



## **Annex SFB**

# Studienfachbeschreibung (subject description, SFB) for the subject Aerospace Computer Science as a Bachelor's with 1 major with the degree "Bachelor of Science" (180 ECTS credits)

## **Responsible:** Institute of Computer Science Examination regulations version: 2011 Abbreviations used: Course types: $\mathbf{E} = \text{field trip}$ , $\mathbf{K} = \text{colloquium}$ , $\mathbf{O} = \text{conversatorium}$ , $\mathbf{P} = \text{placement/lab course}$ , $\mathbf{R} = \text{project}$ , $\mathbf{S} = \text{seminar}$ , $\mathbf{T} = \text{tutorial}$ , $\mathbf{\ddot{U}} = \text{exercise}$ , $\mathbf{V}$ = lecture Term: **SS** = summer semester, **WS** = winter semester Methods of grading: NUM = numerical grade, B/NB = (not) successfully completed Regulations: (L)ASPO = general academic and examination regulations (for teaching-degree programmes), FSB = subject-specific provisions, SFB = list of modules Other: A =thesis, LV =course(s), PL =assessment(s), TN =participants, VL =prerequisite(s) Unless otherwise stated, courses and assessments will be held in German, assessments will be offered every semester and modules are not cre-Conventions for the modules in this SFB: ditable for bonus. Should there be the option to choose between several methods of assessment, the lecturer will agree with the module coordinator on the me-Information on thod of assessment to be used in the current semester by two weeks after the start of the course at the latest and will communicate this in the assessment procedures: 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:

#### ASP02009

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

### 09-Nov-2011 (2011-123)

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	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 Other prerequisites Participants and allocati- on of places Additional information			if applica	ble						
				if applicable							
				if applicable							
				if applica	ble						
	Referred to in	n LPO I		if applicable (examination regulations for teaching-degree programmes)							

Thesis (12 ECTS cre	Thesis (12 ECTS credits)										
10-I-LRI-BA-092-	Bachelo	r Thesi	s Space-	and Ae	erospace Comput	er Science					
m01	ECTS	12	Duratio	า	1 semester	Method of grad	ing numerical gr	ade	Modul level	undergraduate	
	Courses			C (no	(no information on SWS (weekly contact hours) and course language available)						
	Method	ofasse	essment	writte	vritten thesis						
			1	Langu	age of assessme	nt: German or Engli	sn				
Compulsory Course	es (129 EC	LIS cre	dits)								
Aerospace (34 ECTS credits)											
10-I-ELR-092-m01	Introduc	ction to	Aerospa	ce Sys	tems	-					
	ECTS	6	Duration	1	1 semester	Method of grad	ing numerical gr	ade	Modul level	undergraduate	
	Courses			This n	10dule comprises 10-I-ELR-1-092: \ 10-I-ELR-2-092: '	5 2 module compon / + Ü (no informatio / + Ü (no informatio	ents. Information n on SWS (weekly n on SWS (weekly	on courses will be / contact hours) a y contact hours) a	e listed separat nd course langı nd course lang	ely for each module component. uage available) uage available)	
	Method	of asse	essment	Asses stated	sment in this mo l otherwise, succ	dule comprises the essful completion c	assessments in t f the module will <b>P-1-002:</b> Introduc	he individual mod require successfu tion to Aerospace	dule component Il completion of	ts as specified below. Unless f all individual assessments.	
					3 ECTS, Method written examina date, the writter in groups (one c Other prerequisi at the beginning sment in module 3 ECTS, Method written examina date, the writter in groups (one c Other prerequisi at the beginning	of grading: numeric tion (approx. 50 to examination can b andidate each: 15 r tes: Admission prer of the course). <b>component 10-I-EL</b> of grading: numeric tion (approx. 50 to examination can b andidate each: 15 r tes: Admission prer of the course).	<ul> <li>R1-092: Introduct</li> <li>al grade</li> <li>60 minutes); if an</li> <li>e replaced by an</li> <li>ninutes, groups of</li> <li>equisite to assess</li> <li>R-2-092: Introduct</li> <li>al grade</li> <li>60 minutes); if an</li> <li>ie replaced by an</li> <li>ninutes, groups of</li> <li>equisite to assess</li> </ul>	inounced by the lo oral examination f 2: 20 minutes, g sment: exercises (f ction to Aerospace nounced by the lo oral examination f 2: 20 minutes, g sment: exercises (f	ecturer by four of one candida roups of 3: 25 n type and scope e Systems 2 Intr ecturer by four of one candida roups of 3: 25 n type and scope	weeks prior to the examination ninutes) to be announced by the lecturer roduction to Aerospace Systems 2 weeks prior to the examination nete each or an oral examination ninutes) to be announced by the lecturer	
	other pr	erequis	sites	By wa	y of exception, ac	ditional prerequisi	tes are listed in th	ne section on asse	essments.		
10-I-LRBE-092-m01	Operatio	ons of A	Aerospac	e Syste	ems				1		
	ECTS	9	Duration	1	1 semester	Method of grad	ing numerical gr	ade	Modul level	undergraduate	
	Courses			V + U	(no information o	n SWS (weekly con	tact hours) and co	ourse language av	ailable)		
	Method of assessment			written examination (approx. 80 to 90 minutes). If announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups. A 80 to 90 minute written examination is equivalent to a 20 minute (approx.) oral examination of one candidate each, a 30 minute (approx.) oral examination in groups of 2 and a 40 minute (approx.) oral examination in groups of 3.							
	other pr	erequis	sites	Admis cours	ssion prerequisite e).	e to assessment: ex	ercises (type and	scope to be anno	unced by the le	ecturer at the beginning of the	

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10-I-LRDN-092-	Dynami	cs of ae	erospace	systen	าร						
m01	ECTS	6	Duratio	<u>ו</u>	1 semester	Method of grading	numerical grade	Modul level	undergraduate		
	Courses	;	,	V + Ü	(no information on S	SWS (weekly contact	hours) and course language av	vailable)	·		
	Method	ofasse	essment	writte writte didate	written examination (approx. 50 to 60 minutes); if announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups (one candidate each: 15 minutes, groups of 2: 20 minutes, groups of 3: 25 minutes)						
	other pr	rerequis	sites	Admis cours	ssion prerequisite to e).	assessment: exercis	essment: exercises (type and scope to be announced by the lecturer at the beginning of the				
10-I-BDV-092-m01	On boar	rd data	processi	ng							
	ECTS	8	Duratio	า	1 semester	Method of grading	numerical grade	Modul level	undergraduate		
	Courses	;		V + Ü	(no information on S	SWS (weekly contact	hours) and course language av	vailable)			
	Method	ofasse	essment	writte writte 90 mi (appr	ritten examination (approx. 80 to 90 minutes). If announced by the lecturer by four weeks prior to the examination date, the ritten examination can be replaced by an oral examination of one candidate each or an oral examination in groups. A 80 to 0 minute written examination is equivalent to a 20 minute (approx.) oral examination of one candidate each, a 30 minute approx.) oral examination in groups of 2 and a 40 minute (approx.) oral examination in groups of 3.						
	other prerequisites Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beg course).							cturer at the beginning of the			
10-I-LMT-111-m01	Measurement Technique										
	ECTS	5	Duratio	1	1 semester	Method of grading	numerical grade	Modul level	undergraduate		
	Courses	;	_	V + Ü	(no information on S	SWS (weekly contact	hours) and course language av	vailable)			
	Method	of asse	essment	writte writte didate	written examination (approx. 50 to 60 minutes); if announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups (one candidate each: 15 minutes, groups of 2: 20 minutes, groups of 3: 25 minutes)						
	other prerequisites			Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course).							
Computer Science	(56 ECTS	credits	)								
10-I-ADS-LRI-092-	Algorith	ims and	Data St	ructure	s for students of Sp	ace- and Aerospace	Computer Science				
m01	ECTS	10	Duratio	1	1 semester	Method of grading	numerical grade	Modul level	undergraduate		
	Courses	;		V + Ü	(no information on S	SWS (weekly contact	hours) and course language av	vailable)			
	Method of assessment			writte writte 90 mi (appr	written examination (approx. 80 to 90 minutes). If announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups. A 80 to 90 minute written examination is equivalent to a 20 minute (approx.) oral examination of one candidate each, a 30 minute (approx.) oral examination in groups of 2 and a 40 minute (approx.) oral examination in groups of 3.						
	other pr	rerequis	sites	Admis cours	ssion prerequisite to e).	assessment: exercis	ses (type and scope to be anno	ounced by the le	cturer at the beginning of the		

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10-I-PP-102-m01	Practic	al Cours	se in Prog	rammi	ng						
	ECTS	10	Duratio	n	1 semester	Method of grading	(not) successfully completed	Modul level	undergraduate		
	Course	!S	_	P (no	information on SWS	(weekly contact hours	s) and course language availat	ole)			
	Metho	d of asse	essment	writte writte 90 mi (appre	n examination (appr n examination can b nute written examin ox.) oral examination	rox. 80 to 90 minutes) be replaced by an oral ation is equivalent to n in groups of 2 and a	. If announced by the lecturer examination of one candidate a 20 minute (approx.) oral exa 40 minute (approx.) oral exam	by four weeks p each or an oral mination of one ination in grou	rior to the examination date, the examination in groups. A 80 to e candidate each, a 30 minute ps of 3.		
	other prerequisites			Admis cours	Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course).						
	Additio	onal Info	rmation	Additi	onal information on	module duration: 1 to	2 semesters.				
	Referred to in LPO I§ 49 (1) 1. c) Informatik Praktische Softwareentwicklung § 69 (1) 1. d) Informatik Praktische Softwareentwicklung										
10-I-MEC-112-m01	Introdu	uction to	Core Avi	onics							
	ECTS 10 Duratio			1	1 semester	Method of grading	numerical grade	Modul level	undergraduate		
	Course	es		V + Ü	+ Ü (no information	on SWS (weekly conta	ict hours) and course language	e available)			
	Metho	d of asse	essment	written examination (approx. 80 to 90 minutes). If announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups. A 80 to 90 minute written examination is equivalent to a 20 minute (approx.) oral examination of one candidate each, a 30 minute (approx.) oral examination in groups of 2 and a 40 minute (approx.) oral examination in groups of 3.							
	other p	orerequis	sites	Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course).							
10-I-AR-102-m01	Autom	ation an	d Control	Techn	ology						
	ECTS	8	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	undergraduate		
	Course	s	_	V + Ü	(no information on S	SWS (weekly contact h	ours) and course language ava	ailable)			
	Metho	d of asse	essment	written examination (approx. 80 to 90 minutes). If announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups. A 80 to 90 minute written examination is equivalent to a 20 minute (approx.) oral examination of one candidate each, a 30 minute (approx.) oral examination in groups of 2 and a 40 minute (approx.) oral examination in groups of 3. Language of assessment: German, English if agreed upon with the examiner							
	other p	orerequis	Sites	Admis cours	ssion prerequisite to e).	assessment: exercise	es (type and scope to be annot	unced by the le	cturer at the beginning of the		

10-l-lÜ-102-m01	Inform	ation Tra	ansmissio	on							
	ECTS	10	Duratio	1	1 semester	Method of grading	numerical grade	Modul level	undergraduate		
	Course	es		V + Ü	/ + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment			written examination (approx. 80 to 90 minutes). If announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups. A 80 to 90 minute written examination is equivalent to a 20 minute (approx.) oral examination of one candidate each, a 30 minute (approx.) oral examination in groups of 2 and a 40 minute (approx.) oral examination in groups of 3.							
other prer			her prerequisites Ac		Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course).						
	Referre	ed to in L	PO I	§ 69 (1) 1. c) Informatik Technische Informatik							
10-I-HMR-092-m01	Practic	al Senso	or and Co	ntrol S	ystems Engineering						
	ECTS 8 Duratio		Duration	n	1 semester	Method of grading	(not) successfully completed	Modul level	undergraduate		
	Courses			P (no	P (no information on SWS (weekly contact hours) and course language available)						
	Metho	d of asse	essment	oral examination in groups of 2 candidates (approx. 30 minutes) or in groups of 3 candidates (approx. 40 minutes)							

Mathematics (20 ECTS credits)										
10-M-LRI12-092-	Mathematics 1	and 2 for	students of Space- and Aerospace Computer Science							
m01	ECTS 20	Duratio	2 semester Method of grading numerical grade	Modul level undergraduate						
	Courses		<ul> <li>This module comprises 2 module components. Information on courses will be listed separately for each module component.</li> <li>10-M-LRI12-1-092: V + Ü (no information on SWS (weekly contact hours) and course language available)</li> <li>10-M-LRI12-2-092: V + Ü (no information on SWS (weekly contact hours) and course language available)</li> </ul>							
	Method of asse	essment	Assessment in this module comprises the assessments in the individua stated otherwise, successful completion of the module will require succ	al module components as specified below. Unless cessful completion of all individual assessments.						
			<ul> <li>Assessment in module component 10-M-LRI12-1-092: Mathematics 1 for Mathematics 1 for students of Space- and Aerospace Computer Science</li> <li>10 ECTS, Method of grading: (not) successfully completed</li> <li>written examination (approx. 90 to 120 minutes); if announced by t by an oral examination of one candidate each (approx. 20 minuta approx. 30 minutes)</li> <li>Language of assessment: German, English if agreed upon with the</li> <li>Other prerequisites: Registration for the exercise must be made announced by the lecturer in accordance with the specified reg met to qualify for admission to assessment (e. g. successful cor lecturer will inform students about the respective details at the be will be considered a declaration of will to seek admission to asses for admission to assessment over the course of the semester, th into effect. Students who meet all prerequisites will be admitted semester. For assessment at a later date, students will have to ob anew and have to register anew, too.</li> <li>Assessment in module component 10-M-LRI2-2-092: Mathematics 2 for Mathematics 2 for students of Space- and Aerospace Computer Science</li> <li>10 ECTS, Method of grading: numerical grade</li> <li>written examination (approx. 90 to 120 minutes); if announced by th by an oral examination of one candidate each (approx. 20 minut approx. 30 minutes)</li> <li>Language of assessment: German, English if agreed upon with the</li> <li>Other prerequisites: Registration for the exercise must be made announced by the lecturer in accordance with the specified reg met to qualify for admission to assessment (e. g. successful cor lecturer will inform students about the respective details at the be will be considered a declaration of will to seek admission to asses for admission to assessment ; German, English if agreed upon with the</li> </ul>	r students of Space- and Aerospace Computer Science the lecturer, the written examination can be replaced ttes) or an oral examination in groups (groups of 2, he examiner via SB@home at the beginning of the course or as gistration deadlines. Certain prerequisites must be mpletion of a certain percentage of exercises). The eginning of the course. Registration for the exercise essment. If students have obtained the qualification he lecturer will put their registration for assessment to assessment in the current or in the subsequent btain the qualification for admission to assessment or students of Space- and Aerospace Computer Science the lecturer, the written examination can be replaced ttes) or an oral examination in groups (groups of 2, he examiner via SB@home at the beginning of the course or as gistration deadlines. Certain prerequisites must be mpletion of a certain percentage of exercises). The eginning of the course. Registration for the exercise essment. If students have obtained the qualification he lecturer will put their registration for the exercise percent of a certain percentage of exercises). The eginning of the course. Registration for the exercise essment. If students have obtained the qualification he lecturer will put their registration for assessment to assessment in the current or in the subsequent						
	other prerequis	sites	semester. For assessment at a later date, students will have to ob anew and have to register anew, too. By way of exception, additional prerequisites are listed in the section on	btain the qualification for admission to assessment						
			, , , , , , , , , , , , , , , , , , ,							

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Basics of Physics (	19 ECTS	6 credits)									
11-ENNF1-062-m01	Introd	uction to	Physics	Part 1	for students of Phy	sics Related Minor S	ubjects				
	ECTS	7	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	undergraduate		
	Course	es		V + Ü	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Metho	d of asse	essment	writte	written examination (approx. 120 minutes)						
	Partici cation	pants an of place	and allo- ces Only as part of pool of general key skills (ASQ): 20 places. Places will be allocated by lot.								
11-ENNF2-062-m01	Introd	uction to	Physics	Part 2	for students of Phy	sics Related Minor S	ubjects				
	ECTS	7	Duration	n	1 semester	Method of grading	numerical grade	Modul level	undergraduate		
	Course	es		V + Ü	(no information on	SWS (weekly contact	hours) and course language	available)			
	Metho	d of asse	essment	writte	n examination (app	prox. 120 minutes)					
	Partici cation	pants an of place	d allo- s	Only a	as part of pool of ge	eneral key skills (ASQ	): 20 places. Places will be all	located by lot.			
11-P-PA-092-m01	Practi	cal Cours	ie A								
	ECTS 5 Duratio			n	1 semester	Method of grading	(not) successfully complete	d Modul level	undergraduate		
	Courses				Auswertung von Messungen und Fehlerrechnung (Measurements and Data Analysis): V (1 weekly contact hour) + Ü (1 weekly contact hour), once a year (winter semester) Beispiele aus Mechanik, Wärmelehre und Elektrik (Examples from Mechanics, Thermodynamics and Electricity, BAM): P (2 weekly contact hours)						
Method of assessment			essment	<ol> <li>Topics covered in lectures and exercises: written examination (approx. 120 minutes)</li> <li>Lab course: a) Preparing, performing and evaluating the experiments will be considered successfully completed if a Testat (exam) is passed. b) Talk (with discussion) to test the students' understanding of the physics-related contents of the course (approx. 30 minutes).</li> <li>Successful completion of approx. 50% of practice work is a prerequisite for admission to assessment component 1. To pass assessment component 2, students must pass both elements a) and b). Students will be offered one opportunity to retake element a) and/or element b).</li> <li>Students must register for assessment components 1 and 2 online (details to be announced).</li> <li>Students must attend Auswertung von Messungen und Fehlerrechnung (Measurements and Data Analysis) before attending Beispiele aus Mechanik, Wärmelehre und Elektrik (Examples from Mechanics, Thermodynamics and Electricity).</li> <li>To pass this module, students must pass both assessment component 1 and assessment component 2.</li> </ol>							
	Referr	ed to in L	.PO I	§ 53 ( § 53 ( § 77 (	1) 1. a) Physik Mech 1) 1. c) Physik phys 1) 1. d) Physik "phy	nanik, Wärmelehre, El ikalische Grundprakti sikalische Praktika"	ektrizitätslehre, Optik, der sp ka	eziellen Relativitä	ätstheorie		

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Compulsory Electives (19 ECTS credits)										
10-I-GT-102-m01	Algorithmic	: Graph Theo	ry							
	ECTS 5	Duration	n	1 semester	Method of grading nu	umerical grade	Modul level	undergraduate		
	Courses		V + Ü	(no information on S	SWS (weekly contact ho	urs) and course language av	ailable)			
	Method of a	assessment	written examination (approx. 50 to 60 minutes); if announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups (one candidate each: 15 minutes, groups of 2: 20 minutes, groups of 3: 25 minutes) Language of assessment: German, English if agreed upon with the examiner							
	other prere	quisites	Admi: cours	Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course).						
10-I-WBS-102-m01	Knowledge	-based Syste	ems							
	ECTS 5	Duratio	n 	1 semester	Method of grading nu	umerical grade	Modul level	undergraduate		
	Courses		V + Ü	(no information on S	SWS (weekly contact ho	urs) and course language av	ailable)			
	Method of a	assessment	if announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups (one candidate each: 15 minutes, groups of 2: 20 minu- tes, groups of 3: 25 minutes) Language of assessment: German, English if agreed upon with the examiner							
10-I-DM-102-m01	Data Minin	g								
	ECTS 5	Duration	n 	1 semester	Method of grading nu	umerical grade	Modul level	undergraduate		
	Courses		V + U	V + U (no information on SWS (weekly contact hours) and course language available)						
	Method of a	assessment	written examination (approx. 50 to 60 minutes); if announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups (one candidate each: 15 minutes, groups of 2: 20 minutes, groups of 3: 25 minutes) Language of assessment: German, English if agreed upon with the examiner							
	other prere	quisites	Admi: cours	Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course).						
10-I-00P-102-m01	<b>Object-orie</b>	nted Program	nming							
	ECTS 5	Duratio	n	1 semester	Method of grading nu	umerical grade	Modul level	undergraduate		
	Courses		V + Ü	(no information on S	SWS (weekly contact ho	urs) and course language av	ailable)			
	Method of a	assessment	writte writte didate Langu	written examination (approx. 50 to 60 minutes); if announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups (one candidate each: 15 minutes, groups of 2: 20 minutes, groups of 3: 25 minutes) Language of assessment: German, English if agreed upon with the examiner						
	other prere	quisites	Admi: cours	ssion prerequisite to e).	assessment: exercises	(type and scope to be anno	unced by the le	cturer at the beginning of the		

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10-I-KT-102-m01	Theory of Com	Theory of Complexity								
	ECTS 5	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	undergraduate		
	Courses		V + Ü	(no information on	SWS (weekly contact	hours) and course language av	/ailable)			
	Method of asse	essment	writte writte didate Langu	n examination (ap n examination can e each: 15 minutes uage of assessmen	prox. 50 to 60 minutes be replaced by an ora , groups of 2: 20 minu t: German, English if a	b); if announced by the lecturer l examination of one candidate tes, groups of 3: 25 minutes) greed upon with the examiner	by four weeks p e each or an ora	prior to the examination date, the Il examination in groups (one can-		
	other prerequis	sites	Admi: cours	ssion prerequisite e).	to assessment: exercis	ses (type and scope to be anno	ounced by the le	ecturer at the beginning of the		
10-I-RAK-102-m01	Computer Arch	itecture								
	ECTS 5	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	undergraduate		
	Courses		V + Ü	(no information on	SWS (weekly contact	hours) and course language av	vailable)			
	Method of asse	essment	writte writte didate Langu	n examination (ap n examination can e each: 15 minutes uage of assessmen	prox. 50 to 60 minutes be replaced by an ora , groups of 2: 20 minu t: German, English if a	(a); if announced by the lecturer l examination of one candidate tes, groups of 3: 25 minutes) greed upon with the examiner	by four weeks p e each or an ora	prior to the examination date, the Il examination in groups (one can-		
	other prerequis	sites	Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course).							
	Referred to in L	PO I	§69 (	(1) 1. c) Informatik T	echnische Informatik					
10-I-ST-102-m01	Software Tech	nology								
	ECTS 10	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	undergraduate		
	Courses		V + Ü	(no information on	SWS (weekly contact	hours) and course language av	vailable)			
	Method of asse	essment	writte writte 90 mi (appr	written examination (approx. 80 to 90 minutes). If announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups. A 80 to 90 minute written examination is equivalent to a 20 minute (approx.) oral examination of one candidate each, a 30 minute (approx.) oral examination in groups of 2 and a 40 minute (approx.) oral examination in groups of 3.						
	other prerequis	sites	Admi: cours	ssion prerequisite † e).	to assessment: exercis	ses (type and scope to be anno	ounced by the le	ecturer at the beginning of the		
	Referred to in L	PO I	§ 49 (1) 1. b) Datenbanksysteme und Softwaretechnologie § 69 (1) 1. b) Datenbanksysteme und Softwaretechnologie							
10-I-RK-102-m01	Computer Netv	vorks and	l Comn	nunication System	s					
	ECTS 8	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	undergraduate		
	Courses		V + Ü	(no information on	SWS (weekly contact	hours) and course language av	/ailable)			
	Method of assessment written examination (approx. 80 to 90 minutes). If announced by the lecturer by four weeks prior to the examination in g 90 minute written examination is equivalent to a 20 minute (approx.) oral examination of one candidate each, (approx.) oral examination in groups of 2 and a 40 minute (approx.) oral examination in groups of 3. Language of assessment: German, English if agreed upon with the examiner						prior to the examination date, the Il examination in groups. A 80 to e candidate each, a 30 minute Ips of 3.			
	other prerequis	sites	Admi: cours	ssion prerequisite e).	to assessment: exercis	ses (type and scope to be anno	ounced by the le	ecturer at the beginning of the		
Bachelor's with 1 major A	erospace Computer Sc	cience (2011)				JMU Würzburg • generated 26-Aug-2	024 • exam. reg. data	record 82 f25 - - H 2011 page 10 / 16		

10-I-HWP-102-m01	Practical Cours	se in Hard	ware							
	ECTS 10	Duratio	n	1 semester	Method of grading	(not) successfully cor	mpleted Mo	odul level	undergraduate	
	Courses		P (no	P (no information on SWS (weekly contact hours) and course language available)						
	Method of ass	essment	comp of the	letion of project ass course)	signments, presentat	ion (type and expendit	ture of time to	o be specifie	d by the lecturer at the beginning	
10-l=RO-102-m01	Robotics									
	ECTS 8	Duratio	n	1 semester	Method of grading	numerical grade	Mo	odul level	graduate	
	Courses		V + Ü	(no information on	SWS (weekly contact	hours) and course lan	nguage availal	ble)		
	Method of ass	essment	writte writte 90 mi (appr Langu	n examination (app n examination can nute written examin ox.) oral examinatio lage of assessment	orox. 80 to 90 minute be replaced by an or nation is equivalent t on in groups of 2 and : German, English if a	s). If announced by the al examination of one c o a 20 minute (approx.) a 40 minute (approx.) agreed upon with the e	e lecturer by fo candidate eac .) oral examin oral examinat examiner	our weeks p ch or an oral nation of one tion in grou	rior to the examination date, the examination in groups. A 80 to e candidate each, a 30 minute ps of 3.	
	other prerequi	sites	Wher	e applicable, prerec	uisites as specified	by the lecturer at the be	eginning of th	he course (e	. g. completion of exercises).	
10-M-ODE-082-	Ordinary Diffe	rential Eq	uation	s						
m01	ECTS 5	Duratio	<u>1</u>	1 semester	Method of grading	numerical grade	Mc	odul level	undergraduate	
	Courses		V + Ü	(no information on	SWS (weekly contact	hours) and course lan	nguage availal	ble)		
	Method of assessment		written examination (approx. 90 minutes); if announced by the lecturer, the written examination can be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups (groups of 2, approx. 30 minutes) Language of assessment: German, English if agreed upon with the examiner							
	other prerequi	sites	Certain prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about the respec- tive details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admissi- on to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to as- sessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the quali- fication for admission to assessment anew.							
10-M-NM1-082-	Numerical Mat	thematics	1				1			
m01	ECTS 8	Duratio	n	1 semester	Method of grading	numerical grade	Mc	odul level	undergraduate	
	Courses		V + Ü	(no information on	SWS (weekly contact	hours) and course lan	nguage availal	ble)		
	Method of assessment		written examination (approx. 90 minutes); if announced by the lecturer, the written examination can be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups (groups of 2, approx. 30 minutes) Language of assessment: German, English if agreed upon with the examiner							
	other prerequi Referred to in	sites	Certain prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about the respec- tive details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admissi- on to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to as- sessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the quali- fication for admission to assessment anew.							
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10-M-NM2-082-	Numer	ical Mat	hematics	2						
m01	ECTS	5	Duration	า	1 semester	Method of grading	numerical grade	Modul level	undergraduate	
	Courses			V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment			writte	n examination (appr	ox. 90 minutes); if a	nnounced by the lecturer, the w	ritten examinat	ion can be replaced by an oral	
				examination of one candidate each (approx. 20 minutes) or an oral examination in groups (groups of 2, approx. 30 minutes) Language of assessment: German, English if agreed upon with the examiner						
	other prerequisites			Certai tive de on to the lee sessm ficatio	n prerequisites mus etails at the beginnin assessment. If stude cturer will put their r nent in the current on n for admission to a	t be met to qualify fo ng of the course. Reg ents have obtained th egistration for asses r in the subsequent s assessment anew.	r admission to assessment. The istration for the course will be c ne qualification for admission to sment into effect. Students who emester. For assessment at a la	e lecturer will in considered a de o assessment o o meet all prere ater date, stude	form students about the respec- claration of will to seek admissi- ver the course of the semester, quisites will be admitted to as- nts will have to obtain the quali-	
	Referre	ed to in L	.PO I	§ 73 (1) 5. Mathematik Angewandte Mathematik						
10-M=ARTH-102-	Introdu	uction to	Control	Theory						
m01	ECTS	10	Duration	า	1 semester	Method of grading	numerical grade	Modul level	graduate	
	Courses			V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Metho	d of ass	essment	written examination (approx. 90 to 120 minutes); if announced by the lecturer, the written examination can be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups (groups of 2, approx. 30 minutes) Assessment offered: Assessment offered in the semester in which the course is offered and in the subsequent semester, course offered on demand or every four semesters. Language of assessment: German or English						
	other p	prerequi	sites	Registration for the exercise must be made via SB@home at the beginning of the course or as announced by the lecturer in ac- cordance with the specified registration deadlines. Certain prerequisites must be met to qualify for admission to assessment (e. g. successful completion of a certain percentage of exercises). The lecturer will inform students about the respective de- tails at the beginning of the course. Registration for the exercise will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lec- turer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment anew.						

10-M-NLD-072-	Non-Linear Dynamics									
m01	ECTS	5	Duratio	n	1 semester	Method of grading numer	rical grade	Modul level	undergraduate	
	Courses V + Ü (no information on SWS (weekly contact hours) and course language available)									
	Metho	d of ass	essment	written examination (approx. 90 minutes); if announced by the lecturer, the written examination can be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups (groups of 2, approx. 30 minutes)						
	other p	prerequi	sites	Certain prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about tive details at the beginning of the course. Registration for the course will be considered a declaration of will to s on to assessment. If students have obtained the qualification for admission to assessment over the course of the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admission to assessment or in the subsequent semester. For assessment at a later date, students will have to obtain fication for admission to assessment anew.					form students about the respec- claration of will to seek admissi- ver the course of the semester, quisites will be admitted to as- nts will have to obtain the quali-	
	Referre	ed to in l	_PO I	§73 (	1) 1. Mathematik An	alysis				
10-I-SIE-092-m01	Contro	l Engine	ering		r					
	ECTS	4	Duration	1	1 semester	Method of grading   numer	rical grade	Modul level	undergraduate	
	Course	S		V + U	v + U (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment			written examination can be replaced by an oral examination of one candidate each or an oral examination in groups (one can- didate each: 15 minutes, groups of 2: 20 minutes, groups of 3: 25 minutes) Assessment offered: once a year						
	other prerequisites			Academic requirements to be met in exercises. Type and scope to be announced by the lecturer at the beginning of the course.						
10-I-ASY-092-m01	Autono	omous S	ystems							
	ECTS	4	Duration	1	1 semester	Method of grading numer	rical grade	Modul level	undergraduate	
	Course	s		V + Ü	(no information on S	SWS (weekly contact hours)	and course language ava	ailable)		
	Method of assessment		written examination (approx. 50 to 60 minutes); if announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups (one candidate each: 15 minutes, groups of 2: 20 minutes, groups of 3: 25 minutes) Assessment offered: once a year							
	other prerequisites		Academic requirements to be met in exercises. Type and scope to be announced by the lecturer at the beginning of the course.							
10-I-SRM-092-m01	Semin	ar Space	Modelli	ıg						
	ECTS	5	Duratio	n	1 semester	Method of grading (not) s	successfully completed	Modul level	undergraduate	
	Course	!S		S (no	information on SWS	6 (weekly contact hours) and	d course language availat	ole)		
	Metho	d of ass	essment	talk (a	approx. 30 to 45 min	utes) and written elaboratio	on (approx. 5 to 10 pages)	)		

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11-A4-072-m01	Astrophysics									
	ECTS 6	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	undergraduate		
	Courses		V + S	V + S (no information on SWS (weekly contact hours) and course language available)						
	Method of ass	essment	writte	n examination (app	prox. 120 minutes)					
	other prerequisites		Admission prerequisite to assessment: successful completion of approx. 50% of exercises. Certain prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment anew.							
	Participants and allo- cation of places		Only a	Only as part of pool of general key skills (ASQ): 15 places. Places will be allocated by lot.						
11-P-PB-LR-092-	Practical Cours	se Part B	(Aircra	ft and Spacecraft Ir	nformatics)					
11101	ECTS 6	Duratio	n	1 semester	Method of grading	(not) successfully complet	ed   Modul level	undergraduate		
	Method of ass	essment	Elektr Welle Atom- Comp This n 1. Lab Tes cou 2. Lab a Te the	izitätslehre und Sc noptik (Physical Op und Kernphysik (A uter und Messtech nodule has the follo course in part 1: a) tat (exam) is passe urse (approx. 30 min course in part 2: a) estat (exam) is passe course (approx. 30	haltungen (Electricity baltungen (Electricity otics, WOP): P (2 week tomic and Nuclear Ph nik (Computers and N owing assessment co ) Preparing, performin rd. b) Talk (with discu nutes). ) Preparing, performin sed. b) Talk (with disco o minutes).	and Circuits, ELS): P (2 week kly contact hours) hysics, AKP): P (2 weekly con Aeasurement Technology, Cl mponents hg and evaluating the experi ssion) to test the students' u hg and evaluating the experi cussion) to test the students	kly contact hours) tact hours) MT): P (2 weekly co ments will be cons understanding of th ments will be cons ' understanding of	ntact hours) idered successfully completed if a ne physics-related contents of the sidered successfully completed if the physics-related contents of		
		6.11	Stude Stude must To pa: Stude To pa:	ents must register for ents will be offered pass both elements ss this module, stu ents must attend KL ss this module, stu	or assessment compo one opportunity to ref s a) and b). dents must successfu P or ELS courses prio dents must pass both	onents 1 and 2 online (registrate take element a) and/or elem ully complete two out of the r to attending WOP, AKP or C n assessment component 1 a	ration deadline to l ient b). To pass an five courses. CMT courses. and assessment co	be announced). assessment component, they mponent 2.		
	Modules successfully completed		11-P-PA							
	Referred to in I	LPO I	<ul> <li>§ 53 (1) 1. a) Physik Mechanik, Wärmelehre, Elektrizitätslehre, Optik, der speziellen Relativitätstheorie</li> <li>§ 53 (1) 1. b) Physik Aufbau der Materie</li> <li>§ 53 (1) 1. c) Physik physikalische Grundpraktika</li> <li>§ 77 (1) 1. b) Physik "Fortgeschrittene Experimentalphysik"</li> <li>§ 77 (1) 1. d) Physik "physikalische Praktika"</li> </ul>							

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11-AWP-092-m01	1 Atmosphere and Space Physics										
	ECTS	6	Duration	l	1 semester	Method of grading	numerical grade	Modul level	graduate		
	Course	s		R + V	(no information on S	SWS (weekly contact	hours) and course language a	available)			
	Methoo	d of asse	essment	a) writ prox. nar pr Asses nound	a) written examination (approx. 90 minutes) or b) oral examination of one candidate each or oral examination in groups (approx. 30 minutes per candidate) or c) project report (approx. 8 pages, time to complete: 1 to 4 weeks) or d) presentation/semi- nar presentation (approx. 30 minutes) Assessment offered: When and how often assessment will be offered depends on the method of assessment and will be an- nounced in due form under observance of Section 32 Subsection 3 ASPO (general academic and examination regulations)						
				2009. Langu	age of assessment:	German or English					
	other prerequisites Certain prerequisites must be met to quality for admission to assessment. The lecturer will inform students about the respec- tive details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admissi- on to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to as- sessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the quali- fication for admission to assessment anew.										
Subject-specific Ke	y Skills										
10-I-BS-102-m01	Operat	ing Syst	tems								
	ECTS 5 Duratio			า	1 semester	Method of grading	numerical grade	Modul level	undergraduate		
	Course	s		V + Ü	(no information on S	SWS (weekly contact	hours) and course language a	available)			
	Method of assessment			written examination (approx. 50 to 60 minutes); if announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups (one can- didate each: 15 minutes, groups of 2: 20 minutes, groups of 3: 25 minutes) Language of assessment: German, English if agreed upon with the examiner							
	other p	rerequis	sites	Admis cours	ssion prerequisite to e).	o assessment: exercis	ses (type and scope to be ann	ounced by the le	cturer at the beginning of the		
	Referre	d to in L	.PO I	§69 (	1) 1. c) Informatik Te	echnische Informatik					
10-I-DB-102-m01	Databa	ses									
	ECTS	5	Duration	l	1 semester	Method of grading	numerical grade	Modul level	undergraduate		
	Course	S		V + Ü	(no information on S	SWS (weekly contact	hours) and course language a	available)			
	Method of assessment		written examination (approx. 50 to 60 minutes) if announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups (one candidate each: 15 minutes, groups of 2: 20 minu- tes, groups of 3: 25 minutes) Language of assessment: German, English if agreed upon with the examiner								
	other p	rerequis	sites	Admis cours	ssion prerequisite to e).	assessment: exercis	ses (type and scope to be ann	ounced by the le	cturer at the beginning of the		
	Referred to in LPO I			§ 49 ( § 69 (	1) 1. b) Datenbanks 1) 1. b) Datenbanks	ysteme und Software ysteme und Software	technologie technologie				

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10-I-LRLA-092-m01	Aerosp	erospace Laboratory										
	ECTS	6	Duratio	1	1 semester	Method of grading	numerical grade	Modul level	undergraduate			
	Course	S	_	V + Ü	(no information on S	WS (weekly contact	hours) and course language av	ailable)				
	Metho	d of asse	essment	practi	ctical exercises (time to complete: approx. 6 weeks) and documentation (approx. 10 pages)							
10-I-LRS-092-m01	Semina	eminar for students of Space- and Aerospace Computer Science										
	ECTS 5 Duratio			n	1 semester	Method of grading	numerical grade	Modul level	undergraduate			
	Course	S		S (no information on SWS (weekly contact hours) and course language available)								
	Metho	d of asse	essment	talk (approx. 30 to 45 minutes) and written elaboration (approx. 5 to 10 pages)								
10-I-LREX-092-m01	Excurs	Excursion Space- and Aerospace										
	ECTS 1 Duratio			n	1 semester	Method of grading	(not) successfully completed	Modul level	undergraduate			
	Courses			E (no information on SWS (weekly contact hours) and course language available)								
	Metho	d of asse	essment	field t	rip log (approx. 2 pa	ges)						