

Module Catalogue

for the Module studies (Bachelor)

Chemistry

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

JMU Würzburg • generated 24-Feb-2024 • exam. reg. data record MB|032|-|-|H|2019



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The subject is divided into

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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)
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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.



Summer Term 2019



Module	e title			Abbreviation	
Advanc	ed che	emical practical course		08-0P-152-m01	
Module coordinator Module offer					l
head o	f the re	search group offering the	e module	Faculty of Chemistr	y and Pharmacy
ECTS	Meth	od of grading	Only after succ. co	mpl. of module(s)	
5	(not)	successfully completed			
Duratio	n	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	ts		•		
	_	rives students the opport ne in question.	unity to explore a re	search topic and app	ly the methods commonly used
Intend	ed lear	ning outcomes			
Studen oral pre			research topic and	present the results of	their work in a written report or
Course	S (type, r	number of weekly contact hours, I	anguage — if other than G	erman)	
P (10)					
		sessment (type, scope, langua	ge — if other than Germar	, examination offered — if no	ot every semester, information on whether

Allocation of places

--

Additional information

Additional information on module duration: block placement / block taught practical course with a duration of 20 days.

Workload

150 h

Teaching cycle

--

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

a) talk (approx. 15 minutes) or b) log (approx. 10 to 20 pages)

Language of assessment: German and/or English



Winter Term 2019



Module title					Abbreviation	
Advanc	ed che	mical practical course		08-0P-152-m01		
Module coordinator				Module offered by		
head of the research group offering the module			e module	Faculty of Chemistry and Pharmacy		
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
5	(not) s	successfully completed				
Duratio	n	Module level	Other prerequisites			
1 semester undergraduate						
Conten	ts					

This module gives students the opportunity to explore a research topic and apply the methods commonly used in the discipline in question.

Intended learning outcomes

Students are able to explore a specific research topic and present the results of their work in a written report or oral presentation.

Courses (type, number of weekly contact hours, language — if other than German)

P (10)

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) talk (approx. 15 minutes) or b) log (approx. 10 to 20 pages)

Language of assessment: German and/or English

Allocation of places

--

Additional information

Additional information on module duration: block placement / block taught practical course with a duration of 20 days.

Workload

150 h

Teaching cycle

--

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



Summer Term 2020



Module	e title			Abbreviation			
Introdu	uction t	o Inorganic Chemistry fo	r Students of Biology	, Medicine and	08-AC-NF-152-m01		
Dentist	try						
Module	e coord	inator		Module offered by			
lecturer of lecture "Allgemeine and Anorganische Chemie für Studierende der Medizin, Zahnmedizin and Biologie" (General and Inorganic Chemistry for Students of Medicine, Dentistry and Biology)			medizin and Biolo-	Institute of Inorgan	ic Chemistry		
ECTS	Metho	od of grading	Only after succ. con	pl. of module(s)			
3	nume	rical grade					
Duratio	on	Module level	Other prerequisites				
1 seme	ster	undergraduate					
Conten	its						
This mo	odule p duces t	rovides students with an he fundamental techniqu	overview of the theo les of inorganic chem	retical principles of istry in a lab course	inorganic chemistry. In addition,		
Intende	ed learr	ning outcomes					
		become familiar with th problems in chemistry an			emistry. They are able to identify		
Course	S (type, n	umber of weekly contact hours, l	anguage — if other than Ger	man)			
V (2)					_		
		eessment (type, scope, langua le for bonus)	ge — if other than German, o	examination offered — if no	t every semester, information on whether		
		nation (approx. 60 minut ssessment: German and,					
Allocat	ion of p	olaces					
Additio	nal info	ormation					
Workload							
90 h							
Teachi	ng cycl	e					
Referre	d to in	LPO I (examination regulations	s for teaching-degree progra	mmes)			



Module offered by lecturer of lecture "Chemie der Hauptgruppenelemente" (Chemistry of Main-group Elements) ECTS Method of grading Only after succ. compl. of module(s) 6 numerical grade Duration Module level Other prerequisites 1 semester undergraduate Contents This module equips students with an advanced knowledge of the periodic table and selected elements. It focuses on bonding conditions, trends in the periodic table and the description and structure of elements. In addition, it introduces students to elementary organic chemistry, coordination chemistry and complex chemistry. Intended learning outcomes Students are able to characterise main group elements and transition metal elements in terms of their structure, reactivity and fabrication. They are able to identify the coordination of the atoms. In addition, they have learned how to use the periodic table, an essential tool for chemists. Courses (type, number of weekly contact hours, language – if other than German) V (2) + V (2) Method of assessment (type, scope, language – if other than German, 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 Morkload 180 h			1100.81	J WE OWNER DI	55 g, \. F.		
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Additional information Workload 180 h	tes) or 20 pag	c) oral (es) or e	examination in groups of presentation (approx.	f up to 3 candidates (30 minutes)			
Workload 180 h	Allocation of places						
Workload 180 h							
180 h	Additional information						
180 h							
	Workload						
Teaching cycle	180 h						
· · · · · · · · · · · · · · · · · · ·	Teachi	Teaching cycle					

§ 62 | Nr. 1

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



Module	e title				Abbreviation	
Biochemistry 1					08-BC1-152-m01	
Module	e coord	linator		Module offered by		
holder	of the	Chair of Biochemistry		Chair of Biochemis	try	
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)		
5	nume	erical grade				
Duratio	on	Module level	Other prerequisites	1		
1 seme	ster	undergraduate				
Conten	its					
tion, fa	tty aci		netabolism, the urea	cycle and amino aci	ty acid metabolism (beta oxidad metabolism. The module also	
Intend	ed lear	ning outcomes				
		e become familiar with thodule. They are able to de			biochemistry that were discus- cellular systems.	
Course	S (type,	number of weekly contact hours,	language — if other than Ge	rman)		
$V(2) + \ddot{U}(1)$						
Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)						
written	exami	ination (approx. 60 to 90	minutes)			
Allocation of places						

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

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

§ 42 l Nr. 2

§ 62 | Nr. 2



Modul	Module title				Abbreviation	
Organic Chemistry 1					08-0C1-152-m01	
Module coordinator				Module offe	Module offered by	
holder	holder of the Professorship of Organic Chemistry			Institute of	Institute of Organic Chemistry	
ECTS	Meth	od of grading	Only after succ.	compl. of modul	e(s)	
5	nume	rical grade				
Duration Module level C		Other prerequis	Other prerequisites			
1 semester undergraduate						
Conto	nt c					

Contents

This module provides students with an overview of the fundamental principles of organic chemistry. It examines the bonding situation of carbon and introduces students to the nomenclature of simple and moderately complex organic compounds. The module also discusses the fundamental principles of stereochemistry, substitution, addition and elimination reactions as well as synthesis planning.

Intended learning outcomes

Students know important categories of substances in organic chemistry. They are able to use different systems of nomenclature to determine simple substance names. Students are able to analyse the stereochemistry of molecules. They are able to describe and formulate some of the most important reactions in organic chemistry. For that purpose, they can analyse and categorise the characteristic reaction conditions and can use them for simple syntheses.

Courses (type, number of weekly contact hours, language — if other than German)

 $V(3) + \ddot{U}(1)$

 $\textbf{Method of assessment} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination offered} - \textbf{if not every semester, information on whether} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination offered} - \textbf{if not every semester, information on whether} \ (\textbf{type}, \textbf{scope}, \textbf{language}) \ (\textbf{type}, \textbf{language}) \$ 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

Teaching cycle: every year, summer semester

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

§ 62 | Nr. 2



Module title					Abbreviation	
Organi natural		•	nedicine, biomedicine, o	dental medicine and	08-OC-NF-152-m01	
Module	coord	inator		Module offered by		
	n, Biom	nedizin, Zahnmedizin,	nie für Studierende der Ingenieur- and Natur-	Institute of Organic	Chemistry	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
3	nume	rical grade				
Duratio	n	Module level	Other prerequisites	i		
1 seme	ster	undergraduate				
Conten	ts					
This mo	odule p	rovides students with	an overview of the theo	retical principles of o	organic chemistry.	
Intende	ed learı	ning outcomes				
Studen	ts have	become familiar with	the fundamental princi	ples of organic chem	nistry.	
Course	S (type, r	number of weekly contact hou	ırs, language — if other than Ge	rman)		
V (2)						
		Sessment (type, scope, landle for bonus)	guage — if other than German,	examination offered — if no	t every semester, information on whether	
		nation (approx. 60 min ssessment: German a				
Allocat	ion of p	olaces				
Additio	nal inf	ormation				
-						
Workload						
90 h						
Teaching cycle						
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)					



Module title					Abbreviation	
Advanc	ed che	mical practical course			08-0P-152-m01	
Module coordinator				Module offered by		
head of the research group offering the module			e module	Faculty of Chemistry 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 semester undergraduate						
Conten	ts					

This module gives students the opportunity to explore a research topic and apply the methods commonly used in the discipline in question.

Intended learning outcomes

Students are able to explore a specific research topic and present the results of their work in a written report or oral presentation.

Courses (type, number of weekly contact hours, language — if other than German)

P (10)

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) talk (approx. 15 minutes) or b) log (approx. 10 to 20 pages)

Language of assessment: German and/or English

Allocation of places

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Additional information

Additional information on module duration: block placement / block taught practical course with a duration of 20 days.

Workload

150 h

Teaching cycle

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



Winter Term 2020



Module	title			Abbreviation		
Introdu	ction t	o Inorganic Chemistry fo	r Students of Biology	, Medicine and	08-AC-NF-152-m01	
Dentist	ry					
Module	coord	inator		Module offered by		
lecturer of lecture "Allgemeine and Anorganische Chemie für Studierende der Medizin, Zahnmedizin and Biologie" (General and Inorganic Chemistry for Students of Medicine, Dentistry and Biology)			medizin and Biolo-	Institute of Inorganic Chemistry		
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
3	nume	rical grade				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
		rovides students with an he fundamental techniqu			inorganic chemistry. In addition,	
Intende	ed learı	ning outcomes				
		become familiar with th problems in chemistry an			emistry. They are able to identify	
Course	S (type, n	umber of weekly contact hours, l	anguage — if other than Ge	rman)		
V (2)						
		eessment (type, scope, langua le for bonus)	ge — if other than German,	examination offered — if no	ot every semester, information on whether	
		nation (approx. 60 minut ssessment: German and,				
Allocat	ion of p	olaces				
Additio	nal inf	ormation				
Workload						
90 h						
Teaching cycle						
Referre	d to in	LPO I (examination regulations	s for teaching-degree progra	ımmes)		



Module	e title	·	Abbreviation			
Principles of Inorganic Chemistry					08-AC1-152-m01	
Module coordinator				Module offered by		
lecturer of lecture "Experimentalchemie Chemistry)			e" (Experimental	Institute of Inorganic Chemistry		
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)		
8	nume	rical grade				
Duration Module level		Other prerequisites				
1 seme	1 semester undergraduate					

Contents

The module provides an overview of the fundamental knowledge of chemistry. Emphasis is placed on the material and particle level, metals, acid-base reactions, the periodic table, chemical equilibrium and complexometry. In addition, the module introduces fundamental concepts of chemistry and teaches the basics of inorganic chemistry.

Intended learning outcomes

The student understands the principles of the periodic table and can obtain information from it. He/she is proficient in basic models of the structure of matter and can describe them properly. He/she can depict chemical reactions using typical chemical formula language and interpret them by identifying the type of reaction. The students know how the most important quantitative and qualitative analytical methods work and their areas of application.

Courses (type, number of weekly contact hours, language — if other than German)

V(4) + V(2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

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

Language of assessment: German and/or English

Allocation of places

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Additional information

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Workload

240 h

Teaching cycle

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

§ 42 | Nr. 1 and § 22 | Nr. 1 h)

§ 62 | Nr. 1



Module title					Abbreviation				
_	Organic Chemistry for students of medicine, biomedicine, dental medicine and o8-OC-NF-152-mo1 natural sciences								
Modul	Module coordinator Module offered by								
Medizi		nedizin, Zahnmedizin,	nie für Studierende der Ingenieur- and Natur-	Institute of Organic	Chemistry				
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)					
3	nume	rical grade							
Durati	on	Module level	Other prerequisites	i					
1 seme	ester	undergraduate							
Conte	nts								
This m	odule p	rovides students with	an overview of the thec	retical principles of o	organic chemistry.				
Intend	ed lear	ning outcomes							
Studer	nts have	e become familiar with	the fundamental princi	ples of organic chem	nistry.				
Course	es (type, r	number of weekly contact hou	rs, language — if other than Ge	rman)					
V (2)									
		sessment (type, scope, lang le for bonus)	guage — if other than German,	examination offered — if no	t every semester, information on whether				
		nation (approx. 60 min ssessment: German ar							
Alloca	tion of p	olaces							
Additio	onal inf	ormation							
Worklo	oad								
90 h									
Teachi	ing cycl	e							
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)								
		•							
	_								



Module title Abbreviation						
Advanced chemical practical course					08-0P-152-m01	
Module coordinator Modu			Module offered by			
head o	f the re	search group offering the	e module	Faculty of Chemistry	y and Pharmacy	
ECTS	Metho	od of grading	Only after succ. con	ıpl. of module(s)		
5	(not)	successfully completed				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
	_	rives students the opport ne in question.	unity to explore a res	earch topic and appl	y the methods commonly used	
Intende	ed lear	ning outcomes				
Studen oral pre			research topic and p	resent the results of	their work in a written report or	
Course	S (type, r	number of weekly contact hours, l	anguage — if other than Ge	rman)		
P (10)						
		sessment (type, scope, langua	ge — if other than German,	examination offered — if no	t every semester, information on whether	

Language of assessment: German and/or English

Allocation of places

__

Additional information

Additional information on module duration: block placement / block taught practical course with a duration of 20 days.

Workload

150 h

Teaching cycle

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

a) talk (approx. 15 minutes) or b) log (approx. 10 to 20 pages)



Summer Term 2021



Module	title				Abbreviation
Introdu	ction t	o Inorganic Chemistry fo	r Students of Biology	, Medicine and	08-AC-NF-152-m01
Dentist	ry				
Module	coord	inator		Module offered by	
lecturer of lecture "Allgemeine and Anorganische Chemie für Studierende der Medizin, Zahnmedizin and Biologie" (General and Inorganic Chemistry for Students of Medicine, Dentistry and Biology)			medizin and Biolo-	Institute of Inorgan	ic Chemistry
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
3	nume	rical grade			
Duratio	n	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	ts				
		rovides students with an he fundamental techniqu			inorganic chemistry. In addition,
Intende	ed learı	ning outcomes			
		become familiar with th problems in chemistry an			emistry. They are able to identify
Course	S (type, n	umber of weekly contact hours, l	anguage — if other than Ge	rman)	
V (2)					
		eessment (type, scope, langua le for bonus)	ge — if other than German,	examination offered — if no	ot every semester, information on whether
		nation (approx. 60 minut ssessment: German and,			
Allocat	ion of p	olaces			
Additio	nal inf	ormation			
Worklo	ad				
90 h					
Teachir	ng cycl	e			
Referre	d to in	LPO I (examination regulations	s for teaching-degree progra	ımmes)	



		/////	O MEONE ABILITY	, , , , , , , , ,		
Modul	e title	Abbreviation				
Inorga	Inorganic Chemistry of the Elements				08-AS1-152-m01	
Modul	Module coordinator			Module offered by		
lecturer of lecture "Chemie der Hauptgruppene te" (Chemistry of Main-group Elements)			Institute of Inorganic Chemistry			
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)		
6	nume	rical grade				
Duratio	on	Module level	Other prerequisites			
1 seme	ester	undergraduate				
Conter	nts					
ses on	bondir	ng conditions, trends in th	ne periodic table and	the description and	and selected elements. It focu- structure of elements. In additi- stry and complex chemistry.	
Intend	ed lear	ning outcomes				
reactiv	ity and		e to identify the coord	dination of the atom	ments in terms of their structure, s. In addition, they have learned	
Course	es (type, r	number of weekly contact hours, I	anguage — if other than Ger	man)		
V (2) +	V (2)					
		sessment (type, scope, langua	ge — if other than German,	examination offered — if no	ot every semester, information on whether	
tes) or 20 pag	c) oral ges) or e		up to 3 candidates (ago minutes)		e candidate each (20 to 30 minu- oer candidate) or d) log (approx.	
Alloca	tion of	places				
Additio	onal inf	ormation				
Worklo	oad					
180 h						

Teaching cycle

§ 62 | Nr. 1

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



		184.74	O (CENTRO) C	33 8, 5.7			
Module	Module title Abbreviation						
Biochemistry 1					08-BC1-152-m01		
Module coordinator				Module offered by			
holder	of the (Chair of Biochemistry		Chair of Biochemist	try		
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	undergraduate					
Conten	ts						
mistry. tertiary sis, glu tion, fa	A parti and qu coneog tty acid	cular focus is on the biod uaternary structures), cat genesis, citric acid cycle,	chemistry of proteins alytic strategies and cellular respiration, pretabolism, the urea	(amino acids, peption enzyme kinetics, care ohotosynthesis), fatt cycle and amino aci	damental principles of biochede bonds, primary, secondary, bohydrate metabolism (glycolyy acid metabolism. The module also		
Intende	ed lear	ning outcomes					
Students have become familiar with the fundamental principles of the topics in biochemistry that were discussed in the module. They are able to describe the key biochemical processes in cellular systems.							
Course	S (type, r	number of weekly contact hours, l	anguage — if other than Ge	rman)			
V (2) +	Ü (1)						

 $\textbf{Method of assessment} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination of fered} - \textbf{if not every semester, information on whether} \ (\textbf{scope}, \textbf{language}) - \textbf{if other than German, examination of fered} - \textbf{if not every semester, information on whether} \ (\textbf{scope}, \textbf{language}) - \textbf{if other than German, examination of fered} - \textbf{if not every semester, information on whether} \ (\textbf{scope}, \textbf{language}) - \textbf{if other than German, examination of fered} - \textbf{if not every semester, information on whether} \ (\textbf{scope}, \textbf{language}) - \textbf{if other than German, examination of fered} - \textbf{if not every semester, information on whether} \ (\textbf{scope}, \textbf{language}) - \textbf{if other than German, examination of fered} - \textbf{if not every semester, information on whether} \ (\textbf{scope}, \textbf{language}) - \textbf{if other than German, examination of fered} - \textbf{if not every semester, information on whether} \ (\textbf{scope}, \textbf{language}) - \textbf{if other than German, examination of fered} - \textbf{if not every semester, information on whether} \ (\textbf{scope}, \textbf{language}) - \textbf{if other than German, examination of fered} - \textbf{if not every semester, examination of fered} \ (\textbf{scope}, \textbf{language}) - \textbf{if other than German, examination of fered} \ (\textbf{scope}, \textbf{language}) - \textbf{if other than German, examination of fered} \ (\textbf{scope}, \textbf{language}) - \textbf{if other than German, examination of fered} \ (\textbf{scope}, \textbf{language}) - \textbf{if other than German, examination of fered} \ (\textbf{scope}, \textbf{language}) - \textbf{if other than German, examination of fered} \ (\textbf{scope}, \textbf{language}) - \textbf{if other than German, examination of fered} \ (\textbf{scope}, \textbf{language}) - \textbf{if other than German, examination of fered} \ (\textbf{scope}, \textbf{language}) - \textbf{if other than German, examination of fered} \ (\textbf{scope}, \textbf{language}) - \textbf{if other than German, examination of fered} \ (\textbf{scope}, \textbf{language}) - \textbf{if other than German, examination of fered} \ (\textbf{scope}, \textbf{language}) - \textbf{if other than German, examination of fered} \ (\textbf{scope}, \textbf{language}) - \textbf{if other than German, examination of fered} \$

Allocation of places

module is creditable for bonus)

written examination (approx. 60 to 90 minutes)

Additional information

Workload

150 h

Teaching cycle

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

§ 42 l Nr. 2

§ 62 | Nr. 2



Module title					Abbreviation			
	Organic Chemistry for students of medicine, biomedicine, dental medicine and o8-OC-NF-152-mo1 natural sciences							
Module	coord	inator		Module offered by				
lecturer of lecture "Organische Chemie für Studierende Medizin, Biomedizin, Zahnmedizin, Ingenieur- and Natu wissenschaften"				Institute of Organic	Chemistry			
ECTS	Metho	od of grading	Only after succ. com	npl. of module(s)				
3	nume	rical grade						
Duratio	n	Module level	Other prerequisites					
1 seme	ster	undergraduate						
Conten	ts							
This mo	odule p	rovides students with an	overview of the theo	retical principles of	organic chemistry.			
Intende	ed learr	ning outcomes						
Studen	ts have	become familiar with th	e fundamental princi	ples of organic chem	nistry.			
Course	S (type, n	umber of weekly contact hours, l	anguage — if other than Ger	rman)				
V (2)								
		eessment (type, scope, langua le for bonus)	ge — if other than German, e	examination offered — if no	t every semester, information on whether			
		nation (approx. 60 minut ssessment: German and,						
Allocat	ion of p	olaces	,					
Additio	nal info	ormation						
Worklo	ad							
90 h								
Teachi	ng cycl	e						
Referre	d to in	LPO I (examination regulation	s for teaching-degree progra	mmes)				



Module	e title		Abbreviation			
Advanced chemical practical course					08-0P-152-m01	
Module	e coord	inator		Module offered by		
head of the research group offering the r			e module	Faculty of Chemistry and Pharmacy		
ECTS	Metho	od of grading	Only after succ. compl. of module(s)			
5	(not) s	successfully completed				
Duratio	n	Module level	Other prerequisites			
1 semester undergraduate						
Conten	Contents					

This module gives students the opportunity to explore a research topic and apply the methods commonly used in the discipline in question.

Intended learning outcomes

Students are able to explore a specific research topic and present the results of their work in a written report or oral presentation.

Courses (type, number of weekly contact hours, language — if other than German)

P (10)

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) talk (approx. 15 minutes) or b) log (approx. 10 to 20 pages)

Language of assessment: German and/or English

Allocation of places

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Additional information

Additional information on module duration: block placement / block taught practical course with a duration of 20 days.

Workload

150 h

Teaching cycle

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



Winter Term 2021



Module	Module title Abbreviation							
		o Inorganic Chemistry fo	, Medicine and	08-AC-NF-152-m01				
Dentis	Dentistry							
Module	e coord	inator		Module offered by				
lecturer of lecture "Allgemeine and Anorganische Chmie für Studierende der Medizin, Zahnmedizin and Egie" (General and Inorganic Chemistry for Students odicine, Dentistry and Biology)			medizin and Biolo-	Institute of Inorgan	ic Chemistry			
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)				
3	nume	rical grade						
Duratio	n	Module level	Other prerequisites	i				
1 seme	ster	undergraduate						
Conten	ts							
		rovides students with an he fundamental techniqu			inorganic chemistry. In addition,			
Intend	ed lear	ning outcomes						
		e become familiar with th problems in chemistry an			emistry. They are able to identify			
Course	S (type, r	number of weekly contact hours, l	anguage — if other than Ge	rman)				
V (2)								
		sessment (type, scope, langua le for bonus)	${\sf ge-if}$ other than German,	examination offered — if no	ot every semester, information on whether			
		nation (approx. 60 minut ssessment: German and						
Allocat	ion of p	olaces						
Additio	nal inf	ormation						
Worklo	ad							
90 h								
Teachi	ng cycl	e						
Referre	d to in	LPO I (examination regulation	s for teaching-degree progra	ummes)				



Module title					Abbreviation
Principles of Inorganic Chemistry					08-AC1-152-m01
Module coordinator				Module offered by	
lecture Chemi		ture "Experimentalchemi	e" (Experimental	Institute of Inorganic Chemistry	
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)	
8	nume	rical grade			
Durati	Duration Module level		Other prerequisites		
1 seme	1 semester undergraduate				

Contents

The module provides an overview of the fundamental knowledge of chemistry. Emphasis is placed on the material and particle level, metals, acid-base reactions, the periodic table, chemical equilibrium and complexometry. In addition, the module introduces fundamental concepts of chemistry and teaches the basics of inorganic chemistry.

Intended learning outcomes

The student understands the principles of the periodic table and can obtain information from it. He/she is proficient in basic models of the structure of matter and can describe them properly. He/she can depict chemical reactions using typical chemical formula language and interpret them by identifying the type of reaction. The students know how the most important quantitative and qualitative analytical methods work and their areas of application.

Courses (type, number of weekly contact hours, language — if other than German)

V(4) + V(2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

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

Language of assessment: German and/or English

Allocation of places

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Additional information

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Workload

240 h

Teaching cycle

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

§ 42 | Nr. 1 and § 22 | Nr. 1 h)

§ 62 | Nr. 1



Module title					Abbreviation				
_	Organic Chemistry for students of medicine, biomedicine, dental medicine and o8-OC-NF-152-mo1 natural sciences								
Modul	Module coordinator Module offered by								
Medizi		nedizin, Zahnmedizin,	nie für Studierende der Ingenieur- and Natur-	Institute of Organic	Chemistry				
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)					
3	nume	rical grade							
Durati	on	Module level	Other prerequisites	i					
1 seme	ester	undergraduate							
Conte	nts								
This m	odule p	rovides students with	an overview of the thec	retical principles of o	organic chemistry.				
Intend	ed lear	ning outcomes							
Studer	nts have	e become familiar with	the fundamental princi	ples of organic chem	nistry.				
Course	es (type, r	number of weekly contact hou	rs, language — if other than Ge	rman)					
V (2)									
		sessment (type, scope, lang le for bonus)	guage — if other than German,	examination offered — if no	t every semester, information on whether				
		nation (approx. 60 min ssessment: German ar							
Alloca	tion of p	olaces							
Additio	onal inf	ormation							
Worklo	oad								
90 h									
Teachi	ing cycl	e							
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)								
		•							
	_								



Module	e title		Abbreviation			
Advanced chemical practical course					08-0P-152-m01	
Module	e coord	inator		Module offered by		
head of the research group offering the r			e module	Faculty of Chemistry and Pharmacy		
ECTS	Metho	od of grading	Only after succ. compl. of module(s)			
5	(not) s	successfully completed				
Duratio	n	Module level	Other prerequisites			
1 semester undergraduate						
Conten	Contents					

This module gives students the opportunity to explore a research topic and apply the methods commonly used in the discipline in question.

Intended learning outcomes

Students are able to explore a specific research topic and present the results of their work in a written report or oral presentation.

Courses (type, number of weekly contact hours, language — if other than German)

P (10)

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) talk (approx. 15 minutes) or b) log (approx. 10 to 20 pages)

Language of assessment: German and/or English

Allocation of places

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Additional information

Additional information on module duration: block placement / block taught practical course with a duration of 20 days.

Workload

150 h

Teaching cycle

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



Summer Term 2022



Modul	e title	,		Abbreviation				
Introduction to Inorganic Chemistry for Students of Biology, Medicine and 08-AC-NF-152-mo1								
Dentistry								
Modul	e coord	inator		Module offered by				
lecture mie für gie" (G dicine,	ic Chemistry							
ECTS Method of grading		Only after succ. compl. of module(s)						
3	nume	rical grade						
Duration		Module level	Other prerequisites					
1 seme	ester	undergraduate						
Conter	nts							
This module provides students with an overview of the theoretical principles of inorganic chemistry. In addition, it introduces the fundamental techniques of inorganic chemistry in a lab course.								
Intended learning outcomes								
Students have become familiar with the fundamental principles of inorganic chemistry. They are able to identify fundamental problems in chemistry and perform experiments to solve them.								
Courses (type, number of weekly contact hours, language — if other than German)								
V (2)								
Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)								
written examination (approx. 60 minutes) Language of assessment: German and/or English								
Allocation of places								
Additional information								
Workload								
90 h								
Teaching cycle								
<u> </u>								
Referred to in LPO I (examination regulations for teaching-degree programmes)								



Duration Module level Other prerequisites 1 semester undergraduate Contents This module equips students with an advanced knowledge of the periodic table and selected elements. It focuses on bonding conditions, trends in the periodic table and the description and structure of elements. In addition, it introduces students to elementary organic chemistry, coordination chemistry and complex chemistry. Intended learning outcomes Students are able to characterise main group elements and transition metal elements in terms of their structure, reactivity and fabrication. They are able to identify the coordination of the atoms. In addition, they have learned how to use the periodic table, an essential tool for chemists. Courses (type, number of weekly contact hours, language – if other than German) V (2) + V (2) Method of assessment (type, scope, language – if other than German, examination offered – if not every semester, information on whether module is creditable for bonus) a) written examination (approx. 90 to 180 minutes) or b) oral examination of one candidate each (20 to 30 minutes) or c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or d) log (approx. 20 pages) or e) presentation (approx. 30 minutes) Language of assessment: German and/or English Allocation of places			1707.4	J WE OWNER DI	55 g, \. F.				
Module offered by lecturer of lecture "Chemie der Hauptgruppenelemente" Institute of Inorganic Chemistry lecturer of lecture "Chemie der Hauptgruppenelemente" Institute of Inorganic Chemistry Institute of Inorganic Action Institute of Inorganic Act	Modul	e title			Abbreviation				
lecturer of lecture "Chemie der Hauptgruppenelemente" (Chemistry of Main-group Elements) ECTS Method of grading Only after succ. compl. of module(s) 6 numerical grade Duration Module level Other prerequisites 1 semester undergraduate Contents This module equips students with an advanced knowledge of the periodic table and selected elements. It focuses on bonding conditions, trends in the periodic table and the description and structure of elements. In addition, it introduces students to elementary organic chemistry, coordination chemistry and complex chemistry. Intended learning outcomes Students are able to characterise main group elements and transition metal elements in terms of their structure, reactivity and fabrication. They are able to identify the coordination of the atoms. In addition, they have learned how to use the periodic table, an essential tool for chemists. Courses (type, number of weekly contact hours, language – if other than German) V (2) + V (2) Method of assessment (type, scope, language – if other than German, examination offered – if not every semester, information on whether module is creditable for bonus) a) written examination (approx. 90 to 180 minutes) or b) oral examination of one candidate each (20 to 30 minutes) or c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or d) log (approx. 20 pages) or e) presentation (approx. 30 minutes) Language of assessment: German and/or English Allocation of places Additional information Workload 180 h	Inorga	nic Che	mistry of the Elements		08-AS1-152-m01				
ECTS Method of grading Only after succ. compl. of module(s) 6 numerical grade Duration Module level Other prerequisites 1 semester undergraduate Contents This module equips students with an advanced knowledge of the periodic table and selected elements. It focuses on bonding conditions, trends in the periodic table and the description and structure of elements. In addition, it introduces students to elementary organic chemistry, coordination chemistry and complex chemistry. Intended learning outcomes Students are able to characterise main group elements and transition metal elements in terms of their structure, reactivity and fabrication. They are able to identify the coordination of the atoms. In addition, they have learned how to use the periodic table, an essential tool for chemists. Courses (type, number of weekly contact hours, language – if other than German) V (2) + V (2) Method of assessment (type, scope, language – if other than German, examination offered – if not every semester, information on whether module is creditable for bonus) a) written examination (approx. 90 to 180 minutes) or b) oral examination of one candidate each (20 to 30 minutes) or c) oral examination in groups of up to 3 candidates (approx. 15 minutes per candidate) or d) log (approx. 20 pages) or e) presentation (approx. 30 minutes) Allocation of places Additional information Workload 180 h	Modul	e coord	inator		Module offered by				
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Workload 180 h	Allocation of places								
Workload 180 h									
180 h	Additional information								
180 h									
	Workload								
Teaching cycle	180 h								

§ 62 | Nr. 1

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



Module	e title		Abbreviation		
Biochemistry 1					08-BC1-152-m01
Module	e coord	inator		Module offered by	
nolder	of the	Chair of Biochemistry		Chair of Biochemis	try
ECTS Method of grading Only after succ. co			Only after succ. con	ıpl. of module(s)	
5	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
seme	ster	undergraduate			
Conten	its		•		
mistry.	A parti	cular focus is on the bio	chemistry of proteins	(amino acids, peptio	damental principles of biochede bonds, primary, secondary,

Comprising lectures and exercises, this module acquaints students with the fundamental principles of biochemistry. A particular focus is on the biochemistry of proteins (amino acids, peptide bonds, primary, secondary, tertiary and quaternary structures), catalytic strategies and enzyme kinetics, carbohydrate metabolism (glycolysis, gluconeogenesis, citric acid cycle, cellular respiration, photosynthesis), fatty acid metabolism (beta oxidation, fatty acid synthesis), nucleotide metabolism, the urea cycle and amino acid metabolism. The module also discusses the structure of the DNA and the central dogma of molecular biology.

Intended learning outcomes

Students have become familiar with the fundamental principles of the topics in biochemistry that were discussed in the module. They are able to describe the key biochemical processes in cellular systems.

Courses (type, number of weekly contact hours, language — if other than German)

 $V(2) + \ddot{U}(1)$

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

written examination (approx. 60 to 90 minutes)

Allocation of places

--

Additional information

--

Workload

150 h

Teaching cycle

--

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

§ 42 | Nr. 2

§ 62 I Nr. 2



Module title					Abbreviation		
	Organic Chemistry for students of medicine, biomedicine, dental medicine and natural sciences						
Module	coord	inator		Module offered by			
	n, Biom	cure "Organische Chemie edizin, Zahnmedizin, Ing en"		Institute of Organic	Chemistry		
ECTS	Metho	od of grading	Only after succ. com	npl. of module(s)			
3	nume	rical grade					
Duratio	n	Module level	Other prerequisites				
1 seme	ster	undergraduate					
Conten	ts						
This mo	odule p	rovides students with an	overview of the theo	retical principles of	organic chemistry.		
Intende	ed learr	ning outcomes					
Studen	ts have	become familiar with th	e fundamental princi	ples of organic chem	nistry.		
Course	S (type, n	umber of weekly contact hours, l	anguage — if other than Ger	rman)			
V (2)							
		eessment (type, scope, langua le for bonus)	ge — if other than German, e	examination offered — if no	t every semester, information on whether		
		nation (approx. 60 minut ssessment: German and,					
Allocat	ion of p	olaces	,				
Additio	nal info	ormation					
Workload							
90 h							
Teachi	Teaching cycle						
Referre	d to in	LPO I (examination regulation	s for teaching-degree progra	mmes)			



Module title					Abbreviation
Advanced chemical practical course					08-0P-152-m01
Module	coord	inator		Module offered by	J.
head of the research group offering the			module Faculty of Chemistry and Pharmacy		ry and Pharmacy
ECTS Method of grading		Only after succ. con	npl. of module(s)		
5	(not)	successfully completed			
Duration Module level			Other prerequisites		
1 semester undergraduate					
Conten	Contents				

This module gives students the opportunity to explore a research topic and apply the methods commonly used in the discipline in question.

Intended learning outcomes

Students are able to explore a specific research topic and present the results of their work in a written report or oral presentation.

Courses (type, number of weekly contact hours, language — if other than German)

P (10)

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) talk (approx. 15 minutes) or b) log (approx. 10 to 20 pages)

Language of assessment: German and/or English

Allocation of places

--

Additional information

Additional information on module duration: block placement / block taught practical course with a duration of 20 days.

Workload

150 h

Teaching cycle

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



Winter Term 2022



Module	Module title Abbreviation						
Introdu Dentist		o Inorganic Chemistry fo	r Students of Biology	, Medicine and	08-AC-NF-152-m01		
Module	e coord	inator		Module offered by			
lecturer of lecture "Allgemeine and Anorganische Chemie für Studierende der Medizin, Zahnmedizin and Biologie" (General and Inorganic Chemistry for Students of Micine, Dentistry and Biology)			medizin and Biolo-	Institute of Inorgan	ic Chemistry		
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)			
3	nume	rical grade					
Duratio	n	Module level	Other prerequisites				
1 seme	ster	undergraduate					
Conten	ts						
		rovides students with an he fundamental techniqu			inorganic chemistry. In addition,		
Intende	ed lear	ning outcomes					
		e become familiar with thoroblems in chemistry an			emistry. They are able to identify		
Course	S (type, r	number of weekly contact hours, l	anguage — if other than Gei	rman)			
V (2)							
		Sessment (type, scope, langua le for bonus)	ge — if other than German,	examination offered — if no	ot every semester, information on whether		
		nation (approx. 60 minut ssessment: German and					
Allocat							
Additional information							
Workload							
90 h							
Teaching cycle							
Referre	d to in	LPO I (examination regulation:	s for teaching-degree progra	ımmes)			



Module title					Abbreviation
Principles of Inorganic Chemistry					08-AC1-152-m01
Module coordinator				Module offered by	
lecturer of lecture "Experimentalchemie" (Experimentalchemiet)		e" (Experimental	Institute of Inorgan	ic Chemistry	
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
8 numerical grade					
Duration Module level Other		Other prerequisites	3		
1 semester undergraduate					

Contents

The module provides an overview of the fundamental knowledge of chemistry. Emphasis is placed on the material and particle level, metals, acid-base reactions, the periodic table, chemical equilibrium and complexometry. In addition, the module introduces fundamental concepts of chemistry and teaches the basics of inorganic chemistry.

Intended learning outcomes

The student understands the principles of the periodic table and can obtain information from it. He/she is proficient in basic models of the structure of matter and can describe them properly. He/she can depict chemical reactions using typical chemical formula language and interpret them by identifying the type of reaction. The students know how the most important quantitative and qualitative analytical methods work and their areas of application.

Courses (type, number of weekly contact hours, language — if other than German)

V(4) + V(2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

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

Language of assessment: German and/or English

Allocation of places

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Additional information

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Workload

240 h

Teaching cycle

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

§ 42 | Nr. 1 and § 22 | Nr. 1 h)

§ 62 | Nr. 1



Module title Abbreviation								
_	Organic Chemistry for students of medicine, biomedicine, dental medicine and o8-OC-NF-152-mo1 natural sciences							
Modul	e coord	inator		Module offered by				
lecturer of lecture "Organische Chemie für Studierende der Medizin, Biomedizin, Zahnmedizin, Ingenieur- and Naturwissenschaften"								
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)				
3	nume	rical grade						
Durati	on	Module level	Other prerequisites	i				
1 seme	ester	undergraduate						
Conte	nts							
This m	odule p	rovides students with	an overview of the thec	retical principles of o	organic chemistry.			
Intend	ed lear	ning outcomes						
Studer	nts have	e become familiar with	the fundamental princi	ples of organic chem	nistry.			
Course	es (type, r	number of weekly contact hou	rs, language — if other than Ge	rman)				
V (2)								
		sessment (type, scope, lang le for bonus)	guage — if other than German,	examination offered — if no	t every semester, information on whether			
		nation (approx. 60 min ssessment: German ar						
Alloca	tion of p	olaces						
Additio	onal inf	ormation						
Workload								
90 h								
Teaching cycle								
Referre	ed to in	LPO I (examination regulat	ions for teaching-degree progra	ammes)				
		•						



Module	Module title Abbreviation					
Advanc	ed che	emical practical course			08-0P-152-m01	
Module coordinator Module offered by					l	
head o	f the re	search group offering the	e module	Faculty of Chemistr	y and Pharmacy	
ECTS	Meth	od of grading	Only after succ. co	mpl. of module(s)		
5	(not)	successfully completed				
Duratio	n	Module level	Other prerequisite	S		
1 semester undergraduate						
Conten	ts		•			
	_	rives students the opport ne in question.	unity to explore a re	search topic and app	ly the methods commonly used	
Intend	ed lear	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.						
Courses (type, number of weekly contact hours, language — if other than German)						
P (10)						
		sessment (type, scope, langua	ge — if other than Germar	, examination offered — if no	ot every semester, information on whether	

Allocation of places

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Additional information

Additional information on module duration: block placement / block taught practical course with a duration of 20 days.

Workload

150 h

Teaching cycle

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

a) talk (approx. 15 minutes) or b) log (approx. 10 to 20 pages)

Language of assessment: German and/or English



Summer Term 2023



Module	Module title Abbreviation							
	Introduction to Inorganic Chemistry for Students of Biology, Medicine and 08-AC-NF-152-mo1							
Dentis	Dentistry							
Module	e coord	inator		Module offered by				
lecturer of lecture "Allgemeine and Anorganische Ch mie für Studierende der Medizin, Zahnmedizin and gie" (General and Inorganic Chemistry for Students dicine, Dentistry and Biology)			medizin and Biolo-	Institute of Inorgan	ic Chemistry			
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)				
3	nume	rical grade						
Duratio	n	Module level	Other prerequisites	i				
1 seme	ster	undergraduate						
Conten	ts							
		rovides students with an he fundamental techniqu			inorganic chemistry. In addition,			
Intend	ed lear	ning outcomes						
		e become familiar with th problems in chemistry an			emistry. They are able to identify			
Course	S (type, r	number of weekly contact hours, l	anguage — if other than Ge	rman)				
V (2)								
		sessment (type, scope, langua le for bonus)	${\sf ge-if}$ other than German,	examination offered — if no	ot every semester, information on whether			
		nation (approx. 60 minut ssessment: German and						
Allocat	ion of p	olaces						
Additional information								
Workload								
90 h								
Teaching cycle								
Referre	d to in	LPO I (examination regulation	s for teaching-degree progra	ummes)				



					ı
Modul	e title				Abbreviation
Inorga	nic Che	emistry of the Elements			08-AS1-152-m01
Modul	e coord	linator		Module offered by	
		ture "Chemie der Hauptg		Institute of Inorgan	ic Chemistry
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)	
6	nume	rical grade			
Duratio	on	Module level	Other prerequisites	;	
1 seme	ester	undergraduate			
Conter	nts				
ses on	bondir	ng conditions, trends in th	ne periodic table and	the description and	and selected elements. It focu- structure of elements. In additi- stry and complex chemistry.
Intend	ed lear	ning outcomes			
reactiv	ity and		e to identify the coor	dination of the atom	ments in terms of their structure, s. In addition, they have learned
Course	es (type,	number of weekly contact hours,	language — if other than Ge	rman)	
V (2) +	V (2)				
		sessment (type, scope, langua ole for bonus)	age — if other than German,	examination offered — if no	ot every semester, information on whether
tes) or 20 pag	c) oral ges) or (up to 3 candidates (30 minutes)		e candidate each (20 to 30 minu- oer candidate) or d) log (approx.
Alloca	tion of	places			
Additio	onal inf	ormation			
Worklo	oad				
180 h	•				

Teaching cycle

§ 62 | Nr. 1

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



Module coordinator holder of the Chair of Biochemistry ECTS Method of grading numerical grade	Module	title			Abbreviation		
Chair of Biochemistry Chair of Biochemistry	Bioche	mistry	1		08-BC1-152-m01		
Contents Comprising lectures and exercises, this module acquaints students with the fundamental principles of bio mistry. A particular focus is on the biochemistry of proteins (amino acids, peptide bonds, primary, second tertiary and quaternary structures), catalytic strategies and enzyme kinetics, carbohydrate metabolism (glysis, gluconeogenesis, citric acid cycle, cellular respiration, photosynthesis), fatty acid metabolism (beta ox tion, fatty acid synthesis), nucleotide metabolism, the urea cycle and amino acid metabolism. The module discusses the structure of the DNA and the central dogma of molecular biology. Intended learning outcomes Students have become familiar with the fundamental principles of the topics in biochemistry that were dissed in the module. They are able to describe the key biochemical processes in cellular systems. Courses (type, number of weekly contact hours, language — if other than German)	Module	coord	inator		Module offered by		
Duration Module level Other prerequisites 1 semester undergraduate Contents Comprising lectures and exercises, this module acquaints students with the fundamental principles of bio mistry. A particular focus is on the biochemistry of proteins (amino acids, peptide bonds, primary, second tertiary and quaternary structures), catalytic strategies and enzyme kinetics, carbohydrate metabolism (glysis, gluconeogenesis, citric acid cycle, cellular respiration, photosynthesis), fatty acid metabolism (beta oution, fatty acid synthesis), nucleotide metabolism, the urea cycle and amino acid metabolism. The module discusses the structure of the DNA and the central dogma of molecular biology. Intended learning outcomes Students have become familiar with the fundamental principles of the topics in biochemistry that were dissed in the module. They are able to describe the key biochemical processes in cellular systems. Courses (type, number of weekly contact hours, language — if other than German)	holder	of the (Chair of Biochemistry		Chair of Biochemistry		
Duration Module level undergraduate Contents Comprising lectures and exercises, this module acquaints students with the fundamental principles of bio mistry. A particular focus is on the biochemistry of proteins (amino acids, peptide bonds, primary, second tertiary and quaternary structures), catalytic strategies and enzyme kinetics, carbohydrate metabolism (glysis, gluconeogenesis, citric acid cycle, cellular respiration, photosynthesis), fatty acid metabolism (beta ox tion, fatty acid synthesis), nucleotide metabolism, the urea cycle and amino acid metabolism. The module discusses the structure of the DNA and the central dogma of molecular biology. Intended learning outcomes Students have become familiar with the fundamental principles of the topics in biochemistry that were dissed in the module. They are able to describe the key biochemical processes in cellular systems. Courses (type, number of weekly contact hours, language — if other than German)	ECTS	Meth	od of grading	Only after succ. con	mpl. of module(s)		
1 semester undergraduate Contents Comprising lectures and exercises, this module acquaints students with the fundamental principles of bio mistry. A particular focus is on the biochemistry of proteins (amino acids, peptide bonds, primary, secondatertiary and quaternary structures), catalytic strategies and enzyme kinetics, carbohydrate metabolism (glysis, gluconeogenesis, citric acid cycle, cellular respiration, photosynthesis), fatty acid metabolism (beta oxition, fatty acid synthesis), nucleotide metabolism, the urea cycle and amino acid metabolism. The module discusses the structure of the DNA and the central dogma of molecular biology. Intended learning outcomes Students have become familiar with the fundamental principles of the topics in biochemistry that were dissed in the module. They are able to describe the key biochemical processes in cellular systems. Courses (type, number of weekly contact hours, language — if other than German)	5	nume	rical grade				
Contents Comprising lectures and exercises, this module acquaints students with the fundamental principles of bio mistry. A particular focus is on the biochemistry of proteins (amino acids, peptide bonds, primary, second tertiary and quaternary structures), catalytic strategies and enzyme kinetics, carbohydrate metabolism (glysis, gluconeogenesis, citric acid cycle, cellular respiration, photosynthesis), fatty acid metabolism (beta oxtion, fatty acid synthesis), nucleotide metabolism, the urea cycle and amino acid metabolism. The module discusses the structure of the DNA and the central dogma of molecular biology. Intended learning outcomes Students have become familiar with the fundamental principles of the topics in biochemistry that were dissed in the module. They are able to describe the key biochemical processes in cellular systems. Courses (type, number of weekly contact hours, language — if other than German)	Duratio	n	Module level	Other prerequisites	5		
Comprising lectures and exercises, this module acquaints students with the fundamental principles of bio mistry. A particular focus is on the biochemistry of proteins (amino acids, peptide bonds, primary, second tertiary and quaternary structures), catalytic strategies and enzyme kinetics, carbohydrate metabolism (gly sis, gluconeogenesis, citric acid cycle, cellular respiration, photosynthesis), fatty acid metabolism (beta or tion, fatty acid synthesis), nucleotide metabolism, the urea cycle and amino acid metabolism. The module discusses the structure of the DNA and the central dogma of molecular biology. Intended learning outcomes Students have become familiar with the fundamental principles of the topics in biochemistry that were dissed in the module. They are able to describe the key biochemical processes in cellular systems. Courses (type, number of weekly contact hours, language — if other than German)	1 seme	ster	undergraduate				
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sed in the module. They are able to describe the key biochemical processes in cellular systems. Courses (type, number of weekly contact hours, language — if other than German)	Intende	ed lear	ning outcomes				
	Students have become familiar with the fundamental principles of the topics in biochemistry that were discussed in the module. They are able to describe the key biochemical processes in cellular systems.						
V (2) + Ü (1)		Courses (type, number of weekly contact hours, language — if other than German)					
		S (type, r	number of weekly contact hours	- I other than de			

Allocation of places

written examination (approx. 60 to 90 minutes)

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Additional information

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Workload

150 h

Teaching cycle

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

§ 42 l Nr. 2

§ 62 | Nr. 2



Organic Chemistry for students of medicine, biomedicine, dental medicine and natural sciences Module cordinator lecture of lecture of Organische Chemie für Studierende der Medizin, Biomedizin, Zahnmedizin, Ingenieur- and Natural viscosmisches Chemie für Studierende der Medizin, Biomedizin, Zahnmedizin, Ingenieur- and Natural viscosmisches Chemie für Studierende der Medizine, Biomedizin, Zahnmedizin, Ingenieur- and Natural viscosmisches Chemiestry ECTS Method of grading Only after succ. compt. of module(s) 3 numerical grade	Module title Abbreviation								
Institute of Organic Chemistry Medizin, Biomedizin, Ingenieur- and Natur- wissers-shafter Medizin, Zahnmedizin, Ingenieur- and Natur- wissers-shafter Medizin	_								
Medizin, Biomedizin, Zahnmedizin, Ingenieur- and Naturwissens-kaltering ECTS Method of grading Module sevel Other prerequisites 1 semester Indended set Inde	Module	e coord	inator		Module offered by				
Jumerical grade Other prerequisites undergraduate Other prerequisites Other prerequisite	Medizi	Medizin, Biomedizin, Zahnmedizin, Ingenieur- and Natur-							
Duration Module level other prerequisites 1 semester undergraduate Contents This module provides students with an overview of the theoretical principles of organic chemistry. Intended learning outcomes Students have become familiar with the fundamental principles of organic chemistry. Courses (type, number of weekly contact hours, language — if other than German) V (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) written examination (approx. 6 on minutes) Language of assessment: German and/or English Allocation of places Additional information Workload 90 h Teaching cycle	ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)				
I semester undergraduate Contents This module provides students with an overview of the theoretical principles of organic chemistry. Intended learning outcomes Students have become familiar with the fundamental principles of organic chemistry. Courses (type, number of weekly contact hours, language – if other than German) V (2) Method of assessment (type, scope, language – if other than German, examination offered – if not every semester, information on whether module is creditable for bonus) written examination (approx. 60 minutes) Language of assessment: German and/or English Allocation of places Additional information Workload 90 h Teaching cycle	3	nume	rical grade						
Contents This module provides students with an overview of the theoretical principles of organic chemistry. Intended learning outcomes Students have become familiar with the fundamental principles of organic chemistry. Courses (type, number of weekly contact hours, language – if other than German) V (2) Method of assessment (type, scope, language – if other than German, examination offered – if not every semester, information on whether module is creditable for bonus) written examination (approx. 60 minutes) Language of assessment: German and/or English Allocation of places Additional information Workload 90 h Teaching cycle Teaching cycle	Duratio	on	Module level	Other prerequisites					
This module provides students with an overview of the theoretical principles of organic chemistry. Intended learning outcomes Students have become familiar with the fundamental principles of organic chemistry. Courses (type, number of weekly contact hours, language — if other than German) V (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) written examination (approx. 60 minutes) Language of assessment: German and/or English Allocation of places Additional information Workload 90 h Teaching cycle	1 seme	ster	undergraduate						
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Students have become familiar with the fundamental principles of organic chemistry. Courses (type, number of weekly contact hours, language – if other than German) V (2) Method of assessment (type, scope, language – if other than German, examination offered – if not every semester, information on whether module is creditable for bonus) written examination (approx. 60 minutes) Language of assessment: German and/or English Allocation of places Additional information Workload 90 h Teaching cycle	This m	odule p	rovides students with ar	overview of the theo	retical principles of o	organic chemistry.			
Courses (type, number of weekly contact hours, language — if other than German) V (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) written examination (approx. 60 minutes) Language of assessment: German and/or English Allocation of places Additional information Workload 90 h Teaching cycle	Intend	ed learı	ning outcomes						
Wethod of assessment (type, scope, language – if other than German, examination offered – if not every semester, information on whether module is creditable for bonus) written examination (approx. 60 minutes) Language of assessment: German and/or English Allocation of places Additional information Workload 90 h Teaching cycle	Studer	its have	e become familiar with th	e fundamental princi	ples of organic chem	nistry.			
Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) written examination (approx. 60 minutes) Language of assessment: German and/or English Allocation of places Additional information Workload 90 h Teaching cycle	Course	S (type, n	number of weekly contact hours,	language — if other than Ger	rman)				
module is creditable for bonus) written examination (approx. 60 minutes) Language of assessment: German and/or English Allocation of places Additional information Workload 90 h Teaching cycle	V (2)								
Language of assessment: German and/or English Allocation of places Additional information Workload 90 h Teaching cycle				age — if other than German, o	examination offered — if no	t every semester, information on whether			
Additional information Workload 90 h Teaching cycle									
Workload 90 h Teaching cycle	Allocat	ion of p	olaces						
Workload 90 h Teaching cycle									
90 h Teaching cycle	Additio	nal inf	ormation						
90 h Teaching cycle									
Teaching cycle	Workload								
	90 h								
	Teaching cycle								
Referred to in LPO I (examination regulations for teaching-degree programmes)									
	Referre	ed to in	LPO I (examination regulation	s for teaching-degree progra	mmes)				



Module title					Abbreviation	
Advanced chemical practical course					08-0P-152-m01	
Modul	e coord	linator		Module offered by		
head of the research group offering the			e module	Faculty of Chemistry and Pharmacy		
ECTS Method of grading Only after succ. compl. of module(s)						
5	(not)	successfully completed				
Duratio	on	Module level	Other prerequisites	i		
1 seme	ı semester undergraduate					
Contents						
	_	gives students the opport	unity to explore a res	search topic and app	ly the methods commonly used	

in the discipline in question.

Intended learning outcomes

Students are able to explore a specific research topic and present the results of their work in a written report or

 $\textbf{Courses} \ (\textbf{type, number of weekly contact hours, language} - \textbf{if other than German})$

P (10)

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) talk (approx. 15 minutes) or b) log (approx. 10 to 20 pages) Language of assessment: German and/or English

Allocation of places

oral presentation.

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Additional information

Additional information on module duration: block placement / block taught practical course with a duration of 20 days.

Workload

150 h

Teaching cycle

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



Winter Term 2023



Module	Module title Abbreviation							
	Introduction to Inorganic Chemistry for Students of Biology, Medicine and Dentistry 08-AC-NF-152-m01							
Module	coord	inator		Module offered by				
lecturer of lecture "Allgemeine and Anorganische Chemie für Studierende der Medizin, Zahnmedizin and Biologie" (General and Inorganic Chemistry for Students of Medicine, Dentistry and Biology)				Institute of Inorgan	ic Chemistry			
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)				
3	nume	rical grade						
Duratio	n	Module level	Other prerequisites					
1 seme	ster	undergraduate						
Conten	ts							
		rovides students with an he fundamental techniqu			inorganic chemistry. In addition,			
Intende	ed learı	ning outcomes						
		e become familiar with th problems in chemistry an			emistry. They are able to identify			
Course	S (type, n	umber of weekly contact hours, l	anguage — if other than Ger	rman)				
V (2)								
		sessment (type, scope, langua le for bonus)	ge — if other than German,	examination offered — if no	ot every semester, information on whether			
		nation (approx. 60 minut ssessment: German and						
Allocat	ion of p	olaces						
Additio	nal inf	ormation						
Workload								
90 h								
Teaching cycle								
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)							



Modul	e title			Abbreviation	
Principles of Inorganic Chemistry					08-AC1-152-m01
Module coordinator				Module offered by	
	lecturer of lecture "Experimentalchemie" (Experimental Chemistry)			Institute of Inorganic Chemistry	
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
8 numerical grade					
Duration Module level Other prerequisit			Other prerequisites		
1 semester undergraduate					

Contents

The module provides an overview of the fundamental knowledge of chemistry. Emphasis is placed on the material and particle level, metals, acid-base reactions, the periodic table, chemical equilibrium and complexometry. In addition, the module introduces fundamental concepts of chemistry and teaches the basics of inorganic chemistry.

Intended learning outcomes

The student understands the principles of the periodic table and can obtain information from it. He/she is proficient in basic models of the structure of matter and can describe them properly. He/she can depict chemical reactions using typical chemical formula language and interpret them by identifying the type of reaction. The students know how the most important quantitative and qualitative analytical methods work and their areas of application.

Courses (type, number of weekly contact hours, language — if other than German)

V(4) + V(2)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

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

Language of assessment: German and/or English

Allocation of places

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Additional information

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Workload

240 h

Teaching cycle

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

§ 42 | Nr. 1 and § 22 | Nr. 1 h)

§ 62 | Nr. 1



Module	e title	'	Abbreviation				
_	Organic Chemistry for students of medicine, biomedicine, dental medicine and o8-OC-NF-152-mo1 natural sciences						
Module	e coord	inator		Module offered by			
lecturer of lecture "Organische Chemie für Studierende de Medizin, Biomedizin, Zahnmedizin, Ingenieur- and Natur- wissenschaften"				Institute of Organic Chemistry			
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)			
3	nume	rical grade					
Duratio	on	Module level	Other prerequisites				
1 seme	ster	undergraduate					
Conten	its						
This mo	odule p	rovides students with a	n overview of the theo	retical principles of	organic chemistry.		
Intend	ed learı	ning outcomes					
Studen	ıts have	e become familiar with th	ne fundamental princi	ples of organic chem	nistry.		
Course	S (type, n	number of weekly contact hours,	language — if other than Ge	rman)			
V (2)							
		sessment (type, scope, langu le for bonus)	age — if other than German,	examination offered — if no	t every semester, information on whether		
		nation (approx. 60 minu ssessment: German and					
Allocat	ion of p	olaces					
Additio	nal inf	ormation					
Worklo	Workload						
90 h							
Teaching cycle							
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)						



Module title					Abbreviation
Advanc	Advanced chemical practical course				08-0P-152-m01
Module	coord	inator		Module offered by	
head o	head of the research group offering the module			Faculty of Chemistry and Pharmacy	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
5	(not)	successfully completed			
Duration Module level O		Other prerequisites			
1 semester undergraduate					
Contents					

This module gives students the opportunity to explore a research topic and apply the methods commonly used in the discipline in question.

Intended learning outcomes

Students are able to explore a specific research topic and present the results of their work in a written report or oral presentation.

Courses (type, number of weekly contact hours, language — if other than German)

P (10)

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) talk (approx. 15 minutes) or b) log (approx. 10 to 20 pages)

Language of assessment: German and/or English

Allocation of places

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Additional information

Additional information on module duration: block placement / block taught practical course with a duration of 20 days.

Workload

150 h

Teaching cycle

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



Summer Term 2024



Module	Module title Abbreviation							
Introdu	ıction t	o Inorganic Chemistry fo	, Medicine and	08-AC-NF-152-m01				
Dentist	Dentistry							
Module	e coord	inator		Module offered by				
lecturer of lecture "Allgemeine and Anorganische Chemie für Studierende der Medizin, Zahnmedizin and Biologie" (General and Inorganic Chemistry for Students of Medicine, Dentistry and Biology)				Institute of Inorgan	ic Chemistry			
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)				
3	nume	rical grade						
Duratio	n	Module level	Other prerequisites					
1 seme	ster	undergraduate						
Conten	ts							
		rovides students with an he fundamental techniqu			inorganic chemistry. In addition,			
Intende	ed learı	ning outcomes						
		e become familiar with th problems in chemistry an			emistry. They are able to identify			
Course	S (type, n	number of weekly contact hours, l	anguage — if other than Ge	rman)				
V (2)								
		sessment (type, scope, langua le for bonus)	ge — if other than German,	examination offered — if n	ot every semester, information on whether			
		nation (approx. 60 minut ssessment: German and						
Allocat	ion of p	olaces						
Additio	nal inf	ormation						
Workload								
90 h								
Teachi	Teaching cycle							
Referre	d to in	LPO I (examination regulation	s for teaching-degree progra	immes)				



		130847	O MEONE ABILITY	, , , , , , , , ,		
Modul	e title			Abbreviation		
Inorga	Inorganic Chemistry of the Elements				08-AS1-152-m01	
Modul	e coord	inator		Module offered by		
		ture "Chemie der Hauptg of Main-group Elements		Institute of Inorgan	ic Chemistry	
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)		
6	nume	rical grade				
Duratio	on	Module level	Other prerequisites			
1 seme	ester	undergraduate				
Conter	nts					
ses on	bondir	ig conditions, trends in th	ne periodic table and	the description and	and selected elements. It focu- structure of elements. In additi- stry and complex chemistry.	
Intend	ed lear	ning outcomes				
reactiv	ity and		e to identify the coord	dination of the atom	ments in terms of their structure, s. In addition, they have learned	
Course	es (type, r	number of weekly contact hours, I	anguage — if other than Ger	man)		
V (2) +	V (2)					
		sessment (type, scope, langua	ge — if other than German,	examination offered — if no	ot every semester, information on whether	
tes) or 20 pag	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						
180 h						

Teaching cycle

§ 62 | Nr. 1

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



Module title Abbreviation					Abbreviation
Bioche	mistry	1			08-BC1-152-m01
Modul	e coord	inator		Module offered by	l.
holder	of the	Chair of Biochemistry		Chair of Biochemis	try
ECTS	Meth	od of grading	Only after succ. con	ipl. of module(s)	
5	nume	rical grade			
Duratio	n	Module level	Other prerequisites	5	
1 seme	ster	undergraduate			
Conten	ts				
Comprising lectures and exercises, this module acquaints students with the fundamental principles of biochemistry. A particular focus is on the biochemistry of proteins (amino acids, peptide bonds, primary, secondary, tertiary and quaternary structures), catalytic strategies and enzyme kinetics, carbohydrate metabolism (glycolysis, gluconeogenesis, citric acid cycle, cellular respiration, photosynthesis), fatty acid metabolism (beta oxidation, fatty acid synthesis), nucleotide metabolism, the urea cycle and amino acid metabolism. The module also discusses the structure of the DNA and the central dogma of molecular biology.					
Intend	ed lear	ning outcomes			
Studer	ts have		•		biochemistry that were discus-

sed in the module. They are able to describe the key biochemical processes in cellular systems.

Courses (type, number of weekly contact hours, language - if other than German)

 $V(2) + \ddot{U}(1)$

 $\textbf{Method of assessment} \ (\textbf{type}, \textbf{scope}, \textbf{language} - \textbf{if other than German, examination of fered} - \textbf{if not every semester, information on whether} \ (\textbf{scope}, \textbf{language} - \textbf{if other than German, examination of fered} - \textbf{if not every semester, information on whether} \ (\textbf{scope}, \textbf{language} - \textbf{if other than German, examination of fered} - \textbf{if not every semester, information on whether} \ (\textbf{scope}, \textbf{language} - \textbf{if other than German, examination of fered} - \textbf{if not every semester, information on whether} \ (\textbf{scope}, \textbf{language} - \textbf{if other than German, examination of fered} - \textbf{if not every semester, information on whether} \ (\textbf{scope}, \textbf{language} - \textbf{if other than German, examination of fered} - \textbf{if not every semester, information on whether} \ (\textbf{scope}, \textbf{language} - \textbf{if other than German, examination of fered} - \textbf{if not every semester, information on whether} \ (\textbf{scope}, \textbf{language} - \textbf{if other than German, examination of fered} - \textbf{if not every semester, information on whether} \ (\textbf{scope}, \textbf{language} - \textbf{if other than German, examination of fered} - \textbf{if not every semester, examination of fered} \ (\textbf{scope}, \textbf{language} - \textbf{if other than German, examination of fered} - \textbf{if not every semester, examination of fered} \ (\textbf{scope}, \textbf{language} - \textbf{if other than German, examination of fered} - \textbf{if not every semester, examination of fered} \ (\textbf{scope}, \textbf{language} - \textbf{language} - \textbf{language} - \textbf{language} \ (\textbf{language} - \textbf{language} - \textbf{language} - \textbf{language} - \textbf{language} - \textbf{language} \ (\textbf{language} - \textbf{language} - \textbf{langua$ module is creditable for bonus)

written examination (approx. 60 to 90 minutes)

Allocation of places

Additional information

Workload

150 h

Teaching cycle

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

§ 42 l Nr. 2

§ 62 I Nr. 2



numerical grade Duration Module level Other prerequisites 1 semester undergraduate Contents This module provides students with an overview of the theoretical principles of organic chemistry. Intended learning outcomes Students have become familiar with the fundamental principles of organic chemistry. Courses (type, number of weekly contact hours, language – if other than German) V (2) Method of assessment (type, scope, language – if other than German, examination offered – if not every semester, information on whether module is creditable for bonus) written examination (approx. 60 minutes) Language of assessment: German and/or English Allocation of places Additional information Workload	Module	e title		Abbreviation					
Institute of Organic Chemistry Medizin, Biomedizin, Zahnmedizin, Ingenieur- and Natur- wisserschaften	_								
Medizin, Biomedizin, Zahnmedizin, Ingenieur- and Naturwissenschaften ECTS Method of grading Only after succ. compl. of module(s) 3 numerical grade	Module	e coord	inator		Module offered by				
Duration Module level Other prerequisites	Medizin, Biomedizin, Zahnmedizin, Ingenieur- and Natur				Institute of Organic Chemistry				
Duration Module level Other prerequisites 1 semester undergraduate Contents This module provides students with an overview of the theoretical principles of organic chemistry. Intended learning outcomes Students have become familiar with the fundamental principles of organic chemistry. Courses (type, number of weekly contact hours, language — if other than German) V (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) written examination (approx. 60 minutes) Language of assessment: German and/or English Allocation of places	ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)				
Tontents This module provides students with an overview of the theoretical principles of organic chemistry. Intended learning outcomes Students have become familiar with the fundamental principles of organic chemistry. Courses (type, number of weekly contact hours, language — if other than German) V (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) written examination (approx. 60 minutes) Language of assessment: German and/or English Allocation of places Additional information Workload 90 h Teaching cycle Teaching cycle Teaching cycle	3	nume	rical grade						
Contents This module provides students with an overview of the theoretical principles of organic chemistry. Intended learning outcomes Students have become familiar with the fundamental principles of organic chemistry. Courses (type, number of weekly contact hours, language — if other than German) V (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) written examination (approx. 60 minutes) Language of assessment: German and/or English Allocation of places Additional information Workload 90 h Teaching cycle	Duratio	on	Module level	Other prerequisites					
This module provides students with an overview of the theoretical principles of organic chemistry. Intended learning outcomes Students have become familiar with the fundamental principles of organic chemistry. Courses (type, number of weekly contact hours, language — if other than German) V (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) written examination (approx. 60 minutes) Language of assessment: German and/or English Allocation of places Additional information Workload 90 h Teaching cycle	1 seme	ster	undergraduate						
Intended learning outcomes Students have become familiar with the fundamental principles of organic chemistry. Courses (type, number of weekly contact hours, language — if other than German) V (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) written examination (approx. 60 minutes) Language of assessment: German and/or English Allocation of places Additional information Workload 90 h Teaching cycle	Conten	its							
Students have become familiar with the fundamental principles of organic chemistry. Courses (type, number of weekly contact hours, language – if other than German) V (2) Method of assessment (type, scope, language – if other than German, examination offered – if not every semester, information on whether module is creditable for bonus) written examination (approx. 60 minutes) Language of assessment: German and/or English Allocation of places Additional information Workload 90 h Teaching cycle	This m	odule p	rovides students with ar	overview of the theo	retical principles of o	organic chemistry.			
Courses (type, number of weekly contact hours, language — if other than German) V (2) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) written examination (approx. 60 minutes) Language of assessment: German and/or English Allocation of places Additional information Workload 90 h Teaching cycle	Intend	ed learı	ning outcomes						
Wethod of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) written examination (approx. 60 minutes) Language of assessment: German and/or English Allocation of places Additional information Workload 90 h Teaching cycle	Studen	its have	become familiar with th	e fundamental princi	ples of organic chem	istry.			
Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus) written examination (approx. 60 minutes) Language of assessment: German and/or English Allocation of places Additional information Workload 90 h Teaching cycle	Course	S (type, n	number of weekly contact hours,	language — if other than Ger	rman)				
module is creditable for bonus) written examination (approx. 60 minutes) Language of assessment: German and/or English Allocation of places Additional information Workload 90 h Teaching cycle	V (2)								
Language of assessment: German and/or English Allocation of places Additional information Workload 90 h Teaching cycle				age — if other than German, o	examination offered — if no	t every semester, information on whether			
Additional information Workload 90 h Teaching cycle									
Workload 90 h Teaching cycle	Allocat	ion of p	olaces						
Workload 90 h Teaching cycle	-								
90 h Teaching cycle	Additio	nal inf	ormation						
90 h Teaching cycle									
Teaching cycle	Worklo	ad							
	90 h								
	Teaching cycle								
Referred to in LPO I (examination regulations for teaching-degree programmes)									
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Modul	Module title Abbreviation						
Advand	Advanced chemical practical course 08-OP-152-mo1						
Module coordinator Module offered by							
head o	f the re	search group offering the	e module	Faculty of Chemistr	y and Pharmacy		
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)			
5	(not)	successfully completed					
Duratio	on	Module level	Other prerequisites				
1 seme	ster	undergraduate					
Conten	its						
	_	gives students the opport ne in question.	unity to explore a res	search topic and app	ly the methods commonly used		
Intend	ed lear	ning outcomes					
Studer oral pro			research topic and p	resent the results of	their work in a written report or		
Course	S (type,	number of weekly contact hours,	language — if other than Ge	rman)			
P (10)							
		sessment (type, scope, langua ole for bonus)	age — if other than German,	examination offered — if no	ot every semester, information on whether		
a) talk	(annro	y 15 minutes) or b) log (2	nnroy 10 to 20 nago	·c)			

a) talk (approx. 15 minutes) or b) log (approx. 10 to 20 pages) Language of assessment: German and/or English

Allocation of places

Additional information

Additional information on module duration: block placement / block taught practical course with a duration of 20 days.

Workload

150 h

Teaching cycle

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