

Module Catalogue for the Subject

FOKUS Chemistry

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

Examination regulations version: 2016 Responsible: Faculty of Chemistry and Pharmacy

JMU Würzburg • generated 19-Apr-2025 • exam. reg. data record 88|f78|-|-|H|2016



Contents

The subject is divided into	3
Content and Objectives of the Programme	4
Abbreviations used. Conventions, Notes, In accordance with	5
Compulsory Courses "Additional Qualifications"	6
Advanced discussion of hot tonics in contemporary chemical research	7
Latest topics of current chemical research	8
Compulsory Electives	9
Subfield Inorganic Chemistry	10
Research oriented inorganic chemistry	10
Research oriented practical course in inorganic chemistry	12
Subfield Organic Chemistry	13
Research oriented organic chemistry	14
Research oriented practical course in organic chemistry	15
Subfield Physical Chemistry	16
Research oriented physical chemistry	17
Research oriented practical course in physical chemistry	18
Subfield Biochemistry	19
Research oriented biochemistry	20
Research oriented practical course in biochemistry	21
Subfield Functional Materials	22
Research oriented course in functional materials	23
Research oriented practical course in functional materials	24
Subfield Homogeneous Catalysis	25
Research oriented course in homogeneous catalysis	26
Research oriented practical course in homogeneous catalysis	27
Subfield Medicinal Chemistry	28
Research oriented pharmaceutical/medicinal chemistry	29
Research oriented practical course in pharmaceutical/medicinal chemistry	30
Subfield Supramolecular Chemistry	31
Research oriented supramolecular chemistry	32
Research oriented practical course in supramolecular chemistry	33
Subfield Theoretical Chemistry	34
Research oriented theoretical chemistry	35
Research oriented practical course in theoretical chemistry	36
Subfield Additional Skills	37
Advanced FOKUS Foreign Studies	38
Advanced FOKUS Industrial work experience	39
Auvanceu FURUS research lab course	40
IIIESIS Maataa Thaain FOKUS Chamintan	41
Master-Inesis FUKUS Chemistry	42



The subject is divided into

section / sub-section	ECTS credits	starting page
Compulsory Courses "Additional Qualifications"	10	6
Compulsory Electives	80	9
Subfield Inorganic Chemistry	20	10
Subfield Organic Chemistry	20	13
Subfield Physical Chemistry	20	16
Subfield Biochemistry	20	19
Subfield Functional Materials	20	22
Subfield Homogeneous Catalysis	20	25
Subfield Medicinal Chemistry	20	28
Subfield Supramolecular Chemistry	20	31
Subfield Theoretical Chemistry	20	34
Subfield Additional Skills	20	37
Thesis	30	41

Master's with 1 major FOKUS Chemistry (2016)	JMU Würzburg • generated 19-Apr-2025 • exam. reg.	page 3 / 42
	data record Master (120 ECTS) FOKUS Chemie - 2016	

Content and Objectives of the Programme

The Master's program in FOKUS 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 FOKUS Chemistry (2016)	JMU Würzburg • generated 19-Apr-2025 • exam. reg.	
	data record Master (120 ECTS) FOKUS Chemie - 2016	

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:

ASPO2015

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

15-Dec-2015 (2015-258)

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.



Compulsory Courses "Additional Qualifications"

Master's with 1 major FOKUS Chemistry (2016)	JMU Würzburg • generated 19-Apr-2025 • exam. reg.	page 6 / 42
	data record Master (120 ECTS) FOKUS Chemie - 2016	

Module title			Abbreviation		
Advanced discussion of hot topics in contemporary chemical research		al research	08-FOM-HOT-161-m01		
Module	coord	inator		Module offered by	
degree	progra	mme coordinator FOKUS	Chemie (Chemistry)	Faculty of Chemistr	y and Pharmacy
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)	
5	(not) s	successfully completed			
Duratio	n	Module level	Other prerequisites		
1 semes	ster	graduate			
Conten	ts				
This mo sentatio	odule g on on t	ives students the opport hat topic that is tailored t	unity to explore a hot to their audience as v	topic in chemical re vell as to engage in o	search in depth, deliver a pre- discussion of that topic.
Intende	ed learr	ning outcomes			
Studen view rel audiend	ts have levant ce.	e developed the ability to literature as well as to pro	explore hot topics in epare and deliver pre	chemical research, sentations on those	gather information, find and re- topics that are tailored to their
Courses	S (type, n	umber of weekly contact hours, l	anguage — if other than Ger	man)	
S (2)					
Method module is	l of ass creditab	e ssment (type, scope, langua) le for bonus)	ge — if other than German, e	examination offered — if no	t every semester, information on whether
talk (ap Langua	prox. 1 ge of a	5 minutes) with discussions of the set of th	on (approx. 15 minute /or English	es)	
Allocati	ion of p	olaces	-		
Additio	nal info	ormation			
Worklo	ad				
150 h					
Teaching cycle					
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)				
Module	Module appears in				
Master's degree (1 major) FOKUS Chemistry (2016)					

Module title			Abbreviation		
Latest topics of current chemical research		08-FOM-TOP-161-m01			
Module	coord	inator		Module offered by	
degree	progra	mme coordinator FOKUS	Chemie (Chemistry)	Faculty of Chemistry	y and Pharmacy
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)	
5	(not) s	successfully completed			
Duratio	n	Module level	Other prerequisites		
1 semes	ster	graduate			
Conten	ts				
This mo present	dule g ation c	ives students the opportion that issue that is tailor	unity to explore a top red to their audience	ical issue in chemica as well as to engage	al research in depth, deliver a in discussion of that issue.
Intende	ed learr	ning outcomes			
Studen ons on	ts have what th	e developed the ability to ney have read that are tai	read and understand lored to their audien	l scientific literature ce.	as well as to deliver presentati-
Courses	5 (type, n	umber of weekly contact hours, l	anguage — if other than Ger	man)	
S (2)					
Method module is	l of ass creditab	e ssment (type, scope, langua le for bonus)	ge — if other than German, e	examination offered — if no	t every semester, information on whether
talk (ap Langua	prox. 1 ge of a	5 minutes) with discussions seessment: German and/	on (approx. 15 minute /or English	25)	
Allocati	ion of p	olaces			
Additio	nal info	ormation			
Worklo	ad				
150 h					
Teaching cycle					
Referred to in LPO I (examination regulations for teaching-degree programmes)					
Module appears in					
Master's degree (1 major) FOKUS Chemistry (2016)					



Compulsory Electives

(80 ECTS credits)

Students must successfully complete all modules of a total of four sub-areas worth 20 ECTS credits each; provisions on available combinations are set out in Section 3 Subsection 2 FSB (subject-specific provisions).



Subfield Inorganic Chemistry

Master's with 1 major FOKUS Chemistry (2016)	JMU Würzburg • generated 19-Apr-2025 • exam. reg.
	data record Master (120 ECTS) FOKUS Chemie - 2016

Module title				Abbreviation	
Research oriented inorganic chemistry			08-ACFM1-161-m01		
Module	coord	inator		Module offered by	
focus p	oint co	ordinator "Inorganic Che	mistry"	Institute of Inorgan	ic Chemistry
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)	
12	nume	rical grade			
Duratio	n	Module level	Other prerequisites		
1-2 sem	nester	graduate			
Conten	ts				
Three s	elected	l research-based courses	exploring advanced	topics in inorganic o	chemistry.
Intende	ed learn	ning outcomes			
Student to situa	ts are a te the t	ble to explain and analy topics covered in differer	se selected research- nt courses within a br	oriented topics in in oader context.	organic chemistry. They are able
Courses	S (type, n	umber of weekly contact hours, l	anguage — if other than Ger	man)	
S (3) + 9	S (3) + 1	S (3)			
Method module is	d of ass creditab	e ssment (type, scope, langua le for bonus)	ge — if other than German, e	examination offered — if no	t every semester, information on whether
oral exa Langua	aminati ge of a	on of one candidate eac ssessment: German and	h (approx. 45 minutes /or English	5)	
Allocati	ion of p	olaces			
Additio	nal info	ormation			
Worklo	ad				
360 h					
Teaching cycle					
Referred to in LPO I (examination regulations for teaching-degree programmes)					
Module appears in					
Master'	's degre	ee (1 major) FOKUS Chem	istry (2016)		

Module title				Abbreviation	
Research oriented practical course in inorganic chemistry			08-ACFM2-161-m01		
Module coordinator				Module offered by	
focus p	oint co	ordinator "Inorganic Che	mistry"	Institute of Inorgani	ic Chemistry
ECTS	Metho	od of grading	Only after succ. com	npl. of module(s)	
8	(not) s	successfully completed			
Duratio	n	Module level	Other prerequisites		
1 seme	ster	graduate			
Conten	ts				
This mo thods in tral ana a lab re	odule g n inorg Ilysis a port do	ives students the opport anic chemistry. The focus nd crystallography. Stude ocumenting their findings	unity to enhance thei will be on working u ents will be expected and deliver a preser	r skills in advanced a nder inert atmosphe to conduct their wor ntation.	synthesis and analytical me- eres, purification methods, spec- rk in the lab independently, write
Intende	ed learr	ning outcomes			
Studen terpret	ts are a their fi	able to use advanced syn ndings. They are able to v	thesis and analytical vrite a lab report doc	methods in inorgan umenting their findir	ic chemistry in the lab and to in- ngs and deliver a presentation.
Course	S (type, n	umber of weekly contact hours, l	anguage — if other than Ger	man)	
P (10)					
Methoo module is	d of ass creditab	essment (type, scope, langua le for bonus)	ge — if other than German, e	examination offered — if no	t every semester, information on whether
report o Langua	on prac ge of a	tical course (approx. 40 p ssessment: German and,	bages) and talk inclue or English	ding discussion (app	prox. 30 minutes)
Allocat	ion of p	olaces			
Additional information					
Additional information on module duration: block placement with a duration of approx. 40 working days. At student's option, the placement may be divided up into two individual placements with a duration of approx. 20 working days each. If the placement is divided up into two individual placements, students will be required to prepare a placement report (approx. 15 pages) and deliver a talk (including discussion, approx. 10 minutes) for each of the placements.					
Worklo	ad				
240 h					
Teaching cycle					
Referred to in LPO I (examination regulations for teaching-degree programmes)					
Module appears in					
Master	's degre	ee (1 major) FOKUS Chem	istry (2016)		



Subfield Organic Chemistry

Master's with 1 major FOKUS Chemistry (2016)	JMU Würzburg • generated 19-Apr-2025 • exam. reg.	Γ
	data record Master (120 ECTS) FOKUS Chemie - 2016	

Module title			Abbreviation		
Research oriented organic chemistry			08-0CFM1-161-m01		
Module	coord	inator		Module offered by	
focus p	oint co	ordinator "Organic Chem	istry"	Institute of Organic	Chemistry
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)	
12	nume	rical grade			
Duratio	n	Module level	Other prerequisites		
1-2 sem	nester	graduate			
Conten	ts				
Three s	elected	l research-based courses	exploring advanced	topics in organic ch	emistry.
Intende	ed learn	ning outcomes			
Studen situate	ts are a the top	ble to explain and analy vics covered in different c	se selected research- courses within a broa	oriented topics in or der context.	rganic chemistry. They are able to
Course	S (type, n	umber of weekly contact hours, l	anguage — if other than Ger	man)	
S (3) + 9	S (3) +	S (3)			
Methoo module is	d of ass creditab	essment (type, scope, langua le for bonus)	ge — if other than German, e	examination offered — if no	t every semester, information on whether
oral exa Langua	aminati ge of a	on of one candidate eac ssessment: German and,	h (approx. 45 minutes /or English	5)	
Allocat	ion of p	olaces			
Additio	nal info	ormation			
Worklo	ad				
360 h					
Teaching cycle					
Referred to in LPO I (examination regulations for teaching-degree programmes)					
Module appears in					
Master's degree (1 major) FOKUS Chemistry (2016)					

Module title			Abbreviation			
Researe	ch orie	nted practical course in c	organic chemistry		08-0CFM2-161-m01	
Module	coord	inator		Module offered by		
focus p	oint co	ordinator "Organic Chem	istry"	Institute of Organic	Chemistry	
ECTS	Metho	od of grading	Only after succ. com	npl. of module(s)		
8	(not) s	successfully completed				
Duratio	n	Module level	Other prerequisites			
1 semes	ster	graduate				
Conten	ts					
This mo thods in report c	odule g n orgar docume	ives students the opport nic chemistry. Students w enting their findings and	unity to enhance thei ill be expected to con deliver a presentation	r skills in advanced : nduct their work in th n.	synthesis and analytical me- ne lab independently, write a lab	
Intende	ed leari	ning outcomes				
Studen pret the	ts are a eir findi	able to use advanced syn ings. They are able to writ	thesis and analytical te a lab report docum	methods in organic ienting their findings	chemistry in the lab and to inter- and deliver a presentation.	
Courses	S (type, n	umber of weekly contact hours, l	anguage — if other than Ger	man)		
P (10)						
Method module is	l of ass creditab	s essment (type, scope, langua le for bonus)	ge — if other than German, e	examination offered — if no	t every semester, information on whether	
report c Langua	on prac ge of a	tical course (approx. 40 p ssessment: German and/	bages) and talk inclue or English	ding discussion (app	prox. 30 minutes)	
Allocati	ion of p	olaces				
Additio	nal inf	ormation				
Additional information on module duration: block placement with a duration of approx. 40 working days. At student's option, the placement may be divided up into two individual placements with a duration of approx. 20 working days each. If the placement is divided up into two individual placements, students will be required to prepare a placement report (approx. 15 pages) and deliver a talk (including discussion, approx. 10 minutes) for each of the placements.						
Workload						
240 h						
Teachir	Teaching cycle					
Referred to in LPO I (examination regulations for teaching-degree programmes)						
Module	Module appears in					
Master'	s degr	ee (1 major) FOKUS Chem	istry (2016)			



Subfield Physical Chemistry

Master's with 1 major FOKUS Chemistry (2016)	JMU Würzburg • generated 19-Apr-2025 • exam. reg.
	data record Master (120 ECTS) FOKUS Chemie - 2016

Module title Abbreviation					
Resear	ch orie	nted physical chemistry		08-PCFM1-161-m01	
Module	coord	inator		Module offered by	
focus p	oint co	ordinator "Physical Chen	nistry"	Institute of Physica	l and Theoretical Chemistry
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)	
12	nume	rical grade			
Duratio	n	Module level	Other prerequisites		
1-2 sem	nester	graduate			
Conten	ts				
Three s	elected	l research-based courses	exploring advanced	topics in physical cl	nemistry.
Intende	ed learr	ning outcomes			
Studen to situa	ts are a ite the f	able to explain and analy topics covered in differer	se selected research- nt courses within a br	oriented topics in pl oader context.	nysical chemistry. They are able
Course	S (type, n	umber of weekly contact hours, l	anguage — if other than Ger	man)	
S (3) + 9	S (3) +	S (3)			
Methoo module is	d of ass creditab	s essment (type, scope, langua le for bonus)	ge — if other than German, e	examination offered — if no	t every semester, information on whether
oral exa Langua	aminati ge of a	on of one candidate eac ssessment: German and,	h (approx. 45 minutes /or English	5)	
Allocat	ion of p	olaces			
Additio	nal info	ormation			
Worklo	ad				
360 h					
Teaching cycle					
Referred to in LPO I (examination regulations for teaching-degree programmes)					
Module	e appea	in and the second se			
Master'	's degre	ee (1 major) FOKUS Chem	istry (2016)		

Module title			Abbreviation		
Resear	ch orie	nted practical course in p	physical chemistry		08-PCFM2-161-m01
Module	coord	inator		Module offered by	
focus p	oint co	ordinator "Physical Chem	nistry"	Institute of Physical	l and Theoretical Chemistry
ECTS	Metho	od of grading	Only after succ. com	npl. of module(s)	
8	(not) s	successfully completed			
Duratio	n	Module level	Other prerequisites		
1 semes	ster	graduate			
Conten	ts				
This mo sical ch cument	odule g emistr	ives students the opport y. Students will be expec ir findings and deliver a J	unity to enhance thei ted to conduct their v presentation.	r skills in advanced t work in the lab indep	techniques and methods in phy- endently, write a lab report do-
Intende	ed learr	ning outcomes			
Studen to write	ts are a a lab r	ble to use advanced tech eport documenting their	nniques in physical c findings and deliver	hemistry and to inter a presentation.	rpret their findings. They are able
Courses	S (type, n	umber of weekly contact hours, la	anguage — if other than Ger	rman)	
P (10)					
Method module is	l of ass creditab	s essment (type, scope, languag le for bonus)	ge — if other than German, e	examination offered — if no	t every semester, information on whether
report c Langua	on prac ge of a	tical course (approx. 40 p ssessment: German and/	bages) and talk inclue or English	ding discussion (app	prox. 30 minutes)
Allocati	ion of p	olaces			
Additio	nal info	ormation			
Additional information on module duration: block placement with a duration of approx. 40 working days. At student's option, the placement may be divided up into two individual placements with a duration of approx. 20 working days each. If the placement is divided up into two individual placements, students will be required to prepare a placement report (approx. 15 pages) and deliver a talk (including discussion, approx. 10 minutes) for each of the placements.					
Workload					
240 h					
Teaching cycle					
Referred to in LPO I (examination regulations for teaching-degree programmes)					
Module	Module appears in				
Master'	s degre	ee (1 major) FOKUS Chem	istry (2016)		



Subfield Biochemistry

Master's with 1 major FOKUS Chemistry (2016)	JMU Würzt
	data recor

Module title Abbreviat					Abbreviation	
Research oriented biochemistry					08-BCFM1-161-m01	
Module	e coord	inator		Module offered by		
focus p	oint co	ordinator "Biochemistry"		Chair of Biochemist	ry	
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)		
12	nume	rical grade				
Duratio	on	Module level	Other prerequisites			
1-2 sem	nester	graduate				
Conten	ts					
Three s	elected	l research-based courses	exploring advanced	topics in biochemist	try.	
Intende	ed learr	ning outcomes				
Studen tuate th	ts are a ne topio	able to explain and analy as covered in different co	se selected research- urses within a broade	oriented topics in bi er context.	ochemistry. They are able to si-	
Course	S (type, n	umber of weekly contact hours, l	anguage — if other than Ger	man)		
S (3) + 3	S (3) +	S (3)				
Methoo module is	d of ass creditab	s essment (type, scope, langua le for bonus)	ge — if other than German, e	examination offered — if no	t every semester, information on whether	
oral exa Langua	aminati ge of a	on of one candidate each ssessment: German and,	h (approx. 45 minutes /or English	5)		
Allocat	ion of p	olaces				
Additio	nal info	ormation				
Workload						
360 h	360 h					
Teaching cycle						
Referred to in LPO I (examination regulations for teaching-degree programmes)						
Module	e appea	in and the second se				
Master	Master's degree (1 major) FOKUS Chemistry (2016)					

Module title			Abbreviation			
Researe	Research oriented practical course in biochemistry			08-BCFM2-161-m01		
Module	coord	inator		Module offered by		
focus p	oint co	ordinator "Biochemistry"		Chair of Biochemist	ry	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
8	(not) s	successfully completed				
Duratio	n	Module level	Other prerequisites			
1 semes	ster	graduate				
Conten	ts					
This mo thods in port do	odule g n bioch cumen	ives students the opportu iemistry. Students will be ting their findings and de	unity to enhance thei expected to conduc liver a presentation.	r skills in advanced s t their work in the lab	synthesis and analytical me- o independently, write a lab re-	
Intende	ed leari	ning outcomes				
Studen their fin	ts are a idings.	able to use advanced syn They are able to write a l	thesis and analytical ab report documenti	methods in biochen ng their findings and	nistry in the lab and to interpret deliver a presentation.	
Courses	5 (type, n	umber of weekly contact hours, la	anguage — if other than Ger	rman)		
P (10)						
Method module is	l of ass creditab	s essment (type, scope, languag le for bonus)	ge — if other than German, o	examination offered — if no	t every semester, information on whether	
report c Langua	on prac ge of a	tical course (approx. 40 p ssessment: German and/	bages) and talk inclu or English	ding discussion (app	orox. 30 minutes)	
Allocati	ion of p	olaces				
Additio	nal inf	ormation				
Additional information on module duration: block placement with a duration of approx. 40 working days. At student's option, the placement may be divided up into two individual placements with a duration of approx. 20 working days each. If the placement is divided up into two individual placements, students will be required to prepare a placement report (approx. 15 pages) and deliver a talk (including discussion, approx. 10 minutes) for each of the placements.						
Worklo	ad					
240 h						
Teachir	Teaching cycle					
Referred to in LPO I (examination regulations for teaching-degree programmes)						
Module	Module appears in					
Master'	s degr	ee (1 major) FOKUS Chem	istry (2016)			



Subfield Functional Materials

Master's with 1 major FOKUS Chemistry (2016)	JMU Würzburg • generated 19-Apr-2025 • exam. reg.	
	data record Master (120 ECTS) FOKUS Chemie - 2016	1

Module title Abbreviation					Abbreviation
Research oriented course in functional materials					08-FMFM1-161-m01
Module	coord	inator		Module offered by	
focus p	oint co	ordinator "Functional Ma	iterials"	Chair of Chemical T	echnology of Material Synthesis
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)	
12	nume	rical grade			
Duratio	n	Module level	Other prerequisites		
1-2 sem	nester	graduate			
Conten	ts				
Three s	elected	l research-based courses	exploring advanced	topics in functional	materials.
Intende	ed learr	ning outcomes			
Studen to situa	ts are a ite the f	ble to explain and analy topics covered in differer	se selected research- nt courses within a br	oriented topics in fu oader context.	nctional materials. They are able
Course	S (type, n	umber of weekly contact hours, l	anguage — if other than Ger	man)	
S (3) + 9	S (3) + 2	S (3)			
Methoo module is	d of ass creditab	essment (type, scope, langua le for bonus)	ge — if other than German, e	examination offered — if no	t every semester, information on whether
oral exa Langua	aminati ge of a	on of one candidate eac ssessment: German and,	h (approx. 45 minutes /or English	5)	
Allocat	ion of p	olaces			
Additio	nal info	ormation			
Worklo	ad				
360 h					
Teaching cycle					
Referred to in LPO I (examination regulations for teaching-degree programmes)					
Module	e appea	rs in			
Master'	's degre	ee (1 major) FOKUS Chem	istry (2016)		

Module title					Abbreviation
Resear	ch orie	nted practical course in f		08-FMFM2-161-m01	
Module	e coord	inator		Module offered by	
focus p	oint co	ordinator "Functional Ma	terials"	Chair of Chemical T	echnology of Material Synthesis
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
8	(not) s	successfully completed			
Duratio	n	Module level	Other prerequisites		
1 seme	ster	graduate			
Conten	ts				
This mo thods in lab repo	odule g n funct ort doc	ives students the opport ional materials. Students umenting their findings a	unity to enhance thei will be expected to o and deliver a presenta	r skills in advanced s conduct their work in ation.	synthesis and analytical me- 1 the lab independently, write a
Intende	ed leari	ning outcomes			
Studen pret the	ts are a eir findi	able to use advanced syn ings. They are able to writ	thesis and analytical te a lab report docum	methods in materia nenting their findings	ls science in the lab and to inter- and deliver a presentation.
Course	S (type, n	umber of weekly contact hours, l	anguage — if other than Ger	rman)	
P (10)					
Methoc module is	d of ass creditab	essment (type, scope, langua le for bonus)	ge — if other than German, o	examination offered — if no	t every semester, information on whether
report o Langua	on prac ge of a	tical course (approx. 40 p ssessment: German and/	bages) and talk inclu /or English	ding discussion (app	orox. 30 minutes)
Allocat	ion of p	olaces			
Additio	nal inf	ormation			
Additional information on module duration: block placement with a duration of approx. 40 working days. At student's option, the placement may be divided up into two individual placements with a duration of approx. 20 working days each. If the placement is divided up into two individual placements, students will be required to prepare a placement report (approx. 15 pages) and deliver a talk (including discussion, approx. 10 minutes) for each of the placements.					
Workload					
240 h					
Teaching cycle					
Referred to in LPO I (examination regulations for teaching-degree programmes)					
Module	e appea	ars in			
Master'	's degr	ee (1 major) FOKUS Chem	istry (2016)		



Subfield Homogeneous Catalysis

Master's with 1 major FOKUS Chemistry (2016)	
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Module	Module title Abbreviation					
Research oriented course in homogeneous catalysis 08-HKFM1-161-m01						
Module	coord	inator		Module offered by		
focus p	oint co	ordinator "Homogeneous	s Catalysis"	Faculty of Chemistr	y and Pharmacy	
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)		
12	nume	rical grade				
Duratio	n	Module level	Other prerequisites			
1-2 sem	nester	graduate				
Conten	ts					
Three s	elected	l research-based courses	exploring advanced	topics in homogene	ous catalysis.	
Intende	ed learr	ning outcomes				
Studen able to	ts are a situate	ble to explain and analy the topics covered in dif	se selected research- fferent courses withir	oriented topics in ho a broader context.	omogeneous catalysis. They are	
Course	S (type, n	umber of weekly contact hours, l	anguage — if other than Ger	man)		
S (3) + 5	S (3) + 2	S (3)				
Methoo module is	l of ass creditab	s essment (type, scope, langua le for bonus)	ge — if other than German, e	examination offered — if no	t every semester, information on whether	
oral exa Langua	aminati ge of a	on of one candidate eacl ssessment: German and,	h (approx. 45 minute: /or English	5)		
Allocat	ion of p	olaces				
Additio	nal inf	ormation				
Worklo	ad					
360 h						
Teaching cycle						
Referred to in LPO I (examination regulations for teaching-degree programmes)						
Module	e appea	in and the second se				
Master	's degre	ee (1 major) FOKUS Chem	istry (2016)			

Module	Module title			Abbreviation	
Resear	ch orie	nted practical course in h	nomogeneous cataly	sis	08-HKFM2-161-m01
Module	coord	inator		Module offered by	
focus p	oint co	ordinator "Homogeneous	s Catalysis"	Faculty of Chemistr	y and Pharmacy
ECTS	Metho	od of grading	Only after succ. com	npl. of module(s)	
8	(not) s	successfully completed			
Duratio	n	Module level	Other prerequisites		
1 semes	ster	graduate			
Conten	ts				
This mo thods ir a lab re	odule g n homo port do	ives students the opport ogeneous catalysis. Stude ocumenting their findings	unity to enhance thei ents will be expected and deliver a preser	r skills in advanced to conduct their wo ntation.	synthesis and analytical me- rk in the lab independently, write
Intende	ed leari	ning outcomes			
Studen interpre	ts are a et their	able to use advanced syn findings. They are able to	thesis and analytical o write a lab report do	methods in homoge ocumenting their find	eneous catalysis in the lab and to dings and deliver a presentation.
Courses	5 (type, n	umber of weekly contact hours, l	anguage — if other than Ger	rman)	
P (10)					
Method module is	l of ass creditab	s essment (type, scope, langua ₎ le for bonus)	ge — if other than German, e	examination offered — if no	t every semester, information on whether
report c Langua	on prac ge of a	tical course (approx. 40 p ssessment: German and/	bages) and talk inclue or English	ding discussion (app	orox. 30 minutes)
Allocati	ion of p	olaces			
Additio	nal inf	ormation			
Additional information on module duration: block placement with a duration of approx. 40 working days. At student's option, the placement may be divided up into two individual placements with a duration of approx. 20 working days each. If the placement is divided up into two individual placements, students will be required to prepare a placement report (approx. 15 pages) and deliver a talk (including discussion, approx. 10 minutes) for each of the placements.					
Worklo	ad				
240 h					
Teaching cycle					
Referred to in LPO I (examination regulations for teaching-degree programmes)					
Module	appea	irs in			
Master'	s degr	ee (1 major) FOKUS Chem	istry (2016)		



Subfield Medicinal Chemistry

Master's with 1 major FOKUS Chemistry (2016)	JMU Würzburg • generated 19-Apr-2025 • exam. reg.
	data record Master (120 ECTS) FOKUS Chemie - 2016

Module title					Abbreviation	
Research oriented pharmaceutical/medicinal chemistry					08-MCFM1-161-m01	
Module	e coord	inator		Module offered by		
focus p	oint co	ordinator "Medicinal Che	emistry"	Institute of Pharma	cy and Food Chemistry	
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)		
12	nume	rical grade				
Duratio	n	Module level	Other prerequisites			
1-2 sem	nester	graduate				
Conten	ts					
Three s	elected	l research-based courses	exploring advanced	topics in medicinal	chemistry.	
Intende	ed learn	ning outcomes				
Studen to situa	ts are a ite the	ble to explain and analy topics covered in differer	se selected research- nt courses within a br	oriented topics in m oader context.	edicinal chemistry. They are able	
Course	S (type, n	umber of weekly contact hours, l	anguage — if other than Ger	man)		
S (3) + 9	S (3) +	S (3)				
Methoo module is	d of ass creditab	s essment (type, scope, langua le for bonus)	ge — if other than German, e	examination offered — if no	t every semester, information on whether	
oral exa Langua	aminati ge of a	on of one candidate eac ssessment: German and,	h (approx. 45 minutes /or English	5)		
Allocat	ion of p	olaces				
Additio	nal inf	ormation				
Worklo	ad					
360 h						
Teachir	Teaching cycle					
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)					
Module	e appea	in in				
Master'	's degr	ee (1 major) FOKUS Chem	istry (2016)			

Module title					Abbreviation
Researe	ch orie	nted practical course in p	oharmaceutical/medi	cinal chemistry	08-MCFM2-161-m01
Module	coord	inator		Module offered by	
focus p	oint co	ordinator "Medicinal Che	mistry"	Institute of Pharma	cy and Food Chemistry
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)	
8	(not) s	successfully completed			
Duratio	n	Module level	Other prerequisites		
1 semes	ster	graduate			
Conten	ts				
This mo dicinal cument	odule g chemis ing the	ives students the opport stry. Students will be exp ir findings and deliver a	unity to enhance thei ected to conduct thei presentation.	r skills in advanced r work in the lab ind	techniques and methods in me- ependently, write a lab report do-
Intende	ed leari	ning outcomes			
Studen le to wr	ts are a ite a la	able to use advanced tech b report documenting the	nniques in medicinal eir findings and delive	chemistry and to int er a presentation.	erpret their findings. They are ab-
Courses	S (type, n	umber of weekly contact hours, l	anguage — if other than Ger	man)	
P (10)					
Method module is	l of ass creditab	s essment (type, scope, langua le for bonus)	ge — if other than German, e	examination offered — if no	t every semester, information on whether
report c Langua	on prac ge of a	tical course (approx. 40 p ssessment: German and/	bages) and talk inclue or English	ding discussion (app	orox. 30 minutes)
Allocati	ion of p	olaces			
Additio	nal inf	ormation			
Additional information on module duration: block placement with a duration of approx. 40 working days. At student's option, the placement may be divided up into two individual placements with a duration of approx. 20 working days each. If the placement is divided up into two individual placements, students will be required to prepare a placement report (approx. 15 pages) and deliver a talk (including discussion, approx. 10 minutes) for each of the placements.					
Worklo	ad				
240 h					
Teachir	ng cycl	e			
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)				
Module	appea	in and the second se			
Master'	s degr	ee (1 major) FOKUS Chem	istry (2016)		



Subfield Supramolecular Chemistry

Master's with 1 major FOKUS Chemistry (2016)	JMU Würzburg • generated 19-Apr-2025 • exam. reg.	page 31 / 42
	data record Master (120 ECTS) FOKUS Chemie - 2016	

Module title A					Abbreviation	
Research oriented supramolecular chemistry					08-SCFM1-161-m01	
Module	coord	inator		Module offered by		
focus p	oint co	ordinator "Supramolecul	ar Chemistry"	Faculty of Chemistr	y and Pharmacy	
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)		
12	nume	rical grade				
Duratio	n	Module level	Other prerequisites			
1-2 sem	nester	graduate				
Conten	ts					
Three s	elected	l research-based courses	exploring advanced	topics in supramole	cular chemistry.	
Intende	ed learr	ning outcomes				
Studen are able	ts are a e to siti	ble to explain and analy uate the topics covered in	se selected research- n different courses wi	oriented topics in su thin a broader conte	upramolecular chemistry. They ext.	
Course	S (type, n	umber of weekly contact hours, l	anguage — if other than Ger	man)		
S (3) + 9	S (3) + 2	S (3)				
Methoo module is	d of ass creditab	e essment (type, scope, langua le for bonus)	ge — if other than German, e	examination offered — if no	t every semester, information on whether	
oral exa Langua	aminati ge of a	on of one candidate eac ssessment: German and,	h (approx. 45 minutes /or English	5)		
Allocat	ion of p	olaces				
Additio	nal inf	ormation				
Worklo	ad					
360 h						
Teaching cycle						
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)					
Module	e appea	in and the second se				
Master'	Master's degree (1 major) FOKUS Chemistry (2016)					

Module title			Abbreviation		
Research oriented practical course in supramolecular chemistry			08-SCFM2-161-m01		
Module coordinator Module off			Module offered by		
focus point coordinator "Supramolecular Chemistry"			ar Chemistry"	Faculty of Chemistry	y and Pharmacy
ECTS	Metho	od of grading	Only after succ. com	npl. of module(s)	
8	(not) s	successfully completed			
Duratio	n	Module level	Other prerequisites		
1 seme	ster	graduate			
Conten	ts				
This mo thods in write a	odule g n supra lab rep	ives students the opport molecular chemistry. Stu ort documenting their fin	unity to enhance thei Idents will be expect dings and deliver a p	r skills in advanced ed to conduct their w presentation.	synthesis and analytical me- vork in the lab independently,
Intende	ed learr	ning outcomes			
Studen to inter on.	ts are a pret the	ble to use advanced syn eir findings. They are able	thesis and analytical e to write a lab report	methods in supram documenting their f	olecular chemistry in the lab and indings and deliver a presentati-
Course	S (type, n	umber of weekly contact hours, l	anguage — if other than Ger	man)	
P (10)					
Method	l of ass	essment (type, scope, langua;	ge — if other than German, e	examination offered — if no	t every semester, information on whether
module is	creditab	le for bonus)	N 17 11 1 1		• • >
report o Langua	on prac ge of a	tical course (approx. 40 p ssessment: German and/	oages) and talk inclue or English	aing discussion (app	orox. 30 minutes)
Allocat	ion of p	olaces			
Additio	nal info	ormation			
Additional information on module duration: block placement with a duration of approx. 40 working days. At student's option, the placement may be divided up into two individual placements with a duration of approx. 20 working days each. If the placement is divided up into two individual placements, students will be required to prepare a placement report (approx. 15 pages) and deliver a talk (including discussion, approx. 10 minutes) for each of the placements.					
Worklo	ad				
240 h					
Teachir	ng cycl	e			
Referred to in LPO I (examination regulations for teaching-degree programmes)					
Module	appea	in and the second se			
Master'	Master's degree (1 major) FOKUS Chemistry (2016)				



Subfield Theoretical Chemistry

Master's with 1 major FOKUS Chen	nistry (2016)
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Module title					Abbreviation	
Research oriented theoretical chemistry				08-TCFM1-161-m01		
Module	coord	inator		Module offered by		
focus p	oint co	ordinator "Theoretical Ch	iemistry"	Institute of Physica	l and Theoretical Chemistry	
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)		
12	nume	rical grade				
Duratio	n	Module level	Other prerequisites			
1-2 sem	nester	graduate				
Conten	ts					
Three s	elected	l research-based courses	exploring advanced	topics in theoretical	chemistry.	
Intende	ed learr	ning outcomes				
Studen [:] le to sit	ts are a uate th	ble to explain and analy e topics covered in diffe	se selected research- rent courses within a	oriented topics in th broader context.	eoretical chemistry. They are ab-	
Course	S (type, n	umber of weekly contact hours, l	anguage — if other than Ger	man)		
S (3) + 9	S (3) +	S (3)				
Methoo module is	d of ass creditab	essment (type, scope, langua le for bonus)	ge — if other than German, e	examination offered — if no	t every semester, information on whether	
oral exa Langua	aminati ge of a	on of one candidate eacl ssessment: German and,	h (approx. 45 minutes /or English	5)		
Allocat	ion of p	olaces				
Additio	nal info	ormation				
Worklo	ad					
360 h						
Teachir	Teaching cycle					
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)					
Module	e appea	rs in				
Master'	's degre	ee (1 major) FOKUS Chem	istry (2016)			

Module title			Abbreviation		
Researc	Research oriented practical course in theoretical chemistry			,	08-TCFM2-161-m01
Module coordinator				Module offered by	
focus p	oint co	ordinator "Theoretical Ch	emistry"	Institute of Physica	and Theoretical Chemistry
ECTS	Metho	od of grading	Only after succ. com	npl. of module(s)	
8	(not) s	successfully completed			
Duratio	n	Module level	Other prerequisites		
1 semes	ster	graduate			
Conten	ts				
This mo mistry. their fin	odule g Studer Idings	ives students the opport its will be expected to co and deliver a presentatio	unity to enhance thei nduct their work in th n.	r skills in advanced ne lab independently	methods in theoretical che- , write a lab report documenting
Intende	ed learn	ning outcomes			
Studen to write	ts are a a lab r	able to use advanced met report documenting their	hods in theoretical c findings and deliver	hemistry and to inte a presentation.	rpret their findings. They are able
Courses	S (type, n	umber of weekly contact hours, l	anguage — if other than Ger	man)	
P (10)					
Method module is	l of ass creditab	e essment (type, scope, langua le for bonus)	ge — if other than German, e	examination offered — if no	t every semester, information on whether
report o Langua	on prac ge of a	tical course (approx. 40 p ssessment: German and/	bages) and talk inclue or English	ding discussion (app	orox. 30 minutes)
Allocati	ion of p	olaces			
Additio	nal inf	ormation			
Additional information on module duration: block placement with a duration of approx. 40 working days. At student's option, the placement may be divided up into two individual placements with a duration of approx. 20 working days each. If the placement is divided up into two individual placements, students will be required to prepare a placement report (approx. 15 pages) and deliver a talk (including discussion, approx. 10 minutes) for each of the placements.					
Worklo	ad				
240 h					
Teachir	ng cycl	e			
Referred to in LPO I (examination regulations for teaching-degree programmes)					
Module	appea	in			
Master'	s degre	ee (1 major) FOKUS Chem	istry (2016)		



Subfield Additional Skills

Master's with 1 major FOKUS Chemistry (2016)	JMU Würzburg • generated 19-Apr-2025 • exam. reg.
	data record Master (120 ECTS) FOKUS Chemie - 2016

Module title				Abbreviation	
Advanc	ed FOK	(US Foreign Studies			08-FOMA-162-m01
Module	e coord	inator		Module offered by	
degree	progra	mme coordinator FOKUS	Chemie (Chemistry)	Faculty of Chemistr	y and Pharmacy
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
20	nume	rical grade			
Duratio	n	Module level	Other prerequisites		
1 seme	ster	graduate	A supervisor from th be chosen prior to th	e Faculty, who must ne placement.	be an authorised examiner, is to
Conten	ts				
A place red in t tent cod	ment i he con ordinat	n industry. The contents text of the Bachelor's pro or in advance.	of the placement sho gramme in Chemistry	uld correspond to th / (180 ECTS credits);	e contents of a lab course offe- please consult with the compe-
Intende	ed lear	ning outcomes			
Studen as well	ts are f as lanរ្	amiliar with procedures a guage and interpersonal	and processes used i skills.	n industry. They hav	e acquired subject-specific skills
Course	S (type, r	number of weekly contact hours, l	anguage — if other than Ger	man)	
P (o)					
Methoo module is	d of ass creditab	sessment (type, scope, langua le for bonus)	ge — if other than German, o	examination offered — if no	t every semester, information on whether
report o Langua	on prac ge of a	tical course (approx. 30 ssessment: German and	pages) and talk inclu /or English	ding discussion (app	prox. 20 minutes)
Allocat	ion of p	olaces			
Additio	nal inf	ormation			
Worklo	ad				
600 h					
Teaching cycle					
Referred to in LPO I (examination regulations for teaching-degree programmes)					
Module	e appea	ars in			
Master's degree (1 major) FOKUS Chemistry (2016)					

Module title					Abbreviation	
Advanced FOKUS Industrial work experience 08-FOMI-162-mo1					08-FOMI-162-m01	
Module coordinator				Module offered by		
degree	progra	mme coordinator FOKUS	Chemie (Chemistry) Faculty of Chemistry and Pharmacy			
ECTS	ECTS Method of grading Only after succ. compl. of module(s)		npl. of module(s)			
20	nume	rical grade				
Duratio	n	Module level	Other prerequisites			
1 semester		graduate	A supervisor from th be chosen prior to th	e Faculty, who must he placement.	be an authorised examiner, is to	
Conten	ts					
A placement in industry. The contents of the placement should correspond to the contents of a lab course offe- red in the context of the Master's programme in Chemistry (120 ECTS credits); please consult with the competent coordinator in advance.						
Intende	ed lear	ning outcomes				
Students are familiar with procedures and processes used in industry. They have developed both subject-speci- fic and interpersonal skills.						
Course	S (type, r	number of weekly contact hours, l	anguage — if other than Ger	rman)		
P (o)						
Method of assessment (type, scope, language – if other than German, examination offered – if not every semester, information on whether module is creditable for bonus)						
report o Langua	on prac ge of a	tical course (approx. 30 ssessment: German and	pages) and talk inclu /or English	ding discussion (app	prox. 20 minutes)	
Allocat	ion of p	olaces				
Additio	nal inf	ormation				
Workload						
600 h						
Teaching cycle						
Referred to in LPO I (examination regulations for teaching-degree programmes)						
Module appears in						
Master's degree (1 major) FOKUS Chemistry (2016)						

Module title					Abbreviation	
Advanced FOKUS research lab course					08-FOMF-162-m01	
Module coordinator				Module offered by		
degree programme coordinator FOKUS Chemi			Chemie (Chemistry)) Faculty of Chemistry and Pharmacy		
ECTS	Method of grading Only after succ. compl. of module(s)					
20	nume	rical grade				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	graduate	<u>-</u>			
Conten	ts					
This module gives students the opportunity to explore a research topic and apply the methods commonly used in the discipline in question.						
Intende	ed learr	ning outcomes				
Students are able to explore a specific research topic and present the results of their work in a written report or oral presentation.						
Course	S (type, n	umber of weekly contact hours, l	anguage — if other than Ger	man)		
P (o)						
Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)						
report on practical course (approx. 30 pages) and talk including discussion (approx. 20 minutes) Language of assessment: German and/or English						
Allocat	ion of p	olaces				
Additional information						
Worklo	ad					
600 h						
Teaching cycle						
Referred to in LPO I (examination regulations for teaching-degree programmes)						
Module appears in						
Master's degree (1 major) FOKUS Chemistry (2016)						





Thesis (30 ECTS credits)

Master's with 1 major FOKUS Chemistry (2016)	JMU Würzburg • generated 19-Apr-2025 • exam. reg.	page 41 / 42
	data record Master (120 ECTS) FOKUS Chemie - 2016	

Module title					Abbreviation	
Master-Thesis FOKUS Chemistry					08-FOKUS-MA-161-m01	
Module	coord	inator		Module offered by		
head of the research group offering the mc			module	Faculty of Chemistry and Pharmacy		
ECTS	CTS Method of grading Only after succ. co			mpl. of module(s)		
30	nume	rical grade				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	graduate	Where applicable, s	pecific modules as s	pecified by supervisor.	
Conten	ts					
Researching and writing on a defined problem within a given time frame and adhering to the principles of good scientific practice.						
Intende	ed learr	ning outcomes				
Students are able to conduct research on a defined topic/problem, adhering to the principles of good scientific practice, and to present the results of their work in written form.						
Course	S (type, n	umber of weekly contact hours, l	anguage — if other than Ger	man)		
No cou	rses as	signed to module				
Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)						
Master's thesis (approx. 60 to 80 pages) Language of assessment: English						
Allocation of places						
Additio	nal info	ormation				
Time to	compl	ete: 6 months.				
Worklo	ad					
900 h						
Teaching cycle						
Referred to in LPO I (examination regulations for teaching-degree programmes)						
Module appears in						
Master's degree (1 major) FOKUS Chemistry (2016)						