

## **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: 2008

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:

## ASP02007

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

## 17-Nov-2009 (2008-34)

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:

	Module title											
	ECTS	ECTS Durat		(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 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	if applicable (examination regulations for teaching-degree programmes)								

<b>Compulsory Cours</b>	es (145 ECT	rs credits)									
08-AC2-072-m01	Inorganio	Chemistry 2									
	ECTS 6	Duratio	n	1 semester	Method of grading   numerical grade	Modul level	undergraduate				
	Courses	,	V (no	information on SWS	(weekly contact hours) and course lang	uage available)					
	Method o	of assessment		a) 1 to 3 written examinations (1 written examination: 90 minutes; 2 written examinations: 60 or 90 minutes each; 3 written examinations: 60 minutes each) or b) oral examination in groups (groups of 2, approx. 30 minutes)							
08-AC3-072-m01	Inorganic	Chemistry 3				,					
	ECTS 9	Duratio	n	1 semester	Method of grading   numerical grade	Modul level	undergraduate				
	Courses			08-AC3-1-072: V +	module components. Information on cou Ü (no information on SWS (weekly contac o information on SWS (weekly contact he	ct hours) and course langu	age available)				
	Method o	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	4 ECTS, Method of a) 1 to 3 written exi- written examinatio examination in gro ssment in module co 5 ECTS, Method of Vortestate (pre-exp- experiment exams	emponent o8-AC3-1-072: Elemental Orga grading: numerical grade aminations (1 written examination: 90 m ns: 60 minutes each) or b) oral examinatups (groups of 2, approx. 30 minutes) emponent o8-AC3-2-072: Inorganic Chemgrading: (not) successfully completed periment exams, approx. 15 minutes each) d: once a year, winter semester	inutes; 2 written examinat tion of one candidate each nistry 2 (lab)	ions: 60 or 90 minutes each; 3 (approx. 20 minutes) or c) oral				
08-0C1-072-m01	Organic (	Chemistry 1									
	ECTS 5	Duratio	n	1 semester	Method of grading   numerical grade	Modul level	undergraduate				
	Courses		V + Ü (no information on SWS (weekly contact hours) and course language available)								
	Method o	of assessment	written examination (90 minutes)								
		requisites	Registration for assessment: Yes, as specified.								
08-0C2-072-m01	Organic (	Chemistry 2									
	ECTS 9 Duration			1 semester	Method of grading   numerical grade	Modul level	undergraduate				
	Courses				on SWS (weekly contact hours) and cour						
	Method o	of assessment	a) 1 to 3 written examinations (1 written examination: 90 minutes; 2 written examinations: 60 or 90 minutes each; 3 written examinations: 60 minutes each) or b) oral examination in groups (groups of 2, approx. 30 minutes)								

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	ECTS	15	Duration	า	1 semester	Method of grading	numerical grade	Modul level	undergraduate				
	Course	es		This module comprises 2 module components. Information on courses will be listed separately for each module component.  • 08-OC3-1-072: V + Ü (no information on SWS (weekly contact hours) and course language available)  • 08-OC3-2-072: P (no information on SWS (weekly contact hours) and course language available)									
	Method	d of ass	essment	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	<ul> <li>Assessment in module component o8-OC3-1-072: Organic Chemistry 3 Organic Chemistry 3</li> <li>6 ECTS, Method of grading: numerical grade</li> <li>a) 1 to 3 written examinations (1 written examination: 90 minutes; 2 written examinations: 60 or 90 minutes each; 3 written examinations: 60 minutes each) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes)</li> <li>Assessment in module component o8-OC3-2-072: Organic Chemistry - lab 1</li> <li>9 ECTS, Method of grading: (not) successfully completed</li> <li>Vortestate (pre-experiment exams, approx. 15 minutes each), assessment of practical performance, Nachtestate (post-experiment exams, approx. 15 minutes each)</li> </ul>								
08-0C4-072-m01	Organic Chemistry 4												
	ECTS 10 Duratio			1	1 semester	Method of grading	numerical grade	Modul level	undergraduate				
	Courses			This module comprises 2 module components. Information on courses will be listed separately for each module component.  • 08-0C4-1-072: V + Ü (no information on SWS (weekly contact hours) and course language available)  • 08-0C4-2-072: P (no information on SWS (weekly contact hours) and course language available)									
				Asses Asses	ssment in module of 5 ECTS, Method of written examination other prerequisites as ment in module of 5 ECTS, Method of Vortestate (pre-experiment exam Assessment offer	component o8-OC4-1- of grading: numerical grading: numerical grading: numerical grading: numerical grading: not of or as component o8-OC4-2 of grading: (not) succes (periment exams, app s, approx. 15 minutes red: once a year, winter	ssessment: Yes, as specified072: Organic Chemistry - adv ssfully completed rox. 15 minutes each), assessr each) er semester	sful completion of anic Chemistry 4 anced laboratory ment of practical p					
	other prerequisites			By way of exception, additional prerequisites are listed in the section on assessments.									
08-PC1-072-m01			_		echanics and spectroscopy								
	ECTS	8	Duration		1 semester	Method of grading		Modul level	undergraduate				
	Course						contact hours) and course la	<u> </u>					
	Method of assessment			a) 1 to 3 written examinations (1 written examination: 90 minutes; 2 written examinations: 60 or 90 minutes each; 3 written examinations: 60 minutes each) or b) oral examination in groups (groups of 2, approx. 30 minutes)									

· ·	Physica	al Chem	istry 2									
	ECTS 18 Duration			1	1 semester Method of grading numerical grade Modul level undergraduate							
	Course	S		This module comprises 2 module components. Information on courses will be listed separately for each module component.  • 08-PC2-1-072: V + Ü (no information on SWS (weekly contact hours) and course language available)  • 08-PC2-2-072: P (no information on SWS (weekly contact hours) and course language available)								
	Method	l of ass	essment				essments in the individual mod e module will require successful					
				Asses	Assessment in module component o8-PC2-1-072: Thermodynamics, Kinetics, Electrochemistry  • 9 ECTS, Method of grading: numerical grade  • written examination (90 minutes)  • Other prerequisites: Registration for assessment: Yes, as specified.  Assessment in module component o8-PC2-2-072: Physical Chemistry (lab)  • 9 ECTS, Method of grading: (not) successfully completed  • Vortestate (pre-experiment exams, approx. 15 minutes each), assessment of practical performance, Nachtestate (post-experiment exams, approx. 15 minutes each)  • Assessment offered: once a year, winter semester							
08-PC4-072-m01	other p			By way of exception, additional prerequisites are listed in the section on assessments.  Statistical Thermodynamics								
	ECTS 3 Duratio				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			a) 1 to 3 written examinations (1 written examination: 90 minutes; 2 written examinations: 60 or 90 minutes each; 3 written examinations: 60 minutes each) or b) oral examination in groups (groups of 2, approx. 30 minutes)								
08-BC-072-m01	Bioche	mistry										
	ECTS 6 Duratio		Duration		1 semester	Method of grading	<u> </u>	Modul level	undergraduate			
	Courses				$V + \ddot{U} + V + \ddot{U}$ (no information on SWS (weekly contact hours) and course language available)							
	Method	d of ass	essment		n examination (90							
	other prerequisites			Regist	tration for assessm	nent: Yes, as specified						

10-M-MCB-072-	Mathematics for students in Chemistry and Biology											
mo1	ECTS 5 Duration			1	1 semester	Method of	grading	numerical grade		Modul level	undergraduate	
	Courses			This module comprises 2 module components. Information on courses will be listed separately for each module component.  • 10-M-MCB-1-072: V (no information on SWS (weekly contact hours) and course language available)  • 10-M-MCB-2-072: Ü (no information on SWS (weekly contact hours) and course language available)								
	Method	of asse	essment								ts as specified below. Unless f all individual assessments.	
				• • Assess	<ul> <li>assessment in module component 10-M-MCB-1-072: Mathematics for students in Chemistry and Biology</li> <li>a ECTS, Method of grading: numerical grade</li> <li>written examination (120 minutes)</li> <li>assessment in module component 10-M-MCB-2-072: Exercises in Mathematics for students in Chemistry and Biology</li> <li>a ECTS, Method of grading: (not) successfully completed</li> <li>exercises (to be submitted on a weekly basis, written examination)</li> </ul>							
11-EFNF-072-m01	Introduc	tion to	Physics	for Stud	lents of Non-phy	sics-related N	Ainor Subje	ects				
	ECTS ;	7	Duration	1 :	2 semester	Method of	grading	numerical grade		Modul level	undergraduate	
	Courses			V + V (r	V + V (no information on SWS (weekly contact hours) and course language available)							
	Method of assessment			written examination (approx. 120 minutes)								
	Participa cation of			Only as part of pool of general key skills (ASQ): 10 places. Places will be allocated by lot.								
11-PFNF-072-m01	Practical Course Physics for Students of Non-physics-related Minor Subjects											
	ECTS :	3	Duration	1 ·	1 semester	Method of	grading	not) successfully c	ompleted	Modul level	undergraduate	
	Courses			P (no ir	nformation on S\	NS (weekly co	ntact hours	s) and course langu	ıage availal	ble)		
	Method	of asse	essment	a) oral test (approx. 15 minutes) during experiment and b) ungraded written examination (approx. 90 minutes)								
	Participa cation of			Only as	s part of pool of	general key sk	ills (ASQ):	10 places. Places v	vill be alloc	ated by lot.		
08-PC3-082-m01	Physical	l and T	heoretica	l Chemi	stry 3: Symmetr	y and Quantu	m Chemist	ry				
	ECTS	6	Duration	1	1 semester	Method of	grading	numerical grade		Modul level	undergraduate	
	Courses			$V + \ddot{U} + V + \ddot{U}$ (no information on SWS (weekly contact hours) and course language available)								
	Method	of asse	essment	written	examination (9	o minutes)						
	other prerequisites			Registration for assessment: Yes, as specified.								
08-TC-082-m01	Theoreti	ical Mo	dels in Cl									
	ECTS	3	Duration	1	1 semester	Method of	grading	numerical grade		Modul level	undergraduate	
	Courses		,	V + Ü (ı	no information o	n SWS (weekl	y contact h	ours) and course la	anguage av	ailable)		
	Method	of asse	essment	V + Ü (no information on SWS (weekly contact hours) and course language available)  a) 1 to 3 written examinations (1 written examination: 90 minutes; 2 written examinations: 60 or 90 minutes each; 3 written examinations: 60 minutes each) or b) oral examination in groups (groups of 2, approx. 30 minutes)								

08-AC1-082-m01	Inorganic Chemistry 1													
	ECTS 21 Duratio			1 semeste		Method of gradin	g numerical grade		Modul level	undergraduate				
	Course	!S		<ul><li>08-AC1-1-0</li><li>08-AC1-2-0</li></ul>	<ul> <li>This module comprises 3 module components. Information on courses will be listed separately for each module components.</li> <li>o8-AC1-1-072: V + V + Ü (no information on SWS (weekly contact hours) and course language available)</li> <li>o8-AC1-2-072: P (no information on SWS (weekly contact hours) and course language available)</li> <li>o8-AC1-3-082: V (no information on SWS (weekly contact hours) and course language available)</li> </ul>									
	Metho	d of ass	essment	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>Assessment in module component o8-AC1-1-072: Principles of Inorganic Chemistry Principles of Inorganic Chemistry         <ul> <li>10 ECTS, Method of grading: numerical grade</li> <li>a) 1 to 3 written examinations (1 written examination: 90 minutes; 2 written examinations: 60 or 90 minutes each; 3 written examinations: 60 minutes each) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes)</li> </ul> </li> <li>Assessment in module component o8-AC1-2-072: Inorganic Chemistry 1 (lab)         <ul> <li>7 ECTS, Method of grading: (not) successfully completed</li> <li>Vortestate (pre-experiment exams, approx. 15 minutes each), assessment of practical performance, Nachtestate (post-experiment exams, approx. 15 minutes each)</li> <li>Assessment in module component o8-AC1-3-o82: Inorganic Chemistry 1 (lab accompanying lecture)</li> <li>4 ECTS, Method of grading: numerical grade</li> <li>3 written examinations (45 minutes each), weighted 1:1:1, dates to be announced</li> </ul> </li> </ul>										
08-AN1-082-m01			mistry 1				1			1				
	ECTS Course	11 !S	Duration	This module com • 08-AN1-2-0	rises 2 72: P (1		WS (weekly contact	courses will be t hours) and co	ourse language	undergraduate ely for each module component. available) age available)				
	Method of assessment			Assessment in th	s modu	ule comprises the as	sessments in the i	ndividual mod	lule component	ts as specified below. Unless all individual assessments.				
				<ul> <li>6 ECTS, Me</li> <li>Vortestate experiment</li> <li>Assessme</li> <li>Assessment in m</li> <li>5 ECTS, Me</li> <li>a) 1 to 3 w</li> <li>written example</li> </ul>	thod of pre-expectation of the control of the contr	s, approx. 15 minute ed: once a year, sum omponent o8-AN1-1 f grading: numerical kaminations (1 writte	essfully completed prox. 15 minutes ears each) mer semester082: Principles of grade en examination: 90 ch) or b) oral examination	ch), assessme  Analytical Che  minutes; 2 wination of one c	emistry Principlo	erformance, Nachtestate (postess of Analytical Chemistry ions: 60 or 90 minutes each; 3 (approx. 20 minutes) or c) oral				

<b>Compulsory Electi</b>	ves (5 ECTS credits)											
08-PS3-072-m01	Applied Spectroscopy	3										
	ECTS 5 Durati	on 1 semester Method of grading numerical grade Modul level undergraduate										
	Courses	V (no information on SWS (weekly contact hours) and course language available)										
	Method of assessmen	written examination (60 minutes)										
	other prerequisites	Registration for assessment: Yes, as specified.										
08-PKC-072-m01	Programming course f	or Chemistry Majors										
	ECTS 5 Durati	on 1 semester Method of grading (not) successfully completed Modul level undergraduate										
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)										
	Method of assessmen	practical examination: completion of programming exercises										
	other prerequisites	Registration for assessment: Yes, as specified.										
08-BCP-072-m01	Biochemistry Lab											
	ECTS 5 Durati	on 1 semester Method of grading (not) successfully completed Modul level undergraduate										
	Courses	P (no information on SWS (weekly contact hours) and course language available)										
	Method of assessmen	Vortestate (pre-experiment exams, approx. 15 minutes each), assessment of practical performance (log approx. 5 to 10 pages),										
		Nachtestate (post-experiment exams, approx. 15 minutes each)										
Thesis (10 ECTS cr	edits)											
08-BA-072-m01	Bachelor Thesis											
	ECTS 10 Durati	on 1 semester Method of grading numerical grade Modul level undergraduate										
	Courses	no courses assigned										
	Method of assessmen	written thesis										
		Language of assessment: German or English										
	other prerequisites	Registration for assessment on a continuous basis as agreed upon with supervisor. Topic to be selected in consultation with supervisor. Topic to be assigned by examination committee (Section 21 Subsection 3 ASPO (general academic and examination)										
		on regulations)).										
Subject-specific K	ey Skills (10 ECTS credit											
08-VP-072-m01	Advanced laboratory of	urse										
·	ECTS 5 Durati											
	Courses	P (no information on SWS (weekly contact hours) and course language available)										
	Method of assessmen	talk (approx. 15 minutes)										
03-TR-072-m01	Toxicology and legal s	tudies										
	ECTS 3 Durati	on 1 semester Method of grading numerical grade Modul level undergraduate										
	Courses	V + V (no information on SWS (weekly contact hours) and course language available)										
	Method of assessmen	written examination (approx. 90 minutes)										

08-LRAC-072-m01	Literati	Literature research methods											
	ECTS	1	Duration		1 semester	Method of grading	(not) successfully completed	Modul level	undergraduate				
	Course	rses Ü (no information on SWS (weekly contact hours) and course language available)											
	Method	Method of assessment 2 literature searches about given preparations											
08-LROC-072-m01	Literati	ure rese	arch met	hods									
	ECTS	1	Duration	ı	1 semester	Method of grading	(not) successfully completed	Modul level	undergraduate				
	Course	S		Ü (no information on SWS (weekly contact hours) and course language available)									
	Method of assessment 1 literature search about given preparations												