

# Subdivided Module Catalogue for the Subject

# Didactics in Chemistry (Primary School)

as Didaktikfach 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|803|-|-|H|2015

# 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.

# The subject is divided into

Abbreviation	Abbreviation Module title		Method of grading	page
Compulsory Courses (10 ECT	rS credits)			
died with a focus on teachin (First State Examination) in t	odules worth no less than 10 ECTS credits in each subject select g methodology) (mandatory courses) is a prerequisite for admis he subject Didaktik der Grundschule (Didactics for Grundschule be successfully completed in one of the subjects selected as Di	sion to the ). In additi	Erste Staatspr on, modules w	rüfung orth
	Introduction into Teaching Chemistry for Elementary, Seconda-	_	NUM	
08-FD1-DF-LAGM-152-m01	ry and Middle School (Major Subject)	5	NOM	9
08-FD2-LAGM-152-m01	Teaching Chemical Practice for Elementary and Secondary School	5	NUM	10
Compulsory Electives (5 ECT	S credits)			
08-FD3-DF-LAGM-152-m01	Designing Chemistry Classes for Elementary and Secondary School	5	NUM	11
ject-specific electives) (Sectic To achieve the required numb Freier Bereich interdisciplin nex "Ergänzende Bestimmung	st take modules worth a total of 15 ECTS credits in the area Freie on 9 LASPO (general academic and examination regulations for t per of ECTS credits, students may take any modules from the are ary: The interdisciplinary additional offer for a teaching degree of gen für den "Freien Bereich" im Rahmen des Studiums für ein Le stry at the German Grundschule	eaching-de as below. can be four	egree program	nes)).
	ell as subject-specific electives) subject specific)			
08-AC1-152-m01	Principles of Inorganic Chemistry	8	NUM	6
08-0C1-LAGMR-152-m01	Organic Chemistry 1 (teaching degree for secondary schools)	6	NUM	22
08-0C2-VL-152-m01	Organic Chemistry 2	6	NUM	24
08-PC-LAGMR-152-m01	Physical Chemistry (teaching degree for secondary schools)	6	NUM	26
03-TR-152-m01	Toxicology and legal studies	3	NUM	4
08-FD-LLL-152-m01	Chemistry SchoolLabs	2	B/NB	13
08-FD-MS-152-m01	Microscale Experiments in Chemistry Teaching	2	B/NB	21
08-FD-ASL-152-m01	Out-Of-School Education	2	B/NB	12
teaching-degree programmes State Examination). In accord le may write this thesis in the terrichtsfach (subject studied nal Science). Pursuant to Sect thesis.	arbeit (thesis) in accordance with the provisions of Section 29 L ) is a prerequisite for teaching degree students to be admitted t ance with the provisions of Section 29 LPO I, students studying subject Didaktik der Grundschule (Didactics of Grundschule), ir with a focus on the scientific discipline) or in the subject Erzieh tion 29 Subsection 1 Sentence 2 LPO I, students may also choos	o the Erste for a teach the subje ungswisse	Staatsprüfung ing degree Gru ct they selecte enschaften (Edu	(First Indschu- d as Un- ucatio-
08-Ch-HA-DF-GS-152-m01	ry School Teachers	10	NUM	8

Module title			Abbreviation			
Toxico	logy an	d legal studies			03-TR-152-m01	
Modul	e coord	inator		Module offered by	<u> </u>	
lecture	er of lect	ure "Toxikologie und F	Rechtskunde"	Faculty of Medicine		
ECTS		od of grading	Only after succ. compl. of module(s)			
3		rical grade		• • • • •		
Duratio	on	Module level	Other prerequisites	6		
1 seme	ester	undergraduate				
Conter	Contents					
Basics toxicol	-	l regulations for chemi	sts (handling and trans	portation of hazardo	ous materials), funda	imentals of
Intend	ed learı	ning outcomes				
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			ntact hours, language –	- if other than Germa	n)	
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			language — if other th can be chosen to earn		tion offered — if not	every seme-
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Additio	onal inf	ormation				
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90 h						
Teachi	ng cycl	e				
Referre	ed to in	LPOI (examination re	gulations for teaching-	degree programmes)		
	Nr. 1 h)					
	Nr. 2 f) Nr. 3 f)					
	e appea	urs in				
		gree (1 major) Biochem	uistry (2015)			
		gree (1 major) Chemist				
		gree (1 major) Food Ch				
			ing degree Grundschule	e Chemistry (2015)		
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First st	ate exa	mination for the teach	ing degree Realschule (	Chemistry (2015)		
First st	ate exa	mination for the teach	ing degree Gymnasium	Chemistry (2015)		
First st	ate exa	mination for the teach	ing degree Sonderpäda	gogik Didactics in Cl	nemistry (Middle Scł	100l) (2015)
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			ing degree Mittelschule	Didactics in Chemis	stry (Middle School)	(2015)
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		gree (1 major) Food Ch	-			
		gree (1 major) Biochen gree (1 major) Chemist				
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LA Grunds School) (2		actics in chemistry (Primary		enerated 18-Apr-2025 • exam undschulen (Didaktikfach) Cl	-	page 4 / 26

#### Julius-Maximilians-UNIVERSITÄT WÜRZBURG

Subdivided Module Catalogue for the Subject Didactics in Chemistry (Primary School) LA Grundschulen

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)

	e title				Abbreviation
Princip	oles of I	norganic Chemistry			08-AC1-152-m01
Module coordinator				Module offered by	
lecturer of lecture "Experimentalchemie" (Experimental			ie" (Experimental	Institute of Inorgan	ic Chemistry
Chemi			(		,
ECTS	Metho	od of grading	Only after succ. co	mpl. of module(s)	
8	nume	rical grade			
Duratio	on	Module level	Other prerequisite	5	
1 seme	ester	undergraduate			
Conter	nts				
rial and	d partic ition, th	le level, metals, acid-bas	se reactions, the per	iodic table, chemical	Emphasis is placed on the mate- equilibrium and complexometry. ches the basics of inorganic che-
Intend	ed learı	ning outcomes			
cient in actions	n basic s using know ho	models of the structure of typical chemical formula	of matter and can de a language and inter	escribe them properly pret them by identifyi	ormation from it. He/she is profi- . He/she can depict chemical re- ng the type of reaction. The stu- hods work and their areas of app
Course	es (type	, number of weekly conta	act hours, language	— if other than Germa	an)
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	V (2)				
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Subdivided Module Catalogue for the Subject Didactics in Chemistry (Primary School) LA Grundschulen

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) 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)

Modul	e title				Abbreviation
Final T	hesis a	ccording to § 29 LPO I in	Chemistry for Eleme	ntary School Tea-	08-Ch-HA-DF-GS-152-m01
chers				1	
Modul	e coord	inator		Module offered by	
head o	1	search group offering the		Faculty of Chemistr	y and Pharmacy
ECTS	1	od of grading	Only after succ. com	pl. of module(s)	
10		rical grade			
Duratio		Module level	Other prerequisites		
1 seme		undergraduate			
Conten					
in cher	nistry o		y 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,	alyse a and off	problem, conduct a litera	ature search, refer to Ition of said problem	relevant theories, in	rite an academic paper (define terpret data, draw logical conclu- o deadlines be able to prepare
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	- if other than Germa	in)
No cou	irses as	signed to module			
		sessment (type, scope, la ion on whether module ca			tion offered — if not every seme-
to 50 p Langua	ages) age of a		-	-	aching-degree programmes) (30 on 4 LPO I (examination regulati-
Allocat	tion of p	olaces			
Additio	onal inf	ormation			
Worklo	ad				
300 h					
Teachi	ng cycl	e			
Referre	ed to in	LPOI (examination regu	lations for teaching-c	degree programmes)	
§ 29					
	e appea	ars in			

	e title				Abbreviation
		nto Teaching Chemi r Subject)	stry for Elementary, Se	condary and Middle	08-FD1-DF-LAGM-152-m01
	e coord			Module offered by	,
holder	r of the	Professorship of Did	actics of Chemistry	Institute of Inorga	nic Chemistry
ECTS	1	od of grading	,	compl. of module(s)	,
5	_	rical grade			
Duratio	on	Module level	Other prerequisit	tes	
1 seme		unknown			
Conter	nts		<u>I</u>		
		n on contents availa	hle		
		ning outcomes			
		n on learning outcor			
Course	<b>es</b> (type	, number of weekly o	contact hours, language	e — if other than Germ	an)
V (2) +	S (2)				
		<b>sessment</b> (type, scop ion on whether mod			ation offered — if not every sem
				-	inutes) with practical examinati
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Julius-Maximilians-UNIVERSITÄT WÜRZBURG

Module	e title				Abbreviation
Teachi	ng Che	mical Practice for Eleme	entary and Secondar	y School	08-FD2-LAGM-152-m01
Module	e coord	inator		Module offere	ed by
holder	of the l	Professorship of Didacti	cs of Chemistry	Institute of Ind	organic Chemistry
ECTS	Metho	od of grading	Only after succ. co	ompl. of module(	s)
5	nume	rical grade			
Duratio	on	Module level	Other prerequisite	es	
2 seme	ester	unknown			
Conten	ts				
No info	rmatio	n on contents available	•		
Intend	ed lear	ning outcomes			
No info	rmatio	n on learning outcomes	available.		
Course	<b>s</b> (type	, number of weekly con	tact hours, language	— if other than G	German)
S (2) +		<i>.</i>			
Langua Allocat	ige of a ion of j nal inf	ssessment: German an		nutes) and b) pre	esentation (approx. 20 minutes)
150 h					
Teachi	ng cycl	e			
Referre	ed to in	LPOI (examination reg	gulations for teaching	g-degree program	imes)
§ 38   N § 42   N		d § 36   Nr. 7			
Module	e appea	ars in			
		mination for the teachi mination for the teachi	ng degree Grundschu	-	15/

Module	e title				Abbreviation
Design	ing Ch	emistry Classes for Eleme	entary and Secondar	y School	08-FD3-DF-LAGM-152-m01
Module coordinator			Module offered by	/	
holder	ofthe	Professorship of Didactic	s of Chemistry	Institute of Inorga	nic Chemistry
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
5	nume	rical grade			
Duratio	on	Module level	Other prerequisites	i	
2 seme	ester	unknown			
Conten	Its				
No info	ormatio	n on contents available.			
Intend	ed lear	ning outcomes			
No info	ormatio	n on learning outcomes a	vailable.		
		, number of weekly conta		- if other than Germ	ian)
S (2) +		,			
ster, in a) writt	format en exa	ion on whether module ca mination (approx. 45 min assessment: German and,	an be chosen to earn utes) and b) present	a bonus)	nation offered — if not every seme
Allocat	ion of	places			
Additio	onal inf	ormation			
Worklo	ad				
150 h					
Teachi	ng cycl	e			
	- /				
Referre	ed to in	LPO I (examination regu	lations for teaching-	degree programmes	5)
§ 36   N § 38   N	vr. 7				
Module	e appea	ars in			
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		imination for the teaching	s degree Sonderpada	gogik Diuactics In (	Chemistry (Middle School) (2020

(Prüfungsordnungsversion 2015))

Module					Abbreviation
					o8-FD-ASL-152-mo1
Module	e coord	inator		Module offered by	
holder		Professorship of Didactics	s of Chemistry	Institute of Inorgani	c Chemistry
ECTS		od of grading	Only after succ. con	npl. of module(s)	
2	(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 lear	ning outcomes			
No info	rmatio	n on learning outcomes a	vailable.		
Course	<b>s</b> (type	, number of weekly conta	ct hours, language –	- if other than Germa	n)
S (2)		, ,	, <u> </u>		,
		<b>sessment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-
		ntation of a project (appr ssessment: German and/			
Allocat	ion of p	olaces			
Additio	nal inf	ormation			
Worklo	ad				
60 h					
Teachi	ng cycl	e			
Referre	d to in	LPOI (examination regu	lations for teaching-o	legree programmes)	
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Module title			Abbreviation			
Chemistry SchoolLabs				08-FD-LLL-152-m01		
Modul	e coord	inator		Module offered by		
holder of the Professorship of Didactics of Chemistry		s of Chemistry	Institute of Inorgani	ic Chemistry		
ECTS	-	od of grading	Only after succ. con		,	
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Duratio		Module level	Other prerequisites			
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Conten	its		]			
No info	ormatio	n on contents available.				
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	-	n on learning outcomes a	available			
		, number of weekly conta		if ather than Corma	n)	
	s (type			- II OLIIEI LIIAII GEIIIIA	11)	
P (3)						
		<b>sessment</b> (type, scope, la on on whether module c			tion offered — if not	every seme-
		gnment (successful supe ssessment: German and		in learn-teach-lab, a	pprox. 4 to 6 hours e	ach)
Allocat	ion of I	olaces				
Additio	onal inf	ormation				
Worklo	ad					
60 h			_			
Teachi	ng cycl	e				
	_					
Referre	ed to in	LPOI (examination regu	llations for teaching-o	legree programmes)		
§ 22	,					
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Module						
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		mination for the teaching				
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LA Grundso School) (20		actics in Chemistry (Primary		enerated 18-Apr-2025 • exam undschulen (Didaktikfach) Ch		page 13 / 26

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) First state examination for the teaching degree Mittelschule Geography (2013) LA Grundschulen Didactics in Chemistry (Primary JMU Würzburg • generated 18-Apr-2025 • exam. reg. data repage 14 / 26 School) (2015) cord Lehramt Grundschulen (Didaktikfach) Chemie - 2015

Subdivided Module Catalogue for the Subject Didactics in Chemistry (Primary School) LA Grundschulen

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) First state examination for the teaching degree Realschule French Studies (2015) First state examination for the teaching degree Realschule German (2015) First state examination for the teaching degree Realschule History (2015) First state examination for the teaching degree Realschule Computer Science (2015) First state examination for the teaching degree Realschule Catholic Theology (2015) First state examination for the teaching degree Realschule Mathematics (2015) First state examination for the teaching degree Realschule Physics (2015) First state examination for the teaching degree Realschule Science of Sport (2015) First state examination for the teaching degree Gymnasium English (2015) First state examination for the teaching degree Gymnasium Biology (2015) First state examination for the teaching degree Gymnasium Chemistry (2015) First state examination for the teaching degree Gymnasium Geography (2015) First state examination for the teaching degree Gymnasium French Studies (2015) First state examination for the teaching degree Gymnasium German (2015) First state examination for the teaching degree Gymnasium History (2015) LA Grundschulen Didactics in Chemistry (Primary JMU Würzburg • generated 18-Apr-2025 • exam. reg. data repage 15 / 26 School) (2015) cord Lehramt Grundschulen (Didaktikfach) Chemie - 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)

First state examination for the teaching degree Sonderpädagogik Didactics in German (Middle School) (2015) First state examination for the teaching degree Sonderpädagogik Didactics in History (Middle School) (2015) First state examination for the teaching degree Sonderpädagogik Didactics in Catholic Theology (Middle School) (2015)

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

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

First state examination for the teaching degree Sonderpädagogik Music Education in Middle School (2015) First state examination for the teaching degree Sonderpädagogik Didactics in Physics (Middle School) (2015) First state examination for the teaching degree Sonderpädagogik Didactics in Social Science (Middle School) (2015)

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

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

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

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

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

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

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

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

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

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

LA Grundschulen Didactics in Chemistry (Primary	JMU Würzburg • generated 18-Apr-2025 • exam. reg. data re-	page 16 / 26
School) (2015)	cord Lehramt Grundschulen (Didaktikfach) Chemie - 2015	

Subdivided Module Catalogue for the Subject Didactics in Chemistry (Primary School) LA Grundschulen

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 Didactics in Chemistry (Primary	JMU Würzburg • generated 18-Apr-2025 • exam. reg. data re-	page 17 / 26
School) (2015)	cord Lehramt Grundschulen (Didaktikfach) Chemie - 2015	

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))

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

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

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

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

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

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)) 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 Mathematics (Middle School) (2020 (Prüfungsordnungsversion 2015))

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

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)

LA Grundschulen Didactics in Chemistry (Primary	JMU Würzburg • generated 18-Apr-2025 • exam. reg. data re-	page 19 / 26
School) (2015)	cord Lehramt Grundschulen (Didaktikfach) Chemie - 2015	

Subdivided Module Catalogue for the Subject Didactics in Chemistry (Primary School) LA Grundschulen

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				Module offered by		
holder of the Professorship of Didactic			s of Chemistry	Institute of Inorganic Chemistry		
ECTS Method of grading			Only after succ. compl. of module(s)			
2	-	successfully completed				
			Other prerequisites			
1 semester unknown						
Contents						
		n on contents available.				
		ning outcomes				
	-	n on learning outcomes a	available.			
		, number of weekly conta		if other than Germa	n)	
S (2)			.,			
	d of ass	essment (type, scope, la	nguage — if other tha	an German, examina	tion offered — if not every seme-	
		on on whether module c			interest in not every series	
project	: prese	ntation of a project (appr	ox. 30 minutes)			
Langua	ge of a	ssessment: German and	/or English			
Allocat	ion of <sub>l</sub>	olaces				
	2					
Additio	onal inf	ormation				
Worklo	ad					
60 h						
Teachi	ng cycl	e				
Referre	d to in	LPOI (examination regu	lations for teaching-c	legree programmes)		
§ 22	Nr. 1 h)					
§ 22						
§ 22	Nr. 3 f)					
Module	e appea	urs in				
		mination for the teaching				
First state examination for the teaching degree Grundschule Didactics in Chemistry (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))						
First state examination for the teaching degree Mittelschule Didactics in Chemistry (Middle School) (2020 (Prü-						
fungsordnungsversion 2015)) First state examination for the teaching degree Sonderpädagogik Didactics in Chemistry (Middle School) (2020						
	(Prüfungsordnungsversion 2015))					
(i i ui ui ui	550101	1411537C131011 2013//				

Module title Abbreviation						
Organic Chemistry 1 (teaching degree for secondary schoo				s)	08-0C1-LAGMR-152-m01	
Module coordinator				Module offered by		
holder of the Professorship of Organic Chemistry			Chemistry	Institute of Organic Chemistry		
			Only after succ. com			
6	numerical grade					
Duratio	Duration Module level Other prerequisites					
1 semester undergraduate						
Conten	ts					
the bor organic	nding s comp	ituation of carbon and in	troduces students to discusses the fundam	the nomenclature on nental principles of s	of organic chemistry. It examines f simple and moderately complex stereochemistry, substitution, ad-	
Intende	ed lear	ning outcomes				
Students know important categories of substances in organic chemistry. They are able to use different systems of nomenclature to determine simple substance names. Students are able to analyse the stereochemistry of molecules. They are able to describe and formulate some of the most important reactions in organic chemistry. For that purpose, they can analyse and categorise the characteristic reaction conditions and can use them for simple syntheses.						
		, number of weekly conta	ct hours, language —	if other than Germa	an)	
V (3) +						
		s <b>essment</b> (type, scope, la ion on whether module ca			ation offered — if not every seme-	
b) oral c) oral ( d) log ( e) pres	<ul> <li>a) written examination (approx. 90 to 180 minutes) or</li> <li>b) oral examination of one candidate each (20 to 30 minutes) or</li> <li>c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or</li> <li>d) log (approx. 20 pages) or</li> <li>e) presentation (approx. 30 minutes)</li> <li>Language of assessment: German and/or English</li> </ul>					
Allocat	ion of p	olaces				
Additio	nal inf	ormation				
Worklo	ad					
180 h						
Teachi	ng cycl	e				
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)						
§ 42   Nr. 2 and § 22    Nr. 1 h)						
Module	e appea	ars in				
First sta First sta First sta First sta First sta	ate exa ate exa ate exa ate exa ate exa	mination for the teaching mination for the teaching mination for the teaching mination for the teaching	g degree Grundschule g degree Realschule C g degree Sonderpäda g degree Mittelschule g degree Mittelschule	Didactics in Chemis hemistry (2015) gogik Didactics in Cl Chemistry (2015) Didactics in Chemis	stry (Primary School) (2015) hemistry (Middle School) (2015) stry (Middle School) (2015) rüfungsordnungsversion 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))

Module title				Abbreviation			
Organic Chemistry 2 08-OC2-VL-152-m01							
Module coordinator				Module offered by			
holder of the Chair of Physically Organic			nic Chemistry	Institute of Organic Chemistry			
ECTS							
6	nume	rical grade					
Duratio	on	Module level	Je level Other prerequisites				
1 seme	ster	undergraduate					
Conten	Contents						
This module introduces students to the rules of aromaticity and discusses specific reactions of aromatics. Using the example of carbonyl compounds, it extends the students' knowledge of substitution, elimination and addition reactions to complex reaction mechanisms. The course also focuses on oxidation and reduction reactions as well as rearrangement.						n and additi-	
Intend	ed learr	ning outcomes					
Students have become familiar with the criteria for aromaticity. They can analyse the varying reactivity of car- bonyl compounds. They are able to describe specific reactions of carbonyls and aromatics. For that purpose, they can plan and formulate multi-stage syntheses with complex reaction mechanisms and can transfer them to unknown reactions.						ourpose,	
Course	<b>s</b> (type,	, number of weekly con	tact hours, language –	- if other than Germa	n)		
V (3) +	Ü (1)						
<ul> <li>Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)</li> <li>a) written examination (approx. 90 to 180 minutes) or</li> </ul>							
<ul> <li>b) oral examination of one candidate each (20 to 30 minutes) or</li> <li>c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or</li> <li>d) log (approx. 20 pages) or</li> <li>e) presentation (approx. 30 minutes)</li> <li>Language of assessment: German and/or English</li> </ul>							
Allocat	ion of p	olaces					
Additio	Additional information						
according to § 2 para. 2 sentence 2 APOLmCh in conjunction with No. I 2nd letter b) of annex 1 to the APOLmCh and No. 2 of annex 2 to the APOLmCh						e APOLmCh	
Workload							
180 h							
Teaching cycle							
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)							
§ 42   Nr. 2 and § 22    Nr. 1 h) § 62   Nr. 2							
Module appears in							
Bachelor's degree (1 major) Functional Materials (2015)							
First state examination for the teaching degree Grundschule Chemistry (2015) First state examination for the teaching degree Grundschule Didactics in Chemistry (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)						
	hulen Did	actics in Chemistry (Primary	JMU Würzburg • g	enerated 18-Apr-2025 • exam undschulen (Didaktikfach) Ch		page 24 / 26	

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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)

Module title					Abbreviation		
Physical Chemistry (teaching degree for secondary schools				5)	08-PC-LAGMR-152-m01		
Module coordinator				Module offered by	Module offered by		
			antik Elektrochomia		l and Theoretical Chemistry		
		le der Biologie, Lebensmi		Institute of Physica	tand medical chemistry		
		emie GHR"					
ECTS	Metho	od of grading	Only after succ. con	pl. of module(s)			
6		rical grade		-			
Duration Module level Other prerequisites							
1 semester undergraduate							
Conter	nts						
This m	odule d	iscusses the fundamenta	al principles of therm	odynamics, kinetics	and electrochemistry.		
		ning outcomes					
			o fundamental princi	plac of thermodurar	nics, kinetics and electroche-		
		re able to understand and					
		, number of weekly conta	•				
		V (1) + Ü (1)	et nours, taliguage –		ui <i>y</i>		
		on on whether module ca			tion offered — if not every seme-		
		mination (approx. 90 to 1 ation of one candidate e		c) or			
		ation in groups of up to 3		-	didate) or		
		. 20 pages) or	candidates (approx.	. 15 minutes per eam			
		n (approx. 30 minutes)					
		ssessment: German and	or English				
	tion of p		<b>U</b>				
Additio	onal inf	ormation					
Worklo	oad						
180 h							
	ng cycl	٩					
reacin	ing cycl	6					
Deferre		LPOI (examination regu	lations for tooshing				
	_	· · · · · · · · · · · · · · · · · · ·	lations for teaching-t	regree programmes)			
-		d § 22    Nr. 1 h)					
Module appears in							
First state examination for the teaching degree Grundschule Chemistry (2015)							
First state examination for the teaching degree Grundschule Didactics in Chemistry (Primary School) (2015)							
First state examination for the teaching degree Realschule 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))							
First state examination for the teaching degree Mittelschule Didactics in Chemistry (Middle School) (2020 (Prü-							
fungsordnungsversion 2015))							
	First state examination for the teaching degree Sonderpädagogik Didactics in Chemistry (Middle School) (2020 (Prüfungsordnungsversion 2015))						
ני ועועו	igoululi	ungsversion 2015/)					
		actics in Chomistry (Primary	IMIL Würzburg • g				