

# Module Catalogue

for the Module studies (Master)

# Chemistry

Examination regulations version: 2019 Responsible: Faculty of Chemistry and Pharmacy

JMU Würzburg • generated 19-Apr-2025 • exam. reg. data record MM|032|-|-|H|2019



### **Contents**

The subject is divided into	3
Abbreviations used, Conventions, Notes, In accordance with	4
Summer Term 2019	6
Chemistry-related competences within the Natural Sciences	7
Winter Term 2019	8
Chemistry-related competences within the Natural Sciences	9
Summer Term 2020	10
Chemistry-related competences within the Natural Sciences	11
Winter Term 2020	12
Chemistry-related competences within the Natural Sciences	13
Summer Term 2021	14
Chemistry-related competences within the Natural Sciences	15
Winter Term 2021	16
Chemistry-related competences within the Natural Sciences	17
Summer Term 2022	18
Chemistry-related competences within the Natural Sciences	19
Winter Term 2022	20
Chemistry-related competences within the Natural Sciences	21
Summer Term 2023	22
Chemistry-related competences within the Natural Sciences	23
Winter Term 2023	24
Chemistry-related competences within the Natural Sciences	25
Summer Term 2024	26
Chemistry-related competences within the Natural Sciences	27
Winter Term 2024	28
Chemistry-related competences within the Natural Sciences	29



# The subject is divided into

section / sub-section	starting page
Summer Term 2019	6
Winter Term 2019	8
Summer Term 2020	10
Winter Term 2020	12
Summer Term 2021	14
Winter Term 2021	16
Summer Term 2022	18
Winter Term 2022	20
Summer Term 2023	22
Winter Term 2023	24
Summer Term 2024	26
Winter Term 2024	28



#### **Abbreviations used**

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

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:

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

15-May-2019 (2019-36)

27-Jun-2019 (2019-41)

14-Nov-2019 (2019-52)

22-Jan-2020 (2020-13)

o6-May-2020 (2020-39)

22-Jul-2020 (2020-57)

17-Dec-2020 (2020-110)

10-Mar-2021 (2021-17)



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o9-Jun-2021 (2021-58)
22-Dec-2021 (2021-85)
05-Jul-2022 (2022-52)
31-Jan-2023 (2022-86)
15-Jun-2023 (2023-58)
13-Dec-2023 (2023-107)
07-Aug-2024 (2024-82)
22-Jan-2025 (2025-1)
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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.





Modul	Module title Abbreviation					
Chemis	Chemistry-related competences within the Natural Sciences 08-CHPM2-161-mo1					
Module	e coord	inator		Module offered by	_	
Dean o	f Studi	es Chemie (Chemistry)		Faculty of Chemistr	y and Pharmacy	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
5	(not)	successfully completed				
Duratio	on	Module level	Other prerequisites			
1 seme	ster	graduate	Please consult with	course advisory serv	vice in advance.	
Conten	nts					
other F	acultie		cluded in the acaden		elated courses that are offered by eir programmes. Students MUST	
Intend	ed lear	ning outcomes				
Studer	its have	e developed the knowled	ge and skills taught i	n the courses attend	ed by them.	
Course	<b>S</b> (type, r	number of weekly contact hours,	language — if other than Ger	rman)		
No cou	irses as	signed to module				
		<b>sessment</b> (type, scope, langua	ge — if other than German,	examination offered — if no	t every semester, information on whether	
a) written examination (approx. 90 to 180 minutes) or b) oral examination of one candidate each (20 to 30 minutes) or c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or d) log (approx. 20 pages) or e) presentation (approx. 30 minutes) Language of assessment: German and/or English						
Allocation of places						
Additional information						
Workload						

#### Workload

150 h

#### **Teaching cycle**

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#### **Referred to in LPO I** (examination regulations for teaching-degree programmes)

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Module	Module title Abbreviation					
Chemis	Chemistry-related competences within the Natural Sciences 08-CHPM2-161-mo1					
Module	coord	inator		Module offered by		
Dean o	f Studi	es Chemie (Chemistry)		Faculty of Chemistr	y and Pharmacy	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
5	(not)	successfully completed				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	graduate	Please consult with	course advisory ser	vice in advance.	
Conten	ts					
other F	acultie		cluded in the acaden		elated courses that are offered by eir programmes. Students MUST	
Intende	ed lear	ning outcomes				
Studen	ts have	e developed the knowled	ge and skills taught i	n the courses attend	led by them.	
Course	<b>S</b> (type, r	number of weekly contact hours, l	anguage — if other than Ger	rman)		
No cou	rses as	signed to module				
		<b>sessment</b> (type, scope, langua le for bonus)	ge — if other than German,	examination offered — if no	ot every semester, information on whether	
b) oral c) oral d) log ( e) pres	a) written examination (approx. 90 to 180 minutes) or b) oral examination of one candidate each (20 to 30 minutes) or c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or d) log (approx. 20 pages) or e) presentation (approx. 30 minutes) Language of assessment: German and/or English					
Allocat	ion of p	olaces				
Additional information						
Workload						
150 h						
Teachi	ng cycl	e				

 $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$ 





Module title Abb				Abbreviation	
Chemis	Chemistry-related competences within the Natural Sciences 08-CHPM2-161-m01				
Module	e coord	inator		Module offered by	
Dean o	f Studi	es Chemie (Chemistry)		Faculty of Chemisti	ry and Pharmacy
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
5	(not)	successfully completed			
Duratio	n	Module level	Other prerequisites	1	
1 seme	ster	graduate	Please consult with	course advisory ser	vice in advance.
Conten	ts				
other F	acultie		cluded in the acader		elated courses that are offered by neir programmes. Students MUST
Intende	ed lear	ning outcomes			
Studen	ts have	e developed the knowled	ge and skills taught i	n the courses attend	ded by them.
Course	<b>S</b> (type, i	number of weekly contact hours,	anguage — if other than Ge	rman)	
No cou	rses as	ssigned to module			
		sessment (type, scope, langua ble for bonus)	${\sf rge}-{\sf if}$ other than German,	examination offered — if no	ot every semester, information on whether
a) written examination (approx. 90 to 180 minutes) or b) oral examination of one candidate each (20 to 30 minutes) or c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or d) log (approx. 20 pages) or e) presentation (approx. 30 minutes) Language of assessment: German and/or English					
Allocat	ion of	places			
Additional information					
Workload					
150 h					
Teachi	ng cycl	e			

**Referred to in LPO I** (examination regulations for teaching-degree programmes)





Module title Abbreviation					Abbreviation
Chemis	Chemistry-related competences within the Natural Sciences 08-CHPM2-161-m01				
Module	coord	inator		Module offered by	
Dean o	f Studi	es Chemie (Chemistry)		Faculty of Chemistr	y and Pharmacy
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
5	(not)	successfully completed			
Duratio	n	Module level	Other prerequisites		
1 seme	ster	graduate	Please consult with	course advisory ser	vice in advance.
Conten	ts				
other F	acultie		cluded in the acaden		elated courses that are offered by neir programmes. Students MUST
Intende	ed lear	ning outcomes			
Studen	ts have	e developed the knowled	ge and skills taught i	n the courses attend	ded by them.
Course	<b>S</b> (type, ı	number of weekly contact hours,	anguage — if other than Ger	rman)	
No cou	rses as	signed to module			
		<b>sessment</b> (type, scope, langua ble for bonus)	ge — if other than German,	examination offered — if no	ot every semester, information on whether
a) written examination (approx. 90 to 180 minutes) or b) oral examination of one candidate each (20 to 30 minutes) or c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or d) log (approx. 20 pages) or e) presentation (approx. 30 minutes) Language of assessment: German and/or English					
Allocat	ion of	olaces			
Additional information					
Workload					
150 h					
Teachi	ng cycl	e			

 $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$ 





Module	Module title Abbreviation					
Chemis	try-rel	ated competences within	the Natural Science	S	08-CHPM2-161-m01	
Module	coord	inator		Module offered by		
Dean o	f Studi	es Chemie (Chemistry)		Faculty of Chemistr	y and Pharmacy	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
5	(not)	successfully completed				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	graduate	Please consult with	course advisory serv	vice in advance.	
Conten	ts					
other Fa	acultie		cluded in the acaden		elated courses that are offered by neir programmes. Students MUST	
Intende	ed lear	ning outcomes				
Studen	ts have	e developed the knowled	ge and skills taught i	n the courses attenc	led by them.	
Course	<b>S</b> (type, r	number of weekly contact hours, l	anguage — if other than Ger	rman)		
No cou	rses as	signed to module				
		<b>sessment</b> (type, scope, langua le for bonus)	${\sf ge-if}$ other than German,	examination offered — if no	ot every semester, information on whether	
a) written examination (approx. 90 to 180 minutes) or b) oral examination of one candidate each (20 to 30 minutes) or c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or d) log (approx. 20 pages) or e) presentation (approx. 30 minutes) Language of assessment: German and/or English						
Allocation of places						
Additional information						
<del></del>						
Worklo	Workload					
150 h	150 h					

**Teaching cycle** 

**Referred to in LPO I** (examination regulations for teaching-degree programmes)





Module title Abbreviation					Abbreviation
Chemis	Chemistry-related competences within the Natural Sciences 08-CHPM2-161-m01				
Module	coord	inator		Module offered by	
Dean o	f Studi	es Chemie (Chemistry)		Faculty of Chemistr	y and Pharmacy
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
5	(not)	successfully completed			
Duratio	n	Module level	Other prerequisites		
1 seme	ster	graduate	Please consult with	course advisory ser	vice in advance.
Conten	ts				
other F	acultie		cluded in the acaden		elated courses that are offered by neir programmes. Students MUST
Intende	ed lear	ning outcomes			
Studen	ts have	e developed the knowled	ge and skills taught i	n the courses attend	ded by them.
Course	<b>S</b> (type, ı	number of weekly contact hours,	anguage — if other than Ger	rman)	
No cou	rses as	signed to module			
		<b>sessment</b> (type, scope, langua ble for bonus)	ge — if other than German,	examination offered — if no	ot every semester, information on whether
a) written examination (approx. 90 to 180 minutes) or b) oral examination of one candidate each (20 to 30 minutes) or c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or d) log (approx. 20 pages) or e) presentation (approx. 30 minutes) Language of assessment: German and/or English					
Allocat	ion of	olaces			
Additional information					
Workload					
150 h					
Teachi	ng cycl	e			

 $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$ 





Module	e title		Abbreviation				
Chemis	stry-rel	ated competences withir	n the Natural Science	5	08-CHPM2-161-m01		
Module	e coord	inator		Module offered by			
Dean o	f Studi	es Chemie (Chemistry)		Faculty of Chemist	ry and Pharmacy		
ECTS	Meth	od of grading	Only after succ. con	ipl. of module(s)			
5	(not)	successfully completed					
Duratio	n	Module level	Other prerequisites				
1 seme	ster	graduate	Please consult with course advisory service in advance.				
Conten	ts		`				
other F	acultie		cluded in the acader		elated courses that are offered by neir programmes. Students MUST		
Intende	ed lear	ning outcomes					
Studen	ts have	e developed the knowled	ge and skills taught i	n the courses atten	ded by them.		
Course	<b>S</b> (type, r	number of weekly contact hours, I	anguage — if other than Ge	man)			
No courses assigned to module							
<b>Method of assessment</b> (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)							
a) writt	en exa	a) written examination (approx. 90 to 180 minutes) or					

- b) oral examination of one candidate each (20 to 30 minutes) or
- c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or
- d) log (approx. 20 pages) or
- e) presentation (approx. 30 minutes)

Language of assessment: German and/or English

#### **Allocation of places**

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#### **Additional information**

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#### Workload

150 h

#### **Teaching cycle**

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 $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$ 

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Module	Module title Abbreviation				
Chemis	Chemistry-related competences within the Natural Sciences				08-CHPM2-161-m01
Module	coord	linator		Module offered by	
Dean o	f Studi	es Chemie (Chemistry)		Faculty of Chemistr	y and Pharmacy
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)	
5	(not)	successfully completed			
Duratio	n	Module level	Other prerequisites	;	
1 seme	ster	graduate	Please consult with	course advisory sen	vice in advance.
Conten	ts				
other Fa	acultie		cluded in the acader		elated courses that are offered by leir programmes. Students MUST
Intende	ed lear	ning outcomes			
Studen	ts have	e developed the knowled	ge and skills taught i	n the courses attend	led by them.
Course	<b>S</b> (type, i	number of weekly contact hours,	language — if other than Ge	rman)	
No courses assigned to module					
<b>Method of assessment</b> (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)					
a) written examination (approx. 90 to 180 minutes) or b) oral examination of one candidate each (20 to 30 minutes) or					

- c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or
- d) log (approx. 20 pages) or
- e) presentation (approx. 30 minutes)

Language of assessment: German and/or English

#### **Allocation of places**

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#### **Additional information**

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#### Workload

150 h

#### **Teaching cycle**

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#### $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$

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Module	Module title				Abbreviation	
Chemis	stry-rel	ated competences withir	the Natural Science	5	08-CHPM2-161-m01	
Modul	e coord	inator		Module offered by		
Dean o	f Studi	es Chemie (Chemistry)		Faculty of Chemistr	y and Pharmacy	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
5	(not)	successfully completed				
Duratio	on	Module level	Other prerequisites	her prerequisites		
1 seme	ster	graduate	Please consult with	ult with course advisory service in advance.		
Conten	its					
This module gives students the opportunity to transfer credits from chemistry-related courses that are offered by other Faculties and are not explicitly included in the academic regulations for their programmes. Students MUST consult with their course advisors in advance.						
Intend	ed lear	ning outcomes				
Students have developed the knowledge and skills taught in the courses attended by them.						
<b>Courses</b> (type, number of weekly contact hours, language — if other than German)						
No courses assigned 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)

- a) written examination (approx. 90 to 180 minutes) or
- b) oral examination of one candidate each (20 to 30 minutes) or
- c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or
- d) log (approx. 20 pages) or
- e) presentation (approx. 30 minutes)

Language of assessment: German and/or English

#### **Allocation of places**

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#### **Additional information**

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#### Workload

150 h

#### **Teaching cycle**

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**Referred to in LPO I** (examination regulations for teaching-degree programmes)

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Module title Abbrevia					Abbreviation	
Chemis	Chemistry-related competences within the Natural Sciences 08-CHPM2-161-mo1					
Module	coord	inator		Module offered by		
Dean o	f Studi	es Chemie (Chemistry)		Faculty of Chemistr	y and Pharmacy	
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)		
5	(not)	successfully completed				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	graduate	Please consult with	course advisory ser	vice in advance.	
Conten	ts					
other Fa	acultie	•	cluded in the acaden		elated courses that are offered by neir programmes. Students MUST	
Intende	ed lear	ning outcomes				
Studen	ts have	e developed the knowled	ge and skills taught i	n the courses attenc	ded by them.	
Course	<b>S</b> (type, r	number of weekly contact hours, l	anguage — if other than Ger	rman)		
No cou	rses as	signed to module				
		sessment (type, scope, langua ble for bonus)	ge — if other than German,	examination offered — if no	ot every semester, information on whether	
a) written examination (approx. 90 to 180 minutes) or b) oral examination of one candidate each (20 to 30 minutes) or c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or d) log (approx. 20 pages) or e) presentation (approx. 30 minutes) Language of assessment: German and/or English						
Allocat	ion of <sub>I</sub>	places				
Additional information						
Workload						
150 h						
Teachi	ng cycl	е				

 $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$ 





Module	e title		Abbreviation					
Chemis	stry-rel	ated competences within	5	08-CHPM2-161-m01				
Module	e coord	inator		Module offered by				
Dean of Studies Chemie (Chemistry)				Faculty of Chemistry and Pharmacy				
ECTS	Metho	od of grading	Only after succ. com	only after succ. compl. of module(s)				
5	(not)	successfully completed						
Duration Module		Module level	Other prerequisites					
1 semester		graduate	Please consult with course advisory service in advance.					
Contents								
This module gives students the opportunity to transfer credits from chemistry-related courses that are offered by other Faculties and are not explicitly included in the academic regulations for their programmes. Students MUST consult with their course advisors in advance.								
Intended learning outcomes								
Students have developed the knowledge and skills taught in the courses attended by them.								
Courses (type, number of weekly contact hours, language — if other than German)								
No courses assigned to module								
<b>Method of assessment</b> (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)								

- a) written examination (approx. 90 to 180 minutes) or
- b) oral examination of one candidate each (20 to 30 minutes) or
- c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or
- d) log (approx. 20 pages) or
- e) presentation (approx. 30 minutes)

Language of assessment: German and/or English

#### **Allocation of places**

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#### **Additional information**

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#### Workload

150 h

#### **Teaching cycle**

--

 $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$ 

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Module	title		Abbreviation						
Chemistry-related competences within the Natural Sciences 08-CHPM2-161-m01									
Module	coord	inator		Module offered by					
Dean o	f Studi	es Chemie (Chemistry)		Faculty of Chemistry and Pharmacy					
ECTS	Meth	od of grading	Only after succ. compl. of module(s)						
5	(not)	successfully completed							
Duration Module		Module level	Other prerequisites						
1 semester		graduate	Please consult with course advisory service in advance.						
Contents									
This module gives students the opportunity to transfer credits from chemistry-related courses that are offered by other Faculties and are not explicitly included in the academic regulations for their programmes. Students MUST consult with their course advisors in advance.									
Intended learning outcomes									
Students have developed the knowledge and skills taught in the courses attended by them.									
Courses (type, number of weekly contact hours, language — if other than German)									
No courses assigned to module									
<b>Method of assessment</b> (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)									
a) written examination (approx. 90 to 180 minutes) or b) oral examination of one candidate each (20 to 30 minutes) or c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or d) log (approx. 20 pages) or e) presentation (approx. 30 minutes) Language of assessment: German and/or English									
Allocation of places									
Additional information									
Workload									
150 h									
Teaching cycle									

 $\textbf{Referred to in LPO I} \ \ (\text{examination regulations for teaching-degree programmes})$