

## **Annex SFB**

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

Responsible: Faculty of Mathematics and Computer Science

Responsible: Institute of Computer Science

Examination regulations version: 2015

Examination regulations version: 2015

Abbreviations used: Course types:  $\mathbf{E} = \text{field trip}$ ,  $\mathbf{K} = \text{colloquium}$ ,  $\mathbf{O} = \text{conversatorium}$ ,  $\mathbf{P} = \text{placement/lab course}$ ,  $\mathbf{R} = \text{project}$ ,  $\mathbf{S} = \text{seminar}$ ,  $\mathbf{T} = \text{tutorial}$ ,  $\mathbf{U} = \text{exercise}$ ,  $\mathbf{V} = \mathbf{V} = \mathbf$ 

= lecture

Term: **SS** = summer semester. **WS** = winter semester

Methods of grading: **NUM** = numerical grade, **B/NB** = (not) successfully completed

Regulations: (L)ASPO = general academic and examination regulations (for teaching-degree programmes), FSB = subject-specific provisions, SFB

= list of modules

Other: A = thesis, LV = course(s), PL = assessment(s), TN = participants, VL = prerequisite(s)

Conventions for the Unless otherwise stated, courses and assessments will be held in German, assessments will be offered every semester and modules are not cremodules in this SFB: ditable for bonus.

Information on Should there be the option to choose between several methods of assessment, the lecturer will agree with the module coordinator on the meassessment procedures: 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 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:

## ASP02015

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

28-Sep-2015 (2015-165)

13-Apr-2016 (2016-69)

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 spe	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 o		l if applica	if applicable								
	Other prereq	uisites	if applica	if applicable								
	Participants and allocation of places		ocati- if applica	if applicable								
	Additional information		on if applica	if applicable								
	Referred to in	n LPO I	if applica	if applicable (examination regulations for teaching-degree programmes)								

Compulsory Course	es (115 E	CTS cre	dits)										
Computer Science	Computer Science (75 ECTS credits)  10-I-EinP-152-mo1   Introduction to Programming												
10-l-EinP-152-m01	Introdu	ıction to	Program	ıming	ming								
	ECTS	5	Duratio	n 1 semester		Method of grading	numerical grade	Modul level	undergraduate				
	Course				+ Ü (2)								
	Method of assessment				rritten examination (approx. 60 to 120 minutes).  I announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examinati  If one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per can  It are at a candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per can  It are at a candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per can  It are at a candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per can  It are at a candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per can  It are at a candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per can  It are at a candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per can  It are at a candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes) or an oral examination in groups or 2 candidates (approx. 15 minutes) or an oral examination in groups or 2 candidates (approx. 15 minutes) or an oral examination in groups or 2 candidates (approx. 15 minutes) or 2 candidates (approx. 15 minutes) or 2 candidates (approx. 15 minutes) or 2 candidates (approx. 15 minutes								
		d to in		§ 69 l	49   Nr. 1 b) 69   Nr. 1 b)								
10-I-ADS-152-m01	Algorit	hms an	d data stı	ucture	tures								
	ECTS 10 Duratio			1 semester	Method of grading	numerical grade	Modul level	undergraduate					
	Course				+ Ü (2)								
	Method	Method of assessment			written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candidate). creditable for bonus								
					§ 49   Nr. 1 a) § 69   Nr. 1 a)								
10-l-ST-152-m01	Softwa	re Tech	nology					'					
	ECTS	10	Duratio		1 semester	Method of grading	numerical grade	Modul level	undergraduate				
	Course	S		V (4)	+ Ü (2)								
	Method of assessment			If ann of one date)	written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candidate). creditable for bonus								
	Referred to in LPO I				§ 49   Nr. 1 b) § 69   Nr. 1 b)								

10-I-PP-152-m01	Practica	Practical Course in Programming											
	ECTS	10	Duration	า		Method of grading	(not) successfully completed	Modul level	undergraduate				
	Courses	;		P (6)	<sup>7</sup> (6)								
				If ann	written examination (approx. 60 to 120 minutes).  If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candidate).								
	Referred	d to in L	PO I		§ 49   Nr. 1 c) § 69   Nr. 1 d)								
10-I-SWP-152-m01	Practica	al cours	e in softv	vare				,					
	ECTS	ECTS 10 Duratio			1 semester	Method of grading	(not) successfully completed	Modul level	undergraduate				
	Courses			P (6)	•	•		•					
	Method of assessment				cal project (Compl 10 minutes per gro		are project in groups (approx.	300 hours per p	erson) and final presentation (ap-				
	Module complet		ssfully	10-l-P	o-l-PP, 10-l-ST								
	other pr	rerequis	sites		n addition, the knowledge and skills acquired in module 10-I-ADS are required. Prior attendance of this module is therefore nighly recommended.								
	Referred	d to in L	PO I	§ 69 I	Nr. 1 d)								
10-I-RAL-152-m01	Digital	Digital computer systems											
	ECTS	10	Duration		1 semester	Method of grading	numerical grade	Modul level	undergraduate				
	Courses			V (4) -									
	Method of assessment				ounced by the lect	urer at the beginning o	of the course, the written exan		replaced by an oral examination s (approx. 15 minutes per candi-				
10-l-lÜ-152-m01	Informa	tion Tra	ansmissio	on									
	ECTS	10	Duration	1	1 semester	Method of grading	numerical grade	Modul level	undergraduate				
	Courses	5		V (4) -	+ Ü (2)								
					written examination (approx. 60 to 120 minutes).  If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candidate).  creditable for bonus								
	Referred	d to in L	PO I	§ 22 l	Nr. 3 b)								

10-I-HWP-152-m01	Practica	al cours	e in hard	ware									
	ECTS	10	Duration	ı	1 semester	Method of grading	(not) successfully completed	Modul level	undergraduate				
	Courses			P (6)									
	Method	d of ass	essment		portfolio: completion of approx. 3 to 10 project assignments (approx. 250 hours total) and presentation of results (approx. 10 minutes per project)								
	Referre	d to in l	PO I		l Nr. 3 b)								
Theoretical Informa	atics (10	ECTS cı	redits)										
10-I-TIV-152-m01	Theoretical Informatics												
	ECTS	5	Duration	1	1 semester	Method of grading	numerical grade	Modul level	undergraduate				
	Courses	S		V (4)									
	Method	of ass	essment		itten examination (approx. 60 to 120 minutes).								
									replaced by an oral examination s (approx. 15 minutes per candi-				
				date).		approx. 20 minutes) or	an oral examination in groups	or 2 candidate	s (approx. 15 minutes per candi-				
	Referre	d to in l	PO I		49   Nr. 1 a) 69   Nr. 1 a)								
10-I-TIT-152-m01	Tutorial Theoretical Informatics												
	ECTS	5	Duration	ı	1 semester	Method of grading	(not) successfully completed	Modul level	undergraduate				
	Courses			Ü (2)									
	Method	l of ass	essment	a) completion of approx. 11 exercises with approx. 4 components each (50% to be completed correctly) or b) written examination (approx. 180 to 240 minutes)  Method of assessment to be selected by the candidate.									
	Referre	d to in l	PO I		Nr. 1 a) Nr. 1 a)								
Mathematics (30 E	CTS cred	lits)											
10-I-LOG-152-m01	Logic fo	or infor	natics										
	ECTS	5	Duration	1	1 semester	Method of grading	numerical grade	Modul level	undergraduate				
	Courses	S		V (2) -	+ Ü (2)								
	Method	d of ass	essment	ment written examination (approx. 60 to 120 minutes).									
		If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candi-											
		date).							s (approx. 15 minutes per candi-				
			Language of assessment: German and/or English creditable for bonus										
	Referre	d to in l	PO I		l Nr. 3 b)								

10-M-INF1-152-m01	Mathe	Mathematics 1 for students in Computer Science											
	ECTS	10	Duratio		1 semester	Method of grading numerical grade	Modul level	undergraduate					
	Course	es	,		+ Ü (2) ıle taught in: Ü: Gerr	man or English	,						
	Method	d of ass	essment	b) ora c) ora Langi	a) written examination (approx. 90 to 180 minutes, usually chosen) or b) oral examination of one candidate each (15 to 30 minutes) or c) oral examination in groups (groups of 2, 10 to 15 minutes per candidate) canguage of assessment: German and/or English creditable for bonus								
10-M-INF2-152-	Mathe	matics	2 for stud	ents in	<b>Computer Science</b>								
mo1	ECTS	10	Duratio	1	1 semester	Method of grading numerical grade	Modul level	undergraduate					
	Course	?S	·		V (4) + Ü (2) Module taught in: Ü: German or English								
	Method	d of ass	essment	b) ora c) ora Langi	a) written examination (approx. 90 to 180 minutes, usually chosen) or b) oral examination of one candidate each (15 to 30 minutes) or c) oral examination in groups (groups of 2, 10 to 15 minutes per candidate) Language of assessment: German and/or English creditable for bonus								
10-I-AGT-152-m01	Algorit	hmic G											
	ECTS	5	Duratio	1	1 semester	Method of grading numerical grade	Modul level	undergraduate					
	Course	es.		V (2) + Ü (2)									
	Method of assessment			written examination (approx. 60 to 120 minutes).  If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candidate).  Language of assessment: German and/or English creditable for bonus									
	Referred to in LPO I			§ 22	I Nr. 3 b)								

<b>Compulsory Electiv</b>	es (35 E	CTS cre	dits)										
Computer Science	(25 ECTS	credit	s)										
10-l=ICG-152-m01	Interac	tive Co	mputer Gi	raphic	aphics								
	ECTS	5	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	graduate				
	Course				$V(2) + \ddot{U}(2)$								
				If anr of on date) Langi credi	written examination (approx. 60 to 120 minutes).  If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candidate).  Language of assessment: German and/or English creditable for bonus								
				Focus HCI	ocuses available for students of the Master's programme Informatik (Computer Science, 120 ECTS credits):								
10-I-DB-152-m01	Databa	ses											
	ECTS 5 Duration				1 semester Method of grading numerical grade Modul level undergraduate								
	Course	S		V (2)	+ Ü (2)								
	Method	d of ass	essment	If anr of on date) Lang	written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candidate). Language of assessment: German and/or English creditable for bonus								
	Referred to in LPO I			§ 49   Nr. 1 b) § 69   Nr. 1 b)									
10-I-WBS-152-m01	Knowle	dge-ba	sed Syste	ems			_						
	ECTS	5	Duratio		1 semester	Method of grading	numerical grade	Modul level	undergraduate				
	Course		,	` ′	+ Ü (2)				_				
	Method of assessment			If anr of on date) Lang	written examination (approx. 60 to 120 minutes).  If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candidate).  Language of assessment: German and/or English creditable for bonus								
	Referred to in LPO I			§ 22	II Nr. 3 b)								

10-I-DM-152-m01	Data Mining											
	ECTS 5	Duratio	n	1 semester	Method of grading numerical grade	Modul level	undergraduate					
	Courses	·	V (2)	+ Ü (2)		•						
	Method of a	ssessment		written examination (approx. 60 to 120 minutes).								
				If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination								
				of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candidate).  Language of assessment: German and/or English								
				creditable for bonus								
	Referred to			II Nr. 3 b)								
10-I-00P-152-m01	Object orier	ited Progran	nming									
	ECTS 5	Duratio		1 semester	Method of grading numerical grade	Modul level	undergraduate					
	Courses		V (2)	+ Ü (2)								
	Method of a	ssessment	If ann of on date) Langu	ritten examination (approx. 60 to 120 minutes). announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination fone candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candiate). anguage of assessment: German and/or English reditable for bonus								
	Referred to	in LPO I	§ 22 l	II Nr. 3 b)								
10-l-KT-152-m01	Computational Complexity											
	ECTS 5	Duratio	n	1 semester	Method of grading numerical grade	Modul level	undergraduate					
	Courses	<u>'</u>	V (2)	$V(2) + \ddot{U}(2)$								
	Method of a	ssessment	If ann of on date) Langu	written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minudate). Language of assessment: German and/or English creditable for bonus								
	Referred to	in LPO I	§ 22 l	§ 22 II Nr. 3 b)								
10-I-KD-152-m01	Cryptograpl	ny and Data	Securi	ity								
	ECTS 5	Duratio	n	1 semester	Method of grading numerical grade	Modul level	undergraduate					
	Courses		V (2)	V (2) + Ü (2)								
	Method of a	ssessment	If ann of on date) Lang	written examination (approx. 60 to 120 minutes).  If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candidate).  Language of assessment: German and/or English creditable for bonus								
	Referred to	in LPO I	§ 22 l	I Nr. 3 b)								

10-l-3D-152-m01	3D Poin	t Cloud	l Processi	ng		,		_					
	ECTS	5	Duration	1	1 semester	Method of grading	numerical grade	Modul level	undergraduate				
	Courses			V (2)	+ Ü (2)			·					
	Method	of ass	essment		written examination (approx. 60 to 120 minutes).								
				of on date) Langu	announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination f one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candiate).  anguage of assessment: German and/or English reditable for bonus								
	Referred	l to in l	PO I	§ 22 l	I Nr. 3 b)								
10-I-BS-152-m01	Operation	ng Sys	tems					,					
	ECTS	5	Duration	1	1 semester	Method of grading	numerical grade	Modul level	undergraduate				
	Courses			V (2)	+ Ü (2)								
				If anr of on date) Langu	written examination (approx. 60 to 120 minutes).  f announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candidate).  Language of assessment: German and/or English creditable for bonus								
10-I-RAK-152-m01	Computer Architecture												
	ECTS	5	Duration	1	1 semester	Method of grading	numerical grade	Modul level	undergraduate				
	Courses			V (2)	+ Ü (2)								
	Method of assessment			If anr of on date) Lange	written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral exam of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per date). Language of assessment: German and/or English creditable for bonus								
	Referred	l to in l		§ 22 II Nr. 3 b) § 69 I Nr. 1 c): Rechnerarchitektur									
10-I-RK-152-m01			vorks and	Comr	nunication System	ıs							
	ECTS	8	Duration	1	1 semester	Method of grading	numerical grade	Modul level	undergraduate				
	Courses			V (4)	+ Ü (2)								
	Method of assessment			written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candidate). Language of assessment: German and/or English creditable for bonus									
	Referred to in LPO I			§ 22 II Nr. 3 b)									

10-l-Gl-152-m01	Select	ed Basi	ics of Com	puter S	cience							
	ECTS	5	Duratio	n	1 semester	Method of grading numerical grade	Modul level	undergraduate				
	Course	25		V (4) +	- Ü (2)	•						
	Metho	d of as:	sessment	If anno of one date). Langu	written examination (approx. 60 to 120 minutes). If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candidate). Language of assessment: German and/or English creditable for bonus							
<b>subsidiary subjec</b> Students must sel				red and	l must achieve th	ne required number of ECTS credits in this minor.						
Mathematics (10 I	CTS cred	lits)										
10-M-DI-	Introdu	uction	to Discrete	Mathe	matics for stude	ents of other subjects						
Maf-152-m01	ECTS	10	Duratio	n	1 semester	Method of grading numerical grade	Modul level	undergraduate				
	Courses			V (4) +	- Ü (2)							
	Metho	d of as:	sessment	b) oral c) oral Langu	a) written examination (approx. 90 to 180 minutes, usually chosen) or b) oral examination of one candidate each (15 to 30 minutes) or c) oral examination in groups (groups of 2, 10 to 15 minutes per candidate) Language of assessment: German and/or English creditable for bonus							
10-M-NUM1af-152-	Numer	Numerical Mathematics 1 for students of other subjects										
mo1	ECTS	10	Duratio	n	1 semester	Method of grading numerical grade	Modul level	undergraduate				
	Course	25		V (4) +	V (4) + Ü (2)							
	Metho	Method of assessment			a) written examination (approx. 90 to 180 minutes, usually chosen) or b) oral examination of one candidate each (15 to 30 minutes) or c) oral examination in groups (groups of 2, 10 to 15 minutes per candidate) Language of assessment: German and/or English creditable for bonus							
10-M-STO-1af-152-	Stocha	stics 1	for studer	its of o	ther subjects							
mo1	ECTS	10	Duratio			Method of grading numerical grade	Modul level	undergraduate				
	Course			V (4) +								
	Method of assessment			a) written examination (approx. 90 to 180 minutes, usually chosen) or b) oral examination of one candidate each (15 to 30 minutes) or c) oral examination in groups (groups of 2, 10 to 15 minutes per candidate) Language of assessment: German and/or English creditable for bonus								

10-M-ZT-	Introd	uction In	to Numb	er Theo	ory for students of ot								
Haf-152-m01	ECTS	10	Duratio		1 semester	Method of grading	numerical grade	Modul level	undergraduate				
	Cours	es		V (4) -	+ Ü (2)			•					
				b) ora c) ora Langu credit	Il examination of one l examination in grou lage of assessment: able for bonus	e candidate each (15 ups (groups of 2, 10 German and/or Engl	to 15 minutes per candidate)						
10-M-DGLaf-152-	Ordina	ary Diffe	ential Eq	uation	s for students of oth	er subjects							
mo1	ECTS	10	Duration		1 semester	Method of grading	numerical grade	Modul level	undergraduate				
	Cours	es		V (4) -	+ Ü (2)								
	Metho	od of asso	essment	a) written examination (approx. 90 to 180 minutes, usually chosen) or b) oral examination of one candidate each (15 to 30 minutes) or c) oral examination in groups (groups of 2, 10 to 15 minutes per candidate) Language of assessment: German and/or English creditable for bonus									
10-M-OR-	Opera	Operations Research for students of other subjects											
Saf-152-m01	ECTS	10	Duratio	<u> </u>	1 semester	Method of grading	numerical grade	Modul level	undergraduate				
	Cours	es		V (4) -	+ Ü (2)								
	Metho	od of asso	essment	b) ora c) ora Langu Asses	tten examination (ap al examination of one I examination in grou age of assessment: asment offered: In the able for bonus	e subsequent se	emester						
Physics (10 ECTS c	redits)												
11-EFNF-152-m01	Introd	uction to	Physics	for Stu	dents of other Disci	plines							
	ECTS	7	Duratio	า	2 semester	Method of grading	numerical grade	Modul level	undergraduate				
	Cours	es		V (4) -	+ V (3)								
	Metho	od of asso	essment	writte	written examination (60 to 120 minutes)								
	Additional Information			according to § 2 para. 2 sentence 2 APOLmCh in conjunction with No. I 2nd letter d) and No. I 1st letter d) of annex 1 to the APOLmCh and No. 4 of annex 2 to the APOLmCh									

11-PFNF-152-m01	Laboratory	y Course Phy	sics for	Students of other D	Disciplines						
	ECTS 3	Duratio	n	1 semester	Method of grading	(not) successfully completed	Modul level	undergraduate			
	Courses		P (4)				•				
	Method of	assessment	tes). Each	a) practical assignment with oral test (approx. 15 minutes, during experiments) and b) written examination (approx. 90 minutes).  Each experiment comprises preparation, performance and evaluation. Test as well as performance of experiments can each be repeated once.							
	Participan cation of p	ts and allo- places	Only	Only as part of pool of general transferable skills (ASQ): 10 places (lottery)							
	Additional	l Information		according to § 2 para. 2 sentence 2 APOLmCh in conjunction with No. I 2nd letter d) and No. I 1st letter d) of annex 1 to the APOLmCh and No. 4 of annex 2 to the APOLmCh							
Economics (10 ECTS	S credits)										
12-NW-EBWL-152-	Introduction to Business Administration - Minor										
mo1	ECTS 5	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	undergraduate			
	Courses		V (2)	V (2) + Ü (2)							
	Method of	assessment	writte	written examination (approx. 60 minutes)							
	Participan cation of p	ts and allo- places	200 places (lottery)								
12-NW-EV-	Introduction	on to Econom	ics - M	inor							
WL-152-m01	ECTS 5	Duratio		1 semester	Method of grading	numerical grade	Modul level	undergraduate			
	Courses			+ Ü (2)							
	Method of	assessment	writte	n examination (app	rox. 60 minutes)						
	Participan cation of p	ts and allo- places	max. 200 places. Modules 12-NW-EBWL and 12-NW-EVWL are not open for students of the following subjects: Wirtschaftswissenschaft (Business Management and Economics) Bachelor's (BSc with 180 ECTS credits), Wirtschaftsinformatik (Business Information Systems) Bachelor's (BSc with 180 ECTS credits) and Wirtschaftsmathematik (Mathematics for Economics) Bachelor's (BSc with 180 ECTS credits).								

12-ExtUR-G-152-	Financi	al Accou	ınting									
mo1	ECTS	5	Duration	1	1 semester	Method of grading	numerical grade	Modul level	undergraduate			
	Course				+ T (2)							
	Method	d of asse	essment	writte	written examination (approx. 60 minutes)							
	Participants and allocation of places			840 places. (1) No restrictions with regard to available places for Bachelor's students of Wirtschaftswissenschaft (Business Management and Economics) (BSc with 180 ECTS credits), Wirtschaftsmathematik (Mathematics for Economics) (BSc with 180 ECTS credits), Wirtschaftsinformatik (Business Information Systems) (BSc with 180 ECTS credits) as well as Bachelor's students with the minor Wirtschaftswissenschaft (Business Management and Economics) (60 ECTS credits). (2) The remaining places will be allocated to students of other subjects. (3) When places are allocated in accordance with (2) and the number of applications exceeds the number of available places, places will be allocated according to the following quotas: a) Quota 1 (50 % of places): total number of ECTS credits already achieved in the respective degree subject; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. b) Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. c) Quota 3 (25 % of places): lottery.								
12-IntUR-G-152-	Managerial Accounting											
mo1	ECTS	5	Duration	า	1 semester	Method of grading	numerical grade	Modul level	undergraduate			
	Course	S		V(2) + T(2)								
	Method of assessment			written examination (approx. 60 minutes)								
	Participants and allocation of places			(1) No and E dits), the mallocatexcee ces):	conomics) (BSc w Wirtschaftsinform inor Wirtschaftswi ated to students of eds the number of total number of EC TS credits achiever ive applicant; amo	ith 180 ECTS credits), I atik (Business Informa ssenschaft (Business other subjects. (3) Whavailable places, place TS credits already ach d, places will be allocating applicants with the	Nirtschaftsmathematik (Mather ation Systems) (BSc with 180 EC Management and Economics) (nen places are allocated in access will be allocated according to ieved in the respective degree steed by lot. b) Quota 2 (25 % of	matics for Econo TS credits) as w 60 ECTS credits) ordance with (2) the following q subject; among places): number esters, places wi	rell as Bachelor's students with (2). (2) The remaining places will be and the number of applications (100 % of plaapplicants with the same number of subject semesters of the rell be allocated by lot. c) Quota 3			

12-BPL-G-152-m01	Supply, Production and Operations Management. An Introduction											
	ECTS 5	Duration	1 semester	Method of grading numerical grade	Modul level	undergraduate						
	Courses	V	'(2) + T(2)									
	Method of asso	essment w	written examination (approx. 60 minutes)									
	Participants ar cation of place	es (a a d th a e c c o s	620 places. (1) No restrictions with regard to available places for Bachelor's students of Wirtschaftswissenschaft (Business Management and Economics) (BSc with 180 ECTS credits), Wirtschaftsmathematik (Mathematics for Economics) (BSc with 180 ECTS credits), Wirtschaftsinformatik (Business Information Systems) (BSc with 180 ECTS credits) as well as Bachelor's students with the minor Wirtschaftswissenschaft (Business Management and Economics) (60 ECTS credits). (2) The remaining places will be allocated to students of other subjects. (3) When places are allocated in accordance with (2) and the number of applications exceeds the number of available places, places will be allocated according to the following quotas: a) Quota 1 (50 % of places): total number of ECTS credits already achieved in the respective degree subject; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. b) Quota 2 (25 % of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. c) Quota 3 (25 % of places): lottery. (4) A waiting list will be maintained and places re-allocated by lot as they become available.									
12-I&F-G-152-m01	Investment and Finance. An Introduction											
	ECTS 5	Duration	1 semester	Method of grading   numerical grade	Modul level	undergraduate						
	Courses		(2) + T (2)									
	Method of asso	essment w	written examination (approx. 60 minutes)									
	Participants ar cation of place	es (1 a d th a e c c o s	and Economics) (BSc wit lits), Wirtschaftsinforma the minor Wirtschaftswis allocated to students of a exceeds the number of a es): total number of ECT of ECTS credits achieved pective applicant; amor	egard to available places for Bachelor's stude h 180 ECTS credits), Wirtschaftsmathematik tik (Business Information Systems) (BSc with seenschaft (Business Management and Econo other subjects. (3) When places are allocated vailable places, places will be allocated acco 'S credits already achieved in the respective , places will be allocated by lot. b) Quota 2 (2 ng applicants with the same number of subje (4) A waiting list will be maintained and place	(Mathematics for Econo h 180 ECTS credits) as w omics) (60 ECTS credits) d in accordance with (2) ording to the following of degree subject; among 25 % of places): number ect semesters, places wi	omics) (BSc with 180 ECTS crevell as Bachelor's students with (2) The remaining places will be and the number of applications quotas: a) Quota 1 (50 % of plaapplicants with the same number of subject semesters of the rell be allocated by lot. c) Quota 3						

12-Ewiinf-G-152-	Introduction to Business Informatics												
mo1	ECTS	5	Duration	1 9	emester	Method of grading	numerical grade	Modul level	undergraduate				
	Course	S		V (2) + T (	(2)	•							
	Method	d of asso		a) written examination (approx. 60 minutes) or									
				b) written examination consisting entirely or partly of multiple choice questions (approx. 60 minutes) Language of assessment: German and/or English creditable for bonus									
	cation	oants ar of place	S	840 places. (1) No restrictions with regard to available places for Bachelor's students of Wirtschaftswissenschaft (Business Management and Economics) (BSc with 180 ECTS credits), Wirtschaftsmathematik (Mathematics for Economics) (BSc with 180 ECTS credits), Wirtschaftsinformatik (Business Information Systems) (BSc with 180 ECTS credits) as well as Bachelor's students with the minor Wirtschaftswissenschaft (Business Management and Economics) (60 ECTS credits). (2) Additional places will be allocated to students of other subjects. (3) When places are allocated in accordance with (2) and the number of applications exceeds the number of available places, places will be allocated by lot among all applicants irrespective of their subjects. (4) Places on all courses of the module with a restricted number of places will be allocated in the same procedure. (5) A waiting list will be maintained and places re-allocated by lot as they become available.									
12-GP-G-152-m01			iness Pro										
		5	Duration		semester	Method of grading	numerical grade	Modul level	undergraduate				
	Course			V (2) + Ü (2)									
	Method	d of asso		a) written examination (approx. 60 minutes) or b) term paper (approx. 15 pages) or c) term paper (approx. 10 to 15 pages) and presentation (approx. 10 minutes); (weighted 2:1) creditable for bonus									
		oants ar of place	S	15 places. (1) The number of places is not restricted for students of the Bachelor's degree subject Wirtschaftsinformatik (Business Information Systems) (BSc with 180 ECTS credits). (2) Additional places will be allocated to students of other subjects provided there is enough capacity. These additional places will be allocated by lot among all applicants irrespective of their subjects. (3) Places on all courses of the module with a restricted number of places will be allocated in the same procedure. (4) A waiting list will be maintained and places re-allocated by lot as they become available.									
12-FRBE-F-152-m01	Forward	d and R	everse Bu	siness En	gineering								
	ECTS	5	Duration	1 9	emester	Method of grading	numerical grade	Modul level	undergraduate				
	Course	S		V (2) + Ü	(2)		•						
	Method	d of asso		a) written examination (approx. 60 minutes) or b) term paper (approx. 15 pages) or c) term paper (approx. 10 to 15 pages) and presentation (approx. 10 minutes); (weighted 2:1) creditable for bonus									
		oants ar of place	S	Bachelor rential co accordan by lot am	's students of Wi insideration. (2) ce with (1) and ( ong applicants f	irtschaftsinformatik The remaining place 2) and the number o rom this group. (4) F	(Business Information System is will be allocated to students f applications exceeds the nu Places on all courses of the mo	rs) (BSc with 180 l s of other subjects mber of available odule with a restri	will be allocated as follows: (1) ECTS credits) will be given prefeso. (3) When places are allocated in places, places will be allocated cted number of places will be alloy lot as they become available.				

Linguistics (10 ECT	S credits)											
o4-DtLABA-BM-	Level One Module German Linguistics											
SW-152-m01	ECTS 5 Duration	n 1 semester Method of grading numerical grade Modul level undergraduate										
	Courses	V(2) + S(2) + T(1)										
	Method of assessment	written examination (approx. 75 minutes)										
	Referred to in LPO I	§ 43   Nr. 2 b)										
a . DH ADA AM	Lavel Two Madula Cram	§ 63   Nr. 2 b)										
04-DtLABA-AM- SW1-152-m01		matical Structures of German  Method of grading   numerical grade   Modul level   undergraduate										
	ECTS 5 Duration	Method of grading   numerical grade   Modul level   undergraduate   V (1) + S (2) + T (1)										
		written examination (approx. 75 minutes)										
	Referred to in LPO I	§ 43 l Nr. 2 b)										
	Keleffed to III El O I	§ 63   Nr. 2 b)										
Biology (10 ECTS ci	redits)											
07-1A1TI-152-m01	Evolution and the Animal Kingdom											
	ECTS 5 Duration	n 1 semester Method of grading numerical grade Modul level undergraduate										
	Courses	V (2) + Ü (3)										
	Method of assessment	written examination (approx. 60 minutes) creditable for bonus										
	other prerequisites	Admission prerequisite to assessment: exercises. Regular attendance (minimum 80%) and successful completion of exercises (approx. 25 to 30 hours) are prerequisites for admission to assessment.										
	Referred to in LPO I	§ 41   Nr. 1 (4 ECTS credits) and § 41   Nr. 4 (1 ECTS credits) § 61   Nr. 1 (4 ECTS credits) and § 61   Nr. 4 (1 ECTS credits)										
07-2A2GEN-	Genetics, Neurobiology											
V-152-m01	ECTS 5 Duration	n 1 semester Method of grading numerical grade Modul level undergraduate										
	Courses	V (3)										
	Method of assessment	written examination (approx. 60 to 90 minutes) creditable for bonus										
	other prerequisites	Admission prerequisite to assessment: exercises. Regular attendance (minimum 80%) and successful completion of exercises (approx. 25 to 30 hours) are prerequisites for admission to assessment.										
	Referred to in LPO I	§ 61   Nr. 2 (2 ECTS credits) § 61   Nr. 3 (1 ECTS credits) § 61   Nr. 4 (1 ECTS credits)										
07-M-BST-152-m01	Mathematical Biology a											
	ECTS 4 Duration											
	Courses	$V(2) + \ddot{U}(2)$										
	Method of assessment	written examination (approx. 60 minutes) creditable for bonus										
Bachelor's with 1 major (	Computer Science (2015)	JMU Würzburg • generated 18-Apr-2025 • exam. reg. data record 82 079 - - H 2015 page 16 / 19										

07-3A3OE-	Plant and Animal Ecology											
KO-152-mo1	ECTS	ECTS 6 Duration		1	1 semester	Method of grading	numerical grade	Modul level	undergraduate			
	Course	Courses			V (2) + Ü (2)							
				written examination (approx. 90 minutes) creditable for bonus								
		ed to in		§ 61 l								
07-3A3GEM-	Genes	, Moleci	ıles, Tech	nologi	es							
T-152-m01	ECTS	6	Duratio		1 semester	Method of grading	numerical grade	Modul level	undergraduate			
	Course			V (4)								
	Metho	d of ass	essment		n examination (appraised able for bonus	rox. 90 minutes)						
Law (10 ECTS credi	ts)											
02-J1-152-m01	Introd	uction to	the Gerr	nan Legal System								
	ECTS	5	Duratio	1	1 semester	Method of grading	numerical grade	Modul level	undergraduate			
	Course	es		$V(2) + \ddot{U}(2)$								
	Metho	d of ass	essment	written examination (approx. 120 minutes) Assessment offered: Every semester								
		pants ar of place		max. 80 places. Students applying after not having successfully completed assessment in the past two semesters will be given preferential consideration. The remaining places will be allocated by lot. A waiting list will be maintained and places re-allocated by lot as they become available. Places on all courses of the module with a restricted number of places will be allocated in the same procedure.								
02-G&Hre-G-152-	Commercial and Business Law											
mo1	ECTS	5	Duratio	า	1 semester	Method of grading	numerical grade	Modul level	undergraduate			
	Course	es		V (3) -	+ Ü (2)							
	Metho	d of ass	essment	written examination (approx. 120 minutes)								
		pants ar of place		dents will be numb applie sessn	with the minor Private allocated to stude er of applications, the cations, the remaining ment in past years wi	atrecht (Private Law). Ints of the Master's de The remaining places The places will be allo Il be given preferenti	A total of 20 places will be egree programme Econom may be allocated to stude cated as follows: Student	ne allocated to studen nics. Should the numb ents of other subjects ts applying after not h naining places will be	Law) as well as Bachelor's stu- its of other subjects. 10 of these per of available places exceed the . Should there be more than 10 aving successfully completed as- allocated by lot. A waiting list will			

Geography (10 ECT	S credits)	)										
04-Geo-FER-	Introduction to Geographical Remote Sensing											
NE-152-m01	ECTS	5	Duration	ı	1 semester	Method of grading	numerical grade	Modul level	undergraduate			
	Courses			V (2) +								
						nan and/or English						
	Method	of asse	essment	written examination (approx. 45 minutes) Language of assessment: German and/or English								
				creditable for bonus								
	Referred	l to in L	PO I	§ 66 I	§ 66 l Nr. 2							
04-Geo-FER-	Applicat	tions of	Remote	Sensin	g in Geography							
NA-152-mo1	ECTS	5	Duration	ı	1 semester	Method of grading	numerical grade	Modul level	undergraduate			
	Courses			V (2) + Modul		nan and/or English						
	Method	of asse	essment	Langua	written examination (approx. 45 minutes) Language of assessment: German and/or English creditable for bonus							
Medicine (10 ECTS	credits)											
03-M-MT-152-m01	Practical Course in medical terminology											
	ECTS 5 Duratio			ı	1 semester	Method of grading	(not) successfully completed	Modul level	unknown			
	Courses			P (o)								
				written examination (approx. 60 to 90 minutes)								
03-M-IM-152-m01	Internal Medicine											
	ECTS	5	Duration		1 semester	Method of grading	numerical grade	Modul level	unknown			
	Courses			V (o)								
	Method of assessment			oral examination (one candidate each: approx. 15 minutes, or groups of up to 3 candidates: approx. 10 minutes per candidate) Assessment will usually have reference to one of the sub-specialities of internal medicine, e. g. cardiology, pulmonology, nephrology, endocrinology, oncology, gastroenterology, rheumatology, infectious disease.								
Key Skills Area (20	ECTS cre	dits)										
General Key Skills In addition to the m				dents m	ay also take mod	dules offered by JMU as	part of the pool of general tran	nsferable skills	(ASQ).			
General Key Skills	(subject-	specific	E)									
10-I-TUT1-152-m01	Tutor ac	tivity 1										
	ECTS	2	Duration	Method of grading (not) successfully completed   Modul level   undergraduate					undergraduate			
	Courses			T (2)								
	Method	of asse	essment			ring activities (5 to 10 p	ages)					
	Referred	l to in L	PO I		§ 22    Nr. 2 f)							
				§ 22 II Nr. 3 f)								

10-I-TUT2-152-m01	Tutor activity 2											
	ECTS 2 Duration			n		Method of grading	(not) successfully completed	Modul level	undergraduate			
	Courses	5		T (2)								
	Method	of asse	essment	Wrap-up report on tutoring activities (5 to 10 pages)								
	Referred	d to in L	PO I	§ 22    Nr. 2 f) § 22    Nr. 3 f)								
10-I-TUT3-152-m01	Tutor ac	ctivity 3	3									
	ECTS 2 Duration			1	Method of grading (not) successfully completed Modul level				undergraduate			
	Courses	5		T (2)								
	Method	l of asse	essment	Wrap-	up report on tutorin	g activities (5 to 10 p	ages)					
Subject-specific Ke	y Skills (	(15 ECT:	S credits)									
10-I-SEM1-152-m01	Semina	r - Sele	cted Topi	cs in C	omputer Science 1							
	ECTS	5	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	undergraduate			
	Courses	5	•	S (2)								
	Method of assessment			written elaboration (approx. 10 to 15 pages) and presentation (approx. 30 to 45 minutes) with subsequent discussion on a topic from the field of computer science Language of assessment: German and/or English								
	Referred	d to in L	PO I	§ 22 II Nr. 3 b)								
10-I-SEM2-152-	Semina	r - Sele	cted Topi	cs in C	omputer Science 2							
mo1	ECTS	5	Duratio	1	1 semester	Method of grading	numerical grade	Modul level	undergraduate			
	Courses	5	•	S (2)				•				
	Method of assessment			Wrap-up report on tutoring activities (5 to 10 pages) Language of assessment: German and/or English								
10-I-PV-152-m01	Project Presentation											
	ECTS	5	Duratio	n	1 semester	Method of grading	numerical grade	Modul level	undergraduate			
	Courses	5		S (5)								
	Method of assessment			presentation of a project developed by the candidate analogous to a presentation for laypersons with a knowledge of computer science at a trade fair as well as discussion (approx. 10 to 15 minutes total)  Language of assessment: German and/or English								
	Referred	d to in L	.PO I	§ 22 II Nr. 3 b)								
Thesis (10 ECTS cre	edits)											
10-l-BA-152-m01	Bachelo	or's The	sis Infor	matics								
-	ECTS	10	Duratio	1	1 semester	Method of grading	numerical grade	Modul level	undergraduate			
	Courses	5		No co	No courses assigned to module							
	Method	l of asse	essment	Bachelor's thesis (approx. 50 to 100 pages) Language of assessment: German and/or English								
	Additional Information			Time to complete: 10 weeks.								
Bachelor's with 1 major (	Computer Sci	ience (2011	5)				JMU Würzburg • generated 18-Apr-20	25 • exam. reg. data	record 82 079 - - H 2015 page 19 / 19			
_acc.o. 5 With 1 major c	pater 361	200 (201	"				,oa.zza.a generatea 10 Apr ze	- J Chamillegi data	0/3    1/ -0-1			