
	ECTS	7,50	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V + P (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		written examination (approx. 60 to 90 minutes) Language of assessment: English					
Space Technology (30 ECTS credits)								
10-I=CSD-122-m01	CanSat Design Workshop							
	ECTS	7	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		R (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		a) written examination (approx. 60 to 90 minutes) or b) project (approx. 20 pages) or c) oral examination of one candidate each or oral examination in groups (15 to 30 minutes per candidate) Language of assessment: English					
10-I=SSD-122-m01	Spacecraft System Design							
	ECTS	8	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses		V + T (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		written examination (approx. 60 to 90 minutes) Language of assessment: English					

10-l=SD-122-m01	Space Dynamics							
	ECTS	4	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses	V + T (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 60 to 90 minutes) Language of assessment: English						
10-l=EIS-122-m01	Electronics in Space							
	ECTS	7,50	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses	V + P (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 60 to 90 minutes) Language of assessment: English						
Compulsory Electives (34 ECTS credits)								
Space Robotics and Control (30 ECTS credits)								
10-l=TDP-122-m01	Team Design Project							
	ECTS	9	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses	R (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	a) written examination (approx. 60 to 90 minutes) or b) project (approx. 20 pages) or c) oral examination of one candidate each or oral examination in groups (15 to 30 minutes per candidate) Language of assessment: English						
10-l=AA-122-m01	Advanced Automation							
	ECTS	8	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses	V (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 60 to 90 minutes) Language of assessment: English						
10-l=RO1-122-m01	Robotics 1							
	ECTS	8	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses	V + T (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 60 to 90 minutes) Language of assessment: English						
10-l=RO2-122-m01	Robotics 2							
	ECTS	8	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses	V + T (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 60 to 90 minutes) Language of assessment: English						

10-I=SA-122-m01	Aerospace Seminar							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses	S (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	seminar paper (approx. 20 pages) Language of assessment: English						
10-I=CCN-122-m01	Computer and Communication Networks							
	ECTS	12	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses	V + T (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 60 to 90 minutes) Language of assessment: English						
10-I=TNS-122-m01	Telecommunication Networks in Space							
	ECTS	3	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses	V + T (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 60 to 90 minutes) Language of assessment: English						
10-I=GP-122-m01	Group Project							
	ECTS	3	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses	S (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	project (approx. 20 pages)						
Space Technology (4 ECTS credits)								
10-I=JA-VA-122-m01	Java Programming							
	ECTS	4	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses	V + T (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 60 to 90 minutes) or oral examination of one candidate each or oral examination in groups (15 minutes per candidate)						
10-I=IT-122-m01	Internet Technologies							
	ECTS	4	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses	V + T (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 60 to 90 minutes) or oral examination of one candidate each or oral examination in groups (15 minutes per candidate)						
10-I=DBA-122-m01	Advanced Databases							
	ECTS	4	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate
	Courses	V + T (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 60 to 90 minutes) or oral examination of one candidate each or oral examination in groups (15 minutes per candidate)						

Thesis (30 ECTS credits)									
10-I=The- sisSST-122-m01	Master's Thesis Space Science and Technology								
	ECTS	30	Duration	1 semester	Method of grading	numerical grade	Modul level	graduate	
	Courses		no courses assigned						
	Method of assessment								