



## **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: 2009 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)):

### 19-Jan-2011 (2011-6)

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 sp	o be specified in the form X (y) with course type X abbreviated as specified above and number of weekly contact hours y						
	Method of as	ssessme	ent							
	Only after su completion of		l if applica	if applicable						
	Other prereq	uisites	if applica	if applicable						
	Participants on of places		ocati- if applica	if applicable						
	Additional information		on if applica	if applicable						
	Referred to in	n LPO I	if applica	ble (examination re	gulations for teachin	g-degree programmes)				

10-I-LRI-BA-092-	Bachelo	r Thes	is Space-	and Ae	rospace Compute	er Science						
m01	ECTS 12 Duration				1 semester		ing numerical grade		Modul level	undergraduate		
	Courses			C (no	C (no information on SWS (weekly contact hours) and course language available)							
	Method of assessment											
Compulsory Cours	es (129 EC	TS cre	dits)									
Aerospace (35 ECT	S credits)											
		Introduction to Aerospace Systems										
	ECTS 6 Duration			1 semester	Method of grad	ing numerical grade		Modul level	undergraduate			
	Courses			•	10-I-ELR-1-092: V	′ + Ü (no informatio	ents. Information on co n on SWS (weekly cont on on SWS (weekly cont	tact hours) a	nd course lang			
	Method of assessment				Assessment in this module comprises the assessments in the individual module components as specified below. Unless stated otherwise, successful completion of the module will require successful completion of all individual assessments.							
				Asses	3 ECTS, Method written examinat date, the written in groups (one ca Other prerequisit at the beginning <b>sment in module</b> 3 ECTS, Method written examinat date, the written in groups (one ca Other prerequisit at the beginning	of grading: numeric tion (approx. 50 to examination can b andidate each: 15 n 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 n tes: Admission prer of the course).	cal grade 60 minutes); if announ be replaced by an oral e ninutes, groups of 2: 20 requisite to assessment <b>R-2-092:</b> Introduction to cal grade 60 minutes); if announ be replaced by an oral e ninutes, groups of 2: 20	nced by the lexamination o minutes, g t: exercises ( to Aerospace nced by the le examination o minutes, g t: exercises (	ecturer by four of one candida roups of 3: 25 r type and scope e Systems 2 Int ecturer by four of one candida roups of 3: 25 r type and scope	to be announced by the lecturer roduction to Aerospace Systems weeks prior to the examination ate each or an oral examination		
	other pre					Iditional prerequisi	tes are listed in the sec	ction on asse	essments.			
10-I-LRBE-092-m01												
	ECTS 9	-	Duration		1 semester	-	ing numerical grade	1	Modul level	undergraduate		
	Courses						tact hours) and course		-	nvierte the exemination data the		
	Method of assessment			<ul> <li>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.</li> <li>Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course).</li> </ul>								
	other prerequisites											

Bachelor's with 1 major Aerospace Computer Science (2009) JMU Würzburg • generated 26-Aug-2024 • exam. reg. data record 82|f25|-|-|H|2009 page 3 / 15

10-I-LRDN-092-	Dynam	ics of a	erospace	systen	ns			,				
m01	ECTS	6	Duration	า	1 semester	Method of grading	g numerical grade	Modul level	undergraduate			
	Course	S		V + Ü	(no information o	n SWS (weekly contac	t hours) and course lan	guage available)				
				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 p	orerequi	isites		Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course).							
10-I-BDV-092-m01	On board data processing											
	ECTS	8	Duration	า	1 semester	Method of grading	g numerical grade	Modul level	undergraduate			
	Course	s	•	V + Ü	(no information o	n SWS (weekly contac	t hours) and course lan	guage available)				
	Method of assessment			writte 90 mi (appr	n examination ca inute written exan ox.) oral examina	n be replaced by an or nination is equivalent tion in groups of 2 and	ral examination of one c to a 20 minute (approx. d a 40 minute (approx.)	andidate each or an ora ) oral examination of on oral examination in grou	-			
	other p			cours	Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course).							
10-l-LMT-092-m01	Measurement Technique											
	ECTS 6 Duration			1	1 semester	Method of grading	g numerical grade	Modul level	undergraduate			
	Course	S		V + Ü	V + Ü (no information on SWS (weekly contact hours) and course language 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 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	55 ECTS	<b>5 credit</b>	s)									
10-I-PP-102-m01	Practic	al Cour	se in Prog	rammi	ing							
	ECTS	10	Duration	ı	1 semester	Method of grading	g (not) successfully cor	npleted Modul level	undergraduate			
	Course	S		P (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 prerequisites			Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course).								
	Additio	onal Info	ormation			on module duration:						
	Referre	d to in	LPO I			Praktische Softwaree Praktische Softwaree						

Bachelor's with 1 major Aerospace Computer Science (2009)	JMU Würzburg • generated 26-Aug-2024 • exam. reg. data record 82 f25 - - H 2009	page 4 / 15

10-l-lÜ-102-m01	Informa	ation Tra	ansmissio	)n							
	ECTS	10	Duratior	ı	1 semester	Method of grading	numerical grade	Modul level	undergraduate		
	Course	S		V + Ü	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment			writte 90 mi	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 no 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 beginning of the course).						
	Referred to in LPO I			§ 69 (	69 (1) 1. c) Informatik Technische Informatik						
10-I-AR-102-m01	Automa	ition an	d Control	Techr	Technology						
	ECTS	8	Duratior	ı	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	ailable)			
	Method of assessment			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. Language of assessment: German, English if agreed upon with the examiner						
	other prerequisites			Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course).							
10-I-ADS-LRI-092-	Algorithms and Data Structures for students of Space- and Aerospace Computer Science										
m01	ECTS	10	Duratior	ı	1 semester	Method of grading	numerical grade	Modul level	undergraduate		
	Course	S		V + Ü (no information on SWS (weekly contact hours) and course language available)							
	Method of assessment			writte 90 mi	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 prerequisites			Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course).							
10-I-MEC-092-m01	Core Av	/ionics									
	ECTS	9	Duratior	ı	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 av	ailable)			
	Method of assessment			writte 90 mi	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 prerequisites				ssion prerequisite to		ses (type and scope to be anno	-			

10-I-HMR-092-m01	Practic	actical Sensor and Control Systems Engineering										
	ECTS	8	Duration	n	1 semester	Method of grading	(not) successfully completed	Modul level	undergraduate			
	Course	S		P (no	information on SWS	(weekly contact hou	rs) and course language availal	ble)				
	Method	d of asse	essment	oral e	xamination in group	s of 2 candidates (ap	prox. 30 minutes) or in groups	of 3 candidates	s (approx. 40 minutes)			

Bachelor's with 1 major Aerospace	Computer Science (2009)	)
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0-M-LRI12-092-	Mather	matics	1 and 2 for	students of Space- a	nd Aerospace Computer Science						
101	ECTS	20	Duration	1 2 semester	Method of grading numerical grade	Modul level	undergraduate				
	Course	S		<ul> <li>10-M-LRI12-1-0</li> </ul>	es 2 module components. Information on cours 192: V + Ü (no information on SWS (weekly cont 192: V + Ü (no information on SWS (weekly cont	act hours) and course la	nguage available)				
	Method of assessment			Assessment in this module comprises the assessments in the individual module components as specified below. Unless stated otherwise, successful completion of the module will require successful completion of all individual assessments.							
				<ul> <li>Mathematics 1 for stu</li> <li>10 ECTS, Meth</li> <li>written examin by an oral exa approx. 30 mir</li> <li>Language of as</li> <li>Other prerequi announced by met to qualify lecturer will ini will be conside for admission into effect. Stu semester. For a anew and have</li> <li>Assessment in modu</li> <li>Mathematics 2 for stu</li> <li>10 ECTS, Meth</li> <li>written examin by an oral exa approx. 30 mir</li> <li>Language of as</li> <li>Other prerequi announced by met to qualify lecturer will ini will be conside for admission into effect. Stu</li> </ul>	ssessment: German, English if agreed upon with isites: Registration for the exercise must be ma to the lecturer in accordance with the specified for admission to assessment (e. g. successful form students about the respective details at the ered a declaration of will to seek admission to a to assessment over the course of the semester idents who meet all prerequisites will be admit assessment at a later date, students will have t to register anew, too. <b>Ie component 10-M-LRI12-2-092:</b> Mathematics udents of Space- and Aerospace Computer Scie od of grading: numerical grade lation (approx. 90 to 120 minutes); if announced mination of one candidate each (approx. 20 m	nce by the lecturer, the written inutes) or an oral exam the examiner ade via SB@home at the registration deadlines. I completion of a certain the beginning of the course assessment. If students h r, the lecturer will put th tted to assessment in the to obtain the qualificatio 2 for students of Space- nce by the lecturer, the written inutes) or an oral exam the examiner ade via SB@home at the registration deadlines. I completion of a certain the beginning of the course assessment. If students h r, the lecturer will put th tted to assessment in th	en examination can be replaced ination in groups (groups of 2, e beginning of the course or as Certain prerequisites must be percentage of exercises). The se. Registration for the exercise have obtained the qualification eir registration for assessment e current or in the subsequent n for admission to assessment and Aerospace Computer Science en examination can be replaced ination in groups (groups of 2, e beginning of the course or as Certain prerequisites must be percentage of exercises). The se. Registration for the exercise have obtained the qualification eir registration for assessment e current or in the subsequent				
	other prerequisites				e to register anew, too. additional prerequisites are listed in the section	n on accoccmonts					

Bachelor's with 1 major Aerospace Computer Science (2009)	JMU Würzburg • generated 26-Aug-2024 • exam. reg. data record 82 f25 - - H 2009	page 7 / 15

Basics of Physics (1	• <u> </u>			Deat	6		Cultin et -					
11-ENNF1-062-m01		1	Duration		Part 1 for students of Physics Related Minor Subjects           1 semester         Method of grading numerical grade				al undergraduate			
		7	Duration		1 semester       Method of grading       numerical grade       Modul level       undergraduate         V + Ü (no information on SWS (weekly contact hours) and course language available)       Vertical grade       Vertical grade							
	Course											
	Method of assessment Participants and allo-			written examination (approx. 120 minutes)								
	cation			Only as part of pool of general key skills (ASQ): 20 places. Places will be allocated by lot.								
11-ENNF2-062-m01	Introdu	uction t	• Physics	Part 2	for students of I	Physics Related Minor	Subjects					
	ECTS 7 Duration		า	1 semester	Method of grading	g numerical grade	Modul leve	el undergraduate				
	Courses		V + Ü	(no information	on SWS (weekly contac	ct hours) and course langu	age available)					
	Metho	d of ass	essment	writte	n examination (a	approx. 120 minutes)						
	Participants and allo- cation of places			Only a	Only as part of pool of general key skills (ASQ): 20 places. Places will be allocated by lot.							
11-P-PA-092-m01	Practic	al Cour										
	ECTS 5 Duratio			า	1 semester	Method of grading	g (not) successfully comp	leted Modul leve	el 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 Referred to in LPO I			<ul> <li>This module has the following assessment components</li> <li>1. Topics covered in lectures and exercises: written examination (approx. 120 minutes)</li> <li>2. 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> </ul>								
				Students must register for assessment components 1 and 2 online (details to be announced). 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). To pass this module, students must pass both assessment component 1 and assessment component 2. § 53 (1) 1. a) Physik Mechanik, Wärmelehre, Elektrizitätslehre, Optik, der speziellen Relativitätstheorie § 53 (1) 1. c) Physik physikalische Grundpraktika § 77 (1) 1. d) Physik "physikalische Praktika"								

Bachelor's with 1 major Aerospace Computer Science (2009)	JMU Würzburg • generated 26-Aug-2024 • exam. reg. data record 82 f25 - - H 2009	page 8 / 15

10-M-ODE-082-	ives (19 ECTS credits) Ordinary Differential Equations												
m01	ECTS		Duration		1 semester	Method of gradin	g numerical grade		Modul level	undergraduate			
	Courses	5	Duration			on SWS (weekly conta		language av		undergraduate			
		oface	ecmont		-					tion can be replaced by an oral			
	Method of assessment			exam	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 pre	erequis	ites	tive d on to the le sessr	etails at the begi assessment. If s cturer will put th nent in the curren	nning of the course. R tudents have obtained eir registration for ass nt or in the subsequen	egistration for the co I the qualification for essment into effect.	ourse will be r admission t Students wh	considered a de to assessment o o meet all prere	nform students about the respec- eclaration of will to seek admissi- over the course of the semester, equisites will be admitted to as- ents will have to obtain the quali-			
10-M-NLD-072-	Non-Line	fication for admission to assessment anew.       Non-Linear Dynamics											
m01	ECTS	5	Duratio	n	1 semester	Method of gradin	g numerical grade		Modul level	undergraduate			
	Courses			V + Ü	(no information	on SWS (weekly conta	ct hours) and course	language av	vailable)				
	Method	ofasse	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) Language of assessment: German, English if agreed upon with the examiner									
	other pre	erequis	ites	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.									
	Referred	to in L	PO I	§ 73 (1) 1. Mathematik Analysis									
10-M-NM1-082-	Numerical Mathematics 1												
m01	ECTS	8	Duratio	n	1 semester	Method of gradin	g numerical grade		Modul level	undergraduate			
	Courses			V + Ü	(no information	on SWS (weekly conta	ct hours) and course	e language av	vailable)				
	Method	of asse	essment	exam Langι	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 pro	erequis	ites	tive d on to the le sessr	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.								
	Referred	to in L	POI	§ 73 (	1) 5. Mathematik	Angewandte Mathem	atik						

Bachelor's with 1 major Aerospace Computer Science (2009)	JMU Würzburg • generated 26-Aug-2024 • exam. reg. data record 82 f25 - - H 2009	page 9 / 15

10-M-NM2-082-	Numerical Mathematics 2										
m01	ECTS	5	Duration	า	1 semester	Method of grading	numerical grade		Modul level	undergraduate	
	Course	S		V + Ü	/ + Ü (no information on SWS (weekly contact hours) and course language available)						
	Methoo	l of ass	essment	exam	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) anguage of assessment: German, English if agreed upon with the examiner						
	other prerequisites			tive d on to the le sessr	tertain 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- in 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- essment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the quali- cation for admission to assessment anew.						
	Referre	d to in l	LPO I	§73 (	1) 5. Mathematik /	Angewandte Mathema	tik				
10-I-ST-102-m01	Softwa	re Tech	nology								
	ECTS	10	Duration	ı	1 semester	Method of grading	numerical grade		Modul level	undergraduate	
	Course	s		V + Ü	(no information o	n SWS (weekly contact	t hours) and course	language av	ailable)		
	Methoo	l of ass	essment	writte 90 m (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 prerequisites				Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course).						
	Referre	d to in l	LPO I	§ 49 (1) 1. b) Datenbanksysteme und Softwaretechnologie § 69 (1) 1. b) Datenbanksysteme und Softwaretechnologie							
10-I-HWP-102-m01	Practical Course in Hardware										
	ECTS	10	Duration		1 semester		(not) successfully			undergraduate	
	Course	s				VS (weekly contact ho			-		
	Methoo	l of ass	essment	comp of the	completion of project assignments, presentation (type and expenditure of time to be specified by the lecturer at the beginning of the course)						
10-I-GT-102-m01	Algorit	hmic Gı	raph Theo	ry							
	ECTS	5	Duration	า	1 semester	Method of grading	numerical grade		Modul level	undergraduate	
	Course	S		V + Ü	(no information o	n SWS (weekly contact	t hours) and course	language av	ailable)		
	Methoo	l of ass	essment	writte didat	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 p	orerequi	sites	Admi cours		to assessment: exerc	ises (type and scope	e to be anno	unced by the le	cturer at the beginning of the	

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	Bachelor's with 1 major Aerospace Computer Science (2009)	JMU Würzburg • generated 26-Aug-2024 • exam. reg. data record 82 f25 - - H 2009	page 10 / 15

10-I-WBS-102-m01	Knowle	dge-ba	sed Syste	ems		,					
	ECTS	5	Duratio	1	1 semester	Method of grading	numerical grade	Modul level	undergraduate		
	Courses	5		V + Ü	(no information on	SWS (weekly contact	hours) and course language av	vailable)			
	Method	of asse	essment		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-						
					nation of one cand roups of 3: 25 minu		examination in groups (one ca	ndidate each: 1	5 minutes, groups of 2: 20 minu-		
							greed upon with the examiner				
10-I-DM-102-m01	Data M	ining			0		<u> </u>				
	ECTS 5 Duration			n	1 semester	Method of grading	numerical grade	Modul level	undergraduate		
	Courses	5		V + Ü	(no information on	SWS (weekly contact	hours) and course language av	vailable)			
	Method	ofasse	essment						prior to the examination date, the l examination in groups (one can-		
				didate	lidate each: 15 minutes, groups of 2: 20 minutes, groups of 3: 25 minutes) anguage of assessment: German, English if agreed upon with the examiner						
	other p	rerequis	sites		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	Object-	Object-oriented Programming									
	ECTS	5	Duration	1	1 semester	Method of grading	numerical grade	Modul level	undergraduate		
	Courses	5		V + Ü	(no information on	SWS (weekly contact	hours) and course language av	vailable)			
	Method of assessmen				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 p	rerequis	sites		Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course).						
10-I-KT-102-m01	Theory	of Com	plexity								
	ECTS	5	Duration	n	1 semester	Method of grading	numerical grade	Modul level	undergraduate		
	Courses	5			-		hours) and course language av	-			
	Method of assessment			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 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 prerequisites			Admis cours		to assessment: exerci	ses (type and scope to be anno	ounced by the le	cturer at the beginning of the		

Bachelor's with 1 major Aerospace Computer Science (2009)	JMU Würzburg • generated 26-Aug-2024 • exam. reg. data record 82 f25 - - H 2009	page 11 / 15

10-I-RAK-102-m01	Computer Architecture											
	ECTS	5	Duratio	า	1 semester	Method of gradi	ng numerical gr	ade	Modul level	undergraduate		
	Courses	5		V + Ü	V + Ü (no information on SWS (weekly contact hours) and course language available)							
	Method of assessment			writte didat	rritten examination (approx. 50 to 60 minutes); if announced by the lecturer by four weeks prior to the examination date, the rritten examination can be replaced by an oral examination of one candidate each or an oral examination in groups (one can- idate each: 15 minutes, groups of 2: 20 minutes, groups of 3: 25 minutes) anguage of assessment: German, English if agreed upon with the examiner							
	other pr	•		cours	dmission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the ourse).							
	Referred	d to in L	.PO I	§ 69	69 (1) 1. c) Informatik Technische Informatik							
10-I-RK-102-m01	Comput	Computer Networks and Communication Systems										
	ECTS 8 Duratio			า	1 semester	Method of gradi	ng numerical gr	ade	Modul level	undergraduate		
	Courses	5		V + Ü	(no information	on SWS (weekly cont	act hours) and co	ourse language av	/ailable)			
				writte 90 m (appi	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 prerequisites				Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course).							
11-AWP-092-m01	Atmosphere and Space Physics											
	ECTS	6	Duratio	ı	1 semester	Method of gradi	ng numerical gr	ade	Modul level	graduate		
	Courses	5		R + V	(no information	on SWS (weekly conta	act hours) and cc	ourse language av	ailable)			
	Method of assessment			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. Language of assessment: German or English								
	other pr	rerequis	sites	tive c on to the le sessi	details at the beg assessment. If s ecturer will put th ment in the curre	inning of the course. students have obtaine neir registration for as	Registration for t ed the qualifications sessment into effint nt semester. For	he course will be on for admission fect. Students wh	considered a de to assessment o o meet all prere	nform students about the respec- eclaration of will to seek admissi- over the course of the semester, equisites will be admitted to as- ents will have to obtain the quali-		

10-l=RO-102-m01	Robotics										
	ECTS 8 Duration			ı	1 semester	Method of grad	ing numerical grade		Modul level	graduate	
	Course	S		V + Ü	(no information o	on SWS (weekly cont	act hours) and cours	e language av	ailable)		
	Method of assessment			writte 90 m (appr	en examination ca inute written exan ox.) oral examina	n be replaced by an nination is equivale tion in groups of 2 a	oral examination of o	one candidate prox.) oral exa ox.) oral exan	e each or an ora amination of on	prior to the examination date, the l examination in groups. A 80 to e candidate each, a 30 minute ps of 3.	
	other prerequisites				Where applicable, prerequisites as specified by the lecturer at the beginning of the course (e.g. completion of exercises).						
10-M=ARTH-102-	Introdu	iction to	o Control	Theory	1						
m01	ECTS	10	Duration	า	1 semester	Method of grad	ing numerical grade		Modul level	graduate	
	Course	S		V + Ü	(no information o	on SWS (weekly cont	act hours) and cours	e language av	ailable)		
	Metho		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 prerequisites			corda (e. g. tails a asses turer in the	nce with the spec successful compl at the beginning o ssment. If student will put their regis	ified registration de etion of a certain pe of the course. Regist s have obtained the stration for assessm subsequent semest	eadlines. Certain prere- ercentage of exercises ration for the exercises qualification for adm ent into effect. Stude	equisites mus b). The lecture e will be consi hission to asso nts who meet	t be met to qua r will inform stu dered a declara essment over th all prerequisite	is announced by the lecturer in ac- lify for admission to assessment idents about the respective de- ation of will to seek admission to be course of the semester, the lec- es will be admitted to assessment ave to obtain the qualification for	
10-I-ASY-092-m01	Autonomous Systems										
	ECTS	4	Duration	า	1 semester	Method of grad	ing numerical grade		Modul level	undergraduate	
	Course	s		V + Ü	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment			writte didat	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			Acad se.	emic requirement	s to be met in exerc	ises. Type and scope	to be announ	ced by the lectu	arer at the beginning of the cour-	
10-I-SRM-092-m01	Semina	ar Space	e Modellir	ıg							
	ECTS	5	Duration	1	1 semester	Method of grad	ing (not) successfull	y completed	Modul level	undergraduate	
	Course	S		S (no	information on S	WS (weekly contact	hours) and course lar	nguage availa	ble)		
	Method	d of ass	essment	talk (	approx. 30 to 45 n	ninutes) and writter	elaboration (approx.	5 to 10 pages	5)		

Bachelor's with 1 major Aerospace Computer Science (2009)	JMU Würzburg • generated 26-Aug-2024 • exam. reg. data record 82 f25 - - H 2009	page 13 / 15

11-P-PB-LR-092-	Practical Course Part B (Aircraft and Spacecraft Informatics)										
m01	ECTS 6 Duration	n 1 semester Method of grading (not) successfully completed Modul level undergraduate									
	Courses	Klassische Physik (Classical Physics, KLP): P (2 weekly contact hours) Elektrizitätslehre und Schaltungen (Electricity and Circuits, ELS): P (2 weekly contact hours) Wellenoptik (Physical Optics, WOP): P (2 weekly contact hours) Atom- und Kernphysik (Atomic and Nuclear Physics, AKP): P (2 weekly contact hours) Computer und Messtechnik (Computers and Measurement Technology, CMT): P (2 weekly contact hours)									
	Method of assessment	<ul> <li>This module has the following assessment components</li> <li>1. Lab course in part 1: 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>2. Lab course in part 2: 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>2. Lab course in part 2: 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>Students must register for assessment components 1 and 2 online (registration deadline to be announced).</li> <li>Students will be offered one opportunity to retake element a) and/or element b). To pass an assessment component, they must pass both elements a) and b).</li> <li>To pass this module, students must successfully complete two out of the five courses.</li> <li>Students must attend KLP or ELS courses prior to attending WOP, AKP or CMT courses.</li> <li>To pass this module, students must pass both assessment component 1 and assessment component 2.</li> </ul>									
	Modules successfully completed	11-P-PA									
	Referred to in 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>									
10-I-STE-092-m01	Control Engineering										
	ECTS 4 Duration										
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language 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 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.									

Bachelor's with 1 major Aerospace Computer Science (2009)	JMU Würzburg • generated 26-Aug-2024 • exam. reg. data record 82 f25 - - H 2009	page 14 / 15

Subject-specific Ke	y Skills											
10-I-DB-102-m01	Databas	ses										
	ECTS 5 Duration			า	1 semester	Method of grading	numerical grade	Modul level	undergraduate			
	Courses	5		V + Ü	(no information or	n SWS (weekly contact	hours) and course language	available)				
	Method	of asse	ssment	if ann exam tes, g	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 prerequisites				dmission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the ourse).							
	Referred	d to in L	PO I			systeme und Software systeme und Software						
10-l-BS-102-m01	Operati	ng Syst	ems									
	ECTS	5	Duratior	า	1 semester	Method of grading	numerical grade	Modul level	undergraduate			
	Courses	5		V + Ü	(no information or	n SWS (weekly contact	hours) and course language	available)				
	Method			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 prerequisites			Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course).								
	Referred	d to in L	PO I	§ 69 (1) 1. c) Informatik Technische Informatik								
10-I-LRLA-092-m01	Aerospa	ace Labo	oratory									
	ECTS	6	Duratior	ı	1 semester	Method of grading	numerical grade	Modul level	undergraduate			
	Courses	5		V + Ü	V + Ü (no information on SWS (weekly contact hours) and course language available)							
	Method	ofasse	ssment	practi	practical exercises (time to complete: approx. 6 weeks) and documentation (approx. 10 pages)							
10-l-LRS-092-m01	Semina	r for stu	dents of	Space	- and Aerospace C	Computer Science						
	ECTS	5	Duratior	า	1 semester	Method of grading	numerical grade	Modul level	undergraduate			
	Courses	5		S (no	information on SV	VS (weekly contact hou	irs) and course language ava	ilable)	· ·			
	Method	ofasse	ssment	talk (a	approx. 30 to 45 m	inutes) and written ela	aboration (approx. 5 to 10 pag	ges)				
10-I-LREX-092-m01	Excursio	on Spac	e- and Ae	erospa	ce							
	ECTS	1	Duratior	1	1 semester	Method of grading	(not) successfully complete	d Modul level	undergraduate			
	Courses	5		E (no	information on SW	VS (weekly contact hou	irs) and course language ava	ilable)	-			
	Method				field trip log (approx. 2 pages)							

Bachelor's with 1 major Aerospace Computer Science (2009)	JMU Würzburg • generated 26-Aug-2024 • exam. reg. data record 82 f25 - - H 2009	page 15 / 15