

Annex SFB

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

Responsible: Faculty of Chemistry and Pharmacy

Examination regulations version: 2017

Abbreviations used: Course types: **E** = field trip, **K** = colloquium, **O** = conversatorium, **P** = placement/lab course, **R** = project, **S** = seminar, **T** = tutorial, **Ü** = exercise, **V**

= lecture

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

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

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

= list of modules

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

Conventions for the modules in this SFB:

Unless otherwise stated, courses and assessments will be held in German, assessments will be offered every semester and modules are not creditable for bonus.

Information on assessment procedures:

Should there be the option to choose between several methods of assessment, the lecturer will agree with the module coordinator on the method of assessment to be used in the current semester by two weeks after the start of the course at the latest and will communicate this in the customary manner.

Should a module comprise more than one graded assessment, all assessments will be equally weighted, unless otherwise stated below.

Should the assessment comprise several individual assessments, successful completion of the module will require successful completion of all individual assessments.

In accordance with the general regulations governing the degree subject described in this module catalogue:

ASP02015

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

09-Aug-2017 (2017-48)

??-???-2024 (2024-??)

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	I	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	sessme	ent							
	Only after succompletion o		l if applica	ble						
	Other prereq	uisites	if applica	if applicable						
	Participants and allocation of places		cati- if applica	if applicable						
	Additional information		on if applica	if applicable						
	Referred to in	ı LPO I	if applica	ble (examination re	gulations for teachin	g-degree programmes)				

Compulsory Cours	es (150 ECTS credits)								
Subfield General a	nd Inorganic Chemistry (47 ECTS credits)							
08-AC1-152-m01	Principles of Inorganic	Chemistry							
	ECTS 8 Duration	n 1 semester Method of grading numerical grade Modul level undergraduate							
	Courses	/ (₄) + V (₂)							
	Method of assessment	a) written examination (approx. 90 to 180 minutes) or b) oral examination of one candidate each (20 to 30 minutes) or c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or d) log (approx. 20 pages) or e) presentation (approx. 30 minutes) Language of assessment: German and/or English							
	Additional Information	according to § 2 para. 2 sentence 2 APOLmCh in conjunction with No. I 2nd letter a) of annex 1 to the APOLmCh and No. 1 of annex 2 to the APOLmCh							
	Referred to in LPO I	§ 42 Nr. 1 and § 22 Nr. 1 h) § 62 Nr. 1							
08-ACP1-152-m01	Inorganic Chemistry 1 (
	ECTS 10 Duration								
	Courses	P (12) + S (2)							
	Method of assessment	[a) written examination (approx. 90 to 180 minutes) or b) oral examination of one candidate each (20 to 30 minutes) or c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or d) log (approx. 20 pages) or e) presentation (approx. 30 minutes)] and Vortestate/Nachtestate (pre and post-experiment examination talks approx. 15 minutes each, log approx. 5 to 10 pages each) and assessment of practical assignments (2 to 4 random examinations) Language of assessment: German and/or English Assessment offered: Once a year, winter semester							
	Additional Information	according to § 2 para. 2 sentence 2 APOLmCh in conjunction with No. I 1st letter a) of annex 1 to the APOLmCh and No. 1 of annex 2 to the APOLmCh							
08-AS1-152-m01	Inorganic Chemistry of	the Elements							
	ECTS 6 Duration								
	Courses	V (2) + V (2)							
	Method of assessment	a) written examination (approx. 90 to 180 minutes) or b) oral examination of one candidate each (20 to 30 minutes) or c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or d) log (approx. 20 pages) or e) presentation (approx. 30 minutes) Language of assessment: German and/or English							
	Additional Information	according to § 2 para. 2 sentence 2 APOLmCh in conjunction with No. I 2nd letter a) of annex 1 to the APOLmCh and No. 1 of annex 2 to the APOLmCh							
	Referred to in LPO I	§ 62 Nr. 1							

08-ANP-152-m01	Analyti	ical Che	mistry (la	b)	,	,					
	ECTS	6	Duration		1 semester	Method of grading	(not) successfully completed	Modul level	undergraduate		
	Course				+ S (1)						
	Method	d of ass	essment	and a	Vortestate/Nachtestate (pre and post-experiment examination talks approx. 15 minutes each, log approx. 5 to 10 pages each) and assessment of practical performance (2 to 4 random examinations) Language of assessment: German and/or English Assessment offered: Once a year, summer semester						
				accor nex 2	according to § 2 para. 2 sentence 2 APOLmCh in conjunction with No. I 1st letter a) of annex 1 to the APOLmCh and No. 1 of annex 2 to the APOLmCh						
08-ACP2-172-m01	Inorgai	nic Che	mistry 2 (l	ab)				,			
	ECTS	5	Duration	า	1 semester	Method of grading	(not) successfully completed	Modul level	undergraduate		
	Courses			P (12)				,			
	Method of assessment			and a	ssessment of pra- uage of assessme	ctical performance (2 to nt: German and/or Eng	4 random examinations)	15 minutes eac	h, log approx. 5 to 10 pages each)		
	Module comple		essfully	(08-0	08-OCP1 or 08-OCP1-BC) and 08-AS1						
08-AC-FSE-152-	Solid S	tate Ch	emistry, S	Spectr	oscopic Methods,	Organoelement Chem	istry				
mo1	ECTS 12 Duratio			1	2 semester	Method of grading	numerical grade	Modul level	undergraduate		
	Course				+ V (2) + V (3) + Ü						
	Method of assessment			a) written examination (approx. 90 to 180 minutes) or b) oral examination of one candidate each (20 to 30 minutes) or c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or d) log (approx. 20 pages) or e) presentation (approx. 30 minutes) Language of assessment: German and/or English							
Subfield Organic C	hemistry	y (40 EC	TS credits	5)							
08-0C1-152-m01	Organi	c Chem	istry 1								
	ECTS	5	Duration	1	1 semester	Method of grading	numerical grade	Modul level	undergraduate		
	Course	:S		V (3)	+ Ü (1)						
	Method	d of ass	essment	a) written examination (approx. 90 to 180 minutes) or b) oral examination of one candidate each (20 to 30 minutes) or c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or d) log (approx. 20 pages) or e) presentation (approx. 30 minutes) Language of assessment: German and/or English							
	Additional Information			according to § 2 para. 2 sentence 2 APOLmCh in conjunction with No. I 2nd letter b) of annex 1 to the APOLmCh and No. 2 of annex 2 to the APOLmCh							
	Referred to in LPO I			§ 62	Nr. 2						

08-0C2-152-m01	Organi	c Chemi	istry 2 an	d analy	tical methods in o	rganic chemistry					
	ECTS	9	Duration	า	1 semester	Method of grading numerical grade	Modul level	undergraduate			
	Course	S		V (3) -	+ Ü (1) + V (2)						
	Method	d of asso	essment	b) ora	l examination of on	pprox. 90 to 180 minutes) or ne candidate each (20 to 30 minutes) or pups of up to 3 candidates (approx. 15 minutes per c	andidate) or				
				e) pre	d) log (approx. 20 pages) or e) presentation (approx. 30 minutes) anguage of assessment: German and/or English						
08-0CP1-172-m01	Organi	c Chemi	istry - lab	1							
	ECTS	8	Duration	ı	1 semester	Method of grading (not) successfully completed	Modul level	undergraduate			
	Course	S		P (14)							
	Method	d of asso	essment	and a	ortestate/Nachtestate (pre and post-experiment examination talks approx. 15 minutes each, log approx. 5 to 10 pages each) nd assessment of practical performance (2 to 4 random examinations) anguage of assessment: German and/or English						
	Module comple	es succe eted	essfully	08-00	C1 and (08-ACP1 or	o8-ANP)					
08-0CP2-152-m01	Organi	Organic Chemistry - advanced laboratory course for students of chemistry									
	ECTS	5	Duration	า	1 semester	Method of grading (not) successfully completed	Modul level	undergraduate			
	Course			P (11)	• •						
	Method of assessment			and a	Vortestate/Nachtestate (pre and post-experiment examination talks approx. 15 minutes each, log approx. 5 to 10 pages e and assessment of practical performance (2 to 4 random examinations) Language of assessment: German and/or English						
	Module comple	es succe eted	essfully	08-00	C2 and (08-OCP1 or	OCP1-BC)					
08-0C3+4-152-	Organi	c Chemi	istry 3 & A	Ĥ							
mo1	ECTS	13	Duration		2 semester	Method of grading numerical grade	Modul level	undergraduate			
	Course	S			+ Ü (2) + V (2) + Ü (2						
	Method	d of asso	essment	b) ora c) ora d) log e) pre	al examination of on l examination in gro ((approx. 20 pages) esentation (approx.		andidate) or				

Subfield Physical	and Theo	retical	Chemistry	/ (40 E	CTS credits)						
08-PC-QMS-152-	Princip	les of q	uantum n	nechan	ics and spectrosco	ру					
mo1	ECTS	10	Duration	n	1 semester	Method of grading numerical grade	Modul level	undergraduate			
	Course	S		V (4) ·	$V(4) + \ddot{U}(2) + V(2)$						
08 DC TVE 452	Method	d of ass	essment	b) ora c) ora d) log e) pre Langu	a) written examination (approx. 90 to 180 minutes) or b) oral examination of one candidate each (20 to 30 minutes) or c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or d) log (approx. 20 pages) or e) presentation (approx. 30 minutes) Language of assessment: German and/or English creditable for bonus						
08-PC-TKE-152-	Thermo	Thermodynamics, Kinetics, Electrochemistry									
mo1	ECTS	9	Duration	n n	1 semester	Method of grading numerical grade	Modul level	undergraduate			
	Course	S	•	V (4) ·	+ Ü (2)	•	•				
	Method	d of ass	essment	a) written examination (approx. 90 to 180 minutes) or b) oral examination of one candidate each (20 to 30 minutes) or c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or d) log (approx. 20 pages) or e) presentation (approx. 30 minutes) Language of assessment: German and/or English creditable for bonus							
	Referre	d to in	LPO I	§ 62 l	Nr. 1						
08-PCP-152-m01	Physic	al Chem	istry (lab)							
	ECTS	9	Duratio		1 semester	Method of grading (not) successfully completed	Modul level	undergraduate			
	Course	S		P (6)							
	Method of assessment			Vortestate/Nachtestate (pre and post-experiment examination talks approx. 15 minutes each, log approx. 5 to 10 pages each) and assessment of practical performance (2 to 4 random examinations) Language of assessment: German and/or English							
	Modules successfully completed			o8-P0	-QMS or o8-PC-TKE						

08-TC-152-m01	Quant	um Che	mistry		1			'	-		
	ECTS	3	Duratio	n	1 semester	Method of gradin	g numerical grade	Modul level	undergraduate		
	Course	es		V (2)	+ Ü (1)			·	•		
	Metho	d of ass	essment			(approx. 90 to 180 m					
				c) ora d) log e) pro Lang	o) oral examination of one candidate each (20 to 30 minutes) or c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or d) log (approx. 20 pages) or e) presentation (approx. 30 minutes) canguage of assessment: German and/or English creditable for bonus						
	Referre	ed to in	LPO I	§ 22	II Nr. 1 h) II Nr. 2 f) II Nr. 3 f)						
08-PC-SBL-152-	Symm	etry, ch	emical bo	nding	and light						
mo1	ECTS	9	Duratio	า	2 semester	Method of gradin	g numerical grade	Modul level	undergraduate		
	Course	es		V (3)	+ Ü (2) + V (2) + Ü	(2)					
	Metho	u or ass	sessment	b) or c) or d) log e) pr	a) written examination (approx. 90 to 180 minutes) or b) oral examination of one candidate each (20 to 30 minutes) or c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or d) log (approx. 20 pages) or e) presentation (approx. 30 minutes) Language of assessment: German and/or English						
Subfield Basics of	Natural	Science	es (23 ECT	S cred	its)						
08-BC1-152-m01	Biochemistry 1										
	ECTS	5	Duratio	n	1 semester	Method of gradin	g numerical grade	Modul level	undergraduate		
	Course	es		V (2)	V (2) + Ü (1)						
	Metho	d of ass	sessment	written examination (approx. 60 to 90 minutes)							
	Additio	onal Info	ormation		according to § 2 para. 2 sentence 2 APOLmCh in conjunction with No. II 2nd letter e) and No. II 1st letter c) of annex 1 to the APOLmCh and No. 3 of annex 3 to the APOLmCh						
	Referred to in LPO I			§ 62	§ 42 Nr. 2 § 62 Nr. 2						
10-M-MCH-172-	Mathe	matics	for studen	ts in (Chemistry and Bio	ochemistry					
mo1	ECTS	5	Duratio		1 semester	Method of gradin	g numerical grade	Modul level	undergraduate		
	Course				+ Ü (2)						
	Metho	d of ass	sessment	writte	en examination (a	ipprox. 90 to 120 mini	ites) and written exercis	ses (approx. 25)			

11-EFNF-152-m01	Introduction	1 to Physics	for Students of other Di	sciplines	,								
	ECTS 7	Duration		Method of grading numerical grade	Modul level	undergraduate							
	Courses		V (4) + V (3)										
	Method of a	ssessment	written examination (60	o to 120 minutes)									
	Additional I	nformation		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	Laboratory Course Physics for Students of other Disciplines											
	ECTS 3	Duration	1 semester										
	Courses	<u>'</u>	P (4)	·	•								
	Method of a	ssessment	tes).	Each experiment comprises preparation, performance and evaluation. Test as well as performance of experiments can each									
	Participants cation of pla		Only as part of pool of g	general transferable skills (ASQ): 10 places (lotto	ery)								
	Additional I	nformation	ccording 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 POLmCh and No. 4 of annex 2 to the APOLmCh										
03-TR-152-m01	Toxicology and legal studies												
	ECTS 3	Duratio		Method of grading numerical grade	Modul level	undergraduate							
	Courses		V (1) + V (1)										
			written examination (ap										
	Additional I	nformation	according to § 2 para. 2 sentence 2 APOLmCh in conjunction with No. II 2nd letter g) and i) and No. II 1st letter d) of annex 1 to the APOLmCh and No. 5 and 6 of annex 3 to the APOLmCh										
	Referred to	in LPO I	§ 22 Nr. 1 h) § 22 Nr. 2 f) § 22 Nr. 3 f)										
Key Skills Area (20	ECTS credits	()											
General Key Skills Students may selec			ered as part of the pool o	f general transferable skills (ASQ) of JMU.									
Subject-specific Ke	y Skills (15 E	CTS credits)											
Subject-specific Ke	y Skills, Com	pulsory Cou	rses (5 ECTS credits)										
08-VP-152-m01	Advanced la	boratory co	urse										
	ECTS 5	Duratio	1 semester	Method of grading (not) successfully comp	leted Modul level	undergraduate							
	Courses		P (10)										
	Method of a	ssessment	talk (approx. 15 minute Language of assessme	s) nt: German and/or English									
	Additional I	nformation	Additional information	on module duration: block placement / block ta	aught practical course	with a duration of 20 days.							

Subject-specific Ko	ey Skills, Compulso	ry Elec	tives (10 ECTS credits)						
08-BC2-152-m01	Biochemistry 2								
	ECTS 5 Du	uratior	1 semester	Method of grading numerical grade		Modul level	undergraduate		
	Courses		V (2) + Ü (1)						
	Method of assessi	ment	written examination (a	pprox. 60 to 90 minutes)					
	Additional Informa	ation	Pursuant to Section 2	Subsection 2 Sentence 2 Verordnung über	r die Ausbildu	ung und Prüfun	g der Staatlich geprüften Le-		
			pensmittelchemikerinnen und Lebensmittelchemiker (Regulation on the training and examination of state-certified food chemists, APOLmCh) in conjunction with No. II 2. Letter e) and No. II 1. Letter c) of Annex 1 of APOLmCh and No. 3 of Annex 3 of APOLmCh.						
08-BCP-152-m01	Practical course of	f Bioch	nemistry						
	ECTS 5 Du	uratior	1 semester	Method of grading (not) successfully	y completed	Modul level	undergraduate		
	Courses		P (6)						
	Method of assessi	ment	Log (approx. 30 pages Assessment offered: C) Ince a year, summer semester					
	Modules successf completed	fully	08-BC1	3-BC1					
	Participants and a cation of places		Students of the Bachelor's degree programme Biochemie (Biochemistry, 180 ECTS credits): no restrictions with regard to available places. Students of the Bachelor's degree programme Chemie (Chemistry, 180 ECTS credits): no more than 6 places; places will be al located according to the number of subject semesters, among applicants with the same number of subject semesters, places will be allocated by lot; a waiting list will be maintained and places re-allocated by lot as they become available.						
08-PS3-152-m01	Applied Spectroso	сору 3							
	ECTS 5 Du	uratior	1 semester	Method of grading numerical grade		Modul level	undergraduate		
	Courses		V (3)						
	Method of assessment		b) oral examination of c) oral examination in d) log (approx. 20 pag e) presentation (appro Language of assessme			andidate) or			
08-PKC-152-m01	Programming and	l nume	rical methods						
		uratior		Method of grading (not) successfully	y completed	Modul level	undergraduate		
	Courses		S (2) + Ü (2)						
	Method of assessi		b) oral examination of c) oral examination in d) log (approx. 20 pag e) presentation (appro Language of assessme	(approx. 90 to 180 minutes) or one candidate each (20 to 30 minutes) or groups of up to 3 candidates (approx. 15 nes) or x. 30 minutes) ent: German and/or English ence a year, summer semester		andidate) or			

08-0P-152-m01	Advan	Advanced chemical practical course											
00-01-152-11101	ECTS	5	Duration		İ	Mothod of grading	(not) successfully completed	Modul level	undergraduate				
			Duration		1 semester	Method of grading	(flot) successfully completed	Modul level	undergraduate				
	Course			P (10)	-) -"		-					
	Metho	a or ass	sessment		a) talk (approx. 15 minutes) or b) log (approx. 10 to 20 pages)								
				Language of assessment: German and/or English									
	Additio	onal Inf	ormation		Additional information on module duration: block placement / block taught practical course with a duration of 20 days.								
08-GC-242-m01	Green	and sus	stainable (ic) chemistry		· · · · · · · · · · · · · · · · · · ·		-				
•	ECTS	5	Duration		1 semester	Method of grading	numerical grade	Modul level	undergraduate				
	Course				+ Ü (1) ıle taught in: Germa				, ,				
	Metho	d of ass	sessment	a) por b) wri Langu	a) portfolio (approx. approx. 40 hours total) or b) written examination (approx. 60 to 90 minutes) anguage of assessment: German and/or English Assessment offered: Once a year, winter semester								
Thesis (10 ECTS cr	edits)												
08-BA-152-m01	Bache	lor Thes	sis										
	ECTS	10	Duration		1 semester	Method of grading	numerical grade	Modul level	undergraduate				
	Courses			No co	ourses assigned to n				<u> </u>				
		Method of assessment			elor's thesis (approx		lish						
	other prerequisites			The s		e the successful comp	oletion of certain modules that	are relevant for	the respective topic	a prerequisi-			
	Additio	Additional Information			Time to complete: 8 weeks.								
Compulsory Electi	ves. App	endix D)A (170 EC		•								
Subfield General a													
08-AC1-152-m01	Princi	ples of I	norganic (Chemis	stry								
	ECTS	8	Duratio	1	1 semester	Method of grading	numerical grade	Modul level	undergraduate				
	Course	es	•	V (4)	+ V (2)	•		•	•				
	Method of assessment			a) written examination (approx. 90 to 180 minutes) or b) oral examination of one candidate each (20 to 30 minutes) or c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or d) log (approx. 20 pages) or e) presentation (approx. 30 minutes) Language of assessment: German and/or English									
	Additio	Additional Information			according to § 2 para. 2 sentence 2 APOLmCh in conjunction with No. I 2nd letter a) of annex 1 to the APOLmCh and No. 1 of annex 2 to the APOLmCh								
	Referred to in LPO I				42 Nr. 1 and § 22 Nr. 1 h) 62 Nr. 1								
Bachelor's with 1 major	Chemistry (2017)					JMU Würzburg • generated 19-Apr-20	o25 • exam. reg. data ı	record 82 032 - - H 2017	page 10 / 16			

08-ACP1-152-m01	Inorgar	nic Che	mistry 1 (l	ab)							
	ECTS	10	Duration	1	1 semester	Method of grading (not) successfully completed	Modul level	undergraduate			
	Course			` ′	+ S (2)						
				exam (appr appro Lango Asses	a) written examination (approx. 90 to 180 minutes) or b) oral examination of one candidate each (20 to 30 minutes) or c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or d) log (approx. 20 pages) or e) presentation (approx. 30 minutes)] and Vortestate/Nachtestate (pre and post-experiment examination talks approx. 15 minutes each, log approx. 5 to 10 pages each) and assessment of practical assignments (2 to 4 random examinations) Language of assessment: German and/or English Assessment offered: Once a year, winter semester						
	Additional Information			nex 2	to the APOLmCh	sentence 2 APOLmCh in conjunction with No. I 1st let	ter a) of annex :	1 to the APOLmCh and No. 1 of an-			
08-AS1-152-m01			mistry of t		ments						
	ECTS	6	Duration	1	1 semester	Method of grading numerical grade	Modul level	undergraduate			
	Course	S		V (2)	(2) + V (2)						
	Method of assessment			b) oral examination of one candidate each (20 to 30 minutes) or c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or d) log (approx. 20 pages) or e) presentation (approx. 30 minutes) Language of assessment: German and/or English							
	Additional Information			anne	according to § 2 para. 2 sentence 2 APOLmCh in conjunction with No. I 2nd letter a) of annex 1 to the APOLmCh and No. 1 of annex 2 to the APOLmCh						
	Referre		_	§ 62 l	Nr. 1		-1-				
08-ANP-152-m01			mistry (la		1						
		6	Duration		1 semester	Method of grading (not) successfully completed	Modul level	undergraduate			
	Course			` ′	+ S (1)		• , ,				
	Method	1 of ass	essment	Vortestate/Nachtestate (pre and post-experiment examination talks approx. 15 minutes each, log approx. 5 to 10 pages each) and assessment of practical performance (2 to 4 random examinations) Language of assessment: German and/or English Assessment offered: Once a year, summer semester							
	Additional Information			according to § 2 para. 2 sentence 2 APOLmCh in conjunction with No. I 1st letter a) of annex 1 to the APOLmCh and No. 1 of annex 2 to the APOLmCh							

08-AC-FS-DA-152-	Solid S	State Ch	emistry, S	Spectro	scopic Methods (DI	D)				
mo1	ECTS	5	Duration	1	1 semester	Method of grading	numerical grade	Modul level	undergraduate	
	Course	es		V (2) -	- V (2)			•		
	Metho	d of ass	essment	b) ora c) ora d) log e) pre	a) written examination (approx. 90 to 180 minutes) or b) oral examination of one candidate each (20 to 30 minutes) or c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or d) log (approx. 20 pages) or e) presentation (approx. 30 minutes) Language of assessment: German and/or English					
Subfield Organic C	hemistr	y (28 EC	TS credit	s)						
08-0C1-152-m01	Organi	ic Chem	istry 1							
	ECTS	5	Duration	n	1 semester	Method of grading	numerical grade	Modul level	undergraduate	
	Course	es		V (3) +	- Ü (1)					
	Metho	d of ass	essment	a) written examination (approx. 90 to 180 minutes) or b) oral examination of one candidate each (20 to 30 minutes) or c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or d) log (approx. 20 pages) or e) presentation (approx. 30 minutes) Language of assessment: German and/or English						
	Additional Information			annex	2 to the APOLmCh	entence 2 APOLmCh	in conjunction with No. I 2nd l	etter b) of annex	x 1 to the APOLmCh and No. 2 of	
		ed to in		§ 62 l						
08-0C2-152-m01					rtical methods in org			NA - d. d l 1	Lunda uma du ata	
	ECTS	9	Duration		1 semester	Method of grading	numerical grade	Modul level	undergraduate	
	Course		essment		- Ü (1) + V (2)	anyov oo to 100 min	utas) ar			
	Metho	u oi ass	essment	a) written examination (approx. 90 to 180 minutes) or b) oral examination of one candidate each (20 to 30 minutes) or c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or d) log (approx. 20 pages) or e) presentation (approx. 30 minutes) Language of assessment: German and/or English						
08-0CP1-172-m01			istry - lab	1						
	ECTS	8	Duration	1	1 semester	Method of grading	(not) successfully completed	Modul level	undergraduate	
	Course	es		P (14)						
	Metho	d of ass	essment	Vortestate/Nachtestate (pre and post-experiment examination talks approx. 15 minutes each, log approx. 5 to 10 pages each) and assessment of practical performance (2 to 4 random examinations) Language of assessment: German and/or English						
	Modul comple	es succe eted	essfully	08-00	and (08-ACP1 or o	8-ANP)				

08-0C-0C3-	Organic	c Chemi:	stry 3 (DD))				,				
DA-152-m01	ECTS	6	Duration	1	1 semester	Method of gradin	g numerical grade	Modul leve	undergraduate			
	Courses	S		V (2) -	+ Ü (2)			,				
	Method	d of asse	essment			approx. 90 to 180 m		,				
				b) ora	l examination of o	ne candidate each (20 to 30 minutes) or	utes per candidate) or				
					(approx. 20 pages		iluates (approx. 15 illili	iutes per candidate) of				
				e) pre	sentation (approx.	30 minutes)						
						t: German and/or Er	glish					
•	ubfield Physical and Theoretical Chemistry (37 ECTS credits)											
08-PC-QMS-152-					ics and spectrosco	<u> </u>						
mo1		10	Duration		1 semester	Method of gradin	g numerical grade	Modul leve	undergraduate			
	Courses			• • • •	+ Ü (2) + V (2)							
	Method	l of asse	essment			approx. 90 to 180 m						
					b) oral examination of one candidate each (20 to 30 minutes) or c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or							
					d) log (approx. 20 pages) or							
					sentation (approx.							
					uage of assessmen able for bonus	t: German and/or Er	glish					
08-PC-TKE-152-	Thermo	odvnami			ectrochemistry			,	·····			
mo1		9	Duration		1 semester	Method of gradin	g numerical grade	Modul leve	undergraduate			
	Course		<u>, </u>	V (4) -	+ Ü (2)	, ,	5					
	Method	of asse	essment			approx. 90 to 180 m						
				b) oral examination of one candidate each (20 to 30 minutes) or c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or								
					i examination in gr		lidates (approx. 15 min	iutes per candidate) or				
				e) pre	sentation (approx.	30 minutes)						
						t: German and/or Er	glish					
	Deferme	ا در: د ا	DO I	creditable for bonus								
00 DCD 450 mo4		d to in L		§ 62 I	Nr. 1							
08-PCP-152-m01		9	istry (lab) Duration		1 semester	Method of gradin	g (not) successfully co	ompleted Modul leve	undergraduate			
	Courses			P (6)	1 Selliestei	Method of gradin	g (not) successibility co	ompleted Modul leve	undergraduate			
				• • •	state/Nachtestate	(nre and nost-eyper	ment examination talk	s annrox 15 minutes e	ach log approx E to 10 pages each)			
	Method	1 UI asse	2551116111	Vortestate/Nachtestate (pre and post-experiment examination talks approx. 15 minutes each, log approx. 5 to 10 pages each) and assessment of practical performance (2 to 4 random examinations)								
				Language of assessment: German and/or English								
	Modules successfully completed			o8-PC-QMS or o8-PC-TKE								

08-TC-152-m01	Quantum Chemistry											
	ECTS	3	Duration	1	1 semester	Method of grading	numerical grade	Modul level	undergraduate			
	Courses			V (2) + Ü (1)								
	Method	d of ass	essment	a) written examination (approx. 90 to 180 minutes) or								
				b) oral examination of one candidate each (20 to 30 minutes) or c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or d) log (approx. 20 pages) or								
				e) presentation (approx. 30 minutes)								
				Language of assessment: German and/or English creditable for bonus								
	Referre	d to in	LPO I	§ 22 Nr. 1 h) § 22 Nr. 2 f) § 22 Nr. 3 f)								
08-PC-SBL-DA-152-	Symme	etry ch	emical ho		_							
mo1	ECTS	6	Duration		1 semester	Method of grading	numerical grade	Modul level	undergraduate			
	Course	S		V (3)	+ Ü (2)							
	Method	d of ass	essment	a) written examination (approx. 90 to 180 minutes) or b) oral examination of one candidate each (20 to 30 minutes) or c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or d) log (approx. 20 pages) or e) presentation (approx. 30 minutes) Language of assessment: German and/or English								
Subfield Basics of	Natural :	Science	s (20 ECT	S cred	its)							
08-BC1-152-m01	Biochemistry 1											
	ECTS	5	Duration	n n	1 semester	Method of grading	numerical grade	Modul level	undergraduate			
	Course	S		$V(2) + \ddot{U}(1)$								
	Method	d of ass	essment	written examination (approx. 60 to 90 minutes)								
	Additio	nal Info	ormation	according to § 2 para. 2 sentence 2 APOLmCh in conjunction with No. II 2nd letter e) and No. II 1st letter c) of annex 1 to the APOLmCh and No. 3 of annex 3 to the APOLmCh								
	Referre	d to in	LPO I	§ 42 Nr. 2 § 62 Nr. 2								
10-M-MCH-172-	Mathematics for students in Chemistry and Biochemistry											
mo1	ECTS	5	Duration	1	1 semester	Method of grading	numerical grade	Modul level	undergraduate			
	Course	S		V (3)	+ Ü (2)							
	Method	d of ass	essment	written examination (approx. 90 to 120 minutes) and written exercises (approx. 25)								

11-EFNF-152-m01	Introduction to Physics for Students of other Disciplines											
	ECTS 7 Duration				2 semester	Method of grading	numerical grade	Modul level	undergraduate			
	Course	S		V (4) + V (3)								
	Method	of ass	essment	written examination (60 to 120 minutes)								
	Additio	nal Info	rmation	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 Course Physics for Students of other Disciplines											
	ECTS 3 Duration			1	1 semester	Method of grading	(not) successfully completed	Modul level	undergraduate			
	Courses			P (4)								
	Method	of ass	essment	a) practical assignment with oral test (approx. 15 minutes, during experiments) and b) written examination (approx. 90 minu-								
				tes). Each experiment comprises preparation, performance and evaluation. Test as well as performance of experiments can each be repeated once.								
	Particip cation o	of place	S	Only as part of pool of general transferable skills (ASQ): 10 places (lottery)								
	Additio	nal Info	rmation	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								
Subfield Competer	nces from	foreig	n universi	ty (50	ECTS credits)							
08-VPUB1-152-	Qualifications - Partner University 1											
m01	ECTS 25 Duration			ı	2 semester	Method of grading	(not) successfully completed	Modul level	undergraduate			
	Course	S		No courses assigned to module Course(s) as specified by partner university abroad								
	Method	d of ass	essment	Assessments as specified by partner university abroad Language of assessment: German and/or language spoken at partner university abroad								
	other p	rerequi	sites	Please consult with course advisory service in advance.								
08-VPUB2-152-	Qualific	cations	- Partner	University 2								
m01	ECTS 25 Duration			ı	2 semester	Method of grading	numerical grade	Modul level	undergraduate			
	Course	S		No courses assigned to module								
	Method	d of ass	essment	Assessments as specified by partner university abroad Language of assessment: German and/or language spoken at partner university abroad								
	other prerequisites			Please consult with course advisory service in advance.								

Thesis (10 ECTS credits)										
08-BA-152-m01	Bachelor Thesis									
	ECTS	10	Duration		1 semester	Method of grading	numerical grade	Modul level	undergraduate	
	Course	:S		No courses assigned to module						
	Method	d of asse	essment	Bachelor's thesis (approx. 40 pages) Language of assessment: German and/or English						
				The supervisor may make the successful completion of certain modules that are relevant for the respective topic a prerequisite for the assignment of the topic.						
	Additional Information			Time to complete: 8 weeks.						