

Subdivided Module Catalogue for the Subject

Chemistry

as a Master's with 1 major with the degree "Master of Science" (120 ECTS credits)

Examination regulations version: 2013 Responsible: Faculty of Chemistry and Pharmacy

JMU Würzburg • generated 26-Aug-2024 • exam. reg. data record 88|032|-|-|H|2013



Course of Studies - Contents and Objectives

The Master's program in Chemistry is offered by the Faculty of Chemistry and Pharmacy of the JMU as a fundamentally-oriented course with the degree of "Master of Science" (M.Sc.), in the context of a consecutive Bachelor's and Master's degree program.

The Master's course prepares students for scientific as well as doctoral work in chemistry and the eventual award of the degree Dr. rer. nat. The aim of the training is to provide students with in-depth knowledge of scientific work in the research and application of chemistry and the associated basic concepts. Through the education and training of analytical thinking, students should acquire the ability to independently apply the basic knowledge obtained earlier in their Bachelor studies and to transfer it to, and later familiarize themselves with, a wide variety of new tasks.

Through the thesis, students should show that they are able to deal with an experimental or theoretical task in a thematically-limited extent using known methods and from a scientific point of view. The Master's examination intends to determine whether the candidate or the candidate has an overview of the relationships in chemistry, and has the ability to apply the learned scientific methods. It allows the acquisition of an internationally comparable degree in the field of chemistry and provides a professional qualification to prepare for future work in research and development.

Master's with 1 major Chemistry (2013)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 2 / 74
	reg. data record Master (120 ECTS) Chemie - 2013	1

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:

ASP02009

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

29-Jul-2013 (2013-83)

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.

Master's with 1 major Chemistry (2013)	
--	--

The subject is divided into

Abbreviation	Module title	ECTS credits	Method of grading	page
Compulsory Electives (90	ECTS credits)			•
Compulsory Electives Fo				
	ree focuses with 25 ECTS credits each.			
Inorganic Chemistry (2				
Compulsory Courses (1		
08-ACM1-132-m01	Advanced Inorganic Chemistry	10	NUM	15
08-ACPM-132-m01	Inorganic Chemistry practical course for advanced	10	B/NB	18
Compulsory Electives		1		,
08-ACM2-102-m01	Bioinorganic Chemistry	5	NUM	16
08-ACM3-102-m01	Solid state chemistry and inorganic materials	5	NUM	17
08-HKM2-102-m01	Advanced organometallic chemistry and its application in ho-	5	NUM	38
	mogeneous catalysis			
Organic Chemistry (25		-		
Compulsory Courses	15 ECTS credits)			
08-0CM-	Advanced NMR- and Mass Spectrometry	5	NUM	51
NMRMS-102-m01				
08-0CM-SYNT-132-	Modern Synthetic Methods	5	NUM	52
M01				
08-0CM-AKP1-122-	Advanced Research Project	5	B/NB	48
M01			27.12	40
Compulsory Electives	(10 ECTS credits)			
08-0CM-NAT-102-	Modern Aspects of Natural Product Chemistry and Biological	5	NUM	50
M01	Chemistry	,		
08-0CM-FM-102-mo	Organic Functional Materials	5	NUM	49
08-HKM1-102-m01	Organo- and Biocatalysis	5	NUM	37
08-SCM1-102-m01	Supramolecular Chemistry (Basics)	5	NUM	62
08-SCM3-102-m01	Bioorganic Chemistry	5	NUM	64
08-TCM2-132-m01	Computational Chemistry	5	NUM	69
Physical Chemistry (25	ECTS credits)	<u> </u>		
Compulsory Courses (10 ECTS credits)			
08-PCM1a-132-m01	Laser Spectroscopy	5	NUM	53
08-PCM1b-132-m01	Advanced Physical Chemistry (Lab)	5	B/NB	54
Compulsory Electives	(15 ECTS credits)			
08-PCM4-132-m01	Ultrafast spectroscopy and quantum-control	5	NUM	57
08-PCM2-102-m01	Chemical Dynamics	5	NUM	55
08-PCM3-102-m01	Nanoscale Materials	5	NUM	56
08-PCM5-102-m01	Physical chemistry of supramolecular assemblies	5	NUM	58
08-TCM2-132-m01	Computational Chemistry	5	NUM	69
08-TCM1-132-m01	Theoretical Chemistry (Basics)	5	NUM	68
08-PCM6-132-m01	Physical Chemistry (Advanced Lab)	5	B/NB	59
Biochemistry (25 ECTS		,	5,5	1 79
Compulsory Courses (_
	Molecular Biology Lab	10	NUM	27
		ļ		23
ster's with 1 major Chemistry (201	3) JMU Würzburg • generated 26-Aug-2024 • exa reg. data record Master (120 ECTS) Chemie - 2		pag	e 4 /

Julius-Maximilians-UNIVERSITÄT WÜRZBURG

08-BC-MOLM-132-	Molecular Biology	5	NUM	22
m01		J	Nom	
Compulsory Electives				·
08-BCP-092-m01	Biochemistry Lab	5	B/NB	25
08-ACM2-102-m01	Bioinorganic Chemistry	5	NUM	16
08-OCM-NAT-102- m01				
08-HKM1-102-m01	Organo- and Biocatalysis	5	NUM	37
08-PH-KAC-092-m01	Clinical and Analytical Chemistry	5	NUM	60
08-PH-KACP-092- m01	Clinical and Analytical Chemistry (practical course)	5	B/NB	61
08-BC-132-m01	Principles of Biochemistry	6	NUM	21
08-BC-VPMM-132- m01	Practical course Molecular Machines for advanced students	10	NUM	26
08-BC-VPPD-132-m01	Practical course Protein Degradation in Eukaryotes for advan- ced students	10	NUM	27
08-BC-VPRB-132-m01	Practical course RNA Biochemistry for advanced students	10	NUM	28
08-BC-VPSB-132-m01	Practical course Structural Biology for advanced students	10	NUM	29
08-MCM3-132-m01	Principles of drug design	5	NUM	45
Functional Materials (2)	5 ECTS credits)			
Compulsory Courses (20 ECTS credits)			
08-0CM-FM-102-m01	Organic Functional Materials	5	NUM	49
	Lab Course Materials Science	5	B/NB	33
08-FMM-PA-102-m01	Project Work	5	B/NB	34
08-FS1-122-m01	Material Science 1 (basic introduction)	5	NUM	35
Compulsory Electives	(5 ECTS credits)	-		
08-ACM3-102-m01	Solid state chemistry and inorganic materials	5	NUM	17
08-SCM1-102-m01	Supramolecular Chemistry (Basics)	5	NUM	62
08-PCM3-102-m01	Nanoscale Materials	5	NUM	56
03-PM2-122-m01	Polymers II	5	NUM	13
08-NT-122-m01	Chemically and bio-inspired Nanotechnology for Material Syn- thesis	5	NUM	46
03-FU-PM1-122-m01	Polymer Chemistry	5	NUM	11
08-FS2-122-m01	Material Science 2 (the material groups)	5	NUM	36
08-FMM-CT-132-m01	Molecular Materials	5	NUM	32
Homogeneous Catalysis	(25 ECTS credits)	-		
Compulsory Courses (20 ECTS credits)			
08-HKM2-102-m01	Advanced organometallic chemistry and its application in ho- mogeneous catalysis	5	NUM	38
08-HKM1-102-m01	Organo- and Biocatalysis	5	NUM	37
08-HKM3AC-132-m01	Practical course Homogeneous catalysis in Inorganic Che-	5	B/NB	39
08-HKM30C-132-m01	Practical course Homogeneous catalysis in Organic Chemistry	5	B/NB	40
Compulsory Electives		-		. ·
08-PCM2-102-m01	Chemical Dynamics	5	NUM	55
08-HKM4-102-m01	Advanced transition metal chemistry	5	NUM	41
•	· · · · · ·	-	<u>.</u>	<u> </u>

 Master's with 1 major Chemistry (2013)
 JMU Würzburg • generated 26-Aug-2024 • exam.
 page 5 / 74

 reg. data record Master (120 ECTS) Chemie - 2013
 page 5 / 74

03-FU-PM1-122-m01	Polymer Chemistry	5	NUM	11
08-OCM-SYNT-132- m01	Modern Synthetic Methods	5	NUM	52
08-TCM2-132-m01	Computational Chemistry	5	NUM	69
Medicinal Chemistry (25	; ECTS credits)	-	Į	
Compulsory Courses (2	25 ECTS credits)		· · · · · · · · · · · · · · · · · · ·	
08-MCM1-102-m01	Practical course medicinal chemistry	10	B/NB	43
	Principles of drug design	5	NUM	45
	Pharmaceutical/Medicinal Chemistry	10	NUM	44
Supramolecular Chemis			I	
Compulsory Courses (1				
	Supramolecular Chemistry (Basics)	5	NUM	6
	Supramolecular Chemistry (Practical Course)	5	B/NB	6
Compulsory Electives (J	0,110	
	two modules o8-SCM3 or o8-PCM5 must be completed in the fo	ocus.		
	Bioinorganic Chemistry	5	NUM	1
08-0CM-FM-102-m01	Organic Functional Materials	5	NUM	4
	Bioorganic Chemistry	5	NUM	6
3	Nanoscale Materials	5	NUM	5
-	Physical chemistry of supramolecular assemblies	5	NUM	5
-	Computational Chemistry	5	NUM	6
	Principles of drug design	5	NUM	4
Theoretical Chemistry (2		ر ا		4
Compulsory Courses (1				
	Programming in Theoretical Chemistry	5	NUM	7
	Theoretical Chemistry (Basics)	5	NUM	6
Compulsory Electives (2		0
	es o8-TCAP1, o8-TCAP2 and o8-TCAP3 must be taken.			
	Computational Chemistry	5	NUM	6
	Principles of drug design	5	NUM	4
	Theoretical Chemistry - Project course wave-packet dynamics	5	B/NB	6
08-TCAP2-132-m01	Theoretical Chemistry - Project coursewave function based me- thods	5	B/NB	6
08-TCAP3-132-m01	Theoretical Chemistry - Project course Computational Photo- chemistry	5	B/NB	6
Additional gualifications				
•	s Compulsory Electives Focuses (5 ECTS credits)			
	s (Schwerpunkte) area of mandatory electives that has not been	used as p	art of a focus s	subje
08-BCP-092-m01	Biochemistry Lab	5	B/NB	2
08-PCM4-132-m01	Ultrafast spectroscopy and quantum-control	5	NUM	5
08-ACM2-102-m01	Bioinorganic Chemistry	5	NUM	1(
08-ACM3-102-m01	Solid state chemistry and inorganic materials	5	NUM	17
08-HKM2-102-m01	Advanced organometallic chemistry and its application in ho- mogeneous catalysis	5	NUM	3
08-OCM-NMRMS-102-	Advanced NMR- and Mass Spectrometry	5	NUM	5

Master's with 1 major Chemistry (2013)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 6 / 74
	reg. data record Master (120 ECTS) Chemie - 2013	

Julius-Maximilians-UNIVERSITÄT WÜRZBURG

ster's with 1 major Chemistry (2013) JMU Würzburg • generated 26-Aug-2024 • exa	m.	page	e 7 / 74
08-HKM3AC-132-m01	mistry	5	B/NB	39
2	Molecular Materials Practical course Homogeneous catalysis in Inorganic Che-	5	NUM	32
08-MCM3-132-m01	Principles of drug design	5	NUM	45
	Practical course Structural Biology for advanced students	10	NUM	29
-	Practical course RNA Biochemistry for advanced students	10	NUM	28
08-BC-VPPD-132-m01	Practical course Protein Degradation in Eukaryotes for advan- ced students	10	NUM	27
08-BC-VPMM-132-m01	Practical course Molecular Machines for advanced students	10	NUM	26
08-BC-MOLM-132-m01		5	NUM	22
08-PCM6-132-m01	Physical Chemistry (Advanced Lab)	5	B/NB	59
08-TCM1-132-m01	Theoretical Chemistry (Basics)	5	NUM	6
08-PCM1b-132-m01	Advanced Physical Chemistry (Lab)	5	B/NB	5
08-PCM1a-132-m01	Laser Spectroscopy	5	NUM	5:
08-TCM2-132-m01	Computational Chemistry	5	NUM	6
m01	Advanced Research Project	5	B/NB	4
m01 08-0CM-AKP1-122-	Modern Synthetic Methods	5	NUM	5
08-0CM-SYNT-132-				
08-ACPM-132-m01	Inorganic Chemistry practical course for advanced	10	B/NB	1
-	Advanced Inorganic Chemistry	10	NUM	1
08-BC-132-m01	Principles of Biochemistry	6	NUM	2
08-FS2-122-m01	Material Science 2 (the material groups)	5	NUM	3
08-FS1-122-m01	Material Science 1 (basic introduction)	5	NUM	3
	thesis Polymer Chemistry	5	NUM	1
08-NT-122-m01	Chemically and bio-inspired Nanotechnology for Material Syn-	5	NUM	4
03-PM2-122-m01	Polymers II	5	NUM	1
-	Molecular Biology Lab	10	NUM	2
08-TCM3-102-m01	Programming in Theoretical Chemistry	5	NUM	7
08-SCM2-102-m01	Supramolecular Chemistry (Practical Course)	5	B/NB	6
08-MCM1-102-m01	Practical course medicinal chemistry	5 10	B/NB	4
	Advanced transition metal chemistry	5	NUM	4
	Project Work	5	B/NB B/NB	3
08-FMM-MP-102-m01	Lab Course Materials Science	5	B/NB B/NB	3
08-PH-KACP-092-m01	Clinical and Analytical Chemistry Clinical and Analytical Chemistry (practical course)	5	B/NB	6
08-PCM5-102-m01 08-PH-KAC-092-m01	Physical chemistry of supramolecular assemblies Clinical and Analytical Chemistry	5	NUM	5
08-PCM3-102-m01		5	NUM NUM	5
08-PCM2-102-m01	Chemical Dynamics Nanoscale Materials	5	NUM	5
08-SCM3-102-m01	Bioorganic Chemistry	5	NUM	6
08-SCM1-102-m01	Supramolecular Chemistry (Basics)	5	NUM	6
08-HKM1-102-m01	Organo- and Biocatalysis	5	NUM	3
08-0CM-FM-102-m01	Organic Functional Materials	5	NUM	4
08-OCM-NAT-102-m01	Chemistry	5	NUM	5

08-HKM30C-132-m01	Practical course Homogeneous catalysis in Organic Chemistry	5	B/NB	40
08-MCM2-132-m01	Pharmaceutical/Medicinal Chemistry	10	NUM	44
08-TCAP1-132-m01	Theoretical Chemistry - Project course wave-packet dynamics	5	B/NB	65
08-TCAP2-132-m01	Theoretical Chemistry - Project coursewave function based me- thods	5	B/NB	66
o8-TCAP3-132-mo1 Theoretical Chemistry - Project course Computational Photo- chemistry		5	B/NB	67
Other additional qualifi	cations (10 ECTS credits)			
03-TR-072-m01	Toxicology and legal studies	3	NUM	14
08-WRM1-132-m01	Tutoring 1 (practical course)	5	B/NB	73
08-WRM2-132-m01	Tutoring 2 (practical course)	5	B/NB	74
08-APM1-132-m01	Foreign Studies (short)	5	B/NB	19
08-APM2-132-m01	Foreign Studies (long)	10	B/NB	20
08-CHPM1-132-m01	Chemistry-related courses outside of the Natural Sciences	5	B/NB	30
08-CHPM2-132-m01	Chemistry-related courses within the Natural Sciences	5	B/NB	31
Compulsory Courses (doub	le degree) (5 ECTS credits)			
03-TR-072-m01	Toxicology and legal studies	3	NUM	14
08-VPM-DA-132-m01	Advanced chemical practical course	2	B/NB	71
	ole degree) (55 ECTS credits) focuses (focus 1 with 30 ECTS credits, focus 2 with 25 ECTS credits	s).		
Compulsory Courses (20	ECTS credits)			
08-ACM1-132-m01	Advanced Inorganic Chemistry	10	NUM	15
08-ACPM-132-m01	Inorganic Chemistry practical course for advanced	10	B/NB	18
Compulsory Electives	0		,	
08-ACM2-102-m01	Bioinorganic Chemistry	5	NUM	16
08-ACM3-102-m01	Solid state chemistry and inorganic materials	5	NUM	17
08-HKM2-102-m01	Advanced organometallic chemistry and its application in ho- mogeneous catalysis	5	NUM	38
08-OCM-NMRMS-102- m01	Advanced NMR- and Mass Spectrometry	5	NUM	51
08-TCM2-132-m01	Computational Chemistry	5	NUM	69
08-TCM2-132-m01 Organic Chemistry	Computational Chemistry	5	NUM	69
-		5	NUM	69
Organic Chemistry		5	NUM	69 51
Organic Chemistry Compulsory Courses (15 08-OCM-NMRMS-102- m01	ECTS credits) Advanced NMR- and Mass Spectrometry			
Organic Chemistry Compulsory Courses (15 08-OCM-NMRMS-102- m01	ECTS credits) Advanced NMR- and Mass Spectrometry Modern Synthetic Methods	5	NUM	51
Organic Chemistry Compulsory Courses (15 08-OCM-NMRMS-102- m01 08-OCM-SYNT-132-m01	ECTS credits) Advanced NMR- and Mass Spectrometry Modern Synthetic Methods	5	NUM	51
Organic Chemistry Compulsory Courses (15 08-OCM-NMRMS-102- m01 08-OCM-SYNT-132-m01 08-OCM-AKP1-122-m01	ECTS credits) Advanced NMR- and Mass Spectrometry Modern Synthetic Methods	5	NUM	51
Organic Chemistry Compulsory Courses (15 08-OCM-NMRMS-102- m01 08-OCM-SYNT-132-m01 08-OCM-AKP1-122-m01 Compulsory Electives	ECTS credits) Advanced NMR- and Mass Spectrometry Modern Synthetic Methods Advanced Research Project Modern Aspects of Natural Product Chemistry and Biological	5 5 5	NUM NUM B/NB	51 52 48
Organic Chemistry Compulsory Courses (15 08-0CM-NMRMS-102- m01 08-0CM-SYNT-132-m01 08-0CM-AKP1-122-m01 Compulsory Electives 08-0CM-NAT-102-m01	ECTS credits) Advanced NMR- and Mass Spectrometry Modern Synthetic Methods Advanced Research Project Modern Aspects of Natural Product Chemistry and Biological Chemistry	5 5 5 5	NUM NUM B/NB NUM	51 52 48 50
Organic Chemistry Compulsory Courses (15 08-0CM-NMRMS-102- m01 08-0CM-SYNT-132-m01 08-0CM-AKP1-122-m01 Compulsory Electives 08-0CM-NAT-102-m01 08-0CM-FM-102-m01	ECTS credits) Advanced NMR- and Mass Spectrometry Modern Synthetic Methods Advanced Research Project Modern Aspects of Natural Product Chemistry and Biological Chemistry Organic Functional Materials	5 5 5 5 5 5	NUM NUM B/NB NUM	51 52 48 50 49
Organic Chemistry Compulsory Courses (15 08-0CM-NMRMS-102- m01 08-0CM-SYNT-132-m01 08-0CM-AKP1-122-m01 08-0CM-AKP1-122-m01 08-0CM-NAT-102-m01 08-0CM-FM-102-m01 08-0CM-FM-102-m01	ECTS credits) Advanced NMR- and Mass Spectrometry Modern Synthetic Methods Advanced Research Project Modern Aspects of Natural Product Chemistry and Biological Chemistry Organic Functional Materials Organo- and Biocatalysis	5 5 5 5 5 5 5 5	NUM NUM B/NB NUM NUM	51 52 48 50 49 37

Master's with 1 major Chemistry (2013)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 8 / 74
	reg. data record Master (120 ECTS) Chemie - 2013	

08-TCM2-132-m01	Computational Chemistry	5	NUM	69
Physical Chemistry				
Compulsory Courses (20	ECTS credits)			
08-PCM2-102-m01	Chemical Dynamics	5	NUM	55
08-PCM1a-132-m01	Laser Spectroscopy	5	NUM	53
08-PCM1b-132-m01	Advanced Physical Chemistry (Lab)	5	B/NB	54
08-PCM6-132-m01	Physical Chemistry (Advanced Lab)	5	B/NB	59
Compulsory Electives				
08-PCM4-132-m01	Ultrafast spectroscopy and quantum-control	5	NUM	57
08-PCM3-102-m01	08-PCM3-102-mo1 Nanoscale Materials		NUM	56
08-PCM5-102-m01	Physical chemistry of supramolecular assemblies	5	NUM	58
08-FMM-MP-102-m01	Lab Course Materials Science	5	B/NB	33
08-TCM3-102-m01	Programming in Theoretical Chemistry	5	NUM	70
08-FS1-122-m01	Material Science 1 (basic introduction)	5	NUM	35
08-TCM2-132-m01	Computational Chemistry	5	NUM	69
08-TCM1-132-m01	Theoretical Chemistry (Basics)	5	NUM	68
08-TCAP1-132-m01	Theoretical Chemistry - Project course wave-packet dynamics	5	B/NB	65
08-TCAP2-132-m01	Theoretical Chemistry - Project coursewave function based me- thods	5	B/NB	66
08-TCAP3-132-m01	Theoretical Chemistry - Project course Computational Photo- chemistry	5	B/NB	67
Biochemistry	,			ļ
Compulsory Courses (15 I	ECTS credits)			
08-BC-MOLP-111-m01	Molecular Biology Lab	10	NUM	23
08-BC-MOLM-132-m01	Molecular Biology	5	NUM	22
Compulsory Electives	1	_		<u> </u>
Specialist Lab Course (1	o ECTS credits)			
08-BC-VPMM-132-m01	Practical course Molecular Machines for advanced students	10	NUM	26
08-BC-VPPD-132-m01	Practical course Protein Degradation in Eukaryotes for advan- ced students	10	NUM	27
08-BC-VPRB-132-m01	Practical course RNA Biochemistry for advanced students	10	NUM	28
08-BC-VPSB-132-m01	Practical course Structural Biology for advanced students	10	NUM	29
Other Courses	6,	-	-	
08-BCP-092-m01	Biochemistry Lab	5	B/NB	25
08-ACM2-102-m01	Bioinorganic Chemistry	5	NUM	16
08-0CM-NAT-102-m01	Modern Aspects of Natural Product Chemistry and Biological Chemistry	5	NUM	50
08-HKM1-102-m01	Organo- and Biocatalysis	5	NUM	37
08-PH-KAC-092-m01	Clinical and Analytical Chemistry	5	NUM	60
08-PH-KACP-092-m01	Clinical and Analytical Chemistry (practical course)	5	B/NB	61
08-BC-132-m01	Principles of Biochemistry	6	NUM	21
08-MCM3-132-m01	Principles of Biochemistry Principles of drug design		NUM	
Functional Materials	ו וווכואנס טו עועצ עכסוצוו	5		45
Compulsory Courses (20	FCTS credits)			
08-0CM-FM-102-m01	Organic Functional Materials	E	NUM	40
08-FMM-MP-102-m01	Lab Course Materials Science	5	B/NB	49
aster's with 1 major Chemistry (2013		-	, · ·	33
	reg. data record Master (120 ECTS) Chemie - 20			

08-FMM-PA-102-m01	Project Work	5	B/NB	34	
08-FS1-122-m01	Material Science 1 (basic introduction)	5	NUM	35	
Compulsory Electives					
08-ACM3-102-m01	Solid state chemistry and inorganic materials	5	NUM	17	
08-SCM1-102-m01	Supramolecular Chemistry (Basics)	5	NUM	62	
08-PCM3-102-m01	o8-PCM3-102-mo1 Nanoscale Materials				
08-NT-122-m01	Chemically and bio-inspired Nanotechnology for Material Syn- thesis	5	NUM	46	
08-FS2-122-m01	08-FS2-122-m01 Material Science 2 (the material groups)				
08-TCM2-132-m01	Computational Chemistry	5	NUM	69	
08-FMM-CT-132-m01	Molecular Materials	5	NUM	32	
Medicinal Chemistry	<u> </u>				
Compulsory Courses (10	ECTS credits)				
08-MCM2-132-m01	Pharmaceutical/Medicinal Chemistry	10	NUM	44	
Compulsory Electives					
08-ACM2-102-m01	Bioinorganic Chemistry	5	NUM	16	
08-OCM-NAT-102-m01	Modern Aspects of Natural Product Chemistry and Biological Chemistry	5	NUM	50	
08-PH-KAC-092-m01	Clinical and Analytical Chemistry	5	NUM	60	
08-PH-KACP-092-m01	Clinical and Analytical Chemistry (practical course)	5	B/NB	61	
08-MCM1-102-m01	Practical course medicinal chemistry	10	B/NB	43	
08-0CM-SYNT-132-m01	Modern Synthetic Methods	5	, NUM	52	
08-BC-MOLM-132-m01	Molecular Biology	5	NUM	22	
08-BC-VPSB-132-m01	Practical course Structural Biology for advanced students	10	NUM	29	
08-MCM3-132-m01	Principles of drug design	5	NUM	45	
Theoretical Chemistry)	nom	45	
Compulsory Courses (10	FCTS credits)				
08-TCM3-102-m01	Programming in Theoretical Chemistry	r	NUM	70	
08-TCM1-132-m01	Theoretical Chemistry (Basics)	5	NUM	68	
-	medicital Chemistry (Basics)	5	NUM	00	
Compulsory Electives	ng modules must be taken: 08-TCAP1, 08-TCAP2, 08-TCAP3				
08-TCM2-132-m01	Computational Chemistry	5	NUM	69	
08-MCM3-132-m01	Principles of drug design	5	NUM	45	
08-TCAP1-132-m01	Theoretical Chemistry - Project course wave-packet dynamics	5	B/NB	65	
08-TCAP2-132-m01	Theoretical Chemistry - Project coursewave function based me- thods	5	B/NB	66	
08-TCAP ₃ -132-m01 chemistry		5	B/NB	67	
Courses at partner universit	ty abroad (30 ECTS credits)				
08-VPU-141-m01	Courses at the partner university	30	B/NB	72	
Thesis (30 ECTS credits)					

Module title			Abbreviation				
Polyme	er Chen	nistry			03-FU-PM1-122-m01	L	
Module	e coord	inator		Module offered by			
holder Dentist		Chair of Functional Mate	erials in Medicine and	Faculty of Medicine			
ECTS Method of grading Only after succ. compl. of module(s)							
5	nume	rical grade					
Duratio	n	Module level	Other prerequisites				
1 seme	ster	undergraduate					
Conten	ts						
radical	polym	s of polymerisation: free erisations; characterisa lysis, mass spectromet	tion of polymers and p				
Intende	ed lear	ning outcomes					
The stu risation		are familiar with the fun	damentals of polymer	chemistry and the re	elated methods for th	ieir characte-	
Courses	s (type	, number of weekly con	tact hours, language –	· if other than Germa	n)		
compor • 0	nent. 3-FU-P	omprises 2 module con M1-1-122: V (no informa	tion on SWS (weekly c	ontact hours) and co	ourse language availa	able)	
		M1-2-122: P (no informa					
		sessment (type, scope, ion on whether module			tion offered — if not	every seme-	
	less st	n this module comprise ated otherwise, succes ments.					
 3 a 6 c Li Assess V A 							
Allocat		ge of assessment: Germ	, , , , , , , , , , , , , , , , , , , ,	<u></u>	-		
Additio	nalinf	ormation					
Auditio	IIat IIII						
Worklo	ad						
Teachir	ıg cycl	e					
Referre	d to in	LPO I (examination reg	ulations for teaching-	legree programmes)			
<u> </u>							
Master's wi	th 1 majo	r Chemistry (2013)		rg • generated 26-Aug-2024 ord Master (120 ECTS) Chemi		page 11 / 74	

Module appears in

Bachelor' degree (1 major) Functional Materials (2012) Master's degree (1 major) Chemistry (2013)

Master's with 1 major Chemistry (2013)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 12 / 74
	reg. data record Master (120 ECTS) Chemie - 2013	

Modul	e title				Abbreviation
Polym	ers II				03-PM2-122-m01
Modul	e coord	inator		Module offered by	<u> </u>
holder of the Chair of Functional Materia Dentistry		rials in Medicine and	Faculty of Medicine		
			Only after succ. con	npl. of module(s)	
5	nume	rical grade			
Duration Module level Other prerequisites					
1 seme	ester	graduate			
Conter	nts				
group graphi	analysi es, poly	s, mass spectrometry) - c /mer functionalisation).			meation chromatography, end- block-copolymers, polymer topo-
		ning outcomes			
	· ·	uire an advanced knowle		•	
		, number of weekly conta			
S + Ü (no info	rmation on SWS (weekly	contact hours) and co	ourse language avail	able)
		sessment (type, scope, la ion on whether module c			tion offered — if not every seme-
(30 mi	nutes)	mination (approx. 90 min ussessment: German or E		ination of one cand	date each (20 minutes) or c) talk
	tion of		0.1		
Additio	onal inf	ormation			
Worklo	oad				
Teachi	ing cycl	e			
			_		
Referre	ed to in	LPOI (examination regu	ulations for teaching-	degree programmes)	
Modul	e appea	ars in			
		ee (1 major) Chemistry (2	2013)		
	-	ee (1 major) Chemistry (2	-		
Master	r's degr	ee (1 major) Technology	of Functional Materia	ls (2010)	
Master	r's degr	ee (1 major) Functional N	Aaterials (2012)		

Module title					Abbreviation	
Toxico	logy an	d legal studies			03-TR-072-m01	
Modul	e coord	inator		Module offered by		
lecture	r of lect	ture "Toxikologie und Re	chtskunde"	Faculty of Medicine	, I	
ECTS	1	od of grading	Only after succ. con	,		
3	1	rical grade				
Duratio		Module level	Other prerequisites			
1 seme		undergraduate				
Conter	its	0				
Basics toxicol	-	l regulations for chemis	ts (handling and trans	portation of hazardo	ous materials), funda	mentals of
Intend	ed lear	ning outcomes				
		master the basics of leg the fundamentals of to		nists (handling and t	ransport of hazardo	us substan-
Course	s (type	, number of weekly cont	act hours, language –	- if other than Germa	n)	
		mation on SWS (weekly				
		essment (type, scope, l on on whether module o			tion offered — if not	every seme-
written	exami	nation (approx. 90 minu	tes)			
	ion of p					
Additio	nalinf	ormation				
Auunn						
 Worklo						
WOIKI	au					
Toachi	ng cycl	•				
Teacin	ing cycl	5				
		IDO L (avamination ran				
Referre	ed to in	LPOI (examination reg	ulations for teaching-o	legree programmes)		
 Modul	e appea	arc in				
		ree (1 major) Biochemis	nu (2011)			
	-	ree (1 major) Biochemis				
	-	ree (1 major) Biochemis	• -			
	-	ree (1 major) Chemistry				
	-	ree (1 major) Chemistry				
	-	ree (1 major) Chemistry				
	-	ree (1 major) Chemistry				
	-	ree (1 major) Food Chem	-			
	-	ree (1 major) FOKUS Che				
	-	ee (1 major) Chemistry (•			
Master	's degr	ee (1 major) Chemistry (2010)			
Master	's degr	ee (1 major) Chemistry (2014)			
First st	ate exa	mination for the teachin	g degree Grundschule	e Chemistry (2009)		
First st	ate exa	mination for the teachin	g degree Hauptschule	e Chemistry (2009)		
		mination for the teachin				
		mination for the teachin				
First st	ate exa	mination for the teachin	g degree Mittelschule	Chemistry (2013)		
Master's w	ith 1 majo	r Chemistry (2013)		rg • generated 26-Aug-2024 ord Master (120 ECTS) Chemi		page 14 / 74

Module title					Abbreviation
Advan	ced Ino	rganic Chemistry			08-ACM1-132-m01
Modul	e coord	inator		Module offered by	
Manag	ging Dire	ector of the Institute of Ir	organic Chemistry	Institute of Inorgan	ic Chemistry
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
10	nume	rical grade			
Durati	on	Module level	Other prerequisites		
2 seme	ester	graduate			
Conter	nts				
specia	l compo		elements (MGEs), bo		metal chemistry. It focuses on MGEs and MGE compounds, the
Intend	ed lear	ning outcomes			
the cho of coor	emical rdinatio	properties of transition n n compounds.	netals and analyse th	e structure as well a	roup elements. They can describe s chemical and physical aspects
Course	es (type	, number of weekly conta	act hours, language –	– if other than Germa	an)
S + S (no infoi	mation on SWS (weekly	contact hours) and co	ourse language avail	able)
				an German, examina	ation offered — if not every seme-
5101, 11	nonnat	ion on whether module c	an be chosen to earn		,
a) 1 to 90 mir (group	2 writte nutes ea os of 2, 4	en examinations (1 writte	n examination: appro on of one candidate e	a bonus) ox. 120 minutes; 2 wi	ritten examinations: approx. c) oral examination in groups
a) 1 to 90 mir (group Langua	2 writte nutes ea os of 2, 4	en examinations (1 writte ach) or b) oral examinatio 45 minutes) Issessment: German or E	n examination: appro on of one candidate e	a bonus) px. 120 minutes; 2 wi	itten examinations: approx.
a) 1 to 90 mir (group Langua	2 writte nutes ea os of 2, 4 age of a	en examinations (1 writte ach) or b) oral examinatio 45 minutes) Issessment: German or E	n examination: appro on of one candidate e	a bonus) px. 120 minutes; 2 wi	itten examinations: approx.
a) 1 to 90 mir (group Langua Allocat	2 writtenutes ea s of 2, 4 age of a tion of 	en examinations (1 writte ach) or b) oral examinatio 45 minutes) Issessment: German or E	n examination: appro on of one candidate e	a bonus) px. 120 minutes; 2 wi	itten examinations: approx.
a) 1 to 90 mir (group Langua Allocat	2 writtenutes ea s of 2, 4 age of a tion of 	en examinations (1 writte ach) or b) oral examinatio 45 minutes) Issessment: German or E places	n examination: appro on of one candidate e	a bonus) px. 120 minutes; 2 wi	itten examinations: approx.
a) 1 to 90 mir (group Langua Allocat	2 writtenutes easys of 2, 4 age of a tion of p	en examinations (1 writte ach) or b) oral examinatio 45 minutes) Issessment: German or E places	n examination: appro on of one candidate e	a bonus) px. 120 minutes; 2 wi	itten examinations: approx.
a) 1 to 90 mir (group Langua Allocat Additio	2 writtenutes easys of 2, 4 age of a tion of p	en examinations (1 writte ach) or b) oral examinatio 45 minutes) Issessment: German or E places	n examination: appro on of one candidate e	a bonus) px. 120 minutes; 2 wi	itten examinations: approx.
a) 1 to 90 mir (group Langua Allocat Additio Worklo	2 writtenutes easys of 2, 4 age of a tion of p	n examinations (1 writte ach) or b) oral examinatio 45 minutes) ssessment: German or E places ormation	n examination: appro on of one candidate e	a bonus) px. 120 minutes; 2 wi	itten examinations: approx.
a) 1 to 90 mir (group Langua Allocat Additio Worklo	2 writtenutes eaus of 2, 2 age of a tion of p onal inf	n examinations (1 writte ach) or b) oral examinatio 45 minutes) ssessment: German or E places ormation	n examination: appro on of one candidate e	a bonus) px. 120 minutes; 2 wi	itten examinations: approx.
a) 1 to 90 mir (group Langua Allocat Additio Worklo Teachi	2 writtenutes eaus of 2, 2 age of a tion of p onal inf	n examinations (1 writte ach) or b) oral examinatio 45 minutes) ssessment: German or E places ormation	n examination: appro on of one candidate e inglish	a bonus) ox. 120 minutes; 2 wi each (30 minutes) or	ritten examinations: approx. c) oral examination in groups
a) 1 to 90 mir (group Langua Allocat Additio Worklo Teachi	2 writtenutes eaus of 2, 2 age of a tion of p onal inf	en examinations (1 writte ach) or b) oral examinatio 45 minutes) ssessment: German or E places ormation	n examination: appro on of one candidate e inglish	a bonus) ox. 120 minutes; 2 wi each (30 minutes) or	ritten examinations: approx. c) oral examination in groups
a) 1 to 90 mir (group Langua Allocat Additio Worklo Teachi Referro	2 writtenutes eaus of 2, 2 age of a tion of p onal inf	en examinations (1 writte ach) or b) oral examinatio 45 minutes) Issessment: German or E places formation e LPOI (examination regu	n examination: appro on of one candidate e inglish	a bonus) ox. 120 minutes; 2 wi each (30 minutes) or	ritten examinations: approx. c) oral examination in groups

Master's with 1 major Chemistry (2013)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 15 / 74
	reg. data record Master (120 ECTS) Chemie - 2013	

Module	Module title				Abbreviation
Bioino	Bioinorganic Chemistry				08-ACM2-102-m01
Module	e coord	inator		Module offered by	<u> </u>
lecture and Me	r of ser edizinis	ninar "Anorganische Asp schen Chemie" (Inorganic edicinal Chemistry)		Institute of Inorgan	ic Chemistry
ECTS Method of grading Only after succ. compl. of module(s)					
5		rical grade		• • • •	
Duratio	on	Module level	Other prerequisites	i	
1 semester graduate					
Conten	Its				
	ds of Bl				chemistry (BIC). It discusses the ns of BIC in the fields of diagnosis
Intend	ed lear	ning outcomes			
		able to describe the princ us enzymes and describe			xplain the structure and effects medicine.
Course	s (type	, number of weekly conta	ict hours, language –	- if other than Germa	ın)
S (no ir	nformat	tion on SWS (weekly cont	act hours) and cours	e language available	e)
a) 1 to 3 oral exa thods of the cur	formati 3 writte aminat of asses rrent se	on on whether module c n examinations (60 or 90 ion in groups (groups of	an be chosen to earn o minutes) or b) oral (2, 30 minutes). Shou dinator will choose th of the course.	a bonus) examination of one c ld there be the optio	andidate each (20 minutes) or c) n to choose between several me- d for the module component in
Allocat	. –				
Additio	nal inf	ormation			
Worklo	hed				
WORKIO	au				
Teeshi					
Teachi	iig cycl	e			
Referre	ed to in	LPOI (examination regu	llations for teaching-	degree programmes)	
		we in			
Module			(2212)		
	-	ee (1 major) Biochemistry ee (1 major) Chemistry (2			
	-	ee (1 major) Chemistry (2 ee (1 major) Chemistry (2	-		
	-	ee (1 major) FOKUS Pharr			

Master's with 1 major Chemistry (2013)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 16 / 74
	reg. data record Master (120 ECTS) Chemie - 2013	

Modul	e title				Abbreviation
Solid s	state ch	emistry and inorganic r	naterials		08-ACM3-102-m01
Modul	e coord	linator		Module offered by	
lecturer of seminar "Festkörperchemie and Ar Materialien" (Solid State Chemistry and Inorg als)			Institute of Inorganic Chemistry		
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)	
5	nume	rical grade			
Duratio	on	Module level	Other prerequisites	i	
1 seme	ester	graduate			
Conter	nts				
		provides an introduction nthesis methods and se			structure, chemical and physical
Intend	ed lear	ning outcomes			
Studer	nts are	able to describe the stru			xplain methods for solid-state the corresponding solids.
Course	es (type	, number of weekly cont	act hours, language –	- if other than Germa	an)
S (no i	nforma	tion on SWS (weekly cor	ntact hours) and cours	e language available	2)
		sessment (type, scope, ion on whether module			ition offered — if not every seme-
oral ex thods the cur	aminat of asse rrent se	ion in groups (groups of	² 2, 30 minutes). Shou ordinator will choose the course.	ld there be the optio	candidate each (20 minutes) or c) n to choose between several me- d for the module component in
Allocat		· · · · · · · · · · · · · · · · · · ·			
Additio	onal inf	ormation			
Worklo	bad				
Teachi	ng cvcl	e			
	0.,.				
 Referre	ed to in	LPOI (examination reg	ulations for teaching-	degree programmes)	
 Referre	ed to in	LPOI (examination reg	ulations for teaching-	degree programmes)	
 Referre Module			ulations for teaching-	degree programmes)	
 Modul	e appea			degree programmes)	

Master's with 1 major Chemistry (2013)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 17 / 74
	reg. data record Master (120 ECTS) Chemie - 2013	

Module title				Abbreviation		
Inorga	nic Che	mistry practical course f	or advanced		08-ACPM-132-m01	
Modul	e coord	inator		Module offered by		
focus point coordinator "Inorganic Chemis		mistry"	Institute of Inorgani	ic Chemistry		
ECTS		od of grading	Only after succ. con	cc. compl. of module(s)		
10	(not)	not) successfully completed				
Duration Module level Other prerequisites						
1 seme	ester	graduate				
Conter	nts					
thods i tral and a lab re	in inorg alysis a eport de	anic chemistry. The focus	s will be on working u ents will be expected	inder inert atmosphe to conduct their woi	synthesis and analytical me- eres, purification methods, spec- rk in the lab independently, write	
Studer	nts are a	able to use advanced syn			ic chemistry in the lab and to in- ngs and deliver a presentation.	
		, number of weekly conta	· · · ·	-		
		tion on SWS (weekly cont				
ster, in practic	iformati al work	sessment (type, scope, la ion on whether module ca with lab report (approx. ssessment: German or E	an be chosen to earn 20 pages) and talk (a	a bonus)	tion offered — if not every seme-	
	tion of		18(15)1			
Alloca		Jaces				
Additio	onal inf	ormation				
			tion: block placemer	nt with a duration of	a minimum of 40 working days.	
Worklo						
WORK	Jau					
Teachi	ng cycl	•				
	ing cycl					
Referre	ed to in	LPOI (examination regu	lations for teaching-	degree programmes)		
Modul	e appea	ars in				
		ee (1 major) Chemistry (2	013)			
Master	r's degr	ee (1 major) Chemistry (2	014)			

Module Erasmus	Studie	es (short)			
Erasmus	Foreign Studies (short)				08-APM1-132-m01
	Module coordinator			Module offered by	
FCTS	s progr	amme coordinator Chem	ie (Chemistry)	Faculty of Chemistr	y and Pharmacy
		od of grading	Only after succ. com	pl. of module(s)	
5 (not) successfully completed					
Duratio	n	Module level	Other prerequisites		
1 semester		graduate			regular attendance of placement
					consultation with course adviso-
				acement highly reco	mmended; not to be combined
			with o8-APM2.		
Content	s				
change course c	progra offered	mmes such as Erasmus	etc. The contents of t	he course should co	e this course in the context of ex- rrespond to the contents of a lab credits); please consult with the
Intende	d learr	ing outcomes			
Student	s are f	amiliar with procedures a	and processes used a	at universities in cou	ntries other than Germany. They
have ac	quired	subject-specific skills as	s well as language an	d interpersonal skill	5.
Courses	s (type,	number of weekly conta	ct hours, language —	if other than Germa	n)
P (no inf	format	ion on SWS (weekly cont	act hours) and cours	e language available	a)
		essment (type, scope, la on on whether module ca			tion offered — if not every seme-
		s); proof of having comp ssessment: German or El		e respective placem	ient country where required
Allocati	on of p	laces			
Additio	nal info	ormation			
Additior days.	nal info	ormation on module dura	ition: block placemer	nt abroad with a dura	ation of a minimum of 20 working
Workloa	ad				
Teachin	g cycle	9			
Referred	d to in	LPOI (examination regu	lations for teaching-o	legree programmes)	
Module	appea	rs in			
Master's	s degre	ee (1 major) Chemistry (2	013)		
Master's	s degre	ee (1 major) Chemistry (2	014)		

Master's with 1 major Chemistry (2013)	JMU Würzburg • generated 26-Aug-2024 • exam. reg. data record Master (120 ECTS) Chemie - 2013	page 19 / 74	
--	--	--------------	--

Foreign Studies (long) 08-APM2-132-m01 Module coordinator Module offered by Erasmus programme coordinator Chemie (Chemistry) Faculty of Chemistry and Pharmacy ECTS Method of grading Only after succ. compl. of module(s) 10 (not) successfully completed 2 semester graduate Admission prerequisite to assessment: regular attendance of placem (a maximum of 2 incidents of absence); consultation with course adv my service prior to placement highly recommended; not to be combine with 08-APM1. Contents Practical course to be completed at universities abroad. Students may complete this course in the context of the Master's programme such as Erasmus etc. The contents of the course should correspond to the contents of a course offered in the context of the Master's programme in Chemistry (120 ECTS credits); please consult with competent coordinator in advance. Intende learning outcomes Students are familiar with procedures and processes used at universities in countries other than German) P (no information on SWS (weekly contact hours, language – if other than German) P (no information on SWS (weekly contact hours) and course language available) Method of assessment (type, scope, language – if other than German) P (no information on module duration: block placement abroad with a duration of a minimum of 40 word days. Workload	Module	e title				Abbreviation	
Erasmus programme coordinator Chemie (Chemistry) Faculty of Chemistry and Pharmacy ECTS Method of grading Only after succ. compl. of module(s) 10 (not) successfully completed - Duration Module level Other prerequisites 2 semester graduate Admission prerequisite to assessment: regular attendance of placem (a maximum of 2 incidents of absence); consultation with course adv ry service prior to placement highly recommended; not to be combine with 08-APM1. Contents Practical course to be completed at universities abroad. Students may complete this course in the context of change programmes such as Frasmus etc. The contents of the course should correspond to the contents of a course offered in the context of the Master's programme in Chemistry (120 ECTS credits); please consult with competent coordinator in advance. Intended learning outcomes Students are familiar with procedures and processes used at universities in countries other than German). Th have acquired subject-specific skills as well as language and interpresonal skills. Courses (type, number of weekly contact hours, language — if other than German). P (no information on SWS (weekly contact hours) and course language available) Method of assessment (type, scope, language — if other than German, examination offered — if not every ser ster, information on whether module can be chosen to earn a bonus) report (2 pages); proof of having completed lab course Language of assessment: German or English; language of the respe	Foreigr	Foreign Studies (long)				08-APM2-132-m01	
ECTS Method of grading Only after succ. compl. of module(s) 10 (not) successfully completed Duration Module level Other prerequisite to assessment: regular attendance of placement (a maximum of 2 incidents of absence); consultation with course adv ry service prior to placement highly recommended; not to be combine with 08-APM1. Contents Practical course to be completed at universities abroad. Students may complete this course in the context of change programmes such as Erasmus etc. The contents of the course should correspond to the contents of a course offered in the context of the Master's programme in Chemistry (120 ECTS credits); please consult with competent coordinator in advance. Intended learning outcomes Students are familiar with procedures and processes used at universities in countries other than German). P P (no information on SWS (weekly contact hours) and course language available) Method of assessment: German or English; language of the respective placement country where required Allocation of places <	Module coordinator				Module offered by		
10 (not) successfully completed	Erasmus programme coordinator Chemie (Chemistry)		nie (Chemistry)	Faculty of Chemistr	y and Pharmacy		
Duration Module level Other prerequisites 2 semester graduate Admission prerequisite to assessment: regular attendance of placem (a maximum of 2 incidents of absence); consultation with course adv ny service prior to placement highly recommended; not to be combine with 08-APM1. Contents Practical course to be completed at universities abroad. Students may complete this course in the context of change programmes such as Erasmus etc. The contents of the course should correspond to the contents of a course offered in the context of the Master's programme in Chemistry (120 ECTS credits); please consult with competent coordinator in advance. Intended learning outcomes Students are familiar with procedures and processes used at universities in countries other than Germany. Th have acquired subject-specific skills as well as language and interpersonal skills. Courses (type, number of weekly contact hours, language — if other than German) P (no information on SWS (weekly contact hours) and course language available) Method of assessment: German or English; language of the respective placement country where required Allocation of places Additional information Additional information Additional information on module duration: block placement abroad with a duration of a minimum of 40 word days. Workload Method of appears in Module appears in <t< td=""><td>ECTS</td><td></td><td></td><td colspan="2">Only after succ. compl. of module(s)</td><td></td></t<>	ECTS			Only after succ. compl. of module(s)			
2 semester graduate Admission prerequisite to assessment: regular attendance of placem (a maximum of 2 incidents of absence); consultation with course adv ry service prior to placement highly recommended; not to be combine with 08-APM1. Contents Practical course to be completed at universities abroad. Students may complete this course in the context of change programmes such as Erasmus etc. The contents of the course should correspond to the contents of a course offered in the context of the Master's programme in Chemistry (120 ECTS credits); please consult with competent coordinator in advance. Intended learning outcomes Intended learning outcomes Students are familiar with procedures and processes used at universities in countries other than German). P (no information on SWS (weekly contact hours, language – if other than German). P (no information on SWS (weekly contact hours) and course language available). Method of assessment (type, scope, language — if other than German, examination offered — if not every sersister, information on whether module can be chosen to earn a bonus) report (2 pages); proof of having completed lab course Additional information Additional information Additional information on module duration: block placement abroad with a duration of a minimum of 40 word asys. Workload	10	(not) s	successfully completed				
(a maximum of 2 incidents of absence); consultation with course adv ry service prior to placement highly recommended; not to be combine with 08-APM1. Contents Practical course to be completed at universities abroad. Students may complete this course in the context of the Course offered in the context of the Master's programme in Chemistry (120 ECTS credits); please consult with competent coordinator in advance. Intended learning outcomes Students are familiar with procedures and processes used at universities in countries other than Germany. Th have acquired subject-specific skills as well as language and interpersonal skills. Courses (type, number of weekly contact hours, language — if other than German) P (no information on SWS (weekly contact hours) and course language available) Method of assessment (type, scope, language — if other than German, examination offered — if not every set ster, information on whether module can be chosen to earn a bonus) report (2 pages); proof of having completed lab course Language of assessment: German or English; language of the respective placement country where required Additional information Additional information on module duration: block placement abroad with a duration of a minimum of 40 word days. Workload	Duratio	on					
Practical course to be completed at universities abroad. Students may complete this course in the context of change programmes such as Erasmus etc. The contents of the course should correspond to the contents of a course offered in the context of the Master's programme in Chemistry (120 ECTS credits); please consult with competent coordinator in advance. Intended learning outcomes Students are familiar with procedures and processes used at universities in countries other than Germany. Th have acquired subject-specific skills as well as language and interpersonal skills. Courses (type, number of weekly contact hours, language — if other than German) P (no information on SWS (weekly contact hours) and course language available) Method of assessment (type, scope, language — if other than German, examination offered — if not every ser ster, information on whether module can be chosen to earn a bonus) report (2 pages); proof of having completed lab course Language of assessment: German or English; language of the respective placement country where required Allocation of places	2 seme	ester	graduate	(a maximum of 2 inc ry service prior to pl	idents of absence);	consultation with course adviso-	
change programmes such as Erasmus etc. The contents of the course should correspond to the contents of a course offered in the context of the Master's programme in Chemistry (120 ECTS credits); please consult with competent coordinator in advance. Intended learning outcomes Students are familiar with procedures and processes used at universities in countries other than Germany. The have acquired subject-specific skills as well as language and interpersonal skills. Courses (type, number of weekly contact hours, language — if other than German) P (no information on SWS (weekly contact hours) and course language available) Method of assessment (type, scope, language — if other than German, examination offered — if not every setset, information on whether module can be chosen to earn a bonus) report (2 pages); proof of having completed lab course Language of assessment: German or English; language of the respective placement country where required Allocation of places Additional information Additional information Morkload Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Master's degree (1 major) Chemistry (2013)	Conten	ts					
Students are familiar with procedures and processes used at universities in countries other than Germany. The have acquired subject-specific skills as well as language and interpersonal skills. Courses (type, number of weekly contact hours, language — if other than German) P (no information on SWS (weekly contact hours) and course language available) Method of assessment (type, scope, language — if other than German, examination offered — if not every serster, information on whether module can be chosen to earn a bonus) report (2 pages); proof of having completed lab course Language of assessment: German or English; language of the respective placement country where required Allocation of places Additional information Additional information on module duration: block placement abroad with a duration of a minimum of 40 worl days. Workload Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Master's degree (1 major) Chemistry (2013)	change course	e progra offered	ammes such as Erasmus I in the context of the Ma	etc. The contents of t	he course should co	rrespond to the contents of a lab	
have acquired subject-specific skills as well as language and interpersonal skills. Courses (type, number of weekly contact hours, language — if other than German) P (no information on SWS (weekly contact hours) and course language available) Method of assessment (type, scope, language — if other than German, examination offered — if not every set ster, information on whether module can be chosen to earn a bonus) report (2 pages); proof of having completed lab course Language of assessment: German or English; language of the respective placement country where required Allocation of places Additional information Additional information on module duration: block placement abroad with a duration of a minimum of 40 worl days. Workload Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Master's degree (1 major) Chemistry (2013)	Intende	ed lear	ning outcomes				
P (no information on SWS (weekly contact hours) and course language available) Method of assessment (type, scope, language — if other than German, examination offered — if not every sersers, information on whether module can be chosen to earn a bonus) report (2 pages); proof of having completed lab course Language of assessment: German or English; language of the respective placement country where required Allocation of places Additional information Additional information on module duration: block placement abroad with a duration of a minimum of 40 worl days. Workload Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Master's degree (1 major) Chemistry (2013)							
Method of assessment (type, scope, language — if other than German, examination offered — if not every sersister, information on whether module can be chosen to earn a bonus) report (2 pages); proof of having completed lab course Language of assessment: German or English; language of the respective placement country where required Allocation of places Additional information Additional information on module duration: block placement abroad with a duration of a minimum of 40 worl days. Workload Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Master's degree (1 major) Chemistry (2013)	Course	s (type	, number of weekly conta	ct hours, language —	- if other than Germa	in)	
ster, information on whether module can be chosen to earn a bonus) report (2 pages); proof of having completed lab course Language of assessment: German or English; language of the respective placement country where required Allocation of places Additional information Additional information on module duration: block placement abroad with a duration of a minimum of 40 worl days. Workload Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Master's degree (1 major) Chemistry (2013)	P (no ir	nformat	tion on SWS (weekly cont	act hours) and cours	e language available	e)	
Language of assessment: German or English; language of the respective placement country where required Allocation of places Additional information Additional information on module duration: block placement abroad with a duration of a minimum of 40 worl days. Workload Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Master's degree (1 major) Chemistry (2013)						tion offered — if not every seme-	
Additional information Additional information on module duration: block placement abroad with a duration of a minimum of 40 worl days. Workload Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Master's degree (1 major) Chemistry (2013)					ne respective placem	nent country where required	
Additional information on module duration: block placement abroad with a duration of a minimum of 40 work days. Workload Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Master's degree (1 major) Chemistry (2013)	Allocat	ion of _l	olaces				
Additional information on module duration: block placement abroad with a duration of a minimum of 40 work days. Workload Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Master's degree (1 major) Chemistry (2013)							
days. Workload Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Master's degree (1 major) Chemistry (2013)	Additio	onal inf	ormation				
Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Master's degree (1 major) Chemistry (2013)		onal info	ormation on module dura	ition: block placemer	nt abroad with a dura	ation of a minimum of 40 working	
 Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Master's degree (1 major) Chemistry (2013)	Worklo	ad					
Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Master's degree (1 major) Chemistry (2013)							
Module appears in Master's degree (1 major) Chemistry (2013)	Teachi	ng cycl	e				
Module appears in Master's degree (1 major) Chemistry (2013)							
Module appears in Master's degree (1 major) Chemistry (2013)	Referred to in LPO I (examination regulations for teaching-degree programmes)						
Master's degree (1 major) Chemistry (2013)							
Master's degree (1 major) Chemistry (2013)	Module	Module appears in					
i master s degree (1 major) Chemistry (2014)	Master						

Master's with 1 major Chemistry (2013)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 20 / 74
	reg. data record Master (120 ECTS) Chemie - 2013	

Module title				Abbreviation		
Princip	les of I	Biochemistry			08-BC-132-m01	
Module	e coord	inator		Module offered by		
holder of the Chair of Biochemistry				Chair of Biochemist	ry	
ECTS		od of grading	Only after succ. con	n pl. of module(s)		
6	nume	rical grade				
Duratio		Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
Compri mistry.	-	ctures and exercises, this	s module acquaints s	tudents with the fun	damental principles of bioche-	
Intend	ed lear	ning outcomes				
		e become familiar with th cal processes in cellular s		ples of biochemistry	. They are able to describe the	
Course	s (type	, number of weekly conta	ct hours, language –	- if other than Germa	n)	
compo • c	nent. 08-BC-1	omprises 2 module comp -132: V + Ü (no informatio -132: V + Ü (no informatio	on on SWS (weekly co	ontact hours) and co		
			· · · ·			
		ion on whether module ca			tion offered — if not every seme-	
	nless st	ated otherwise, successf			e components as specified be- successful completion of all indi-	
• 3 • v Assess • 3	ECTS, vritten ment i ECTS,	Method of grading: nume examination (approx. 60	erical grade to 90 minutes) BC-2-132: Principles erical grade		nciples of Biochemistry 1 inciples of Biochemistry 2	
Allocat	ion of _l	olaces				
	_					
Additio	onal inf	ormation				
Worklo	ad					
Teachi	Teaching cycle					
Referred to in LPO I (examination regulations for teaching-degree programmes)						
	NEIGHER TO IN LEV I (Examination regulations for leaching-degree programmes)					
Modul						
		ree (1 major) Biochemistr	y (2012)			
	-	ree (1 major) Physics (20:				
	-	ee (1 major) Chemistry (2				
		• •				

Module title			Abbreviation		
Molecular Biology			08-BC-MOLM-132-m01		
Module	e coord	inator		Module offered by	
holder	of the (Chair of Biochemistry		Chair of Biochemist	ry
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)	
5	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	ts				
Compri tional b			his module discusse	s advanced topics in	molecular physiology and func-
Intende	ed lear	ning outcomes			
Studen	ts have	e developed a sound kno	wledge of molecular	biology.	
Course	s (type	, number of weekly conta	ct hours, language —	if other than Germa	n)
V + Ü (r	no infor	mation on SWS (weekly o	contact hours) and co	ourse language avail	able)
		sessment (type, scope, la on on whether module ca			tion offered — if not every seme-
didate 30 min about t	each (a utes, g he met	pprox. 20 minutes) or d)	oral examination in g nutes) or d) presenta sessment prior to the	groups of up to 3 can tion (approx. 30 min	or c) oral examination of one can- adidates (groups of 2: approx. autes). Students will be informed
Allocat	ion of p	olaces			
Additio	nal inf	ormation			
Worklo	ad				
Teaching cycle					
Referred to in LPO I (examination regulations for teaching-degree programmes)					
Module	annea	urs in			
	Module appears in Master's degree (1 major) Chemistry (2013)				

Master's with 1 major Chemistry (2013)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 22 / 74
	reg. data record Master (120 ECTS) Chemie - 2013	

Molecι	e title			Abbreviation	
	ılar Biology Lab			08-BC-MOLP-111-m	01
Module coordinator			Module offered by	<u> </u>	
	of the Chair of Biochemistry		Chair of Biochemis	try	
ECTS	Method of grading	Only after succ. con	npl. of module(s)	<u>,</u>	
10	numerical grade	o8-BC (module com	ponent o8-BC-1 only)	
Duratio	on Module level	Other prerequisites			
1 seme	ster undergraduate				
Conten	ts				
of mac	odule equips students with pr romolecular complexes, mode n imaging techniques.				
Intend	ed learning outcomes				
Studen	its have developed a knowled	ge of molecular biology	and are able to app	ly it to practical exp	eriments.
Course	s (type, number of weekly cor	itact hours, language –	- if other than Germa	n)	
Ü (no iı	nformation on SWS (weekly co	ontact hours) and cours	e language available	e)	
	d of assessment (type, scope, formation on whether module			tion offered — if not	every seme-
Assess Langua Allocat Bioche chemie places de of s by lot. with th places	the method and length of the a sment offered: once a year, win age of assessment: German or ion of places (Biochemistry) Bachelor's: S will be allocated according to uccessfully completed module Quota 2 (one third of places) n e same number of subject ser re-allocated as they become a applications exceed the numb : Quota 1 (two thirds of places allocated by lot. Quota 2 (one	nter semester English E: 24 places. Chemie (C hould the number of ap the following quotas: (es; among applicants w number of subject seme nesters, places will be available. Selection pro er of available places, b): grade of module o8-	hemistry) Master's: o plications exceed th Quota 1 (two thirds o vith the same averag esters of the respect allocated by lot. A w cess Chemie (Chemi places will be alloca	e number of availab f places): current av e grade, places will ive applicant; amon aiting list will be ma istry) Master's: Shou ted according to the	ble places, erage gra- be allocated g applicants intained and
quotas will be among	applicants with the same nur ntained and places re-allocate	•	er of subject semeste ers, places will be al		following de, places applicant;
quotas will be among be mai	applicants with the same nur	•	er of subject semeste ers, places will be al		following de, places applicant;
quotas will be among be mai Additio	applicants with the same nur ntained and places re-allocate onal information	•	er of subject semeste ers, places will be al		following de, places applicant;
quotas will be among be mai Additio	applicants with the same nur ntained and places re-allocate onal information	•	er of subject semeste ers, places will be al		following de, places applicant;
quotas will be among be mai Additio	applicants with the same nur ntained and places re-allocate onal information	•	er of subject semeste ers, places will be al		following de, places applicant;
quotas will be among be mai Additio Worklo	applicants with the same nur ntained and places re-allocate onal information	•	er of subject semeste ers, places will be al		following de, places applicant;
quotas will be among be mai Additio Worklo	applicants with the same nur ntained and places re-allocate onal information	•	er of subject semeste ers, places will be al		following de, places applicant;
quotas will be among be mai Additio Worklo Teachin 	applicants with the same nur ntained and places re-allocate onal information	ed as they become avai	er of subject semeste ers, places will be al lable.	located by lot. A wai	following de, places applicant;
quotas will be among be mai Additio Worklo Teachin 	applicants with the same nur ntained and places re-allocate onal information oad	ed as they become avai	er of subject semeste ers, places will be al lable.	located by lot. A wai	following de, places applicant;
quotas will be among be mai Additio Worklo Teachin Referre	applicants with the same nur ntained and places re-allocate onal information oad	ed as they become avai	er of subject semeste ers, places will be al lable.	located by lot. A wai	following de, places applicant;
quotas will be among be mai Additio Worklo Teachin Referre Bachel	applicants with the same nur ntained and places re-allocate onal information oad ng cycle ed to in LPO I (examination re	ed as they become avai	er of subject semeste ers, places will be al lable.	located by lot. A wai	following de, places applicant;



Master's degree (1 major) Chemistry (2013)

Master's with 1 major Chemistry (2013)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 24 / 74
	reg. data record Master (120 ECTS) Chemie - 2013	

Module title				Abbreviation		
Bioche	Biochemistry Lab				08-BCP-092-m01	
Module	e coord	inator		Module offered by		
holder	of the (Chair of Biochemistry		Chair of Biochemist	ry	
ECTS		od of grading	Only after succ. com	pl. of module(s)		
5	(not) s	successfully completed	o8-BC			
Duratio		Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
Practica experin		ises give students the o	oportunity to learn th	e fundamental princ	iples of conducting biochemical	
Intende	ed learı	ning outcomes				
Studen	ts have	e become proficient in es	sential methods in bi	ochemistry.		
Course	s (type	, number of weekly conta	ct hours, language —	if other than Germa	n)	
P (no in	format	ion on SWS (weekly cont	act hours) and cours	e language available	2)	
		essment (type, scope, la on on whether module ca			tion offered — if not every seme-	
(log, ap	prox. 5	riment examination talks , to 10 pages) ffered: once a year, sumr		htestate, approx. 15	minutes each), practical work	
Allocat	ion of p	olaces				
allocate wing qu de, plac cant; au	ed in a uotas: (ces will mong a	standardised procedure Quota 1 (80% of places): be allocated by lot. Quo	among all applicants grade achieved in mo ta 2 (20% of places): number of subject se	irrespective of their odule o8-BC; among number of subject s mesters, places will	available places, places will be subjects according to the follo- applicants with the same gra- emesters of the respective appli- be allocated by lot. A waiting list	
Additio	nal inf	ormation				
Worklo	ad					
Teachi	ng cycl	9				
Referred to in LPO I (examination regulations for teaching-degree programmes)						
Module appears in						
Bachel	Bachelor' degree (1 major) Chemistry (2010)					
	-	ree (1 major) Chemistry (2				
	-	ee (1 major) Chemistry (2	-			
Master	Master's degree (1 major) Chemistry (2010)					

Master's with 1 major Chemistry (2013)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 25 / 74
	reg. data record Master (120 ECTS) Chemie - 2013	

Modul	e title				Abbreviation
Practic	Practical course Molecular Machines for advanced students			5	08-BC-VPMM-132-m01
Modul	Module coordinator			Module offered by	
holder of the Chair of Biochemistry				Chair of Biochemis	try
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
10	nume	rical grade	08-BC, 08-BCP		
Duratio	on	Module level	Other prerequisites		
1 seme	ester	graduate			
Conter	nts				
lar biol in-prot	logy and ein inte	d biochemistry; cloning, i ractions, isolation and fu	mutagenesis, protein	expression and pur	d methods and topics in molecu- ification, RNA-protein and prote- pplexes.
		ning outcomes			
Studer work.	nts are a	able to explore a specific	research topic and d	eliver an oral presen	tation on the results of their
Course	s (type	, number of weekly conta	ct hours, language –	- if other than Germa	in)
P (no ii	nformat	ion on SWS (weekly cont	act hours) and cours	e language available	2)
		s essment (type, scope, la on on whether module ca			tion offered — if not every seme-
		o pages) and talk (appro ssessment: German or Ei			
	tion of p				
Additio	onal inf	ormation			
Additio	onal info	ormation on module dura	tion: block placemer	nt with a duration of	a minimum of 40 working days.
Worklo	ad				
Teaching cycle					
Referred to in LPO I (examination regulations for teaching-degree programmes)					
Modul	e appea	ars in			
Master	's degr	ee (1 major) Chemistry (2	013)		

Modul	e title				Abbreviation
Practio	al cour	se Protein Degradatio	on in Eukaryotes for adv		08-BC-VPPD-132-m01
Module coordinator				Module offered by	
holder of the Chair of Biochemistry				Chair of Biochemi	stry
ECTS		od of grading	Only after succ. con	npl. of module(s)	
10	nume	rical grade	cal grade 08-BC, 08-BCP		
Durati	on	Module level	Other prerequisites	i de la companya de l	
1 seme	ester	graduate			
Conter	nts				
This m karyot		ives students the opp	ortunity to explore a res	earch topic in the fi	eld of protein degradation in eu
Intend	ed lear	ning outcomes			
Studer work.	nts are a	able to explore a spec	ific research topic and d	eliver an oral prese	ntation on the results of their
Course	es (type	, number of weekly co	ntact hours, language –	- if other than Germ	an)
		· · · · · · · · · · · · · · · · · · ·	ontact hours) and cours		
			e, language — if other th e can be chosen to earn		ation offered — if not every sem
		o pages) and talk (apj ssessment: German o			
Alloca	tion of _l	olaces			
Additio	onal inf	ormation			
Additio	onal inf	ormation on module d	uration: block placemer	nt with a duration o	f a minimum of 40 working days
Worklo					
Toachi	ng cycl	Δ			
	ing cycl				
Dofor	d to in	IDOL (ovamination +	egulations for teaching-	dograa programmas)
Referre				legiee programmes)
		•			
	e appea	ars in			
		ee (1 major) Chemistry	<i>.</i>		

Master's with 1 major Chemistry (2013)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 27 / 74
	reg. data record Master (120 ECTS) Chemie - 2013	

Module title					Abbreviation
Practical course RNA Biochemistry for advanced students			advanced students		08-BC-VPRB-132-m01
Modul	e coord	inator		Module offered by	1
holder	of the	Chair of Biochemistry		Chair of Biochemis	try
ECTS	Method of grading Only after succ. compl. of module(s)		-		
10	nume	rical grade	08-BC, 08-BCP		
Durati	on	Module level	Other prerequisites		
1 seme	ester	graduate			
Conte	nts				
mes a	s "mole		ory mechanisms of eu		eld of RNA biochemistry. Riboso- synthesis. Gradient centrifugati-
Intend	led lear	ning outcomes			
trol wi manne	th the h er.		as well as to present	their findings in an a	eral and specific translation con- appropriate and understandable
					•
		tion on SWS (weekly cont			
		ion on whether module c			ition offered — if not every seme-
		o pages) and talk (appro ssessment: German or E			
Alloca	tion of	places			
Additi	onal inf	ormation			
Additi	onal inf	ormation on module dura	ation: block placemer	nt with a duration of	a minimum of 40 working days.
Workl	oad				
Гeachi	ing cycl	e			
	od to in	LPOI (examination regu	lationa fantaaahina a	legree programmes)	
Referr	eu to m	LFUI (examination regu	liations for teaching-o	icgree programmes)	
Referr			liations for teaching-c		
	e appea		lations for teaching-c		

Module title					Abbreviation
Practic	al cour	se Structural Biology for	advanced students		08-BC-VPSB-132-m01
Module	e coord	inator		Module offered by	<u> </u>
holder of the Chair of Biochemistry		Chair of Biochemis	try		
ECTS	Metho	od of grading	Only after succ. compl. of module(s)		
10	nume	rical grade	08-BC, 08-BCP		
Duratio	n	Module level	Other prerequisites		
1 seme	ster	graduate			
Contents					
	damen	tal principles and techni			stallisation. It teaches students sation as well as crystallographic
Intende	ed lear	ning outcomes			
					constructs for crystallisation. Il as data collection and proces-
Course	s (type	, number of weekly conta	ict hours, language —	- if other than Germa	an)
P (no ir	format	tion on SWS (weekly cont	act hours) and cours	e language availabl	e)
		sessment (type, scope, la ion on whether module ca			ation offered — if not every seme-
		o pages) and talk (appro ssessment: German or El			
Allocat	ion of j	olaces			
Additio	nal inf	ormation			
Additio	nal inf	ormation on module dura	ation: block placemer	nt with a duration of	a minimum of 40 working days.
Worklo					, 6 4) 44
Teachiı		e			
	-3 -9 -1	-			
Referre	d to in	LPO I (examination regu	lations for teaching.	legree programmes	
Module	e appea	ars in			
		ee (1 major) Chemistry (2			

Chemi	Module title Abbreviation						
Chemistry-related courses outside of the Natural Sciences			the Natural Sciences		08-CHPM1-132-m01		
Modul	le coord	linator		Module offered by			
Dean of Studies Chemie (Chemistry)			Faculty of Chemisti	y and Pharmacy			
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	· · ·		
5	(not)	successfully completed					
Durati	on	Module level	Other prerequisites				
1 seme	ester	graduate	Please consult with	course advisory ser	vice.		
Conter	nts						
other F	Facultie		icluded in the acader		elated courses that are offered by neir programmes. Students MUST		
Intend	led lear	ning outcomes					
Studer	nts hav	e developed the knowled	ge and skills taught i	in the courses attend	led by them.		
Course	es (type	, number of weekly conta	act hours, language –	– if other than Germa	an)		
V (no i	informa	tion on SWS (weekly con	tact hours) and cours	se language availabl	e)		
		sessment (type, scope, la ion on whether module c			ation offered — if not every seme-		
candid cessfu	date ead Il comp	ch (approx. 20 minutes) c letion as certified by the l	assessment: a) 1 to 3 written examinations (approx. 60 or approx. 90 minutes) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes) or successful completion as certified by the lecturer				
Language of assessment: German or English Allocation of places							
Alloca	tion of						
Alloca	tion of						
		places					
	onal inf	places					
 Additio	onal inf	places					
 Additio Worklo	onal inf oad	places Formation					
 Additio Worklo	onal inf	places Formation					
 Additio Worklo Teachi 	onal inf oad ing cycl	places Formation		degree programmes			
 Additio Worklo Teachi	onal inf oad ing cycl	places		degree programmes)			
 Additio Worklo Teachi Referro	onal inf oad ing cycl	places formation		degree programmes)			

Master's with 1 major Chemistry (2013)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 30 / 74
	reg. data record Master (120 ECTS) Chemie - 2013	

Module title					Abbreviation
Chemis	stry-rel	ated courses within the	Natural Sciences		08-CHPM2-132-m01
Module	e coord	inator		Module offered by	
Dean o	of Studi	es Chemie (Chemistry)		Faculty of Chemistr	v and Pharmacy
ECTS		od of grading	Only after succ. con	· · ·	, ,
5	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ester	graduate	Please consult with	course advisory serv	vice.
Conten	nts				
other F	acultie		cluded in the acaden		lated courses that are offered by eir programmes. Students MUST
Intend	ed lear	ning outcomes			
Studen	nts have	e developed the knowled	ge and skills taught i	n the courses attend	ed by them.
Course	es (type	, number of weekly conta	act hours, language –	- if other than Germa	n)
V (no ir	nforma	tion on SWS (weekly con	tact hours) and cours	e language available	2)
		s essment (type, scope, la ion on whether module c			tion offered — if not every seme-
candid cessful	late ead l compl		or c) oral examination ecturer		or b) oral examination of one f 2, approx. 30 minutes) or suc-
Allocat	tion of	places			
Additic	onal inf	ormation			
			-		
Workload					
Worklo	bad				
Workla	bad				
		e			
Worklo		e			
 Teachi 	ng cycl		lations for teaching-o	degree programmes)	
 Teachi 	ng cycl	e LPOI (examination regu	llations for teaching-o	degree programmes)	
 Teachi 	ng cycl ed to in	LPOI (examination regu	lations for teaching-o	degree programmes)	

Master's with 1 major Chemistry (2013)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 31 / 74
	reg. data record Master (120 ECTS) Chemie - 2013	

Module title					Abbreviation
Molecu	ular Ma	terials			08-FMM-CT-132-m01
Module	e coord	inator		Module offered by	
Dean o	f Studi	es Funktionswerkstoffe (Functional Materials)	Chair of Chemical T	echnology of Material Synthesis
ECTS	Metho	od of grading	Only after succ. compl. of module(s)		
5	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate			successful completion of exerci-
			· ·		% of exercises 10 to 15 hours
				•	regular attendance of exercises
			(a maximum of 2 inc	idents of absence).	
Conten	Its				
This m	odule d	iscusses the theoretical	principles of molecul	ar and soft materials	5.
Intend	ed lear	ning outcomes			
			e of the principles of r	nolecular and soft m	aterials and are able to apply
	-	e to research problems.			
Course	s (type	, number of weekly conta	act hours, language —	if other than Germa	n)
V + Ü (I	no info	mation on SWS (weekly	contact hours) and co	ourse language avail	able)
		sessment (type, scope, la on on whether module c			tion offered — if not every seme-
					ons (1 written examination: ap- xamination of one candidate
		20 minutes) or c) oral ex			
Allocat					
Additio	onal inf	ormation			
Worklo	ad				
Teaching cycle					
Referre	ed to in	LPOI (examination regu	llations for teaching-o	legree programmes)	
Module	e appea	ars in			
		ee (1 major) Chemistry (2	.013)		

Master's with 1 major Chemistry (2013)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 32 / 74
	reg. data record Master (120 ECTS) Chemie - 2013	

Module title					Abbreviation
Lab Co	urse M	aterials Science			08-FMM-MP-102-m01
Module	e coord	inator		Module offered by	
lecture ctional		ialisation subject Funktio als)	onsmaterialien (Fun-	Chair of Chemical T	echnology of Material Synthesis
ECTS	Meth	od of grading	Only after succ. compl. of module(s)		
5	(not)	successfully completed	1		
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate			
Conten	ts				
Ten sel	ected e	experiments in materials	science.		
Intend	ed lear	ning outcomes			
Studen	its have	e developed an advanced	l proficiency in the pe	erformance of experi	ments in materials science.
Course	s (type	, number of weekly conta	ct hours, language –	- if other than Germa	n)
		tion on SWS (weekly cont			
		s essment (type, scope, la ion on whether module ca			tion offered — if not every seme-
cal per	forman	e-experiment exams) and ce, log (5 to 10 pages) issessment: German or El		xperiment exams) (1	5 minutes), assessment of practi
Allocat		0			
Additio	onal inf	ormation	·		
Worklo	ad				
Teachi	ng cvcl	e			
Referre	ed to in	LPOI (examination regu	lations for teaching-	degree programmes)	
Module	e appea	ars in			
Master	's degr	ee (1 major) Chemistry (2	013)		
	-	ee (1 major) Chemistry (2			
Master	's degr	ee (1 major) Chemistry (2	014)		

Module title Abbreviation					Abbreviation
Project Work					08-FMM-PA-102-m01
Module coordinator				Module offered by	
		search group offering the	modulo		echnology of Material Synthesis
ECTS		od of grading	Only after succ. con	•	
5		successfully completed			
Duratio	<u> </u>	Module level	Other prerequisites		
1 semes		graduate			
Conten	ts				
		ives students the opport findings.	unity to explore a res	earch topic under th	e guidance of a supervisor and to
Intende	ed lear	ning outcomes			
Studen	ts have	e developed an advanced	proficiency in the pe	erformance of experi	ments in materials science.
Courses	s (type	, number of weekly conta	ct hours, language –	- if other than Germa	n)
P (no in	format	ion on SWS (weekly cont	act hours) and cours	e language available	2)
ster, inf talk (ap	formati prox. 1	on on whether module ca 5 minutes) and log (appr	an be chosen to earn ox. 15 pages)		tion offered — if not every seme-
Allocati		ssessment: German or Er	Iglisti		
Allocal		Jaces			
Additio	nal inf	ormation			
Auditio	natim				
Worklo					
workto	au				
Teachir	ng cycl	e			
Referred to in LPO I (examination regulations for teaching-degree programmes)					
Module appears in					
		ee (1 major) Chemistry (2			
	-	ee (1 major) Chemistry (2 ee (1 major) Chemistry (2			

Module title				Abbreviation		
Material Science 1 (basic introduction)					08-FS1-122-m01	
Module coordinator				Module offered by		
Dean of Studies Funktionswerkstoffe (Functional Mate			unctional Materials)	Chair of Chemical T	echnology of Material Synthesis	
ECTS		od of grading	Only after succ. com	pl. of module(s)		
5	L	rical grade				
Duratio		Module level	Other prerequisites			
1 seme		graduate				
Conten	ts					
		iscusses the fundamenta rties of materials.	l relations between o	hemical bonding, th	ne structure, the microstructure	
Intende	ed learn	ning outcomes				
					al bonding, the structure, the to apply them to research pro-	
Course	s (type	, number of weekly conta	ct hours, language —	if other than Germa	n)	
V + Ü (r	no infor	mation on SWS (weekly o	contact hours) and co	urse language avail	able)	
ster, in	formati	on on whether module ca	an be chosen to earn	a bonus)	tion offered — if not every seme-	
or 90 m each (a	ninutes pprox.		ions: approx. 60 min amination in groups (utes each) or b) oral	ten examinations: approx. 60 l examination of one candidate . 30 minutes)	
Allocat			<u> </u>			
Additio	nal inf	ormation				
Worklo	ad					
Teachi	ng cycl	e				
Referred to in LPO I (examination regulations for teaching-degree programmes)						
Module appears in						
	Bachelor' degree (1 major) Nanostructure Technology (2012)					
	0	ree (1 major) Functional N	0 , ()			
Master	's degr	ee (1 major) Chemistry (20	013)			

Master's with 1 major Chemistry (2013)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 35 / 74
	reg. data record Master (120 ECTS) Chemie - 2013	

Module title				Abbreviation		
Materia	al Sciei	nce 2 (the material group	s)		08-FS2-122-m01	
Module coordinator			Module offered by			
Dean o	f Studi	es Funktionswerkstoffe (F	unctional Materials)	Chair of Chemical T	echnology of Material Synthesis	
ECTS		od of grading	Only after succ. com	succ. compl. of module(s)		
5	nume	rical grade				
Duratio		Module level	Other prerequisites			
1 semester graduate						
Conten	ts					
This m	odule d	leals with the fabrication	and properties of the	e main material grou	ps.	
Intend	ed lear	ning outcomes				
		e developed a knowledge knowledge to research pr		d properties of the n	nain material groups and are able	
Course	s (type	, number of weekly conta	ct hours, language —	· if other than Germa	n)	
V + Ü (I	no infoi	rmation on SWS (weekly o	contact hours) and co	ourse language avail	able)	
		sessment (type, scope, la ion on whether module ca			tion offered — if not every seme-	
or 90 n each (a	ninutes approx.		ions: approx. 60 min amination in groups	utes each) or b) oral	ten examinations: approx. 60 l examination of one candidate . 30 minutes)	
Allocat						
Additio	onal inf	ormation				
Worklo	ad					
Teachi	ng cycl	e				
Referre	ed to in	LPOI (examination regu	lations for teaching-	legree programmes)		
Module	e appea	ars in				
		ree (1 major) Nanostructu	re Technology (2012))		
	-	ree (1 major) Functional N ee (1 major) Chemistry (20				

Master's with 1 major Chemistry (2013)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 36 / 74
	reg. data record Master (120 ECTS) Chemie - 2013	

Module title					Abbreviation	
Organo	o- and E	Biocatalysis			08-HKM1-102-m01	
Modul	e coord	inator		Module offered by		
lecturer of the seminar "Organo- and Biokatalyse"			iokatalvse"	Institute of Organic	Chemistry	
ECTS	1	od of grading	Only after succ. com	· · · · ·		
5	1	rical grade				
Duration Module level Other prerequisites						
1 semester graduate						
Conter	its	5	<u> </u>			
This module provides students with deeper insights into topics in organic compounds and enzymes in catalytic processes. Organocatalysis: enantioselective implementation, principles, green chemistry, substance classes and application areas. Biocatalysis: effects of enzymes in view of different aspects, especially regarding organic synthesis.						
Intend	ed lear	ning outcomes				
scribe	the stru				eas of application. They can de- able to mechanistically describe	
Course	s (type	, number of weekly conta	ct hours, language —	- if other than Germa	ın)	
S (no i	nformat	ion on SWS (weekly cont	act hours) and cours	e language available	2)	
ster, in	formati	on on whether module c	an be chosen to earn	a bonus)	tion offered — if not every seme-	
oral ex thods o the cur	aminat of asses rent se	ion in groups (groups of :	2, 30 minutes). Shoul dinator will choose th of the course.	d there be the optio	andidate each (20 minutes) or c) n to choose between several me- d for the module component in	
-	ion of p					
Additio	onal inf	 Additional information				
		ormation				
		ormation				
 Worklo	ad	ormation				
	ad					
 Worklo						
 Worklo	oad ng cycl					
 Worklo Teachi 	ng cycl	e	lations for teaching-o	degree programmes)		
 Worklo Teachi 	ng cycl		lations for teaching-o	degree programmes)		
 Worklo Teachi Referro	ng cycl ed to in	e LPOI (examination regu	lations for teaching-c	degree programmes)		
 Worklo Teachi Referre Module	ng cycl ed to in e appea	e LPOI (examination regu		legree programmes)		
 Worklo Teachi Referre Module Master	ng cycl ed to in e appea	e LPOI (examination regu	/ (2012)	degree programmes)		
 Worklo Teachi Referre Module Master Master	ng cycl ed to in e appea ''s degra	e LPO I (examination regu Irs in ee (1 major) Biochemistry	/ (2012) 013)	legree programmes)		

Module title					Abbreviation	
Advand	ed org	anometallic chemistry ar	nd its application in h	omogeneous cata-	08-HKM2-102-m01	
lysis						
Module	e coord	inator		Module offered by		
		seminar "Spezielle Meta	-	Institute of Inorgan	ic Chemistry	
and deren Anwendung in der Homogenkatalyse"						
ECTS		od of grading	Only after succ. com	pl. of module(s)		
	5 numerical grade					
Duratio		Module level	Other prerequisites			
1 seme	ster	graduate				
Conten	ts					
This mo tions.	odule e	xamines elementary orga	anic compounds of tra	ansition metals with	homogeneous catalytic applica-	
Intend	ed lear	ning outcomes				
					entary organic compounds. They neous catalysis reactions.	
Course	s (type	, number of weekly conta	ct hours, language —	if other than Germa	n)	
S (no ir	nformat	tion on SWS (weekly cont	act hours) and cours	e language available	2)	
		sessment (type, scope, la ion on whether module ca			tion offered — if not every seme-	
oral ex thods of the cur	aminat of asses rrent se	ion in groups (groups of a	2, 30 minutes). Shoul dinator will choose th of the course.	d there be the optio	andidate each (20 minutes) or c) n to choose between several me- d for the module component in	
Allocat	ion of _l	olaces				
Additio	onal inf	ormation				
Worklo	ad					
Teachi	ng cycl	e				
	Referred to in LPO I (examination regulations for teaching-degree programmes)					
 Referre	ed to in	LPOI (examination regu	lations for teaching-o	legree programmes)		
 Referre	ed to in	LPOI (examination regu	lations for teaching-o	legree programmes)		
			lations for teaching-o	legree programmes)		
 Module	e appea			legree programmes)		

Master's with 1 major Chemistry (2013)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 38 / 74
	reg. data record Master (120 ECTS) Chemie - 2013	

Module title					Abbreviation
Practic	al cour	se Homogeneous catalys	is in Inorganic Chem	istry	08-HKM3AC-132-m01
Module	e coord	inator		Module offered by	
lecture	r of the	seminar "Spezielle Meta	llorganische Chemie		ic Chemistry
		vendung in der Homogen			,
ECTS		od of grading	Only after succ. com	npl. of module(s)	
5		successfully completed			
Duratio		Module level	Other prerequisites		
1 seme	ster	graduate			
Conten	ts				
thods i and cry	n homo stallog	ogeneous catalysis. The f	ocus will be on cataly xpected to conduct t	st synthesis and characteristics	synthesis and analytical me- aracterisation, spectral analysis ndependently, write a lab report
Intende	ed lear	ning outcomes			
					eneous catalysis in the lab and to dings and deliver a presentation.
Course	s (type	, number of weekly conta	ct hours, language –	· if other than Germa	ın)
P (no ir	format	ion on SWS (weekly cont	act hours) and cours	e language available	2)
		essment (type, scope, la on on whether module ca			tion offered — if not every seme-
		with lab report (approx. ssessment: German or Er		pprox. 15 minutes)	
Allocat	ion of p	olaces			
Additio	nal inf	ormation			
Additio	nal info	ormation on module dura	tion: block placemer	nt with a duration of	a minimum of 20 working days.
Worklo	ad				
Teachi	ng cycl	e			
Referre	d to in	LPOI (examination regu	lations for teaching-o	legree programmes)	
Module	e appea	ars in			
		ee (1 major) Chemistry (2	013)		
	-	ee (1 major) Chemistry (2	-		

Module title					Abbreviation
Practic	al cour	se Homogeneous catalys	is in Organic Chemis	try	08-HKM3OC-132-m01
Modul	e coord	inator		Module offered by	<u> </u>
		seminar "Spezielle Meta vendung in der Homogen		Institute of Organic	Chemistry
ECTS	1	od of grading	Only after succ. com	pl. of module(s)	
5		successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ester	graduate			
Conter	nts				
thods i and cry docum	in homo ystallog enting	ogeneous catalysis. The f raphy. Students will be e their findings and deliver	ocus will be on cataly xpected to conduct the second of t	st synthesis and characteristics	synthesis and analytical me- aracterisation, spectral analysis ndependently, write a lab report
Intend	ed lear	ning outcomes			
					eneous catalysis in the lab and to dings and deliver a presentation.
Course	es (type	, number of weekly conta	ct hours, language —	if other than Germa	in)
P (no i	nformat	ion on SWS (weekly cont	act hours) and cours	e language available	
		sessment (type, scope, la on on whether module ca			tion offered — if not every seme-
		with lab report (approx. ssessment: German or Er		pprox. 15 minutes)	
Allocat	tion of _l	olaces			
Additio	onal inf	ormation			
Additio	onal inf	ormation on module dura	tion: block placemer	nt with a duration of	a minimum of 20 working days.
Worklo	bad				
Teachi	ng cycl	e			
Referre	ed to in	LPOI (examination regu	lations for teaching-c	legree programmes)	
Modul	e appea	irs in			
Master	r's degr	ee (1 major) Chemistry (2	-		
waster	s degr	ee (1 major) Chemistry (2	014)		

Module title					Abbreviation
Advanc	ed trar	nsition metal chemistry			08-HKM4-102-m01
Module	e coord	inator		Module offered by	
lecturer of the seminar "Spezielle Übergangsmetallchemie"				Institute of Inorgan	ic Chemistry
ECTS		od of grading	Only after succ. com	pl. of module(s)	
5		rical grade			
Duratio		Module level	Other prerequisites		
1 seme	ster	graduate			
Conten	ts				
nation	chemis				of transition metals and coordi- discusses recent developments
Intende	ed lear	ning outcomes			
		able to explain transition field. They can explain th			nonstrating a high degree of ex- chemistry.
Course	s (type	, number of weekly conta	ct hours, language —	if other than Germa	ın)
S (no ir	format	ion on SWS (weekly cont	act hours) and cours	e language available	2)
a) 1 to oral exa thods o the cur	3 writte aminat of asses rent se	ion in groups (groups of 2	o minutes) or b) oral e 2, 30 minutes). Shoul dinator will choose th of the course.	examination of one c d there be the optio	candidate each (20 minutes) or c) n to choose between several me- d for the module component in
Allocat	_				
Additio	nal inf	ormation			
Worklo	ad				
Teachi		9			
caulill	ig tytt	c			
Doforro	d to in	IDOL (ovamination race)	lations for taashing a	lagraa programmaa)	
Reielle		LPOI (examination regu	tations for teaching-0	iegree programmes)	
Madul					
Module			a		
	-	ee (1 major) Chemistry (2 ee (1 major) Chemistry (2			
master	s uegr	ee (1 major) chemistry (2	0101		

Master's with 1 major Chemistry (2013)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 41 / 74
	reg. data record Master (120 ECTS) Chemie - 2013	

Module title Abbreviation					Abbreviation
Maste	r-Thesis	5			08-MA-132-m01
Modul	e coord	inator		Module offered by	<u> </u>
degree	progra	mme coordinator Chemi	e (Chemistry)	Faculty of Chemist	ry and Pharmacy
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	· · ·
30	nume	rical grade			
Duratio	on	Module level	Other prerequisites	5	
1 seme	ster	graduate	Where applicable, s	pecific modules as	specified by supervisor.
Conter	nts				
		ives students the oppor scientific methods they			problem within a given time frame
Intend	ed lear	ning outcomes			
		able to conduct research to present the results of			the principles of good scientific
Course	e s (type	, number of weekly cont	act hours, language –	- if other than Germ	an)
no cou	rses as	signed			
		sessment (type, scope, l ion on whether module o			ation offered — if not every seme-
		(approx. 60 to 80 pages ssessment: German or E			
Allocat	tion of _l	olaces			
Additio	onal inf	ormation			
Additio	onal inf	ormation on module dur	ation: 6 months.		
Worklo	ad				
Teachi	ng cycl	e			
Referre	ed to in	LPOI (examination reg	ulations for teaching-	degree programmes)
Modul	e appea	ars in			
	-	ee (1 major) Chemistry (2			
Master	's degr	ee (1 major) Chemistry (2	2014)		

	e title				Abbreviation
Practic	al cour	se medicinal chemistry			08-MCM1-102-m01
Modul	e coord	inator		Module offered by	
lecturers Pharmazeutische Chemie (Pharmaceutical Che- mistry)			armaceutical Che-	Institute of Pharma	cy and Food Chemistry
ECTS		od of grading	Only after succ. con	npl. of module(s)	
10	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites	i	
1 seme	ester	graduate			
Conter	nts				
Selecte	ed metł	nods and topics in medic	inal chemistry (synth	esis, testing, analys	is, theory, pharmacokinetics).
Intend	ed lear	ning outcomes			
Studer	nts have	e developed a knowledge	e of medicinal chemis	stry and are able to a	pply it to practical experiments.
		, number of weekly conta		•	
		tion on SWS (weekly cont			
		sessment (type, scope, la ion on whether module c			tion offered — if not every seme-
	tate (pr	e-experiment exams) and	Nachtestate (nost-e		• • • •
		erformance, written repor	t (approx. 30 to 50 pa		approx. 20 minutes), assessment
Langua		erformance, written repor ssessment: German or E	t (approx. 30 to 50 pa		ipprox. 20 minutes), assessment
Langua	age of a	erformance, written repor ssessment: German or E	t (approx. 30 to 50 pa		approx. 20 minutes), assessment
Langua Allocat	age of a tion of	erformance, written repor ssessment: German or E places	t (approx. 30 to 50 pa		approx. 20 minutes), assessment
Langua Allocat	age of a tion of	erformance, written repor ssessment: German or E	t (approx. 30 to 50 pa		approx. 20 minutes), assessment
Langua Allocat Additio	age of a tion of p onal inf	erformance, written repor ssessment: German or E places	t (approx. 30 to 50 pa		approx. 20 minutes), assessment
Langua Allocat	age of a tion of p onal inf	erformance, written repor ssessment: German or E places	t (approx. 30 to 50 pa		approx. 20 minutes), assessment
Langua Allocat Additio Worklo	age of a tion of p onal inf	erformance, written repor issessment: German or E places ormation	t (approx. 30 to 50 pa		approx. 20 minutes), assessment
Langua Allocat Additio Worklo	age of a tion of p onal inf	erformance, written repor issessment: German or E places ormation	t (approx. 30 to 50 pa		approx. 20 minutes), assessment
Langua Allocat Additio Worklo Teachi 	age of a tion of p onal inf oad	erformance, written report ssessment: German or E places ormation	t (approx. 30 to 50 pa nglish	ages)	
Langua Allocat Additio Worklo Teachi 	age of a tion of p onal inf oad	erformance, written repor issessment: German or E places ormation	t (approx. 30 to 50 pa nglish	ages)	
Langua Allocat Additio Worklo Teachi Referre	age of a tion of p onal inf oad ng cycl ed to in	erformance, written report ssessment: German or E places ormation e LPOI (examination regu	t (approx. 30 to 50 pa nglish	ages)	
Langua Allocat Additic Worklo Teachi Referre Modulo	age of a tion of p onal inf oad ng cycl ed to in e appea	erformance, written report issessment: German or E places formation e LPOI (examination regu	t (approx. 30 to 50 panglish	ages)	
Langua Allocat Additio Worklo Teachi Referre Module	age of a tion of p onal inf oad ng cycl ed to in e appea	erformance, written report issessment: German or E places ormation ee LPOI (examination regu ars in ee (1 major) Chemistry (2	t (approx. 30 to 50 pa nglish	ages)	
Langua Allocat Additio Worklo Teachi Referre Modulo Master Master	age of a tion of p onal inf oad ng cycl ed to in e appea r's degr r's degr	erformance, written report issessment: German or E places formation e LPOI (examination regu	t (approx. 30 to 50 pa nglish ulations for teaching- 013) 010)	ages)	

Master's with 1 major Chemistry (2013)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 43 / 74
	reg. data record Master (120 ECTS) Chemie - 2013	

Module title					Abbreviation
Pharma	aceutic	al/Medicinal Chemistry			08-MCM2-132-m01
Module	e coord	inator		Module offered by	
lecturers Pharmazeutische Chemie (Pharmaceutical Che- mistry)			armaceutical Che-	Institute of Pharma	cy and Food Chemistry
ECTS		od of grading	Only after succ. con	npl. of module(s)	
10	nume	rical grade			
Duratio		Module level	Other prerequisites	i	
3 seme	ester	graduate			
Conten	Its				
in the r drug de	nodule evelopi	; drug analysis; drug syn ment: discussion of speci	thesis; biotransforma		principles of the drugs discussed tics of individual drugs; history of
		ning outcomes			
Studen	its have	e developed a knowledge	of pharmaceutical/r	nedicinal chemistry.	
Course	s (type	, number of weekly conta	ict hours, language –	- if other than Germa	ın)
V + V +	V (no i	nformation on SWS (wee	kly contact hours) an	d course language a	vailable)
		sessment (type, scope, la ion on whether module ca			tion offered — if not every seme-
		ations of one candidate e issessment: German or Ei		utes each)	
Allocat	tion of	places			
Additio	onal inf	ormation			
Worklo	ad				
Teachi	ng cycl	e			
Referre	ed to in	LPOI (examination regu	lations for teaching-	degree programmes)	
Module	e appea	ars in			
Master	's degr	ee (1 major) Chemistry (2	013)		

Module title Abbreviation					Abbreviation
Princi	ples of	drug design			08-MCM3-132-m01
Modu	le coord	linator		Module offered by	1
lecturers Pharmazeutische Chemie (Pharmaceutical Che mistry)			Pharmaceutical Che-	Institute of Pharma	acy and Food Chemistry
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)	
5	nume	erical grade			
Durati	ion	Module level	Other prerequisites	;	
1 sem	ester	graduate			
Conte	nts				
copho QSAR. gies, t	ore mod Predict pioisost	els, docking, virtual scre tions of pharmacokineti erism, SAR.	eening, simulation me	thods, de novo desig	ure-based drug design, pharma- gn. Ligand-based drug design. ase examples, prodrug strate-
		ning outcomes			
		ster the theoretical and		-	-
Cours	es (type	, number of weekly con	tact hours, language –	– if other than Germa	an)
S + Ü	(no info	rmation on SWS (weekly	y contact hours) and c	ourse language avai	lable)
		sessment (type, scope, ion on whether module			ation offered — if not every seme-
		with discussion (approx assessment: German or			
Alloca	tion of	places			
Additi	onal inf	formation			
Workl	oad				
Teach	ing cyc	le			
Referr	ed to in	LPOI (examination reg	gulations for teaching-	degree programmes)
			<u> </u>		
Modu	le appe	ars in			
		ree (1 major) Chemistry ((2013)		
	-	ree (1 major) Chemistry	-		

Master's with 1 major Chemistry (2013)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 45 / 74
	reg. data record Master (120 ECTS) Chemie - 2013	

Module	e title				Abbreviation	
Chemio	cally an	d bio-inspired Nanotech	nology for Material S	ynthesis	08-NT-122-m01	
Module	e coord	inator		Module offered by		
holder thesis	of the (Chair of Chemical Techno	logy of Material Syn-	Chair of Chemical T	echnology of Materia	al Synthesis
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)		
5	nume	rical grade				
Duratio		Module level	Other prerequisites			
1 seme	ster	graduate				
Conten	ts					
of anal	ysis us	provides an introduction t ed to characterise the ge nd uses examples to intr	nerated materials. It a	also discusses the fu	undamental principle	
Intend	ed lear	ning outcomes				
Studen	its have	e developed an advanced	l knowledge of sol-ge	l chemistry and bior	nineralisation.	
Course	s (type	, number of weekly conta	act hours, language —	if other than Germa	n)	
compo	nent.	omprises 2 module com				
		-122: V (no information o -122: V (no information o				
		sessment (type, scope, la ion on whether module c			tion offered — if not	every seme-
	iless st	n this module comprises ated otherwise, successi ments.				
• 2 • a n	e ECTS, 1) writte ninutes	n module component o8 Method of grading: nume en examination (approx. b) or c) oral examination i n module component o8	erical grade 45 minutes) or b) ora n groups (groups of 2	al examination of on , approx. 30 minute	e candidate each (a s)	
• a) writte	Method of grading: nume en examination (approx. 6) or c) oral examination i	45 minutes) or b) ora			pprox. 20
Allocat	ion of p	olaces				
Additio	onal inf	ormation				
Worklo	ad					
Teachi	ng cvcl	e				
Referre	ed to in	LPOI (examination regu	lations for teaching-	legree programmes)		
Module	e annes	ars in				
		ree (1 major) Nanostructu	re Technology (2012)	1		
Bachel	or' deg	ree (1 major) Functional I				
Master's w	ith 1 majo	r Chemistry (2013)		rg • generated 26-Aug-2024 ord Master (120 FCTS) Chemi		page 46 / 74

Julius-Maximilians-UNIVERSITÄT WÜRZBURG

Master's degree (1 major) Chemistry (2013) Master's degree (1 major) Technology of Functional Materials (2010) Master's degree (1 major) Technology of Functional Materials (2009) Master's degree (1 major) Functional Materials (2012)

Master's with 1 major Chemistry (2013)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 47 / 74
	reg. data record Master (120 ECTS) Chemie - 2013	

Modul	e title				Abbreviation
Advan	ced Res	earch Project			08-0CM-AKP1-122-m01
Modul	Module coordinator			Module offered by	
head o	f the re	search group offering the	module	Institute of Organic	Chemistry
ECTS		od of grading	Only after succ. com		
5	(not) s	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ester	graduate			
Conter	nts				
		ives students the opport f Organic Chemistry and I			the research groups based at ytical methods.
Intend	ed lear	ning outcomes			
		able to describe and use well as to describe theor		s and analytical met	hods typically used by the rese-
Course	s (type	, number of weekly conta	ct hours, language –	· if other than Germa	n)
P (no iı	nformat	ion on SWS (weekly cont	act hours) and cours	e language available	2)
		essment (type, scope, la on on whether module ca			tion offered — if not every seme-
		.5 minutes) and log (appr ssessment: German or Er			
Allocat	tion of p	olaces			
Additio	onal inf	ormation			
Worklo	ad				
Teachi	ng cycl	e			
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)				
	-				
Modul	e appea	urs in			
		ee (1 major) Chemistry (2	013)		
	-	ee (1 major) Chemistry (2			

Master's with 1 major Chemistry (2013)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 48 / 74
	reg. data record Master (120 ECTS) Chemie - 2013	

Module	e title				Abbreviation
Organi	c Funct	ional Materials			08-0CM-FM-102-m01
Module coordinator Module offered by					
lecture	r of the	seminar "Organische Fu	nktionsmaterialien"	Institute of Organic	Chemistry
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)	
5	nume	rical grade	-		
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate			
Conten	Its				
sical ef	ffects ir nents s	organic molecular and p	olymeric semicondu	ctors as well as their	is on fundamental (photo)phy- r application in (opto)electronic ganic solar cells as well as in non-
Intend	ed lear	ning outcomes			
explair ents su near op	the sy ich as f ptics.	nthesis of these semicon ield effect transistors, org	ductor materials as v ganic light-emitting d	vell as their applicat iodes or in organic p	nic semiconductors. He/She can ion in (opto)electronic compon- photovoltaics as well as in nonli-
		, number of weekly conta			
S (no ir	nformat	ion on SWS (weekly cont	act hours) and cours	e language available	2)
		essment (type, scope, la on on whether module ca			tion offered — if not every seme-
oral ex thods of the cur	aminat of asses rent se	ion in groups (groups of 2	2, 30 minutes). Shoul dinator will choose th of the course.	d there be the optio	andidate each (20 minutes) or c) n to choose between several me- d for the module component in
Allocat	ion of p	olaces			
Additic	onal inf	ormation			
Worklo	ad				
Teachi	ng cycl	e			
Referre	ed to in	LPOI (examination regu	lations for teaching-c	legree programmes)	
Module	e appea	urs in			
Master	's degr	ee (1 major) Chemistry (2	013)		
	-		-		
master	Master's degree (1 major) Chemistry (2010) Master's degree (1 major) Functional Materials (2012)				

Master's with 1 major Chemistry (2013)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 49 / 74
	reg. data record Master (120 ECTS) Chemie - 2013	

Modul					Abbreviation
Moder	n Aspe	cts of Natural Product Ch	emistry and Biologic	al Chemistry	08-0CM-NAT-102-m01
Modul	e coord	inator		Module offered	by
lecturer of the seminar Institute of Organic Chemistry		nic Chemistry			
ECTS	Methe	od of grading	Only after succ. com	pl. of module(s)	
5	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate			
Conten	ts				
This m	odule c	liscusses advanced topic	s in natural product o	hemistry and bio	ological chemistry.
Intend	ed lear	ning outcomes			
Studer	nts are a	able to discuss advanced	topics in natural pro	duct chemistry a	nd biological chemistry.
Course	s (type	, number of weekly conta	ct hours, language —	if other than Ge	rman)
S (no ii	nforma	tion on SWS (weekly cont	act hours) and cours	e language availa	able)
a) 1 to oral ex thods o the cur Langua Allocat Chemis	3 writte aminat of asse rent se age of a tion of j stry Ma	ion in groups (groups of a ssment, the module coor mester at the beginning o ssessment: German or En	o minutes) or b) oral e 2, 30 minutes). Shoul dinator will choose th of the course. nglish	examination of or d there be the op ne method to be o	ne candidate each (20 minutes) or c) otion to choose between several me- used for the module component in s will be allocated by lot.
Worklo	ad				
Teachi	ng cycl	e			
Referre	ed to in	LPOI (examination regu	lations for teaching-o	legree programm	ies)
Modul	e appea	ars in			
Master Master	's degr 's degr	ee (1 major) Biochemistry ee (1 major) Chemistry (2 ee (1 major) Chemistry (2 ee (1 major) FOKUS Pharn	013) 010)		

Module	e title				Abbreviation
Advand	ced NM	R- and Mass Spectromet	ry		08-OCM-NMRMS-102-m01
Modul	e coord	inator		Module offered by	
lab cou	urse su	pervisor		Institute of Organic	Chemistry
ECTS	Meth	od of grading	Only after succ. con	-	•
5	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate			
Conten	Its				
sights	into the		the two measuring to	echniques and inclu	ectrometry. It offers deeper in- des exercises that give students meter.
Intend	ed lear	ning outcomes	,		
		able to discuss NMR and to experiment with both s			degree of expertise in the field.
Course	s (type	, number of weekly conta	ct hours, language –	- if other than Germa	in)
P (no ir	nformat	tion on SWS (weekly cont	act hours) and cours	e language available	2)
		sessment (type, scope, la ion on whether module ca			tion offered — if not every seme-
oral ex	aminat	n examinations (60 or 90 ion in groups (groups of 2 ssessment: German or Ei	2, 30 minutes)	examination of one o	andidate each (20 minutes) or c)
Allocat	ion of j	places			
Additio	onal inf	ormation			
Worklo	ad				
Teachi	ng cvcl	e			
Referre	ed to in	LPOI (examination regu	lations for teaching-o	degree programmes)	
Module	e appea	ars in			
		ee (1 major) Chemistry (2	013)		
	-	ee (1 major) Chemistry (2	-		

Master's with 1 major Chemistry (2013)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 51 / 74
	reg. data record Master (120 ECTS) Chemie - 2013	

Module	e title				Abbreviation
Moder	n Synth	netic Methods			08-OCM-SYNT-132-m01
Module	Module coordinator			Module offered by	<u> </u>
lecture	r of the	seminar		Institute of Organic	Chemistry
ECTS	Methe	od of grading	Only after succ. com	pl. of module(s)	
5	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate	Admission prerequis	site to assessment:	successful completion of exerci-
					% of exercises 10 to 15 hours
			to be successfully co	ompleted) as well as	regular attendance of exercises
			(a maximum of 2 inc	idents of absence).	
Conten	ts				
		liscusses modern stereos emistry and catalysis.	elective synthesis m	ethods. It focuses or	n selected total syntheses, orga-
		ning outcomes			
	an expl	ain total syntheses. They			stereochemically analyse them. chemistry and catalysis in synthe-
	`	, number of weekly conta	ct hours, language —	if other than Germa	ın)
		rmation on SWS (weekly			
		sessment (type, scope, la ion on whether module ca			tion offered — if not every seme-
60 min groups	utes ea (group		n of one candidate ea es)		tten examinations: approx. utes) or c) oral examination in
Allocat					
Additio	nal inf	ormation			
Worklo	ad				
-					
Teachi	ng cycl	e			
Referre	d to in	LPOI (examination regu	lations for teaching-c	legree programmes)	
Module	e appea	ars in			
Master	's degr	ee (1 major) Chemistry (2	013)		

Master's with 1 major Chemistry (2013)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 52 / 74
	reg. data record Master (120 ECTS) Chemie - 2013	

Module title					Abbreviation
Laser S	pectro	scopy			08-PCM1a-132-m01
Module	e coord	inator		Module offered by	
lecture copy)	lecturer of seminar "Laserspektroskopie" (Laser Spectros copy)		ie" (Laser Spectros-	Institute of Physica	l and Theoretical Chemistry
ECTS					
5	nume	rical grade			
Duratio		Module level	Other prerequisites		
1 seme		graduate			
Conten	ts				
		ntroduces students to the spectroscopy.	e fundamental princij	oles of laser spectros	scopy. It discusses absorption
Intende	ed lear	ning outcomes			
		able to explain the compo ology. They are able to de			as well as the optical principles mission spectroscopy.
Course	s (type	, number of weekly conta	ict hours, language –	- if other than Germa	n)
S + Ü (r	no infoi	rmation on SWS (weekly	contact hours) and co	ourse language avail	able)
		sessment (type, scope, la ion on whether module ca			tion offered — if not every seme-
		nation (90 minutes) or or ssessment: German or El		ninutes)	
Allocat	ion of _l	places			
Additio	nal inf	ormation			
Worklo	ad				
Teachi	ng cycl	e			
	_ ,				
Referred to in LPO I (examination regulations for teaching-degree programmes)					
Module	e appea	ars in			
		ee (1 major) Chemistry (2	013)		
	-	ee (1 major) Chemistry (2	-		

Module title					Abbreviation	
Advand	ed Phy	vsical Chemistry (Lab)			08-PCM1b-132-m01	
Module	Module coordinator			Module offered by		
lecturer of seminar "Laserspektroskopie" (Laser Spectros- copy)			e" (Laser Spectros-	Institute of Physica	l and Theoretical Chemistry	
ECTS		od of grading	Only after succ. con	npl. of module(s)		
5	(not)	successfully completed				
Duratio		Module level	Other prerequisites			
1 seme	ster	graduate				
Conten	ts					
borato	ry. Afte		idents autonomously	conduct experiment	ds in physical chemistry in the la- ts in the laboratory. Students will	
Intend	ed lear	ning outcomes				
		e developed a high level (to analyse the resulting r			thods in physical chemistry.	
Course	s (type	, number of weekly conta	ict hours, language –	- if other than Germa	n)	
P (no ir	nformat	tion on SWS (weekly cont	act hours) and cours	e language available	2)	
		sessment (type, scope, la ion on whether module ca			tion offered — if not every seme-	
prox. 1	5 pages			xperiment exams) (a	pprox. 15 minutes) and log (ap-	
Allocat						
Additio	onal inf	ormation				
Additio	nal inf	ormation on module dura	tion: block placemer	nt with a duration of	a minimum of 20 working days.	
Worklo	ad					
Teaching cycle						
Referred to in LPO I (examination regulations for teaching-degree programmes)						
Module appears in						
		ee (1 major) Chemistry (2	013)			
Master	Master's degree (1 major) Chemistry (2014)					

Master's with 1 major Chemistry (2013)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 54 / 74
	reg. data record Master (120 ECTS) Chemie - 2013	

Module	e title				Abbreviation	
Chemi	cal Dyn	amics			08-PCM2-102-m01	
Module	e coord	inator		Module offered by		
lecturer of seminar "Chemische Dynamik" (Chemical Dyna mics)			amik" (Chemical Dyna-	-	l and Theoretical Chemistry	
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	ster	graduate				
Conten	Its					
					ical kinetics and reaction dyna- cribing chemical reactions.	
Intend	ed lear	ning outcomes				
			ced topics in chemical k ion of chemical reaction		dynamics. They can describe me	
Course	s (type	, number of weekly co	ntact hours, language –	- if other than Germa	in)	
S + Ü (I	no info	rmation on SWS (week	kly contact hours) and co	ourse language avail	able)	
ster, in written	format exami	ion on whether modul	e can be chosen to earn r oral examination of one	a bonus)	tion offered — if not every seme-	
Allocat	ion of	places				
Additio	onal inf	ormation				
Worklo	ad					
Teachi	ng cycl	e				
Referre	ed to in	LPOI (examination re	egulations for teaching-	degree programmes)		
		-		_ , 0 ,		
Module	e appea	ars in				
Master's degree (1 major) Chemistry (2013)						
	Master's degree (1 major) Chemistry (2010)					
	Master's degree (1 major) Chemistry (2014)					
		ee (1 major) Mathema				
Master	's degr	ee (1 major) Computat	ional Mathematics (201	2)		

Master's with 1 major Chemistry (2013)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 55 / 74
	reg. data record Master (120 ECTS) Chemie - 2013	

Module title Abbreviat					Abbreviation
Nanoso	ale Ma	iterials			08-PCM3-102-m01
Module	e coord	inator		Module offered by	
lecture	r of the	seminar "Nanoskalige N	laterialien"	Institute of Physica	l and Theoretical Chemistry
ECTS	Meth	od of grading	Only after succ. com	pl. of module(s)	
5	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate			
Contents					
		liscusses advanced topic naracterisation methods			e structure, properties, fabricati- rials.
Intend	ed lear	ning outcomes			
		able to characterise nano moscale materials.	oscale materials. They	are able to name ar	nalytical methods and applicati-
Course	s (type	, number of weekly conta	act hours, language —	· if other than Germa	ın)
S + Ü (I	no info	rmation on SWS (weekly	contact hours) and co	ourse language avail	able)
written Langua	exami ige of a	ssessment: German or E	al examination of one	· · ·	o minutes) or talk (30 minutes)
Allocat	ion of	places			
Additio	nal inf	ormation			
Worklo	ad				
Teachi	ng cycl	e			
Referre	ed to in	LPOI (examination regu	llations for teaching-o	legree programmes)	
Module	e appea	ars in			
Bachel	or' deg	ree (1 major) Nanostructı	ure Technology (2010))	
Bachelor' degree (1 major) Nanostructure Technology (2012)					
Master's degree (1 major) Chemistry (2013)					
	Master's degree (1 major) Chemistry (2010)				
	-	ee (1 major) Chemistry (2	•		
	-	ee (1 major) Mathematics			
	-	ee (1 major) Computatior ee (1 major) Functional M		<i>∠)</i>	
mastel	5 uegi		101211013 (2012)		

Master's with 1 major Chemistry (2013)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 56 / 74
	reg. data record Master (120 ECTS) Chemie - 2013	

Module	e title				Abbreviation
Ultrafa	st spec	troscopy and quantum-c	ontrol		08-PCM4-132-m01
Module	e coord	inator		Module offered by	<u> </u>
lecturer of the seminar "Ultrakurzzeitspektroskopie and Quantenkontrolle"			oektroskopie and	Institute of Physica	l and Theoretical Chemistry
ECTS		od of grading	Only after succ. con		
5	nume	rical grade	08-PCM1a, 08-PCM1	lb	
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate			
Contents					
		liscusses advanced topic ime-resolved laser spect			control. It focuses on ultrashort
Intende	ed lear	ning outcomes			
plain th princip	ne theo les and	ry of time-resolved laser I applications of quantur	spectroscopy and na n control.	me experimental me	naracterise them. They can ex- ethods. They can describe the
Course	s (type	, number of weekly conta	ict hours, language –	- if other than Germa	in)
S + Ü (r	no infoi	rmation on SWS (weekly	contact hours) and co	ourse language avail	able)
		sessment (type, scope, la ion on whether module c			tion offered — if not every seme-
nutes)		mination (90 minutes) or ssessment: German or E		of one candidate eac	ch (20 minutes) or c) talk (30 mi-
Allocat					
Additio	nal inf	ormation			
Worklo	ad				
Teaching cycle					
Referred to in LPO I (examination regulations for teaching-degree programmes)					
Module	e appea	ars in			
Master	's degr	ee (1 major) Chemistry (2	013)		

Module	e title				Abbreviation	
Physic	al chen	nistry of supramolecular	assemblies		08-PCM5-102-m01	
Module coordinator				Module offered by		
					l and Theoretical Chemistry	
	r Strukt			,,		
ECTS		od of grading	Only after succ. con	npl. of module(s)		
5		rical grade				
Duratio		Module level	Other prerequisites			
1 seme		graduate				
Contents						
		xamines the basic intera of aggregates as well as			he formation and physical-chemi- nistry.	
Intend	ed lear	ning outcomes				
in the f	field. Th		ation and physical-c		trating a high degree of expertise If aggregates. They can name mo-	
Course	s (type	, number of weekly conta	ct hours, language –	- if other than Germa	in)	
S + Ü (I	no infoi	mation on SWS (weekly o	contact hours) and co	ourse language avail	able)	
ster, in	formati	on on whether module ca	an be chosen to earn	a bonus)	ition offered — if not every seme-	
minute Langua	,	ssessment: German or Er	nglish			
Allocat	tion of p	olaces				
Additio	onal inf	ormation				
Worklo	ad					
Teachi	ng cycl	e				
Referre	ed to in	LPOI (examination regu	lations for teaching-o	degree programmes)		
Module appears in						
Master's degree (1 major) Chemistry (2013)						
Master's degree (1 major) Chemistry (2010)						
Master's degree (1 major) Mathematics (2012) Master's degree (1 major) Technology of Functional Materials (2010)						
	Master's degree (1 major) Technology of Functional Materials (2010) Master's degree (1 major) Technology of Functional Materials (2009)					
	-	ee (1 major) Computation		-		
	-	ee (1 major) Functional M		-		

Master's with 1 major Chemistry (2013)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 58 / 74
	reg. data record Master (120 ECTS) Chemie - 2013	

Module title				Abbreviation
Physical Ch	emistry (Advanced Lab)			08-PCM6-132-m01
Module coo	ordinator		Module offered by	
lecturers Physikalische Chemie (Physical Chemistry)		al Chemistry)	Institute of Physica	l and Theoretical Chemistry
ECTS Me	thod of grading	Only after succ. con	npl. of module(s)	
5 (no	t) successfully completed	08-PCM1		
Duration	Module level	Other prerequisites		
1 semester	graduate			
Contents				
	e gives students the opport e of Physical Chemistry and			the research groups based at lytical methods.
Intended le	arning outcomes			
				relevant physical chemistry rese- questions in physical chemistry.
Courses (ty	pe, number of weekly conta	ict hours, language –	- if other than Germa	n)
P (no inform	nation on SWS (weekly cont	act hours) and cours	e language available	2)
	assessment (type, scope, la ation on whether module c			tion offered — if not every seme-
	n (approx. 20 minutes) f assessment: German or E	nglish		
Allocation	of places			
Additional	information			
Additional	nformation on module dura	ation: block placemer	nt with a duration of	a minimum of 20 working days.
Workload		· · ·		
Teaching cy	/cle			
Referred to in LPO I (examination regulations for teaching-degree programmes)				
Module appears in				
	gree (1 major) Chemistry (2	012)		
Master's degree (1 major) Chemistry (2013) Master's degree (1 major) Chemistry (2014)				

Module	e title				Abbreviation
Clinica	Clinical and Analytical Chemistry				08-PH-KAC-092-m01
Module	Module coordinator			Module offered by	
	lecturer of lecture "Klinisch-analytische Chemie" (Cl and Analytical Chemistry)		e Chemie" (Clinical	Institute of Pharma	cy and Food Chemistry
ECTS	2	od of grading	Only after succ. con	npl. of module(s)	
5	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	ts				
This mo	odule d	liscusses advanced topic	s in clinical analytica	l chemistry.	
Intende	ed lear	ning outcomes			
Studen	ts have	e developed an advanced	I knowledge of molec	ular biology.	
Course	s (type	, number of weekly conta	ct hours, language –	- if other than Germa	n)
V (no ir	format	tion on SWS (weekly cont	act hours) and cours	e language available	2)
ster, in written	formati examii	ion on whether module canation (120 minutes)			tion offered — if not every seme-
Allocat	ion of p	olaces			
Additio	nal inf	ormation			
Worklo	ad				
Teachi	ng cycl	e			
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)				
Module appears in					
Master Master	Master's degree (1 major) Biochemistry (2012) Master's degree (1 major) Chemistry (2013) Master's degree (1 major) Chemistry (2010) Master's degree (1 major) Chemistry (2014)				

Module					Abbreviation
Clinica	linical and Analytical Chemistry (practical course)				08-PH-KACP-092-m01
Module	e coord	inator		Module offered by	
		ture "Klinisch-analytische	e Chemie" (Clinical	Institute of Pharma	cy and Food Chemistry
and An	<u> </u>	l Chemistry)			
ECTS		od of grading	Only after succ. con	npl. of module(s)	
5	(not) :	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	lts				
This mo methoo		overs practical topics in o	clinical chemistry and	d clinical diagnostics	as well as the related analytical
Intend	ed lear	ning outcomes			
Studen ments.		e developed a knowledge	of clinical analytical	chemistry and are a	ble to apply it to practical experi-
Course	s (type	, number of weekly conta	ct hours, language –	- if other than Germa	n)
P (no ir	nforma	tion on SWS (weekly cont	act hours) and cours	e language available	e)
		sessment (type, scope, la ion on whether module ca			tion offered — if not every seme-
examin	nation t	alks (Testate, approx. 15	minutes each), log (a	pprox. 5 to 10 pages)
Allocat	ion of	places			
Additio	onal inf	ormation			
Worklo	ad				
Teachi	ng rvrl	e			
	.5 cycl	•			
Referre	d to in	LPOI (examination regu	lations for teaching	legree programmoc)	
Kelene				active programmes)	
Module		arc in			
			(2012)		
	-	ee (1 major) Biochemistry ee (1 major) Chemistry (2			
	-	ee (1 major) Chemistry (2 ee (1 major) Chemistry (2			
master	Jucsi	ce (2 major) chemistry (2	~ . ,		

Module	e title				Abbreviation	
Supran	nolecul	ar Chemistry (Basics)			08-SCM1-102-m01	
Module	Module coordinator			Module offered by		
lecture	lecturer of lecture "Organischen Chemie"			Faculty of Chemistr	y and Pharmacy	
ECTS		od of grading	Only after succ. com	npl. of module(s)		
5 numerical grade						
Duratio	on	Module level	Other prerequisites			
1 seme	ster	graduate				
Conten	ts					
actions nation	s betwe polyme	en molecules, molecular	recognition by receptrystals, self-assembl	tors, complexes, sup	ar chemistry. It focuses on inter- pramolecular polymers, coordi- synthetic ion channels and mo-	
Intende	ed lear	ning outcomes				
field as describ	s well a be the s	s to describe the formation	on, structure and poly in aqueous media a	mers of coordinatio s well as to identify t	igh degree of expertise in the n compounds. They are able to the characteristics of synthetic	
Course	s (type	, number of weekly conta	ct hours, language —	- if other than Germa	n)	
S (no ir	nformat	tion on SWS (weekly cont	act hours) and cours	e language available	2)	
		sessment (type, scope, la ion on whether module ca			tion offered — if not every seme-	
		nation (approx. 90 minute ssessment: German or Er		on of one candidate	each (approx. 20 minutes)	
Allocat	ion of p	olaces				
Additio	nal inf	ormation				
Worklo	ad					
Teachi		٩				
reacini	is cycl					
Doforra	dtala	IDOI (overside the second	lations for tooships	dograa programme		
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)					
		•				
Module						
	-	ee (1 major) Chemistry (2)	-			
	-	ee (1 major) Chemistry (20 ee (1 major) Chemistry (20				
	•	ee (1 major) Functional M				
musici	Jucgi					

Master's with 1 major Chemistry (2013)	JMU Würzburg • generated 26-Aug-2024 • exam. reg. data record Master (120 ECTS) Chemie - 2013	page 62 / 74

Modul	e title				Abbreviation
Suprai	molecu	ar Chemistry (Practical C	ourse)		08-SCM2-102-m01
Modul	e coord	inator		Module offered by	
	lecturer of lecture "Supramolekularen Chemie (Organisc Chemie/Physikalische Chemie)"		Chemie (Organische	Faculty of Chemistr	y and Pharmacy
ECTS		od of grading	Only after succ. con	npl. of module(s)	
5	(not)	successfully completed			
Durati	on	Module level	Other prerequisites		
1 seme	ester	graduate			
Conter	nts				
mistry	. They w		nost-guest complexe		ents in supramolecular che- d nanoparticles and use advan-
Intend	ed lear	ning outcomes			
		able to perform syntheses hem. They are able to pro			oscopic methods to analyse and hem microscopically.
Course	es (type	, number of weekly conta	ct hours, language –	- if other than Germa	n)
P (no i	nforma	tion on SWS (weekly cont	act hours) and cours	e language available	2)
		sessment (type, scope, la ion on whether module ca			tion offered — if not every seme-
		, logs (approx. 5 pages e ssessment: German or El			
Alloca	tion of	olaces			
Additi	onal inf	ormation			
Worklo	oad				
Teachi	ing cycl	e			
Referre	ed to in	LPOI (examination regu	lations for teaching-o	degree programmes)	
Modul	e appea	ars in			
		ee (1 major) Chemistry (2	013)		
	-	ee (1 major) Chemistry (2	-		
		ee (1 major) Chemistry (2			

Module title					Abbreviation
Bioorga	anic Ch	emistry			08-SCM3-102-m01
Module	e coord	inator		Module offered by	
	lecturer of lecture "Bioorganische Chemie" (Bi Chemistry)			Institute of Organic	Chemistry
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
5	nume	rical grade			
Duratio	n	Module level	Other prerequisites		
1 seme	ster	graduate			
Conten	ts				
lar inte	raction				medicine. It focuses on molecu- new aspects of DNA, RNA, prote-
Intende	ed leari	ning outcomes			
can exp	olain th		oiological systems. Th	ney can characterise	s of bioorganic chemistry. They the fabrication of agents. They
Course	s (type	, number of weekly conta	ct hours, language —	- if other than Germa	n)
S (no in	format	ion on SWS (weekly cont	act hours) and cours	e language available	2)
		s essment (type, scope, la on on whether module ca	5 5		tion offered — if not every seme-
oral exa thods o the cur	aminati of asses rent se	ion in groups (groups of 2	2, 30 minutes). Shoul dinator will choose th of the course.	d there be the option	andidate each (20 minutes) or c) n to choose between several me- d for the module component in
Allocat	ion of p	olaces			
Additio	nal inf	ormation			
Worklo	ad				
Teachir	ng cycl	9			
	<u> </u>				
Referre	d to in	LPOI (examination regu	lations for teaching-o	degree programmes)	
		<u></u>	0	<u> </u>	
Module	appea	urs in			
		ee (1 major) Biochemistry	(2012)		
	-	ee (1 major) Chemistry (2			
Master	's degr	ee (1 major) Chemistry (2	010)		
Master	's degr	ee (1 major) FOKUS Pharn	nacy (2012)		

Master's with 1 major Chemistry (2013)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 64 / 74
	reg. data record Master (120 ECTS) Chemie - 2013	

Modul					Abbreviation
Theore	etical C	hemistry - Project course	wave-packet dynam	ics	08-TCAP1-132-m01
Modul	Module coordinator			Module offered by	1
head o	of the re	search group offering the	e module	Institute of Physica	al and Theoretical Chemistry
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
5	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ester	graduate			
Conter	nts				
the Ins	titute c				f the research groups based at used in the discipline. The focus
Intend	ed lear	ning outcomes			
					istry and, in particular, in wave f wave packet dynamics.
Course	es (type	, number of weekly conta	act hours, language –	- if other than Germ	an)
P (no iı	nforma	tion on SWS (weekly cont	tact hours) and cours	e language availabl	e)
		s essment (type, scope, la ion on whether module c			ation offered — if not every seme
		(approx. 30 minutes) Issessment: German or E	nglish		
Allocat	tion of	places			
Additio	onal inf	ormation			
Additic	onal inf	ormation on module dura	ation: 4 weeks.		
Worklo	bad				
Teachi	ng cycl	e	-		
			<u>.</u>		
Referre	ed to in	LPOI (examination regu	llations for teaching-o	legree programmes)
Modul	e appea	ars in			
		ee (1 major) Chemistry (2	.013)		
			<i></i>		

Master's with 1 major Chemistry (2013)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 65 / 74
	reg. data record Master (120 ECTS) Chemie - 2013	

Modul					Abbreviation
Theore	etical C	hemistry - Project course	wave function based	methods	08-TCAP2-132-m01
Modul	Module coordinator			Module offered	d by
head of the research group offering the module		e module	Institute of Phy	sical and Theoretical Chemistry	
ECTS	Meth	od of grading	Only after succ. com	pl. of module(s	
5	(not)	successfully completed			
Durati	on	Module level	Other prerequisites		
1 seme	ester	graduate			
Conter	nts				
the Ins	stitute c				ne of the research groups based at Illy used in the discipline. The focus
Intend	ed lear	ning outcomes			
					nemistry and, in particular, in wave eld of wave function methods.
Course	es (type	, number of weekly conta	act hours, language —	if other than G	erman)
P (no i	nforma	tion on SWS (weekly cont	act hours) and course	e language avai	lable)
		s essment (type, scope, la ion on whether module c			mination offered — if not every seme
		(approx. 30 minutes) Issessment: German or E	nglish		
Alloca	tion of	places			
Additi	onal inf	ormation			
Additio	onal inf	ormation on module dura	ation: 4 weeks.		
Worklo			·		
Teachi	ng cycl	e			
Referre	ed to in	LPOI (examination regu	llations for teaching-d	egree program	mes)
				0	,
	e appea	ars in			
Modul					
	r's degr	ee (1 major) Chemistry (2	013)		

Master's with 1 major Chemistry (2013)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 66 / 74
	reg. data record Master (120 ECTS) Chemie - 2013	

Modul	e title				Abbreviation
Theore	etical C	hemistry - Project course	Computational Phot	ochemistry	08-TCAP3-132-m01
Module coordinator				Module offered by	•
head c	of the re	search group offering the	module	Institute of Physica	l and Theoretical Chemistry
ECTS		od of grading	Only after succ. con	y after succ. compl. of module(s)	
5	(not)	successfully completed			
Durati	on	Module level	Other prerequisites		
1 seme	ester	graduate			
Conter	nts				
the Ins	stitute c				f the research groups based at sed in the discipline. The focus
Intend	ed lear	ning outcomes			
					stry and, in particular, in theoreti- of theoretical photochemistry.
Course	es (type	, number of weekly conta	ct hours, language –	- if other than Germa	an)
P (no i	nforma	tion on SWS (weekly cont	act hours) and cours	e language available	e)
		sessment (type, scope, la ion on whether module ca			ation offered — if not every seme-
		(approx. 30 minutes) Issessment: German or Ei	nglish		
Alloca	tion of	places			
Additi	onal inf	ormation			
Additio	onal inf	ormation on module dura	ition: 4 weeks.		
Worklo					
Teachi	ing cycl	e			
Referre	ed to in	LPOI (examination regu	lations for teaching-o	degree programmes)	
Modul	e appea	ars in			
	-	ee (1 major) Chemistry (2 ee (1 major) Chemistry (2	-		
		. , , , ,			

Master's with 1 major Chemistry (2013)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 67 / 74
	reg. data record Master (120 ECTS) Chemie - 2013	

Module	e title				Abbreviation
Theoretical Chemistry (Basics) 08-TCM1-1					08-TCM1-132-m01
Module	e coord	inator		Module offered by	
lecture	r of lect	ture "Theoretische Chem	nie"	Institute of Physica	l and Theoretical Chemistry
ECTS					
5	nume	rical grade			
Duration Module level Other prerequisi		Other prerequisites			
1 semester graduate		ses in the respective to be successfully c	e classes (usually 70	successful completion of exerci- % of exercises 10 to 15 hours s regular attendance of exercises	
Conten	Its				
This mo	odule ir	ntroduces students to th	e fundamental princi	oles of theoretical ch	iemistry.
Intende	ed lear	ning outcomes			
quantu	ım dyna	amical approaches of th	eoretical chemistry.		ing the quantum chemical and
Course	s (type	, number of weekly cont	act hours, language –	- if other than Germa	ın)
S + Ü (I	no infoi	rmation on SWS (weekly	contact hours) and co	ourse language avail	able)
		sessment (type, scope, l ion on whether module o			tion offered — if not every seme-
		nation (approx. 90 minu ssessment: German or E			
Allocat	ion of p	olaces			
Additio	onal inf	ormation			
Worklo	ad				
Teachi	ng cycl	e			
Referre	ed to in	LPOI (examination reg	ulations for teaching-o	degree programmes)	
Module	e appea	ars in			
Master	's degr	ee (1 major) Chemistry (:	2013)		

Module coordinator Module offered by lecturer of lecture "Computational Chemistry" Institute of Physical and Theoretical Chemistry ECTS Method of grading Only after succ. compl. of module(s)	Modul	e title				Abbreviation
Institute of lecture "Computational Chemistry" Institute of Physical and Theoretical Chemistry ECTS Method of grading Only after succ. compl. of module(s) 5 numerical grade Duration Module level Other prerequisites 1 semester graduate Admission prerequisite to assessment: successful completion of exercises (a maximum of 2 incidents of absence). Contents	Computational Chemistry 08-TCM2-132-m01					08-TCM2-132-m01
Institute of lecture "Computational Chemistry" Institute of Physical and Theoretical Chemistry ECTS Method of grading Only after succ. compl. of module(s) 5 numerical grade Duration Module level Other prerequisites 1 semester graduate Admission prerequisite to assessment: successful completion of exercises (a maximum of 2 incidents of absence). Contents	Module coordinator				Module offered by	
Method of grading Only after succ. compl. of module(s) 5 numerical grade Duration Module level Other prerequisites 1 semester graduate Admission prerequisite to assessment: successful completion of exercises in the respective classes (usually 70% of exercises 10 to 15 hours to be successfully completed) as well as regular attendance of exercises (a maximum of 2 incidents of absence). Contents This module introduces students to the fundamental principles of computational chemistry. Intended learning outcomes Students are able to explain the theoretical principles of computational chemistry and to apply methods in computational chemistry. Courses (type, number of weekly contact hours, language — if other than German) S + 0 (no information on SWS (weekly contact hours) and course language available) 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) written examination (approx. 90 minutes) Language of assessment: German or English Additional information				mistn/"		Land Theoretical Chemistry
5 numerical grade Duration Module level Other prerequisites 1 semester graduate Admission prerequisite to assessment: successful completion of exercises in the respective classes (usually 70% of exercises 10 to 15 hours to be successfully completed) as well as regular attendance of exercises (a maximum of 2 incidents of absence). Contents This module introduces students to the fundamental principles of computational chemistry. Intended learning outcomes Students are able to explain the theoretical principles of computational chemistry and to apply methods in computational chemistry. Courses (type, number of weekly contact hours, language — if other than German) S + 0 (no information on SWS (weekly contact hours) and course language available) 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) written examination (approx. 90 minutes) Language of assessment: German or English Allocation of places Workload Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in						
Duration Module level Other prerequisites 1 semester graduate Admission prerequisite to assessment: successful completion of exercises ses in the respective classes (usually 70% of exercises 10 to 15 hours to be successfully completed) as well as regular attendance of exercises (a maximum of 2 incidents of absence). Contents This module introduces students to the fundamental principles of computational chemistry. Intended learning outcomes Students are able to explain the theoretical principles of computational chemistry and to apply methods in computational chemistry. Courses (type, number of weekly contact hours, language — if other than German) S + 0 (no information on SWS (weekly contact hours) and course language available) 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) written examination (approx. 90 minutes) Language of assessment: German or English Allocation of places	5					
1 semester graduate Admission prerequisite to assessment: successful completion of exercises in the respective classes (usually 70% of exercises 10 to 15 hours to be successfully completed) as well as regular attendance of exercises (a maximum of 2 incidents of absence). Contents This module introduces students to the fundamental principles of computational chemistry. Intended learning outcomes Students are able to explain the theoretical principles of computational chemistry and to apply methods in computational chemistry. Courses (type, number of weekly contact hours, language — if other than German) S + Û (no information on SWS (weekly contact hours) and course language available) 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) written examination (approx. 90 minutes) Language of assessment: German or English Additional information						
to be successfully completed) as well as regular attendance of exercises (a maximum of 2 incidents of absence). Contents This module introduces students to the fundamental principles of computational chemistry. Intended learning outcomes Students are able to explain the theoretical principles of computational chemistry and to apply methods in computational chemistry. Courses (type, number of weekly contact hours, language — if other than German) S + Ú (no information on SWS (weekly contact hours) and course language available) 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) written examination (approx. 90 minutes) Language of assessment: German or English Additional information				1		successful completion of exerci-
(a maximum of 2 incidents of absence). Contents This module introduces students to the fundamental principles of computational chemistry. Intended learning outcomes Students are able to explain the theoretical principles of computational chemistry and to apply methods in computational chemistry. Courses (type, number of weekly contact hours, language — if other than German) S + Ü (no information on SWS (weekly contact hours) and course language available) 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) written examination (approx. 90 minutes) Language of assessment: German or English Allocation of places Morkload Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in						·
Contents This module introduces students to the fundamental principles of computational chemistry. Intended learning outcomes Students are able to explain the theoretical principles of computational chemistry and to apply methods in computational chemistry. Courses (type, number of weekly contact hours, language — if other than German) S + Ü (no information on SWS (weekly contact hours) and course language available) 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) written examination (approx. 90 minutes) Language of assessment: German or English Allocation of places Morkload Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in				to be successfully c	ompleted) as well as	regular attendance of exercises
This module introduces students to the fundamental principles of computational chemistry. Intended learning outcomes Students are able to explain the theoretical principles of computational chemistry and to apply methods in computational chemistry. Courses (type, number of weekly contact hours, language — if other than German) S + Ü (no information on SWS (weekly contact hours) and course language available) 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) written examination (approx. 90 minutes) Language of assessment: German or English Allocation of places Additional information Workload Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in				(a maximum of 2 inc	cidents of absence).	
Intended learning outcomes Students are able to explain the theoretical principles of computational chemistry and to apply methods in com- putational chemistry. Courses (type, number of weekly contact hours, language — if other than German) S + Ü (no information on SWS (weekly contact hours) and course language available) Method of assessment (type, scope, language — if other than German, examination offered — if not every seme- ster, information on whether module can be chosen to earn a bonus) written examination (approx. 90 minutes) Language of assessment: German or English Allocation of places Additional information Workload Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in	Conter	nts				
Students are able to explain the theoretical principles of computational chemistry and to apply methods in com- putational chemistry. Courses (type, number of weekly contact hours, language — if other than German) S + Ü (no information on SWS (weekly contact hours) and course language available) Method of assessment (type, scope, language — if other than German, examination offered — if not every seme- ster, information on whether module can be chosen to earn a bonus) written examination (approx. 90 minutes) Language of assessment: German or English Allocation of places 	This m	odule i	ntroduces students to th	e fundamental princi	oles of computationa	al chemistry.
putational chemistry. Courses (type, number of weekly contact hours, language — if other than German) S + Ü (no information on SWS (weekly contact hours) and course language available) Method of assessment (type, scope, language — if other than German, examination offered — if not every seme- ster, information on whether module can be chosen to earn a bonus) written examination (approx. 90 minutes) Language of assessment: German or English Allocation of places Additional information Workload Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in	Intend	ed lear	ning outcomes			
S + Ü (no information on SWS (weekly contact hours) and course language available) Method of assessment (type, scope, language — if other than German, examination offered — if not every seme- ster, information on whether module can be chosen to earn a bonus) written examination (approx. 90 minutes) Language of assessment: German or English Allocation of places Additional information Workload Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in			-	etical principles of co	mputational chemis	try and to apply methods in com-
Method of assessment (type, scope, language — if other than German, examination offered — if not every seme- ster, information on whether module can be chosen to earn a bonus) written examination (approx. 90 minutes) Language of assessment: German or English Allocation of places 	Course	es (type	, number of weekly conta	act hours, language –	- if other than Germa	ın)
ster, information on whether module can be chosen to earn a bonus) written examination (approx. 90 minutes) Language of assessment: German or English Allocation of places Additional information Workload Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in	S + Ü (no info	rmation on SWS (weekly	contact hours) and co	ourse language avail	able)
Language of assessment: German or English Allocation of places Additional information Workload Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in						tion offered — if not every seme-
Additional information Workload Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in						
Workload Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in	Alloca	tion of j	olaces			
Workload Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in						
Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in	Additio	onal inf	ormation			
Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in						
Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in	Worklo	oad				
Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in						
	Teachi	ing cycl	e			
	Referre	ed to in	LPOI (examination regu	llations for teaching-	degree programmes)	
Master's degree (1 major) Chemistry (2013)	Modul	e appea	ars in			
	Master	r's degr	ee (1 major) Chemistry (2	.013)		

Master's with 1 major Chemistry (2013)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 69 / 74
	reg. data record Master (120 ECTS) Chemie - 2013	

Module	e title				Abbreviation
Programming in Theoretical Chemistry					08-TCM3-102-m01
Module	e coord	linator		Module offered by	
lecturer of lecture "Programmieren in Theoretischer Che-			in Theoretischer Che-	Institute of Physica	l and Theoretical Chemistry
mie"	-			,	,
ECTS		od of grading	Only after succ. con	npl. of module(s)	
5		rical grade			
	ouration Module level Other prerequisites				
1 seme	ester graduate				
Conten	Its				
		provides an introduct ation areas.	ion to the fundamentals o	of programming in th	neoretical chemistry and discus-
Intend	ed lear	ning outcomes			
		able to explain and u name its application a		ng languages typical	ly used in theoretical chemistry
Course	e s (type	, number of weekly c	ontact hours, language –	- if other than Germa	an)
S + Ü (I	no info	rmation on SWS (wee	ekly contact hours) and co	ourse language avail	lable)
			e, language — if other th Ile can be chosen to earn		ation offered — if not every seme-
		nd discussion of app assessment: German	rox. 5 programming exerc or English	ises as well as talk (approx. 45 minutes)
Allocat	ion of	places			
Additio	onal inf	ormation			
Worklo	ad				
Teachi	ng cycl	e			
Referre	ed to in	LPOI (examination	regulations for teaching-	degree programmes)	
Modul	e appea	ars in			
		ee (1 major) Chemist	ry (2013)		
	-	ee (1 major) Chemist	• -		
		ee (1 major) Chemist			
	-	ee (1 major) Mathem			
	-	ee (1 major) Mathem			
Master	's degr	ee (1 major) Computa	ational Mathematics (201	2)	

Modul	e title				Abbreviation	
Advanced chemical practical course					08-VPM-DA-132-m01	
Module coordinator				Module offered by		
head of the research group offering the module			e module	Faculty of Chemistr	y and Pharmacy	
ECTS Method of grading Only after suc			Only after succ. con	npl. of module(s)	· · ·	
2	(not)	successfully completed				
			Other prerequisites			
1 semester graduate						
Conter	nts					
		ives students the opport ne in question.	unity to explore a res	earch topic and app	ly the methods commonly used	
Intend	ed lear	ning outcomes				
	nts are a esentat		research topic and p	resent the results of	their work in a written report or	
Course	es (type	, number of weekly conta	ct hours, language –	- if other than Germa	n)	
P (no i	nformat	tion on SWS (weekly cont	act hours) and cours	e language available	2)	
		sessment (type, scope, la ion on whether module ca			tion offered — if not every seme-	
		(approx. 3 pages) ssessment: German, Eng	lish			
Allocat	tion of _l	olaces				
Additio	onal inf	ormation				
Worklo	bad					
	1					
Teachi	ng cycl	e				
Referre	ed to in	LPOI (examination regu	lations for teaching-	degree programmes)		
Modul	e appea	ars in				
		ee (1 major) Chemistry (2				
Master	r's degr	ee (1 major) Chemistry (2	014)			

Module	Module title Abbreviation					
Courses at the partner university					08-VPU-141-m01	
Module coordinator				Module offered by		
program	nme co	ordinator of the exchang	e programme	Faculty of Chemistry	y and Pharmacy	
ECTS		od of grading	Only after succ. com	pl. of module(s)		
30	(not) s	successfully completed		-		
Duratio	n	Module level	Other prerequisites			
2 seme	ster	graduate	Please consult with course advisory service.			
Conten	ts					
This mo	odule d	iscusses topics from the	curriculum of the par	tner university abroa	ad.	
Intende	ed learı	ning outcomes				
Studen sity.	ts have	e developed the knowled	ge and skills taught i	n the courses attend	ed by them at the partner univer-	
Course	s (type	, number of weekly conta	ct hours, language —	if other than Germa	n)	
V (no ir	format	ion on SWS (weekly cont	act hours) and cours	e language available	2)	
		s essment (type, scope, la on on whether module ca			tion offered — if not every seme-	
on (app examin of the a	orox. 90 ation in Issessr	o to 180 minutes) or b) or	al examination of one prox. 30 minutes); st	e candidate each (ap	sessment: a) written examinati- pprox. 20 to 30 minutes) or c) oral ned about the method and length	
Allocat	ion of p	olaces				
Additio	nal inf	ormation				
Worklo	ad					
Teaching cycle						
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)					
Module	e appea	irs in				
Master	's degr	ee (1 major) Chemistry (2	013)			
Master	Master's degree (1 major) Chemistry (2014)					

Module	e title				Abbreviation
Tutoring 1 (practical course) 08-WRM1-132-m01					08-WRM1-132-m01
Module coordinator Module offered by					<u> </u>
Dean o	f Studi	es Chemie (Chemistry)		Faculty of Chemistr	y and Pharmacy
ECTS		od of grading	Only after succ. com	ompl. of module(s)	
5	(not) s	successfully completed			
Duration Module level			Other prerequisites		
1 seme	ster	graduate	- ·		arch assistant contract for this
					ust accompany a different course
			than the exercise he	eld in module 08-WR	M2.
Conten					
		ives students the opport I Pharmacy and learn hov			ecture offered by the Faculty of an appropriate mapper
		ning outcomes	vio present una teue		
			earlier stages of their	r degrees and tailor t	heir teaching to those students'
Course	s (type	, number of weekly conta	ct hours, language –	- if other than Germa	n)
Ü (no ir	nforma	tion on SWS (weekly cont	act hours) and cours	e language available	2)
		sessment (type, scope, la ion on whether module ca			tion offered — if not every seme-
• •		f materials for demonstra ssessment: German or El	-	approx. 120 hours to	otal)
Allocat	ion of j	olaces			
Additio	onal inf	ormation			
Worklo	ad				
Teachi	ng cycl	e			
Referre	ed to in	LPOI (examination regu	lations for teaching-o	degree programmes)	
Module	e appea	ars in			
Master	's degr	ee (1 major) Chemistry (2	013)		
Master	's degr	ee (1 major) Chemistry (2	014)		

Master's with 1 major Chemistry (2013)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 73 / 74
	reg. data record Master (120 ECTS) Chemie - 2013	

Chemistry and Pharmacy a Intended learning outcom	Chemistry)		Module offered by	08-WRM2-132-m01
Dean of Studies Chemie (0 ECTS Method of grading 5 (not) successfully Duration Module level 1 semester graduate 1 semester graduate This module gives student Contents This module gives student Chemistry and Pharmacy a Intended learing outcom Students are able to teach Courses (type, number of type)			•	
ECTS Method of grading 5 (not) successfully Duration Module level 1 semester graduate Gontents This module gives student Contents This module gives student Chemistry and Pharmacy at Intended learning outcom Students are able to teach Courses (type, number of the stress)				
5 (not) successfully Duration Module level 1 semester graduate 1 semester graduate Contents graduate This module gives student Chemistry and Pharmacy at Intended learning outcom Students are able to teach needs. Courses (type, number of vertice) Students of vertice)	7		Faculty of Chemistr	y and Pharmacy
Duration Module level 1 semester graduate 1 semester graduate Contents fill This module gives student chemistry and Pharmacy at Intended learning outcom Students are able to teach needs. Courses (type, number of vertice) fill)	Only after succ. com	pl. of module(s)	
1 semester graduate Contents This module gives student Chemistry and Pharmacy a Intended learning outcom Students are able to teach needs. Courses (type, number of v	completed			
Contents This module gives student Chemistry and Pharmacy a Intended learning outcom Students are able to teach needs. Courses (type, number of the state of the	el	Other prerequisites		
This module gives student Chemistry and Pharmacy a Intended learning outcom Students are able to teach needs. Courses (type, number of v				arch assistant contract for this
This module gives student Chemistry and Pharmacy a Intended learning outcom Students are able to teach needs. Courses (type, number of v				ust accompany a different course
This module gives student Chemistry and Pharmacy a Intended learning outcom Students are able to teach needs. Courses (type, number of v		than the exercise hel	ld in module o8-WR	M1.
Chemistry and Pharmacy a Intended learning outcom Students are able to teach needs. Courses (type, number of v				
Students are able to teach needs. Courses (type, number of v				ecture offered by the Faculty of an appropriate manner.
needs. Courses (type, number of v	es			
	students in	earlier stages of their	degrees and tailor t	heir teaching to those students'
Ü (no information on SWS	weekly conta	ict hours, language —	if other than Germa	n)
	(weekly cont	tact hours) and course	e language available	2)
Method of assessment (ty ster, information on wheth				tion offered — if not every seme-
preparation of materials for Language of assessment:		-	approx. 120 hours to	tal)
Allocation of places				
Additional information				
Workload				
Teaching cycle				
Referred to in LPO I (exam		lations for teaching-d	egree programmes)	
``	nination regu	inditions for icacining a		
Module appears in	ination regu		<u> </u>	
Master's degree (1 major)	nination regu		<u> </u>	
Master's degree (1 major)				