

Module Catalogue

for the Subject

Chemistry

as Unterrichtsfach

with the degree "Erste Staatsprüfung für das Lehramt an Grundschulen"

> Examination regulations version: 2015 Responsible: Faculty of Chemistry and Pharmacy

JMU Würzburg • generated 18-Apr-2025 • exam. reg. data record L1|032|-|-|H|2015

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The subject is divided into

section / sub-section	ECTS credits	starting page
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Abbreviations used

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

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

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

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

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

Conventions

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

Notes

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 the 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:

LASPO2015

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

08-Sep-2015 (2015-128)

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.

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Scientific Discipline

(54 ECTS credits)

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Compulsory Courses

(54 ECTS credits)

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Module title Abbreviation						
Princip	les of I	norganic Chemistry			08-AC1-152-m01	
Module coordinator			Module offered by			
lecturer Chemis		ure "Experimentalchem	ie" (Experimental	Institute of Inorganic Chemistry		
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
8	nume	rical grade				
Duratio	n	Module level	Other prerequisites	i		
1 semes	ster	undergraduate				
Conten	ts					
rial and	partic	rovides an overview of tl le level, metals, acid-ba e module introduces fui	se reactions, the perio	odic table, chemical e	equilibrium and com	plexometry.
Intende	ed learn	ning outcomes				
cient in actions	basic using now ho	nderstands the principle models of the structure typical chemical formula ow the most important q	of matter and can des a language and interp	cribe them properly. ret them by identifyir	He/she can depict c ng the type of reactio	hemical re- on. The stu-
Courses	S (type, n	umber of weekly contact hours,	language — if other than Ge	rman)		
V (4) + V	V (2)					
a) writte b) oral e c) oral e d) log (a e) prese	ereditab en exar examin examin approx entatio	eessment (type, scope, langu le for bonus) nination (approx. 90 to ation of one candidate ation in groups of up to . 20 pages) or n (approx. 30 minutes) ssessment: German and	180 minutes) or each (20 to 30 minute 3 candidates (approx	s) or		on on whether
Allocati						
			-			
Additio	nal inf	ormation				
accordi	ng to §	2 para. 2 sentence 2 AF nnex 2 to the APOLmCh	OLmCh in conjunctio	n with No. I 2nd lette	r a) of annex 1 to the	APOLmCh
Worklo	ad					
240 h						
Teachir	ng cycl	e				
		LPO I (examination regulation	ns for teaching-degree progra	ammes)		
§ 42 N § 62 N		d § 22 II Nr. 1 h)				
Module	appea	in				
Bachelo First sta	or's deg ate exa	gree (1 major) Biochemis gree (1 major) Chemistry mination for the teachin mination for the teachin	g degree Grundschule		try (Primary School)	(2015)
LA Grundsc	hulen Che	mistry (2015)		enerated 18-Apr-2025 • exam. ndschulen (Unterrichtsfach) C	-	page 7 / 58



First state examination for the teaching degree Realschule Chemistry (2015) First state examination for the teaching degree Gymnasium Chemistry (2015) First state examination for the teaching degree Sondernödagogik Didactics in Che

First state examination for the teaching degree Sonderpädagogik Didactics in Chemistry (Middle School) (2015) First state examination for the teaching degree Mittelschule Chemistry (2015)

First state examination for the teaching degree Mittelschule Didactics in Chemistry (Middle School) (2015) Bachelor's degree (1 major) Biochemistry (2017)

Bachelor's degree (1 major) Chemistry (2017)

First state examination for the teaching degree Mittelschule Chemistry (2020 (Prüfungsordnungsversion 2015)) First state examination for the teaching degree Mittelschule Didactics in Chemistry (Middle School) (2020 (Prüfungsordnungsversion 2015))

First state examination for the teaching degree Sonderpädagogik Didactics in Chemistry (Middle School) (2020 (Prüfungsordnungsversion 2015))

Bachelor's degree (1 major) Food Chemistry (2021)

Bachelor's degree (1 major) Biochemistry (2022)

Bachelor's degree (1 major) Food Chemistry (2025)

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Concepts of Inorganic Chemistry 08-AC-KAC-152-m01 Module coordinator Module offered by lecturers of lecture "Konzepte der Anorganischen Chemistry) Institute of Inorganic Chemistry ECTS Method of grading Only after succ. compl. of module(s) 5 numerical grade Duration Module level Other prerequisites 1 semester undergraduate Contents This module provides an introduction to atoms and the MO theory. It discusses the orbital model, the VSEPR theory and the valence bond theory. The course also focuses on redox reactions, acids and bases and electro-chemistry. Intended Learning outcomes Students are able to describe the bonding situations and geometry of molecules of lower complexity on the basis of different models. They are able to assign oxidation numbers to atoms in chemical compounds and know different acid-base concepts. Courses (type, number of weekly contact hours, language – if other than German)	Module title Abbreviation				
lecturers of lecture "Konzepte der Anorganischen Chemie" (Concepts of Anorganic Chemistry) Institute of Inorganic Chemistry ECTS Method of grading Only after succ. compl. of module(s) 5 numerical grade Duration Module level Other prerequisites 1 semester undergraduate Contents This module provides an introduction to atoms and the MO theory. It discusses the orbital model, the VSEPR theory and the valence bond theory. The course also focuses on redox reactions, acids and bases and electro-chemistry. Intended learning outcomes Students are able to describe the bonding situations and geometry of molecules of lower complexity on the basis of different models. They are able to assign oxidation numbers to atoms in chemical compounds and know different acid-base concepts. Courses (type, number of weekly contact hours, language – if other than German) V (1) + Ü (2) Method of assessment (type, scope, language – if other than German, examination offered – if not every semester, information on whether module is creditable for bonus) a) written examination (approx. 90 to 180 minutes) or a) written 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	Concepts of Inorganic Chemistry 08-AC-KAC-152-m01				
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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	Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)				
e) presentation (approx. 30 minutes) Language of assessment: German and/or English					
Allocation of places					
Additional information					
Workload					
150 h					
Teaching cycle					
Referred to in LPO I (examination regulations for teaching-degree programmes)					
§ 42 Nr. 1 § 62 Nr. 1					
Module appears in					
First state examination for the teaching degree Grundschule Chemistry (2015) First state examination for the teaching degree Realschule Chemistry (2015) First state examination for the teaching degree Gymnasium Chemistry (2015) First state examination for the teaching degree Mittelschule Chemistry (2015) First state examination for the teaching degree Mittelschule Chemistry (2020 (Prüfungsordnungsversion 2015)	ngsordnungsversion 2015))				

Module	e title				Abbreviation
Inorganic and Analytical Chemistry (lab) (teaching degree) 08-ACP1-LA-152-m01			08-ACP1-LA-152-m01		
Module coordinator				Module offered by	
holder	of the (Chair of Anorganic Chemi	stry	Institute of Inorgan	ic Chemistry
ECTS		od of grading	Only after succ. com		
7	(not) successfully completed				
Duratio	on	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	ts				
lated le course	ecture(s focuse	s). After a safety briefing,	the students autonoi	mously conduct exp	hey have gained through the re- eriments in the laboratory. The nple substances and analyses of
Intend	ed lear	ning outcomes			
have d cesses	evelope in an a	ed the ability to perform t ppropriate manner, both	he necessary stoichi in written and oral fo	ometric calculations orm.	xperiments to solve them. They and describe the chemical pro-
	S (type, r	number of weekly contact hours, l	anguage — if other than Ger	man)	
P (12)					
Vortest pages o Langua	ate/Na each) a ge of a	nd assessment of practic ssessment: German and,	al performance (2 to /or English		minutes each, log approx. 5 to 10 ions)
		ffered: Once a year, sum	mer semester		
Allocat		Diaces			
Additio	nat inf	ormation			
Worklo	ad				
210 h					
Teachi	ng cycl	e			
	<u> </u>				
Referre	ed to in	LPO I (examination regulations	s for teaching-degree progra	mmes)	
§ 42 N § 62 N					
Module	e appea	ars in			
		mination for the teaching	-		
		mination for the teaching	-	• -	
		mination for the teaching			
		mination for the teaching mination for the teaching	-	• -	rüfungsordnungsversion 2015))
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Module	e title				Abbreviation	
Organic Chemistry 1 (teaching degree for secondary schools)			ls)	08-0C1-LAGMR-152	-m01	
Module coordinator				Module offered by	I	
holder	of the F	Professorship of Organi	c Chemistry	Institute of Organic	Chemistry	
ECTS	1	od of grading	Only after succ. cor			
6		rical grade				
Duratio	·	Module level	Other prerequisites			
Conten		undergraduate				
the bor organic dition a	nding s c compo and elir	rovides students with a ituation of carbon and i ounds. The module also nination reactions as w	ntroduces students to discusses the fundar	the nomenclature onental principles of s	f simple and modera	tely complex
		n ing outcomes v important categories (
lecules that pu synthe	. They a irpose, ses.	are to determine simple are able to describe and they can analyse and ca umber of weekly contact hours	l formulate some of th ategorise the characte	e most important rea ristic reaction condit	actions in organic ch	emistry. For
V (3) +		, , , , , , , , , , , , , , , , , , , ,				
-		essment (type, scope, langu	in the start from the corman	avamination offered if n	at avany competer informat	ion on whathar
		le for bonus)	lage — Il other than German,		ot every semester, monnat	ion on whether
c) oral d) log (e) pres	examin (approx entatio	ation of one candidate ation in groups of up to . 20 pages) or n (approx. 30 minutes) ssessment: German an	3 candidates (approx		didate) or	
Allocat	ion of p	olaces				
Additio	onal inf	ormation				
Worklo	ad					
180 h						
Teachi	ng cvcl	9				
Referre	ed to in	LPO I (examination regulation	ns for teaching-degree progra	ammes)		
		d § 22 Nr. 1 h)		···/		
Module						
		mination for the teachir	ng degree Grundschuld	e Chemistry (2015)		
First sta First sta First sta First sta	ate exa ate exa ate exa ate exa	mination for the teachir mination for the teachir mination for the teachir mination for the teachir mination for the teachir	ng degree Grundschule ng degree Realschule ng degree Sonderpäda ng degree Mittelschule	e Didactics in Chemi Chemistry (2015) gogik Didactics in Cl e Chemistry (2015)	hemistry (Middle Sch	100l) (2015)
		mination for the teachir			•	-
		mistry (2015)	JMU Würzburg • g	enerated 18-Apr-2025 • exam	n. reg. data re-	page 11 / 58
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First state examination for the teaching degree Mittelschule Didactics in Chemistry (Middle School) (2020 (Prüfungsordnungsversion 2015))

First state examination for the teaching degree Sonderpädagogik Didactics in Chemistry (Middle School) (2020 (Prüfungsordnungsversion 2015))

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Module	title				Abbreviation	
Organio	c Chem	istry 2			08-0C2-VL-152-m01	L
Module	e coordi	nator		Module offered by		
holder	of the C	hair of Physically Orga	nic Chemistry	Institute of Organic	Chemistry	
ECTS	Metho	od of grading	Only after succ. con	pl. of module(s)		
6	numer	rical grade				
Duratio	n	Module level	Other prerequisites			
1 semes	ster	undergraduate				
Conten	ts					
the exa on reac	mple o tions to	f carbonyl compounds	he rules of aromaticity , it extends the student chanisms. The course a	s' knowledge of sub	stitution, eliminatior	n and additi-
Intende	ed learr	ning outcomes				
bonyl c	ompou n plan a	nds. They are able to d and formulate multi-sta	the criteria for aromatic escribe specific reactic age syntheses with con	ons of carbonyls and	aromatics. For that p	purpose,
Courses	S (type, n	umber of weekly contact hours	 5, language — if other than Ger	rman)		
V (3) + ĺ	Ü (1)					
		essment (type, scope, lang le for bonus)	uage — if other than German, o	examination offered — if no	t every semester, informati	on on whether
c) oral e d) log (a e) prese	examin approx. entation ge of as	ation in groups of up to . 20 pages) or n (approx. 30 minutes) ssessment: German an		-	lidate) or	
	<u> </u>					
Additio	nal info	ormation				
		2 para. 2 sentence 2 A nnex 2 to the APOLmCh	POLmCh in conjunction	n with No. I 2nd lette	r b) of annex 1 to the	e APOLmCh
Worklo	ad					
180 h						
Teachir	ng cycle	9				
Referre	d to in	LPOI (examination regulation	ons for teaching-degree progra	mmes)		
§ 42 N § 62 N		d § 22 II Nr. 1 h)				
Module	e appea	rs in				
First sta First sta First sta First sta	ate exa ate exa ate exa ate exa ate exa	mination for the teachi mination for the teachi mination for the teachi	ng degree Grundschule ng degree Grundschule ng degree Realschule C ng degree Gymnasium	e Didactics in Chemis Chemistry (2015) Chemistry (2015)		-
			ng degree Sonderpäda		-	100l) (2015)
LA Grundsc	hulen Che	mistry (2015)		enerated 18-Apr-2025 • exam ndschulen (Unterrichtsfach) C	-	page 13 / 58



First state examination for the teaching degree Mittelschule Chemistry (2015)

First state examination for the teaching degree Mittelschule Didactics in Chemistry (Middle School) (2015) First state examination for the teaching degree Mittelschule Chemistry (2020 (Prüfungsordnungsversion 2015)) First state examination for the teaching degree Mittelschule Didactics in Chemistry (Middle School) (2020 (Prüfungsordnungsversion 2015))

First state examination for the teaching degree Sonderpädagogik Didactics in Chemistry (Middle School) (2020 (Prüfungsordnungsversion 2015))

Bachelor's degree (1 major) Food Chemistry (2021) Bachelor's degree (1 major) Food Chemistry (2025)

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Module	title				Abbreviation
Organi	c Chem	istry - laboratory course	(teaching degree for	secondary	08-OCP-LAGMR-152-m01
school	5)				
Module	e coord	inator		Module offered by	
lecture	rs Orga	nische Chemie (Organic	Chemistry)	Institute of Organic	Chemistry
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
5	(not) s	successfully completed	08-OC1-LAGMR		
Duratio	n	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	ts				
lated le dition t their kr	ecture(s o those nowledg	a). After a safety briefing, e experiments, students	the students autono will be expected to ta n the safe handling o	mously conduct exp ke oral tests and wr f hazardous substar	they have gained through the re- eriments in the laboratory. In ad- ite lab reports to demonstrate nces, simple experimental unit is of the products.
		ning outcomes			
rations	of orga ources.	anic chemistry. They are a They are able to connect	able to analyse the yi	eld and purity of the	nduct simple experimental ope- products and identify possible cture with practical experiments
Course	S (type, n	umber of weekly contact hours, l	anguage — if other than Ger	rman)	
P (7)					
		s essment (type, scope, langua le for bonus)	ge — if other than German, o	examination offered — if no	ot every semester, information on whether
pages e Langua	each) a ge of a	chtestate (pre and post-e nd assessment of practic ssessment: German and, ffered: Once a year, sum	al performance (2 to /or English		minutes each, log approx. 5 to 10 ions)
Allocat					
Additio	nal inf	ormation			
Worklo	ad				
150 h					
Teachi	ng cycl	e			
Referre	d to in	LPO I (examination regulation	s for teaching-degree progra	immes)	
§ 42 N	lr. 2				
Module	e appea	irs in			
First sta First sta	ate exa ate exa	mination for the teaching mination for the teaching mination for the teaching mination for the teaching	g degree Realschule (g degree Mittelschule	Chemistry (2015) Chemistry (2015)	rüfungsordnungsversion 2015))

modul	e title				Abbreviation
Physic	al Cher	mistry (teaching degree	for secondary schools	5)	08-PC-LAGMR-152-m01
Module	e coord	linator		Module offered by	<u> </u>
für Stu	dierenc	ture "Thermodynamik, H de der Biologie, Lebensi emie GHR"		· · · · · · · · · · · · · · · · · · ·	l and Theoretical Chemistry
ECTS		od of grading	Only after succ. con	npl. of module(s)	
6		rical grade			
Duratio		Module level	Other prerequisites	i	
1 seme		undergraduate			
Conter					
		liscusses the fundamen		odynamics kinetics	and electrochemistry
				ouynamics, kinetics	and electrochemistry.
		ning outcomes			
		e become familiar with t ire able to understand a			nics, kinetics and electroche- re and engineering.
-		number of weekly contact hours		•	
	_	$V(1) + \ddot{U}(1)$		initall <i>j</i>	
			if a the still see Com		
			uage — If other than German,	examination offered — if no	ot every semester, information on whethe
b) oral	en exa examir	ole for bonus) mination (approx. 90 to nation of one candidate nation in groups of up to	each (20 to 30 minute		
b) oral c) oral d) log (e) pres	en exal examir examin (approx entatio	mination (approx. 90 to	each (20 to 30 minute 9 3 candidates (approx		
b) oral c) oral d) log (e) pres Langua	en exal examir examin (approx entatio	mination (approx. 90 to nation of one candidate nation in groups of up to x. 20 pages) or on (approx. 30 minutes) assessment: German an	each (20 to 30 minute 9 3 candidates (approx		
b) oral c) oral d) log (e) pres Langua	en examir examir examin (approx entatio age of a	mination (approx. 90 to nation of one candidate nation in groups of up to x. 20 pages) or on (approx. 30 minutes) assessment: German an	each (20 to 30 minute 9 3 candidates (approx		
b) oral c) oral d) log (e) pres Langua Allocat	en examir examir examin (approx entatio age of a cion of j	mination (approx. 90 to nation of one candidate nation in groups of up to x. 20 pages) or on (approx. 30 minutes) assessment: German an	each (20 to 30 minute 9 3 candidates (approx		
b) oral c) oral d) log (e) pres Langua Allocat	en examir examir examin (approx entatio age of a cion of j	mination (approx. 90 to nation of one candidate nation in groups of up to x. 20 pages) or on (approx. 30 minutes) assessment: German an places	each (20 to 30 minute 9 3 candidates (approx		
b) oral c) oral d) log (e) pres Langua Allocat	en exa examir examin (approx entatio age of a ion of p onal inf	mination (approx. 90 to nation of one candidate nation in groups of up to x. 20 pages) or on (approx. 30 minutes) assessment: German an places	each (20 to 30 minute 9 3 candidates (approx		
b) oral c) oral d) log (e) pres Langua Allocat Additic	en exa examir examin (approx entatio age of a ion of p onal inf	mination (approx. 90 to nation of one candidate nation in groups of up to x. 20 pages) or on (approx. 30 minutes) assessment: German an places	each (20 to 30 minute 9 3 candidates (approx		
b) oral c) oral d) log (e) pres Langua Allocat Additic Workto 180 h	en exa examir examin (approx entatio age of a ion of p onal inf	mination (approx. 90 to nation of one candidate nation in groups of up to a 20 pages) or on (approx. 30 minutes) assessment: German an places	each (20 to 30 minute 9 3 candidates (approx		
b) oral c) oral d) log (e) pres Langua Allocat Additic Workto 180 h	en examir examir examin (approx entatio age of a cion of j onal inf	mination (approx. 90 to nation of one candidate nation in groups of up to a 20 pages) or on (approx. 30 minutes) assessment: German an places	each (20 to 30 minute 9 3 candidates (approx		
b) oral c) oral d) log (e) pres Langua Allocat Worklo 180 h Teachi 	en exat examir examin (approx entatio age of a tion of p onal inf pad	mination (approx. 90 to nation of one candidate nation in groups of up to a 20 pages) or on (approx. 30 minutes) assessment: German an places	each (20 to 30 minute 9 3 candidates (approx d/or English	. 15 minutes per can	
b) oral c) oral d) log (e) pres Langua Allocat Additic 180 h Teachi Referre	en exa examir examin (approx entatio age of a tion of p onal inf onal inf onal inf onal inf	mination (approx. 90 to nation of one candidate nation in groups of up to a 20 pages) or on (approx. 30 minutes) assessment: German an places	each (20 to 30 minute 9 3 candidates (approx d/or English	. 15 minutes per can	
b) oral c) oral d) log (e) pres Langua Allocat Worklo 180 h Teachi Referre § 42 I N	en exa examir examin (approx entatio age of a tion of p onal inf onal inf onal inf onal inf	mination (approx. 90 to nation of one candidate nation in groups of up to x. 20 pages) or on (approx. 30 minutes) assessment: German an places formation e LPO I (examination regulation d § 22 II Nr. 1 h)	each (20 to 30 minute 9 3 candidates (approx d/or English	. 15 minutes per can	



First state examination for the teaching degree Sonderpädagogik Didactics in Chemistry (Middle School) (2020 (Prüfungsordnungsversion 2015))

LA Grundschulen Chemistry (2015)	JMU Würzburg • generated 18-Apr-2025 • exam. reg. data re-	page 17 / 58
	cord Lehramt Grundschulen (Unterrichtsfach) Chemie - 2015	

Module	e title				Abbreviation	
Bioche	mistry	1			08-BC1-152-m01	
Module	e coord	inator		Module offered by		
holder	ofthe	Chair of Biochemistry		Chair of Biochemis	try	
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)		
5	nume	rical grade				
Duratio	on	Module level	Other prerequisites			
1 seme	ester	undergraduate				
Conten	nts		-			
mistry. tertiary sis, glu tion, fa	A parti and qu coneos tty acid	ctures and exercises, th cular focus is on the bio uaternary structures), ca genesis, citric acid cycle I synthesis), nucleotide structure of the DNA ar	ochemistry of proteins atalytic strategies and e, cellular respiration, p metabolism, the urea	(amino acids, peptio enzyme kinetics, car photosynthesis), fatt cycle and amino aci	de bonds, primary, s bohydrate metaboli y acid metabolism (l	econdary, sm (glycoly- beta oxida-
Intend	ed lear	ning outcomes				
		e become familiar with t dule. They are able to d				ere discus-
Course	S (type, r	number of weekly contact hours	, language — if other than Ge	rman)		
V (2) +	Ü (1)					
module is	s creditab	sessment (type, scope, langu le for bonus)		examination offered — if no	ot every semester, informati	ion on whether
		nation (approx. 60 to 90	o minutes)			
Allocat	tion of _l	olaces				
			_			
		ormation				
		2 para. 2 sentence 2 A POLmCh and No. 3 of ar			er e) and No. II 1st le	tter c) of an-
Worklo	ad					
150 h						
Teachi	ng cycl	e				
-		LPO I (examination regulation	ns for teaching-degree progra	mmes)		
§ 42 N § 62 N						
	e appea					
Bachel Bachel Bachel First st First st First st	or's de or's de or's de or's de ate exa ate exa ate exa ate exa	gree (1 major) Biochemi gree (1 major) Biology (2 gree (1 major) Chemistry gree (1 major) Food Che gree (1 major) Functiona mination for the teachir mination for the teachir mination for the teachir mination for the teachir gree (1 major) Food Che	2015) y (2015) al Materials (2015) ng degree Grundschule ng degree Realschule (ng degree Gymnasium ng degree Mittelschule	Chemistry (2015) Chemistry (2015)		
LA Grundso	chulen Cho	emistry (2015)		enerated 18-Apr-2025 • exam ndschulen (Unterrichtsfach) (-	page 18 / 58

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Bachelor's degree (1 major) Biology (2017) Bachelor's degree (1 major) Biochemistry (2017) Bachelor's degree (1 major) Chemistry (2019) Module studies (Bachelor) Chemistry (2019) Bachelor's degree (1 major) Food Chemistry (2019) Module studies (Bachelor) Orientierungsstudien (2020) First state examination for the teaching degree Mittelschule Chemistry (2020 (Prüfungsordnungsversion 2015)) Bachelor's degree (1 major) Biology (2021) Bachelor's degree (1 major) Functional Materials (2021) Bachelor's degree (1 major) Food Chemistry (2021) Bachelor's degree (1 major) Food Chemistry (2022) Bachelor's degree (1 major) Biology (2022) Bachelor's degree (1 major) Biology (2022) Bachelor's degree (1 major) Functional Materials (2025) Bachelor's degree (1 major) Functional Materials (2025)

Julius-Maxir

UNIVERSITÄT

WÜRZBURG

LA Grundschulen Chemistry (2015)	JMU Würzburg • generated 18-Apr-2025 • exam. reg. data re-	page 19 / 9
	cord Lehramt Grundschulen (Unterrichtsfach) Chemie - 2015	

Module	e title				Abbreviation
Exercis schools		xperimental Presentation	n (teaching degree fo	r secondary	08-ÜiVmD-LAGMR-152-m01
Module	<u> </u>	inator		Module offered by	
		e three lectures offered in	n this modulo	Faculty of Chemistr	y and Pharmacy
ECTS				· · · ·	
		od of grading	Only after succ. con	ipi. of module(s)	
6		successfully completed	08-OCP-LAGMR		
Duratio	-	Module level	Other prerequisites		
1 seme		undergraduate			
Conten					
		design, prepare and deliv nonstrations.	ver presentations on a	a range of topics in o	chemistry. Presentations will in-
Intende	ed lear	ning outcomes			
the spe particu	ecific ne lar tead	eeds of their audience. Th	ney are able to select lan and safely perform	experiments on the	a given topic that is tailored to topic in question that support a ll be expected to apply both their
Course	S (type, r	number of weekly contact hours, l	anguage — if other than Ger	rman)	
Ü (3) +	<u>Ü (3)</u> +	Ü (3)			
		Sessment (type, scope, langua Ile for bonus)	ge — if other than German, o	examination offered — if no	ot every semester, information on whether
nutes e Langua	ach) ge of a	in the fields of inorganic ssessment: German and, ffered: Once a year, wint	/or English	ıl chemistry includin	g demonstrations (approx. 45 mi-
Allocat	ion of _l	olaces			
Additio	nal inf	ormation			
Worklo	ad				
180 h					
Teachir	ng cycl	e			
	<u> </u>				
Referre	d to in	LPOI (examination regulation	s for teaching-degree progra	mmes)	
§ 42 N					
Module		ars in			
		mination for the teaching	g degree Grundschule	e Chemistry (2015)	
		mination for the teaching		,	
		mination for the teaching		• -	





Teaching

(12 ECTS credits)

		/ 0
LA Grundschulen Chemistry (2015)	JMU Würzburg • generated 18-Apr-2025 • exam. reg. data re-	page 21 / 58
	cord Lehramt Grundschulen (Unterrichtsfach) Chemie - 2015	





Compulsory Courses

(12 ECTS credits)

LA Grundschulen Chemistry (2015)	JMU Würzburg • generated 18-Apr-2025 • exam. reg. data re-	page 22 / 58
	cord Lehramt Grundschulen (Unterrichtsfach) Chemie - 2015	

Module	title				Abbreviation
Introdu School	ction i	nto Teaching Chemistry	for Elementary, Seco	ndary and Middle	08-FD1-LAGMR-152-m01
Module	coord	inator		Module offered by	•
holder	of the F	Professorship of Didaction	cs of Chemistry	Institute of Inorgar	nic Chemistry
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
4	nume	rical grade		-	
Duratio	n	Module level	Other prerequisites	i	
1 semes	ster	unknown			
Conten	ts				
No info	rmatio	n on contents available.			
Intende	ed lear	ning outcomes			
		n on learning outcomes	available.		
Courses	5 (type, r	number of weekly contact hours,	language — if other than Ge	rman)	
V (2) + 9	S (2)				
a) writte Langua	en exai ge of a	^{le for bonus)} mination (approx. 90 mi ssessment: German anc		ation (approx. 20 m	inutes)
Allocati	ion of p	olaces			
Additio	nal inf	ormation			
			_		
Worklo	ad				
120 h					
Teachin	ng cycl	e			
Referre	d to in	LPO I (examination regulation	ns for teaching-degree progra	ammes)	
§ 42 N	r. 4				
Module	appea	urs in			
		mination for the teachin			
		mination for the teachin	g degree Realschule (Chemistry (2015)	
		• • • • • • • •	g degree Mittelschule	• -	

Module	e title				Abbreviation
Teachi	ng Cher	nical Practice for Elemer	ntary and Secondary	School	08-FD2-LAGM-152-m01
Module	e coordi	inator		Module offered by	l
holder	of the P	Professorship of Didactic	s of Chemistry	Institute of Inorgan	ic Chemistry
ECTS	Metho	d of grading	Only after succ. con	npl. of module(s)	
5		ical grade		•	
Duratio	r	Module level	Other prerequisites		
2 seme		unknown			
Conten		unknown			
		n on contents available.			
		ning outcomes			
No info	rmatior	n on learning outcomes a	available.		
Course	S (type, n	umber of weekly contact hours, l	anguage — if other than Ge	rman)	
S (2) +	S (2)				
Method	l of ass	essment (type, scope, langua	ge — if other than German.	examination offered — if no	ot every semester, information on whether
		le for bonus)			
a) pres	entatio	n with practical oxamina	tion (approx ao min	utos) and b) procont	ation (approx. 20 minutes)
	cintation	n with plattical examina	(appiox, 30 mm	ules) and b) present	ation (approx. 20 minutes)
Langua		ssessment: German and,			
Langua Allocat	ge of a	ssessment: German and		ates) and b) present	ation (approx. 20 minutes)
	ge of a	ssessment: German and			
Allocat	ge of as ion of p	ssessment: German and, I laces			
Allocat	ge of as ion of p	ssessment: German and			
Allocat Additio	ge of as ion of p nal info	ssessment: German and, I laces			
Allocat Additio Worklo	ge of as ion of p nal info	ssessment: German and, I laces			
Allocat Additio Worklo 150 h	ge of as ion of p nal info ad	ssessment: German and, places			
Allocat Additio Worklo	ge of as ion of p nal info ad	ssessment: German and, places			
Allocat Additio Worklo 150 h Teachin 	ge of as ion of p nal info ad ng cycle	ssessment: German and, places prmation	/or English		
Allocat Additio Worklo 150 h Teachin Referre	ge of as ion of p nal info ad ng cycle d to in	ssessment: German and, places	/or English		
Allocat Additio 150 h Teachin 8 38 l N	ge of as ion of p nal info ad ng cycle d to in	ssessment: German and places ormation e LPO I (examination regulation	/or English		
Allocat Additio Worklo 150 h Teachin Referre § 38 N § 42 N	ge of as ion of p nal info ad ng cycle d to in Ir. 1 Ir. 4 and	ssessment: German and places prmation e LPO I (examination regulation d § 36 I Nr. 7	/or English		
Allocat Additio Worklo 150 h Teachin Referre § 38 N § 42 N Module	ge of as ion of p nal info ad d to in lr. 1 lr. 4 ano e appea	ssessment: German and places prmation P LPO I (examination regulation d § 36 Nr. 7 rs in	/or English	ammes)	
Allocat Additio Worklo 150 h Teachin Referre § 38 N § 42 N Module First sta	ge of as ion of p nal info ad d to in lr. 1 lr. 4 and ate exar	ssessment: German and places prmation e LPO I (examination regulation d § 36 I Nr. 7 rs in mination for the teaching	/or English s for teaching-degree progra	ammes) e Chemistry (2015)	
Allocat Additio Worklo 150 h Teachin Referre § 38 N § 42 N Module First sta First sta	ge of as ion of p nal info ad ad d to in lr. 1 lr. 4 and ate exan ate exan	ssessment: German and places prmation E LPO I (examination regulation d § 36 l Nr. 7 rs in mination for the teaching mination for the teaching	/or English s for teaching-degree progra g degree Grundschuld g degree Grundschuld	ammes) e Chemistry (2015) e Didactics in Chemis	stry (Primary School) (2015)
Allocat Additio Worklo 150 h Teachin Teachin S 38 N § 42 N Module First sta First sta First sta	ge of as ion of p nal info ad ng cycle d to in lr. 1 lr. 4 and e appea ate exan ate exan ate exan	ssessment: German and places ormation E LPO I (examination regulation d § 36 Nr. 7 rs in mination for the teaching mination for the teaching mination for the teaching	/or English s for teaching-degree progra g degree Grundschule g degree Grundschule g degree Sonderpäda	ammes) e Chemistry (2015) e Didactics in Chemis gogik Didactics in C	
Allocat Additio Worklo 150 h Teachin Referre § 38 N § 42 N Module First sta First sta First sta First sta	ge of as ion of p nal info ad d to in dr. 1 dr. 4 and e appea ate exan ate exan ate exan ate exan	ssessment: German and places ormation E LPO I (examination regulation d § 36 Nr. 7 rs in mination for the teaching mination for the teaching mination for the teaching mination for the teaching mination for the teaching	/or English s for teaching-degree progra g degree Grundschuld g degree Grundschuld g degree Sonderpäda g degree Mittelschuld	ammes) e Chemistry (2015) e Didactics in Chemis gogik Didactics in Cl e Chemistry (2015)	stry (Primary School) (2015) hemistry (Middle School) (2015)
Allocat Additio Worklo 150 h Teachin Referre § 38 N § 42 N Module First sta First sta First sta First sta First sta	ge of as ion of p nal info ad d to in dr. 1 dr. 4 and ate exar ate exar ate exar ate exar ate exar	ssessment: German and places ormation E LPO I (examination regulation d § 36 I Nr. 7 rs in mination for the teaching mination for the teaching	/or English s for teaching-degree progra g degree Grundschule g degree Grundschule g degree Sonderpäda g degree Mittelschule g degree Mittelschule	e Chemistry (2015) e Didactics in Chemis gogik Didactics in Cle e Chemistry (2015) e Didactics in Chemis	stry (Primary School) (2015) hemistry (Middle School) (2015)
Allocat Additio Worklo 150 h Teachin Referre § 38 N § 42 N Module First sta First sta First sta First sta First sta First sta First sta First sta	ge of a ion of p nal info ad ad d to in lr. 1 lr. 4 and ate exar ate exar ate exar ate exar ate exar ate exar ate exar	ssessment: German and, places prmation E LPO I (examination regulation) d § 36 I Nr. 7 rs in mination for the teaching mination for the teaching	/or English s for teaching-degree progra g degree Grundschule g degree Grundschule g degree Sonderpäda g degree Mittelschule g degree Mittelschule	e Chemistry (2015) e Didactics in Chemis gogik Didactics in Cle chemistry (2015) e Didactics in Chemis e Chemistry (2015) e Didactics in Chemis	stry (Primary School) (2015) hemistry (Middle School) (2015) stry (Middle School) (2015) rüfungsordnungsversion 2015))
Allocat Additio Worklo 150 h Teachin Referre § 38 N § 42 N Module First sta First sta	ge of as ion of p nal info ad ng cycle d to in lr. 1 lr. 4 and e appea ate exar ate exar ate exar ate exar ate exar ate exar ate exar ate exar	ssessment: German and places ormation E LPO I (examination regulation d § 36 l Nr. 7 rs in mination for the teaching mination for the teaching	/or English s for teaching-degree progra g degree Grundschule g degree Grundschule g degree Sonderpäda g degree Mittelschule g degree Mittelschule	e Chemistry (2015) e Didactics in Chemis gogik Didactics in Cle chemistry (2015) e Didactics in Chemis e Chemistry (2015) e Didactics in Chemis	stry (Primary School) (2015) hemistry (Middle School) (2015)
Allocat Additio Worklo 150 h Teachin Referre § 38 I N § 42 I N Module First sta First sta	ge of as ion of p nal info ad d to in dr. 1 dr. 4 and e appea ate exan ate exan ate exan ate exan ate exan ate exan ate exan ate exan ate exan ate exan	ssessment: German and places ormation LPO I (examination regulation d § 36 l Nr. 7 rs in mination for the teaching mination for the teaching	/or English s for teaching-degree progra g degree Grundschuld g degree Grundschuld g degree Sonderpäda g degree Mittelschuld g degree Mittelschuld g degree Mittelschuld g degree Mittelschuld g degree Mittelschuld	e Chemistry (2015) e Didactics in Chemis gogik Didactics in Cl e Didactics in Chemis e Chemistry (2015) e Didactics in Chemis e Chemistry (2020 (P e Didactics in Chemis	stry (Primary School) (2015) hemistry (Middle School) (2015) stry (Middle School) (2015) rüfungsordnungsversion 2015)) stry (Middle School) (2020 (Prü-
Allocat Additio Worklo 150 h Teachin Referre § 38 N § 42 N Module First sta First sta	ge of as ion of p nal info ad d to in dr. 1 dr. 4 and e appea ate exar ate exar	ssessment: German and places ormation LPO I (examination regulation d § 36 l Nr. 7 rs in mination for the teaching mination for the teaching	/or English s for teaching-degree progra g degree Grundschuld g degree Grundschuld g degree Sonderpäda g degree Mittelschuld g degree Mittelschuld g degree Mittelschuld g degree Mittelschuld g degree Mittelschuld	e Chemistry (2015) e Didactics in Chemis gogik Didactics in Cl e Didactics in Chemis e Chemistry (2015) e Didactics in Chemis e Chemistry (2020 (P e Didactics in Chemis	stry (Primary School) (2015) hemistry (Middle School) (2015) stry (Middle School) (2015) rüfungsordnungsversion 2015))

Modul	e title			,	Abbreviation
Chemi	stry in	Elementary and Seconda		08-FD3-LAGM-152-m01	
Modul	e coord	linator		Module offered by	<u>.</u>
holder	holder of the Professorship of Didactics of Chemistry			Institute of Inorgan	ic Chemistry
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
3	(not)	successfully completed			
	DurationModule level		Other prerequisites		
1 seme	ester	unknown			
Conter	nts		•		
No info	ormatio	n on contents available.			
Intend	ed lear	ning outcomes			
	-	n on learning outcomes a	available.		
		number of weekly contact hours,	-	rman)	
S (2)			, – – –		
module i	s credital Itation	sessment (type, scope, langua ole for bonus) (approx. 20 minutes) assessment: German and		examination offered — if no	ot every semester, information on whether
Allocat					
Additio	onal inf	ormation			
Worklo	ad				
90 h					
Teachi	ng cyc	le	-		
Referre	ed to in	LPO I (examination regulation	s for teaching-degree progra	ammes)	
§ 42 I			· · · ·		
Modul		ars in			
First st	ate exa	mination for the teaching mination for the teaching mination for the teaching	g degree Mittelschule	Chemistry (2015)	rüfungsordnungsversion 2015))





Paper

(4 ECTS credits)

Students studying for a teaching degree Grundschule must complete a practical training in didactics and teaching methodology (studienbegleitendes fachdidaktisches Praktikum) which refers to one of the subjects they selected as vertieft studiertes Fach (subject studied with a focus on the scientific discipline) pursuant to Section 34 Subsection 1 No. 4 LPO I (examination regulations for teaching-degree programmes). The obligatory accompanying tutorial is offered by the respective subject. The ECTS credits obtained are counted in the subject Erziehungswissenschaften pursuant to Section 10 Subsection 3 LASPO (general academic and examination regulations for teaching-degree programms).

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	cord Lehramt Grundschulen (Unterrichtsfach) Chemie - 2015	

Module title				Abbreviation	
Interns	Internship at Elementary Schools				o8-Ch-SBPrakt-LAGS-152-mo1
Module	e coord	inator		Module offered by	
holder	of the F	Professorship of Didactic	s of Chemistry	Faculty of Chemistr	y and Pharmacy
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
4	(not) s	successfully completed			
Duratio	n	Module level	Other prerequisites		
1 seme	ster	unknown			
Conten	ts				
No info	rmatio	n on contents available.			
Intende	ed leari	ning outcomes			
No info	rmatio	n on learning outcomes a	vailable.		
Course	S (type, n	umber of weekly contact hours, l	anguage — if other than Ger	rman)	
P (o) + 2	S (2)				
		s essment (type, scope, langua le for bonus)	ge — if other than German, o	examination offered — if no	t every semester, information on whether
Conten regulat	ts and ions fo		specified in Section mmes); participation	34 Subsection 1 Ser	ntence 1 No. 4 LPO I (examination ing practice, completion of all set
Allocat	ion of p	olaces			
Additio	nal inf	ormation			
Worklo	ad				
120 h					
Teachir	ng cycl	e			
Referre	d to in	LPO I (examination regulations	s for teaching-degree progra	mmes)	
§ 34 1	Nr. 4				
Module	e appea	in			
First sta	ate exa	mination for the teaching	g degree Grundschule	e Educational Scienc	e (2015)



Freier Bereich (general as well as subject-specific electives)

(ECTS credits)

Teaching degree students must take modules worth a total of 15 ECTS credits in the area Freier Bereich (general as well as subject-specific electives) (Section 9 LASPO (general academic and examination regulations for teaching-degree programmes)). To achieve the required number of ECTS credits, students may take any modules from the areas below.

Freier Bereich -- interdisciplinary: The interdisciplinary additional offer for a teaching degree can be found in the respective Annex "Ergänzende Bestimmungen für den "Freien Bereich" im Rahmen des Studiums für ein Lehramt".

LA Grundschulen Chemistry (2015)	JMU Würzburg • generated 18-Apr-2025 • exam. reg. data re-	page 28 / 58
	cord Lehramt Grundschulen (Unterrichtsfach) Chemie - 2015	



Subject-specific Extra Skills (ECTS credits)

(Freier Bereich (general as well as subject-specific electives) -- subject specific)

LA Grundschulen Chemistry (2015)	JMU Würzburg • generated 18-Apr-2025 • exam. reg. data re-	page 29 / 58
	cord Lehramt Grundschulen (Unterrichtsfach) Chemie - 2015	

Module	title				Abbreviation	
Practic	al spec	troscopy 2			08-AC-Spec-152-m01	
Module	coord	inator		Module offered by		
lecture	lecturer of lecture "Praktische Spektroskopie 2"			Institute of Inorgan	ic Chemistry	
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)		
3	nume	rical grade				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Contents						
		quips students with an a ures and properties, spe			l saline compounds. It focuses ical processes.	
Intende	ed learı	ning outcomes				
priate r	nanner		pic methods that car		saline compounds in an appro- uctural analysis of solids and can	
Course	S (type, n	umber of weekly contact hours, l	anguage — if other than Ger	man)		
V (2)						
Method of assessment (type, scope, language – if other than German, examination offered – if not every semester, information on whether module is creditable for bonus) 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 Allocation of places Method Workload 90 h						
Teachir	ig cycl	e				
Referre	d to in	LPO I (examination regulations	s for teaching-degree progra	mmes)		
§ 22	§ 22 Nr. 1 h) § 22 Nr. 2 f) § 22 Nr. 3 f)					
Module	appea	ars in				
First sta First sta First sta	First state examination for the teaching degree Grundschule Chemistry (2015) First state examination for the teaching degree Realschule Chemistry (2015) First state examination for the teaching degree Gymnasium Chemistry (2015) First state examination for the teaching degree Mittelschule Chemistry (2015) First state examination for the teaching degree Mittelschule Chemistry (2020 (Prüfungsordnungsversion 2015))					

Module	e title				Abbreviation
Practic	al spec	troscopy 1			08-0C-Spec-152-m01
Module	Module coordinator			Module offered by	
lecture	r of lec	ture "Organische Chemie	2"	Institute of Organic	Chemistry
ECTS			Only after succ. con	pl. of module(s)	
3	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	ts	<u> </u>	Į.		
This mo NMR sp			e spectroscopic meth	ods of infrared spec	troscopy, mass spectrometry and
Intend	ed lear	ning outcomes			
			nt spectroscopic meth	nods, to evaluate a s	pectrum and to draw conclusion
		molecular structure.			
	o (type, r	number of weekly contact hours, l	anguage — If other than Ger	man)	
V (2)					
		sessment (type, scope, langua ıle for bonus)	ge — if other than German, o	examination offered — if no	ot every semester, information on whether
e) pres Langua	entatio ige of a	. 20 pages) or n (approx. 30 minutes) ssessment: German and	/or English		
Allocat	ion of j	olaces			
 • • • • • • •					
Additio	onal inf	ormation			
Worklo					
90 h		_			
Teachi	ng cycl	e			
		LPO I (examination regulation	s for teaching-degree progra	mmes)	
§ 22 § 22					
§ 62 N	,				
Module	e appea	ars in			
Bachel	or's de	gree (1 major) Functional	Materials (2015)		
		mination for the teaching	-		
		mination for the teaching			
		mination for the teaching	r dogroo Gymnacium		
	чгн нхэ	mination for the to li			
		mination for the teaching	g degree Mittelschule	Chemistry (2015)	rüfungsordnungsversion 2015))

LA Grundschulen	Chemistry	(2015)
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Module	e title				Abbreviation	
Solid S	itate Cl	nemistry			08-AC-FK-152-m01	
Module	e coord	linator		Module offered by		
	r of lec	ture "Festkörperchemie	" (Solid State Che-	Institute of Inorgan	ic Chemistry	
ECTS		od of grading	Only after succ. compl. of module(s)			
3		rical grade				
Duratio	on	Module level	Other prerequisites	5		
1 seme	ster	undergraduate				
Conten	ts	•				
		equips students with an tures and properties, sp			•	. It focuses
Intend	ed lear	ning outcomes				
		able to describe the stru r. They are able to syste				n an appro-
Course	S (type, 1	number of weekly contact hours	, language — if other than Ge	erman)		
V (2)						
Metho	d of as	sessment (type, scope, langi	uage — if other than German,	examination offered — if no	ot every semester, informat	ion on whether
module is	s creditat	ole for bonus)				
Langua Allocat		issessment: German an places	d/or English			
 Additio	onal inf	ormation				
Worklo	ad					
90 h						
Teachi	ng cycl	e				
Referre	ed to in	LPOI (examination regulation	ons for teaching-degree progr	ammes)		
§ 22 § 22 § 62 N	Nr. 2 f)					
Module		ars in				
		mination for the teaching	ng degree Grundschul	e Chemistry (2015)		
		mination for the teaching				
		mination for the teaching		• -		
		mination for the teaching				
		hing degree Gymnasium				
		hing degree Gymnasium				
		mination for the teaching				-
master	Sleac	hing degree Gymnasium		uon FLOS, Eille NetW	UIN DAVAIIA (EINB) (2	025)
A Grundso	chulen Ch	emistry (2015)		generated 18-Apr-2025 • exam undschulen (Unterrichtsfach) (page 32 / 58
				(onternentshach) (

Module	title				Abbreviation	
Elemen	tal Org	anic Chemistry			08-AC-ELO-152-mo:	1
Module	coordi	nator		Module offered by	<u> </u>	
			e Chemie" (Elemental		ic Chemistry	
Organic					······	
ECTS	Metho	d of grading	Only after succ. con	npl. of module(s)		
5	numer	ical grade				
Duratio	n	Module level	Other prerequisites			
1 semes	ster	undergraduate				
Content	ts					
			advanced knowledge reactivity and technica	-	t focuses on their st	ructures and
		ing outcomes				
		•	ucture and properties o	forganometallics in	an appropriate man	nor They are
			rise their structure and			
			f elementary organic co		. ,	•
Courses	5 (type, n	umber of weekly contact hours	s, language — if other than Ge	rman)		
V (2) + Ü	Ü (1)					
Method	of ass	essment (type, scope, lang	uage — if other than German,	examination offered — if no	t every semester, informat	ion on whether
		e for bonus)			•	
		nination (approx. 90 to				
			each (20 to 30 minute	-		
		e , ,	o 3 candidates (approx	. 15 minutes per can	didate) or	
		20 pages) or 1 (approx. 30 minutes)				
		ssessment: German an	d/or English			
Allocati	-		<u>u</u> / or <u></u>			
Additio	nalinfo	ormation				
Auuitio		mation				
Workloa	ad					
150 h						
Teachin						
Teacini	ig cycle	:				
		LPOI (examination regulation	ons for teaching-degree progra	immes)		
§ 22 N						
§ 22 N § 22 N	-					
Module		rs in				
		gree (1 major) Biochem	istry (2015)			
	-		ng degree Grundschule	Chemistry (2015)		
			ng degree Realschule (
			ng degree Gymnasium	• -		
			ng degree Mittelschule			
			n MINT Teacher Educat		ork Bavaria (ENB) (2	016)
		gree (1 major) Biochem				
	-		n MINT Teacher Educat	ion PLUS, Elite Netw	ork Bavaria (ENB) (20	020)
		mistry (2015)	JMU Würzburg • g	enerated 18-Apr-2025 • exam	. reg. data re-	page 33 / 58
			cord Lehramt Gru	ndschulen (Unterrichtsfach) (.hemie - 2015	



First state examination for the teaching degree Mittelschule Chemistry (2020 (Prüfungsordnungsversion 2015)) Bachelor's degree (1 major) Biochemistry (2022) Master's teaching degree Gymnasium MINT Teacher Education PLUS, Elite Network Bavaria (ENB) (2025)

LA Grundschulen Chemistry (2015)	JMU Würzburg • generated 18-Apr-2025 • exam. reg. data re-	page 34 / 58
	cord Lehramt Grundschulen (Unterrichtsfach) Chemie - 2015	

Module title					Abbreviation	
Organi	c Chem	istry 3			08-0C3-152-m01	
Module	e coord	inator		Module offered by		
holder	of the I	Professorship of Organic	: Chemistry	Institute of Organic	Chemistry	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
6	nume	rical grade				
Duratio	on	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	Its					
radical	s. It dis	ocuses on polar rearrang cusses the fundamenta y and retrosynthesis.				
Intend	ed lear	ning outcomes				
asymm	etric ca	able to formulate olefina atalyses. Students are al s of molecules.				
Course	S (type, r	number of weekly contact hours,	language — if other than Ger	rman)		
V (2) +	Ü (2)					
		Sessment (type, scope, langu Ile for bonus)	age — if other than German,	examination offered — if no	t every semester, information	n on whether
b) oral c) oral d) log (e) pres	 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 					
Allocat	ion of j	olaces				
Additio	onal inf	ormation				
Worklo	ad					
180 h			_			
Teachi	ng cvcl	e				
	0.7					
Referre	ed to in	LPO I (examination regulation	ns for teaching-degree progra	mmes)		
§ 22 § 22 § 22	Nr. 1 h) Nr. 2 f)					
Module appears in						
First state examination for the teaching degree Grundschule Chemistry (2015) First state examination for the teaching degree Realschule Chemistry (2015) First state examination for the teaching degree Gymnasium Chemistry (2015) First state examination for the teaching degree Mittelschule Chemistry (2015) Master's teaching degree Gymnasium MINT Teacher Education PLUS, Elite Network Bavaria (ENB) (2016) Master's teaching degree Gymnasium MINT Teacher Education PLUS, Elite Network Bavaria (ENB) (2020) First state examination for the teaching degree Mittelschule Chemistry (2020 (Prüfungsordnungsversion 2015))) Master's teaching degree Gymnasium MINT Teacher Education PLUS, Elite Network Bavaria (ENB) (2020)						
		emistry (2015)	JMU Würzburg • g	enerated 18-Apr-2025 • exam ndschulen (Unterrichtsfach) C	. reg. data re-	page 35 / 58

Module title				Abbreviation			
Organic Chemistry 4					08-0C4-152-m01		
Module coordinator			Module offered by				
holder of the Chair of Organic Chemistr			y II Institute of Organic Chemistry				
ECTS	1	od of grading	ŕ	Only after succ. compl. of module(s)			
5	5 numerical grade						
Duration Module level Other prerequisite							
1 semester undergraduate							
Contents							
This module discusses biologically important bonding classes, their reactions and syntheses, working with spe- cial hazardous substances, complicated working and synthesis techniques, purification methods and product analysis.							
Intended learning outcomes							
Students are able to name important heteroaromatics and to formulate their reactions and syntheses. They are able to characterise and categorise dyes. Students are able to describe the structure and selective synthesis of proteins. In addition, they are able to describe the structure of the DNA, carbohydrates, fats, terpenes and stero-ids. Courses (type, number of weekly contact hours, language – if other than German)							
$V(2) + \ddot{U}(2)$							
Method of assessment (type, scope, language – if other than German, examination offered – if not every semester, information on whether module is creditable for bonus) 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 Allocation of places							
Additional information							
Workload							
150 h							
Teaching cycle							
Referred to in LPO I (examination regulations for teaching-degree programmes)							
§ 22 Nr. 1 h) § 22 Nr. 2 f) § 62 Nr. 2							
Module appears in							
Bachelor's degree (1 major) Biochemistry (2015) First state examination for the teaching degree Grundschule Chemistry (2015) First state examination for the teaching degree Realschule Chemistry (2015) First state examination for the teaching degree Gymnasium Chemistry (2015) First state examination for the teaching degree Mittelschule Chemistry (2015) First state examination for the teaching degree Mittelschule Chemistry (2015) Master's degree (1 major) Functional Materials (2016) Master's teaching degree Gymnasium MINT Teacher Education PLUS, Elite Network Bavaria (ENB) (2016) LA Grundschulen Chemistry (2015) JMU Würzburg • generated 18-Apr-2025 • exam. reg. data re- page 36 / 58							
LA Grundso	chuien Che	emistry (2015)		enerated 18-Apr-2025 • exam 1dschulen (Unterrichtsfach) (-	page 36 / 58	

Julius-Maximilians-UNIVERSITÄT WÜRZBURG

Bachelor's degree (1 major) Biochemistry (2017)

Master's teaching degree Gymnasium MINT Teacher Education PLUS, Elite Network Bavaria (ENB) (2020) First state examination for the teaching degree Mittelschule Chemistry (2020 (Prüfungsordnungsversion 2015)) Bachelor's degree (1 major) Biochemistry (2022)

Master's teaching degree Gymnasium MINT Teacher Education PLUS, Elite Network Bavaria (ENB) (2025)

LA Grundschulen Chemistry (2015)	JMU Würzburg • generated 18-Apr-2025 • exam. reg. data re-	page 37 / 58
	cord Lehramt Grundschulen (Unterrichtsfach) Chemie - 2015	

Module	e title				Abbreviation	
Quantum Chemistry				08-TC-152-m01		
Module coordinator			Module offered by			
lecture	r of lec	ture "Quantenchemie"		Institute of Physica	l and Theoretical Ch	emistry
ECTS	1	od of grading	Only after succ. com	· · · · ·		,
3	1	rical grade				
Duratio		Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten			1			
spin, th	ne Paul	provides students with d i principle, Slater detern ed states, the Born-Opp	ninants, the Hartree-Fo	ock method, correlat	ion energy, configur	
Intende	ed lear	ning outcomes				
Studen	its are a	able to describe excited	states of molecules w	ith the help of key co	oncepts and models	•
Course	S (type, r	number of weekly contact hours,	language — if other than Ger	man)		
V (2) +	Ü (1)					
		Sessment (type, scope, langu ole for bonus)	age — if other than German, e	examination offered — if no	t every semester, informat	ion on whether
	ige of a ble for		I/or English			
Additio	onal inf	ormation				
Worklo	ad					
90 h						
Teachi	ng cycl	e				
Referre	ed to in	LPO I (examination regulation	ns for teaching-degree progra	mmes)		
§ 22 § 22 § 22	Nr. 1 h) Nr. 2 f)					
Module	_	ars in				
		gree (1 major) Chemistry	(2015)			
		gree (1 major) Mathemat				
		gree (1 major) Computat		015)		
		gree (1 major) Functiona				
		mination for the teachin		• -		
		mination for the teachin mination for the teachin				
		mination for the teachin	,			
		hing degree Gymnasium			ork Bavaria (ENB) (2	016)
		emistry (2015)	JMU Würzburg • ge	enerated 18-Apr-2025 • exam	. reg. data re-	page 38 / 58
			cord Lenramit Grun	idschulen (Unterrichtsfach) (.nemie - 2015	





Bachelor's degree (1 major) Biochemistry (2017) Bachelor's degree (1 major) Chemistry (2017) Master's teaching degree Gymnasium MINT Teacher Education PLUS, Elite Network Bavaria (ENB) (2020) First state examination for the teaching degree Mittelschule Chemistry (2020 (Prüfungsordnungsversion 2015)) Bachelor's degree (1 major) Functional Materials (2021) Bachelor's degree (1 major) Biochemistry (2022) Bachelor's degree (1 major) Mathematics (2023) Master's teaching degree Gymnasium MINT Teacher Education PLUS, Elite Network Bavaria (ENB) (2025) Bachelor's degree (1 major) Functional Materials (2025)

LA Grundschulen Chemistry (2015)	JMU Würzburg • generated 18-Apr-2025 • exam. reg. data re-	page 39 / 58
	cord Lehramt Grundschulen (Unterrichtsfach) Chemie - 2015	

Module title			Abbreviation								
Symmetry, chemical bonding and light - Part 1					08-PC-SBL1-152-m0	1					
Module coordinator Module offer				Module offered by	ered by						
lecturer of lecture "Symmetrie, chemische Bindung and Institute of Physical and Theoretical Chemis Licht"			emistry								
ECTS	ECTS Method of grading Only after succ. compl. of module(s)										
6		rical grade		-							
Duratio		Module level	Other prerequisites								
1 semes	ster	undergraduate									
Conten			ļ								
This module provides an introduction to the symmetry of molecules. It focuses on group theory, symmetry opera- tions, point groups, character tables and selection rules. The module deals with the chemical bond based on the qualitative MO theory and gives an introduction to the fundamentals of computational chemistry.											
Intende	ed lear	ning outcomes									
		able to analyse the symmes of a particular molecu			onclusions about th	e spectros-					
Courses	5 (type, r	number of weekly contact hours,	language — if other than Ger	man)							
V (3) + ĺ	Ü (2)										
Method	l of ass	Sessment (type, scope, langua	age — if other than German, e	examination offered — if no	t every semester, informatio	on on whether					
 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 Allocation of places											
Additio	nal inf	ormation									
Worklo	ad										
180 h											
Teachir											
	Teaching cycle										
Referre			s for teaching-degree progra	mmes)							
Referre § 22 N § 22 N § 22 N	d to in Nr. 1 h) Nr. 2 f)	e LPO I (examination regulation	s for teaching-degree progra	mmes)							
§ 22 N § 22 N § 22 N Module	d to in Nr. 1 h) Nr. 2 f) Nr. 3 f) e appea	LPOI (examination regulation									
§ 22 II N § 22 II N § 22 II N Module First sta First sta First sta First sta Master' First sta	d to in Nr. 1 h) Nr. 2 f) Nr. 3 f) appea ate exa ate exa	LPO I (examination regulation	g degree Grundschule g degree Realschule C g degree Gymnasium g degree Mittelschule MINT Teacher Educati MINT Teacher Educati g degree Mittelschule	e Chemistry (2015) Chemistry (2015) Chemistry (2015) Chemistry (2015) Chemistry (2015) Ton PLUS, Elite Netwo Chemistry (2020 (Pr	ork Bavaria (ENB) (20 üfungsordnungsvers	020) Sion 2015))					

Module	e title				Abbreviation	
Toxicology and legal studies				03-TR-152-m01		
Module	e coord	inator		Module offered by	<u> </u>	
lecturer of lecture "Toxikologie und Rechtskunde"			Faculty of Medicine			
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
3	nume	rical grade				
Duratio	on	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	Its					
Basics toxicol	-	l regulations for chemi	sts (handling and trans	portation of hazardo	ous materials), funda	mentals of
Intend	ed lear	ning outcomes				
ces) as	well as	s the fundamentals of t			ransport of hazardo	us substan-
	_	number of weekly contact hour	s, language — if other than Ger	man)		
	d of ass		guage — if other than German,	examination offered — if no	t every semester, informat	ion on whether
	-	le for bonus) nation (approx. 90 min				
Allocat						
Allocal		Jiaces				
 Additia	nalinf	ormation				
of anne	ex 1 to t		POLmCh in conjunction and 6 of annex 3 to th		er g) and i) and No. I	l 1st letter d)
Worklo	bad					
90 h						
Teachi	ng cyci	e				
 Doforro	d to in					
§ 22 II		LPUT (examination regulati	ons for teaching-degree progra	mmes)		
§ 22 § 22 § 22	Nr. 2 f)					
Module	e appea	urs in				
Bachel Bachel First sta First sta First sta First sta First sta First sta Master Bachel	or's de or's de ate exa ate exa ate exa ate exa ate exa ate exa ate exa or's degr	mination for the teachi mination for the teachi mination for the teachi mination for the teachi mination for the teachi	ry (2015) emistry (2015) ng degree Grundschule ng degree Grundschule ng degree Realschule (ng degree Gymnasium ng degree Sonderpäda ng degree Mittelschule (2016) emistry (2016)	e Didactics in Chemis Chemistry (2015) Chemistry (2015) gogik Didactics in Ch Chemistry (2015)	nemistry (Middle Sch	100l) (2015)
LA Grundso	chulen Che	emistry (2015)		enerated 18-Apr-2025 • exam	-	page 41 / 58
			cord Lehramt Grui	ndschulen (Unterrichtsfach) (Chemie - 2015	



Bachelor's degree (1 major) Chemistry (2017)

Master's degree (1 major) Chemistry (2018)

Bachelor's degree (1 major) Food Chemistry (2019)

First state examination for the teaching degree Mittelschule Chemistry (2020 (Prüfungsordnungsversion 2015)) First state examination for the teaching degree Mittelschule Didactics in Chemistry (Middle School) (2020 (Prüfungsordnungsversion 2015))

First state examination for the teaching degree Sonderpädagogik Didactics in Chemistry (Middle School) (2020 (Prüfungsordnungsversion 2015))

Bachelor's degree (1 major) Food Chemistry (2021)

Bachelor's degree (1 major) Biochemistry (2022)

Master's degree (1 major) Chemistry (2024)

Bachelor's degree (1 major) Food Chemistry (2025)

LA Grundschulen Chemistry (2015)	JMU Würzburg • generated 18-Apr-2025 • exam. reg. data re-	page 42 / 58
	cord Lehramt Grundschulen (Unterrichtsfach) Chemie - 2015	

Module	e title				Abbreviation
Trainin	g for E	xams in Inorganic Chemi		08-PVAC-152-m01	
Module	Module coordinator Module offere			Module offered by	
lecture	r of the	seminar		Faculty of Chemistr	y and Pharmacy
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
2	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites	i	
1 seme	ster	undergraduate			
Conten	ts	а.			
		vives students the opport xamination and try exam			try that are likely to be covered
		ning outcomes	<u></u>	•	
	its are a	able to solve selected que	estions on inorganic	chemistry that were	asked in the state examination ir
Course	S (type, 1	number of weekly contact hours, l	language — if other than Gei	rman)	
S (2)					
		s essment (type, scope, langua ole for bonus)	ge — if other than German,	examination offered — if no	ot every semester, information on whether
		lks on selected assignme ssessment: German and,		ites each)	
Allocat	ion of	places	-		
Additio	onal inf	ormation			
Worklo	ad				
60 h					
Teachi	ng cycl	e			
Referre	ed to in	LPOI (examination regulation	s for teaching-degree progra	ammes)	
§ 22 § 22 § 22	Nr. 2 f)				
Module		arc in			
		mination for the teaching	degree Grundschule	Chemistry (2015)	
		mination for the teaching			
		mination for the teaching		• -	
		mination for the teaching		• -	
			g degree milleischule	Chemistry (2015)	

Module title					Abbreviation	
Training for Exams in Organic Chemistry					08-PVOC-152-m01	
Module	e coord	linator		Module offered by		
lecture	r of the	e seminar		Faculty of Chemist	ry and Pharmacy	
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)		
3	(not)	successfully completed				
Duratio		Module level	Other prerequisites	1		
1 seme	ster	undergraduate	, <u>, ,</u>			
Conten	ts		<u>I</u>			
		vives students the opport	unity to revise topics	in organic chemistr	y that are likely to be covered or	
		nination and try exam pa			, ,	
Intende	ed lear	ning outcomes				
Studen	ts are	able to solve selected qu	estions on organic ch	nemistry that were as	sked in the state examination ir	
previou			_			
Course	S (type, I	number of weekly contact hours, l	anguage — if other than Ge	rman)		
S (2)						
Metho	d of as	sessment (type, scope, langua	ge — if other than German,	examination offered — if n	ot every semester, information on whether	
module is	s creditat	ble for bonus)				
		lks on selected assignme		utes each)		
	-	ssessment: German and,	/or English			
Allocat	ion of	places				
Additio	onal inf	ormation				
Worklo	ad					
90 h						
Teachiı	ng cycl	e				
Referre	ed to in	LPO I (examination regulation	s for teaching-degree progra	ammes)		
§ 22			-			
§ 22	Nr. 2 f)					
§ 22	Nr. 3 f)					
Module	e appea	ars in				
		mination for the teaching				
		mination for the teaching		• -		
		mination for the teaching		,		
First sta	ate exa	mination for the tooching				
				Chemistry (2015)	rüfungsordnungsversion 2015))	

Module	e title				Abbreviation
	-	xams in Chemistry Teach l Teachers	ing for Elementary, S	econdary and	08-FD-PVLAGMRS-152-m01
Module	e coord	inator	Module offered by		
holder	of the l	Professorship of Didactic	s of Chemistry	Institute of Inorgar	nic Chemistry
ECTS	Meth	od of grading	Only after succ. con	pl. of module(s)	
2	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	unknown			
Conten	Its		к.		
No info	ormatio	n on contents available.			
Intend	ed lear	ning outcomes			
		n on learning outcomes a	available.		
Course	S (type, r	number of weekly contact hours, I	anguage — if other than Ge	man)	
S (2)					
		Sessment (type, scope, langua ble for bonus)	ge — if other than German,	examination offered — if n	ot every semester, information on whether
		cted assignments (approx ssessment: German and			
Allocat	ion of _l	olaces			
Additio	onal inf	ormation			
Worklo	ad				
60 h					
Teachi	ng cycl	e			
Referre	ed to in	LPOI (examination regulation	s for teaching-degree progra	mmes)	
§ 22 § 22					
Module	e appea	ars in			
First sta First sta	ate exa ate exa	mination for the teaching mination for the teaching mination for the teaching mination for the teaching	g degree Realschule (g degree Mittelschule	Chemistry (2015) Chemistry (2015)	Prüfungsordnungsversion 2015))

Module title					Abbreviation
Instructions for Scientific Research					08-FD-WA-152-m01
Modul	Module coordinator			Module offered by	
holder	of the l	Professorship of Didactic	s of Chemistry	Institute of Inorgan	ic Chemistry
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
2	(not) s	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ester	unknown			
Conter	nts				
No info	ormatio	n on contents available.			
Intend	ed lear	ning outcomes			
		n on learning outcomes a	vailable.		
		number of weekly contact hours, l	in the second	rman)	
S (2)		, ,	0.0		
Langua Allocat	age of a t ion of j	(approx. 30 minutes) ssessment: German and, places ormation	/or English		
Worklo	ad				
60 h					
Teachi	ng cycl	e			
Referre	ed to in	LPO I (examination regulations	s for teaching-degree progra	mmes)	
§ 22 § 22 § 22					
Modul	e appea	ars in			
First st First st First st	ate exa ate exa ate exa	mination for the teaching mination for the teaching mination for the teaching mination for the teaching	g degree Realschule (g degree Gymnasium g degree Mittelschule	Chemistry (2015) Chemistry (2015) Chemistry (2015)	
First st	ate exa	mination for the teaching	g degree Mittelschule	Chemistry (2020 (Pr	üfungsordnungsversion 2015))

Module title			Abbreviation			
Chemi	Chemistry SchoolLabs 08-FD-LLL-152-m01					
Modul	e coord	inator		Module offered by		
holder	of the F	Professorship of Didaction	cs of Chemistry	Institute of Inorgani	ic Chemistry	
ECTS	1	od of grading	Only after succ. con			
2	(not) s	successfully completed				
Duratio	on	Module level	Other prerequisites			
1 seme	ester	unknown				
Conter	Contents					
No info	ormatio	n on contents available.	_			
		ning outcomes				
		n on learning outcomes	available			
		number of weekly contact hours,	-	man)		
P (3)				inanj		
module i	s creditab	sessment (type, scope, langu le for bonus)				
•	-	gnment (successful supe ssessment: German and		in learn-teach-lab, a	pprox. 4 to 6 hours e	each)
Allocat	tion of p	olaces				
Additio	onal inf	ormation				
Worklo	ad					
60 h						
Teachi	ng cycl	e	_			
	<u> </u>					
Referre	ed to in	LPOI (examination regulation	ns for teaching-degree progra	mmes)		
	Nr. 1 h)					
§ 22						
§ 22	Nr. 3 f)					
Modul	e appea	ars in				
First st	ate exa	mination for the teachin	g degree Grundschule	e English (2009)		
First st	ate exa	mination for the teachin	g degree Grundschule	e Biology (2009)		
First st	ate exa	mination for the teachin	g degree Grundschule	e Chemistry (2009)		
First st	ate exa	mination for the teachin	g degree Grundschule	e Geography (2009)		
		mination for the teachin		- •	/ (2009)	
		mination for the teachin		-		
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	First state examination for the teaching degree Grundschule Catholic Theology (2009)					
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		mination for the teachin		-		
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		mination for the teachin			•	
		mination for the teachin mination for the teachin		•	009)	
LA Grunds	chulen Che	emistry (2015)		enerated 18-Apr-2025 • exam 1dschulen (Unterrichtsfach) C	_	page 47 / 58

First state examination for the teaching degree Hauptschule Biology (2009) First state examination for the teaching degree Hauptschule Chemistry (2009) First state examination for the teaching degree Hauptschule Geography (2009) First state examination for the teaching degree Hauptschule Protestant Theology (2009) First state examination for the teaching degree Hauptschule German (2009) First state examination for the teaching degree Hauptschule History (2009) First state examination for the teaching degree Hauptschule Catholic Theology (2009) First state examination for the teaching degree Hauptschule Mathematics (2009) First state examination for the teaching degree Hauptschule Music (2009) First state examination for the teaching degree Hauptschule Physics (2009) First state examination for the teaching degree Hauptschule Social Science (2009) First state examination for the teaching degree Hauptschule Science of Sport (2009) First state examination for the teaching degree Realschule English (2009) First state examination for the teaching degree Realschule Biology (2009) First state examination for the teaching degree Realschule Chemistry (2009) First state examination for the teaching degree Realschule Geography (2009) First state examination for the teaching degree Realschule Protestant Theology (2009) First state examination for the teaching degree Realschule French Studies (2009) First state examination for the teaching degree Realschule German (2009) First state examination for the teaching degree Realschule History (2009) First state examination for the teaching degree Realschule Computer Science (2012) First state examination for the teaching degree Realschule Catholic Theology (2009) First state examination for the teaching degree Realschule Mathematics (2009) First state examination for the teaching degree Realschule Music (2009) First state examination for the teaching degree Realschule Physics (2009) First state examination for the teaching degree Realschule Science of Sport (2009) First state examination for the teaching degree Gymnasium English (2009) First state examination for the teaching degree Gymnasium Biology (2009) First state examination for the teaching degree Gymnasium Chemistry (2009) First state examination for the teaching degree Gymnasium Geography (2009) First state examination for the teaching degree Gymnasium French Studies (2009) First state examination for the teaching degree Gymnasium German (2009) First state examination for the teaching degree Gymnasium History (2009) First state examination for the teaching degree Gymnasium Greek Philology (2009) First state examination for the teaching degree Gymnasium Computer Science (2009) First state examination for the teaching degree Gymnasium Italian Studies (2009) First state examination for the teaching degree Gymnasium Catholic Theology (2009) First state examination for the teaching degree Gymnasium Latin Philology (2009) First state examination for the teaching degree Gymnasium Mathematics (2012) First state examination for the teaching degree Gymnasium Mathematics (2009) First state examination for the teaching degree Gymnasium Music (2009) First state examination for the teaching degree Gymnasium Physics (2009) First state examination for the teaching degree Gymnasium Russian (2009) First state examination for the teaching degree Gymnasium Social Science (2009) First state examination for the teaching degree Gymnasium Spanish Studies (2009) First state examination for the teaching degree Gymnasium Science of Sport (2009) First state examination for the teaching degree Gymnasium Music Education, Advanced Studies (2009) First state examination for the teaching degree Sonderpädagogik Pedagogy of Secondary Education (2009) First state examination for the teaching degree Sonderpädagogik Pedagogy of Primary Education (2009) First state examination for the teaching degree Sonderpädagogik Teaching at the German Mittelschule (2013) First state examination for the teaching degree Mittelschule English (2013) First state examination for the teaching degree Mittelschule Biology (2013) First state examination for the teaching degree Mittelschule Chemistry (2013) LA Grundschulen Chemistry (2015) JMU Würzburg • generated 18-Apr-2025 • exam. reg. data repage 48 / 58 cord Lehramt Grundschulen (Unterrichtsfach) Chemie - 2015

First state examination for the teaching degree Mittelschule Geography (2013) First state examination for the teaching degree Mittelschule Protestant Theology (2013) First state examination for the teaching degree Mittelschule German (2013) First state examination for the teaching degree Mittelschule History (2013) First state examination for the teaching degree Mittelschule Catholic Theology (2013) First state examination for the teaching degree Mittelschule Mathematics (2013) First state examination for the teaching degree Mittelschule Physics (2013) First state examination for the teaching degree Mittelschule Social Science (2013) First state examination for the teaching degree Mittelschule Science of Sport (2013) First state examination for the teaching degree Grundschule English (2015) First state examination for the teaching degree Grundschule Biology (2015) First state examination for the teaching degree Grundschule Chemistry (2015) First state examination for the teaching degree Grundschule Geography (2015) First state examination for the teaching degree Grundschule German (2015) First state examination for the teaching degree Grundschule Catholic Theology (2015) First state examination for the teaching degree Grundschule Mathematics (2015) First state examination for the teaching degree Grundschule Pedagogy of Primary Education (2015) First state examination for the teaching degree Grundschule Physics (2015) First state examination for the teaching degree Grundschule Social Science (2015) First state examination for the teaching degree Grundschule Didactics in English (Primary School) (2015) First state examination for the teaching degree Grundschule Didactics in Biology (Primary School) (2015) First state examination for the teaching degree Grundschule Didactics in Chemistry (Primary School) (2015) First state examination for the teaching degree Grundschule Didactics in Geography (Primary School) (2015) First state examination for the teaching degree Grundschule Didactics in German (Primary School) (2015) First state examination for the teaching degree Grundschule Didactics in History (Primary School) (2015) First state examination for the teaching degree Grundschule Didactics in Catholic Theology (Primary School) (2015)First state examination for the teaching degree Grundschule Art Education in Primary School (2015) First state examination for the teaching degree Grundschule Didactics in Science of Sport (Primary School) (2015) First state examination for the teaching degree Grundschule Didactics in Mathematics (Primary School) (2015) First state examination for the teaching degree Grundschule Music Education in Primary School (2015) First state examination for the teaching degree Grundschule Didactics in Physics (Primary School) (2015) First state examination for the teaching degree Grundschule Didactics in Social Science (Primary School) (2015) First state examination for the teaching degree Grundschule Science of Sport (2015) First state examination for the teaching degree Realschule English (2015) First state examination for the teaching degree Realschule Biology (2015) First state examination for the teaching degree Realschule Chemistry (2015) First state examination for the teaching degree Realschule Geography (2015) First state examination for the teaching degree Realschule Protestant Theology (2015)

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LA Grundschulen Chemistry (2015)	JMU Würzburg • generated 18-Apr-2025 • exam. reg. data re-	
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First state examination for the teaching degree Gymnasium History (2015) First state examination for the teaching degree Gymnasium Greek Philology (2015) First state examination for the teaching degree Gymnasium Computer Science (2015) First state examination for the teaching degree Gymnasium Italian Studies (2015) First state examination for the teaching degree Gymnasium Catholic Theology (2015) First state examination for the teaching degree Gymnasium Latin Philology (2015) First state examination for the teaching degree Gymnasium Mathematics (2015) First state examination for the teaching degree Gymnasium Physics (2015) First state examination for the teaching degree Gymnasium Russian (2015) First state examination for the teaching degree Gymnasium Social Science (2015) First state examination for the teaching degree Gymnasium Spanish Studies (2015) First state examination for the teaching degree Gymnasium Science of Sport (2015) First state examination for the teaching degree Sonderpädagogik Pedagogy of Primary Education (2015) First state examination for the teaching degree Sonderpädagogik Didactics in German (Primary School) (2015) First state examination for the teaching degree Sonderpädagogik Didactics in Catholic Theology (Primary School) (2015) First state examination for the teaching degree Sonderpädagogik Art Education in Primary School (2015) First state examination for the teaching degree Sonderpädagogik Didactics in Science of Sport (Primary School) (2015) First state examination for the teaching degree Sonderpädagogik Didactics in Mathematics (Primary School) (2015) First state examination for the teaching degree Sonderpädagogik Music Education in Primary School (2015) First state examination for the teaching degree Sonderpädagogik Didactics in English (Middle School) (2015) First state examination for the teaching degree Sonderpädagogik Ergonomics (Teaching at the German Mittelschule) (2015) First state examination for the teaching degree Sonderpädagogik Didactics in Biology (Middle School) (2015) First state examination for the teaching degree Sonderpädagogik Didactics in Chemistry (Middle School) (2015) First state examination for the teaching degree Sonderpädagogik Didactics in Geography (Middle School) (2015) First state examination for the teaching degree Sonderpädagogik Didactics in Protestant Theology (Middle School) (2015)

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First state examination for the teaching degree Mittelschule Catholic Theology (2015)

First state examination for the teaching degree Mittelschule Mathematics (2015)

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First state examination for the teaching degree Mittelschule Physics (2015) First state examination for the teaching degree Mittelschule Social Science (2015) First state examination for the teaching degree Mittelschule Didactics in English (Middle School) (2015) First state examination for the teaching degree Mittelschule Ergonomics (Teaching at the German Mittelschule) (2015) First state examination for the teaching degree Mittelschule Didactics in Biology (Middle School) (2015) First state examination for the teaching degree Mittelschule Didactics in Chemistry (Middle School) (2015) First state examination for the teaching degree Mittelschule Didactics in Geography (Middle School) (2015) First state examination for the teaching degree Mittelschule Didactics in Protestant Theology (Middle School) (2015) First state examination for the teaching degree Mittelschule Didactics in German (Middle School) (2015) First state examination for the teaching degree Mittelschule Didactics in History (Middle School) (2015) First state examination for the teaching degree Mittelschule Didactics in Catholic Theology (Middle School) (2015) First state examination for the teaching degree Mittelschule Art Education in Middle School (2015) First state examination for the teaching degree Mittelschule Didactics in Science of Sport (Middle School) (2015) First state examination for the teaching degree Mittelschule Didactics in Mathematics (Middle School) (2015) First state examination for the teaching degree Mittelschule Music Education in Middle School (2015) First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2015) First state examination for the teaching degree Mittelschule Didactics in Social Science (Middle School) (2015) First state examination for the teaching degree Mittelschule Science of Sport (2015) First state examination for the teaching degree Mittelschule Teaching at the German Mittelschule (2015) First state examination for the teaching degree Grundschule Protestant Theology (2015) First state examination for the teaching degree Grundschule Music (2015) First state examination for the teaching degree Grundschule Didactics in Protestant Theology (Primary School) (2015) First state examination for the teaching degree Realschule Music (2015) First state examination for the teaching degree Gymnasium Music (2015) First state examination for the teaching degree Gymnasium Music Education, Advanced Studies (2015) First state examination for the teaching degree Sonderpädagogik Didactics in Protestant Theology (Primary School) (2015) First state examination for the teaching degree Mittelschule Music (2015) First state examination for the teaching degree Gymnasium French Studies (2016) First state examination for the teaching degree Gymnasium Italian Studies (2016) First state examination for the teaching degree Gymnasium Spanish Studies (2016) First state examination for the teaching degree Realschule French Studies (2016) First state examination for the teaching degree Grundschule English (2016) First state examination for the teaching degree Grundschule Didactics in English (Primary School) (2016) First state examination for the teaching degree Realschule English (2016) First state examination for the teaching degree Gymnasium English (2016) First state examination for the teaching degree Mittelschule English (2016) First state examination for the teaching degree Mittelschule Didactics in English (Middle School) (2016) First state examination for the teaching degree Sonderpädagogik Didactics in English (Middle School) (2016) First state examination for the teaching degree Gymnasium Greek Philology (2018) First state examination for the teaching degree Grundschule Physics (2018) First state examination for the teaching degree Grundschule Didactics in Physics (Primary School) (2018) First state examination for the teaching degree Realschule Physics (2018) First state examination for the teaching degree Gymnasium Physics (2018) First state examination for the teaching degree Mittelschule Physics (2018) First state examination for the teaching degree Sonderpädagogik Didactics in Physics (Middle School) (2018) First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2018) First state examination for the teaching degree Gymnasium Mathematics (2019) First state examination for the teaching degree Mittelschule Biology (2020 (Prüfungsordnungsversion 2015))

LA Grundschulen Chemistry (2015)	JMU Würzburg • generated 18-Apr-2025 • exam. reg. data re-	page 51 / 58
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First state examination for the teaching degree Sonderpädagogik Didactics in Biology (Middle School) (2020 (Prüfungsordnungsversion 2015))

First state examination for the teaching degree Mittelschule Didactics in Biology (Middle School) (2020 (Prüfungsordnungsversion 2015))

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First state examination for the teaching degree Mittelschule German (2020 (Prüfungsordnungsversion 2015)) First state examination for the teaching degree Mittelschule Didactics in German (Middle School) (2020 (Prüfungsordnungsversion 2015))

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First state examination for the teaching degree Mittelschule Protestant Theology (2020 (Prüfungsordnungsversion 2015))

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First state examination for the teaching degree Mittelschule History (2020 (Prüfungsordnungsversion 2015)) First state examination for the teaching degree Mittelschule Didactics in History (Middle School) (2020 (Prüfungsordnungsversion 2015))

First state examination for the teaching degree Mittelschule Catholic Theology (2020 (Prüfungsordnungsversion 2015))

First state examination for the teaching degree Mittelschule Didactics in Catholic Theology (Middle School) (2020 (Prüfungsordnungsversion 2015))

First state examination for the teaching degree Mittelschule Mathematics (2020 (Prüfungsordnungsversion 2015))

First state examination for the teaching degree Mittelschule Didactics in Mathematics (Middle School) (2020 (Prüfungsordnungsversion 2015))

First state examination for the teaching degree Mittelschule Art Education in Middle School (2020 (Prüfungsordnungsversion 2015))

First state examination for the teaching degree Mittelschule Science of Sport (2020 (Prüfungsordnungsversion 2015))

First state examination for the teaching degree Mittelschule Didactics in Science of Sport (Middle School) (2020 (Prüfungsordnungsversion 2015))

First state examination for the teaching degree Mittelschule Music (2020 (Prüfungsordnungsversion 2015)) First state examination for the teaching degree Mittelschule Music Education in Middle School (2020 (Prüfungsordnungsversion 2015))

First state examination for the teaching degree Mittelschule Teaching at the German Mittelschule (2020 (Prüfungsordnungsversion 2015))

First state examination for the teaching degree Sonderpädagogik Didactics in English (Middle School) (2020 (Prüfungsordnungsversion 2016))

First state examination for the teaching degree Sonderpädagogik Didactics in Chemistry (Middle School) (2020 (Prüfungsordnungsversion 2015))

First state examination for the teaching degree Sonderpädagogik Didactics in Geography (Middle School) (2020 (Prüfungsordnungsversion 2015))

First state examination for the teaching degree Sonderpädagogik Didactics in Protestant Theology (Middle School) (2020 (Prüfungsordnungsversion 2015))

First state examination for the teaching degree Sonderpädagogik Didactics in German (Middle School) (2020 (Prüfungsordnungsversion 2015))

First state examination for the teaching degree Sonderpädagogik Didactics in History (Middle School) (2020 (Prüfungsordnungsversion 2015))

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First state examination for the teaching degree Sonderpädagogik Didactics in Catholic Theology (Middle School) (2020 (Prüfungsordnungsversion 2015)) First state examination for the teaching degree Sonderpädagogik Art Education in Middle School (2020 (Prüfungsordnungsversion 2015)) First state examination for the teaching degree Sonderpädagogik Didactics in Science of Sport (Middle School) (2020 (Prüfungsordnungsversion 2015)) First state examination for the teaching degree Sonderpädagogik Didactics in Science of Sport (Middle School) (2020 (Prüfungsordnungsversion 2015)) First state examination for the teaching degree Sonderpädagogik Didactics in Mathematics (Middle School)

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First state examination for the teaching degree Sonderpädagogik Teaching at the German Mittelschule (2020 (Prüfungsordnungsversion 2015))

First state examination for the teaching degree Sonderpädagogik Art Education in Primary School (2020 (Prüfungsordnungsversion 2015))

First state examination for the teaching degree Sonderpädagogik Music Education in Primary School (2020 (Prüfungsordnungsversion 2015))

First state examination for the teaching degree Sonderpädagogik Didactics in Science of Sport (Primary School) (2020 (Prüfungsordnungsversion 2015))

First state examination for the teaching degree Sonderpädagogik Didactics in German (Primary School) (2020 (Prüfungsordnungsversion 2015))

First state examination for the teaching degree Sonderpädagogik Didactics in Mathematics (Primary School) (2020 (Prüfungsordnungsversion 2015))

First state examination for the teaching degree Sonderpädagogik Pedagogy of Primary Education (2020 (Prüfungsordnungsversion 2015))

First state examination for the teaching degree Sonderpädagogik Didactics in Protestant Theology (Primary School) (2020 (Prüfungsordnungsversion 2015))

First state examination for the teaching degree Sonderpädagogik Didactics in Catholic Theology (Primary School) (2020 (Prüfungsordnungsversion 2015))

First state examination for the teaching degree Grundschule Didactics in Physics (Primary School) (2020) First state examination for the teaching degree Grundschule Physics (2020)

First state examination for the teaching degree Gymnasium Physics (2020)

First state examination for the teaching degree Realschule Physics (2020)

First state examination for the teaching degree Sonderpädagogik Didactics in Physics (Middle School) (2020) First state examination for the teaching degree Mittelschule Didactics in Physics (Middle School) (2020) First state examination for the teaching degree Mittelschule Physics (2020)

First state examination for the teaching degree Grundschule Political and Social Studies (2020) First state examination for the teaching degree Grundschule Didactics in Political and Social Studies (Primary School) (2020)

First state examination for the teaching degree Sonderpädagogik MS-Didaktik Career and Economics (2020) First state examination for the teaching degree Sonderpädagogik Didactics in Political and Social Studies (Secondary School) (2020)

First state examination for the teaching degree Mittelschule MS-Didaktik Career and Economics (2020) First state examination for the teaching degree Mittelschule Didactics in Political and Social Studies (Secondary School) (2020)

First state examination for the teaching degree Mittelschule Political and Social Studies (2020)

First state examination for the teaching degree Gymnasium Political and Social Studies (2020)

First state examination for the teaching degree Grundschule History (2021)

First state examination for the teaching degree Gymnasium History (2021)

First state examination for the teaching degree Realschule History (2021)

First state examination for the teaching degree Mittelschule History (2021)

First state examination for the teaching degree Grundschule Pedagogy of Primary Education (2021)

First state examination for the teaching degree Gymnasium English (2021)

First state examination for the teaching degree Gymnasium Philosophy and Ethics (2021)

First state examination for the teaching degree Sonderpädagogik Pedagogy of Primary Education (2021)

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First state examination for the teaching degree Gymnasium Philosophy and Ethics (2022) First state examination for the teaching degree Gymnasium Russian (2023) First state examination for the teaching degree Gymnasium Mathematics (2023) First state examination for the teaching degree Gymnasium English (2023) First state examination for the teaching degree Realschule English (2023) First state examination for the teaching degree Grundschule English (2023) First state examination for the teaching degree Grundschule Didactics in English (Primary School) (2023) First state examination for the teaching degree Mittelschule English (2023) First state examination for the teaching degree Mittelschule Didactics in English (Middle School) (2023) First state examination for the teaching degree Sonderpädagogik Didactics in English (Middle School) (2023) First state examination for the teaching degree Gymnasium Geography (2023) First state examination for the teaching degree Realschule Geography (2023) First state examination for the teaching degree Grundschule Geography (2023) First state examination for the teaching degree Mittelschule Geography (2023) First state examination for the teaching degree Grundschule German (2024) First state examination for the teaching degree Gymnasium German (2024) First state examination for the teaching degree Realschule German (2024) First state examination for the teaching degree Sonderpädagogik Didactics in German (Middle School) (2024) First state examination for the teaching degree Mittelschule Didactics in German (Middle School) (2024) First state examination for the teaching degree Grundschule Didactics in German (Primary School) (2024) First state examination for the teaching degree Sonderpädagogik Didactics in German (Primary School) (2024) First state examination for the teaching degree Mittelschule German (2024) First state examination for the teaching degree Grundschule Music Education in Primary School (2024) First state examination for the teaching degree Sonderpädagogik Music Education in Primary School (2024) First state examination for the teaching degree Mittelschule Music Education in Middle School (2024) First state examination for the teaching degree Sonderpädagogik Music Education in Middle School (2024) First state examination for the teaching degree Gymnasium Latin Philology (2024) First state examination for the teaching degree Gymnasium English (2024) First state examination for the teaching degree Mittelschule MS-Didaktik Career and Economics (2024) First state examination for the teaching degree Sonderpädagogik MS-Didaktik Career and Economics (2024) First state examination for the teaching degree Grundschule History (2024) First state examination for the teaching degree Gymnasium History (2024) First state examination for the teaching degree Realschule History (2024) First state examination for the teaching degree Mittelschule History (2024) First state examination for the teaching degree Mittelschule Didactics in History (Middle School) (2024) First state examination for the teaching degree Sonderpädagogik Didactics in History (Middle School) (2024) First state examination for the teaching degree Grundschule Didactics in History (Primary School) (2024) First state examination for the teaching degree Gymnasium Greek Philology (2024) First state examination for the teaching degree Grundschule Art Education in Primary School (2024) First state examination for the teaching degree Sonderpädagogik Art Education in Primary School (2024) First state examination for the teaching degree Sonderpädagogik Art Education in Middle School (2024) First state examination for the teaching degree Mittelschule Art Education in Middle School (2024)

Module title					Abbreviation
Microscale Experiments in Chemistry Teaching					08-FD-MS-152-m01
Module coordinator			Module offered by		
holder of the Professorship of Didactics of Chemistry			Institute of Inorgan	ic Chemistry	
ECTS	Method of grading	Only after suc	c. con	npl. of module(s)	
2	(not) successfully comple	ted			
Duratio	n Module level	Other prerequi	isites		
1 seme	ster unknown				
Conten	ts	!			
No info	rmation on contents availa	ble.			
Intende	ed learning outcomes				
	rmation on learning outcor	nes available.			
	S (type, number of weekly contact h		han Gei	rman)	
S (2)	,			*	
Method	of assessment (type, scope, creditable for bonus)	anguage — if other than Ge	erman,	examination offered — if no	ot every semester, information on whether
	: presentation of a project (ge of assessment: German)		
Allocat	ion of places				
Additio	nal information				
Worklo	ad				
60 h					
Teachir	ng cycle				
Referre	d to in LPO I (examination regu	lations for teaching-degree	e progra	immes)	
§ 22 N § 22 N § 22 N	Nr. 2 f)				
Module	appears in				
First sta First sta First sta First sta First sta First sta First sta fungson First sta	ate examination for the tea ate examination for the tea rdnungsversion 2015)) ate examination for the tea	ching degree Grunds ching degree Realsch ching degree Gymna ching degree Sonder ching degree Mittels ching degree Mittels ching degree Mittels ching degree Mittels	schule hule (sium rpäda chule chule chule chule	e Didactics in Chemis Chemistry (2015) Chemistry (2015) gogik Didactics in Ch Chemistry (2015) Didactics in Chemis Chemistry (2020 (Pr Didactics in Chemis	stry (Primary School) (2015) nemistry (Middle School) (2015) stry (Middle School) (2015) rüfungsordnungsversion 2015)) stry (Middle School) (2020 (Prü- nemistry (Middle School) (2020
	gsordnungsversion 2015))				, , , , , , , , , , , , , , , , , , , ,

Module title Abbreviation					Abbreviation	
Out-Of-	Out-Of-School Education 08-FD-ASL-152-m01					
Module coordinator				Module offered by		
holder of the Professorship of Didactics of			s of Chemistry	Institute of Inorgani	c Chemistry	
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)		
2	(not) s	successfully completed		-		
Duratio	1	Module level	Other prerequisites			
1 seme		unknown				
Conten						
		n on contents available.				
		ning outcomes				
			vailable			
		n on learning outcomes a				
	S (type, n	umber of weekly contact hours, l	anguage — If other than Ger	man)		
S (2)						
		s essment (type, scope, langua; le for bonus)	ge — if other than German, e	examination offered — if no	t every semester, information on whether	
project	prese	ntation of a project (appr	ох. зо minutes)			
		ssessment: German and				
Allocat	ion of p	olaces				
Additio	nal info	ormation				
Worklo	ad					
60 h						
Teachir	ng cycl	e				
Referre	d to in	LPO I (examination regulations	s for teaching-degree progra	mmes)		
§ 22						
§ 22						
§ 22	Vr. 3 f)					
Module appears in						
First sta	ate exa	mination for the teaching	degree Grundschule	Chemistry (2015)		
		-	-		stry (Primary School) (2015)	
First state examination for the teaching degree Realschule Chemistry (2015)						
	First state examination for the teaching degree Gymnasium Chemistry (2015)					
	First state examination for the teaching degree Sonderpädagogik Didactics in Chemistry (Middle School) (2015)					
	First state examination for the teaching degree Mittelschule Chemistry (2015)					
	First state examination for the teaching degree Mittelschule Didactics in Chemistry (Middle School) (2015)					
	First state examination for the teaching degree Mittelschule Chemistry (2020 (Prüfungsordnungsversion 2015))					
		-	degree Mittelschule	Didactics in Chemis	try (Middle School) (2020 (Prü-	
		sversion 2015)) mination for the teaching	dograa Candarnäda	roaik Didactics in Ch	omistry (Middle School) (2000	
			, degree Sonderpada	SUSIK DIUALIILS III LI	nemistry (Middle School) (2020	
	(Prüfungsordnungsversion 2015))					

LA Grundschulen Chemistry (2015)	JMU Würzburg • generated 18-Apr-2025 • exam. reg. data re-	page 56 / 58
	cord Lehramt Grundschulen (Unterrichtsfach) Chemie - 2015	





Paper

(10 ECTS credits)

Preparation of a written Hausarbeit (thesis) in accordance with the provisions of Section 29 LPO I (examination regulations for teaching-degree programmes) is a prerequisite for teaching degree students to be admitted to the Erste Staatsprüfung (First State Examination). In accordance with the provisions of Section 29 LPO I, students studying for a teaching degree Grundschule may write this thesis in the subject Didaktik der Grundschule (Didactics of Grundschule), in the subject they selected as Unterrichtsfach (subject studied with a focus on the scientific discipline) or in the subject Erziehungswissenschaften (Educational Science). Pursuant to Section 29 Subsection 1 Sentence 2 LPO I, students may also choose to write an interdisciplinary thesis.

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	cord Lehramt Grundschulen (Unterrichtsfach) Chemie - 2015	

Modul	Module title Abbreviation				
Final T	hesis a	ccording to § 29 LPO I in	Chemistry for Eleme	ntary School Tea-	o8-Ch-HA-UF-GS-152-mo1
chers					
Module coordinator Module			Module offered by		
head o	f the re	search group offering the	e module	Faculty of Chemistr	y and Pharmacy
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
10	nume	rical grade			
Duration Module level Other prerequisites					
1 semester undergraduate					
Conter	nts				
in cher	nistry o		ey have agreed upon v	with an authorised e	ly research and write on a topic xaminer in accordance with the rammes).
Intend	ed lear	ning outcomes			
and an sions, an app	alyse a and off ropriat	problem, conduct a liter er approaches to the solu e written account of the r	ature search, refer to ution of said problem results of their work.	relevant theories, in) be able to work t	rite an academic paper (define Iterpret data, draw logical conclu- o deadlines be able to prepare
Course	S (type, r	number of weekly contact hours,	language — if other than Ger	rman)	
No cou	irses as	signed to module			
		Sessment (type, scope, langua le for bonus)	age — if other than German, o	examination offered — if no	ot every semester, information on whether
to 50 p Langua	ages) age of a		-	-	aching-degree programmes) (30 on 4 LPO I (examination regulati-
Allocat	tion of _l	olaces			
 Additio	onal inf	ormation			
Worklo	ad				
300 h					
-	ng cycl	e			
	0.,.				
Referre	ed to in	LPOI (examination regulation	s for teaching-degree progra	ummes)	
§ 29					
<u> </u>					
Modul	e appea	ars in			