

Module Catalogue for the Subject

Food Chemistry

as a Bachelor's with 1 major with the degree "Bachelor of Science" (180 ECTS credits)

Examination regulations version: 2009 Responsible: Faculty of Chemistry and Pharmacy

JMU Würzburg • generated 26-Aug-2024 • exam. reg. data record 82|096|-|-|H|2009

Julius-Maximilians-UNIVERSITÄT WÜRZBURG

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The subject is divided into

section / sub-section	ECTS credits	starting page
Compulsory Courses	150	6
Thesis	10	32
Subject-specific Key Skills	15	34



Content and Objectives of the Programme

No translation available.

Abbreviations used

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

Term: **SS** = summer semester, **WS** = winter semester

Methods of grading: **NUM** = numerical grade, **B/NB** = (not) successfully completed

Regulations: **(L)ASPO** = general academic and examination regulations (for teaching-degree programmes), **FSB** = subject-specific provisions, **SFB** = list of modules

Other: **A** = thesis, **LV** = course(s), **PL** = assessment(s), **TN** = participants, **VL** = prerequisite(s)

Conventions

Unless otherwise stated, courses and assessments will be held in German, assessments will be offered every semester and modules are not creditable for bonus.

Notes

Should there be the option to choose between several methods of assessment, the lecturer will agree with the module coordinator on the method of assessment to be used in the current semester by two weeks after the start of the course at the latest and will communicate this in the customary manner.

Should the module comprise more than one graded assessment, all assessments will be equally weighted, unless otherwise stated below.

Should the assessment comprise several individual assessments, successful completion of the module will require successful completion of all individual assessments.

In accordance with

the general regulations governing the degree subject described in this module catalogue:

ASP02009

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

22-Jul-2010 (2010-49)

This module handbook seeks to render, as accurately as possible, the data that is of statutory relevance according to the examination regulations of the degree subject. However, only the FSB (subject-specific provisions) and SFB (list of modules) in their officially published versions shall be legally binding. In the case of doubt, the provisions on, in particular, module assessments specified in the FSB/SFB shall prevail.



Compulsory Courses

(150 ECTS credits)

Module title				Abbreviation		
Mathematics for students in Chemistry and Biology					10-M-MCB-101-m01	
Module coordinator				Module offered by		
Dean o	f Studi	es Mathematik (Mathe	matics)	Institute of Mathem	atics	
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)		
5	nume	rical grade				
Duratio	on	Module level	Other prerequisites	i		
1 semester undergraduate		Registration for the ning of the course of the specified registr to qualify for admis- certain percentage of the respective detail exercise will be con sessment. If studen assessment over th gistration for assess will be admitted to ster. For assessment lification for admiss too.	Registration for the exercise must be made via SB@home at the begin- ning of the course or as announced by the lecturer in accordance with the specified registration deadlines. Certain prerequisites must be met to qualify for admission to assessment (e. g. successful completion of a certain percentage of exercises). The lecturer will inform students about the respective details at the beginning of the course. Registration for the exercise will be considered a declaration of will to seek admission to as- sessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their re gistration for assessment into effect. Students who meet all prerequisite will be admitted to assessment in the current or in the subsequent seme ster. For assessment at a later date, students will have to obtain the qua- lification for admission to assessment anew and have to register anew,			
Conten	ts					
Functio of functions	onal rel tions ir s in sta	ations, differentiation n several variables, pov tistics.	and integration of funct wer series, ordinary diff	ions in one variable, erential equations, s	curve sketching, dif ystems of linear equ	ferentiation lations, basic
Intende	ed lear	ning outcomes				
The stu apply b	dent is pasic m	able to recognise and athematical methods	phrase simple questio to them and interpret th	ns from natural scier ne results.	nces as mathematica	al problems,
Course	S (type, r	number of weekly contact hou	rs, language — if other than Ge	rman)		
V + Ü (r	no info	rmation on SWS (week	ly contact hours) and co	ourse language avail	able)	
Method module is	d of ass creditab	sessment (type, scope, lan le for bonus)	guage — if other than German,	examination offered — if no	t every semester, informat	ion on whether
written	exami	nation (approx. 90 to 1	20 minutes)			
Allocat	ion of _l	places				
Additio	nal inf	ormation				
Worklo	ad					
Teachi	ng cycl	e				
Referre	d to in	LPO I (examination regulat	ions for teaching-degree progra	ammes)		
Bachal	Module appears in					
Bachel	Bachelor' degree (1 major) Biochemistry (2011) Bachelor' degree (1 major) Biochemistry (2009) Bachelor' degree (1 major) Biology (2011)					
Bachelor's	with 1 ma	jor Food Chemistry (2009)	JMU Würzburg • ta record Bachel	generated 26-Aug-2024 • ex or (180 ECTS) Lebensmittelch	am. reg. da- emie - 2009	page 7 / 37

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Bachelor' degree (1 major) Biology (2010) Bachelor' degree (1 major) Chemistry (2010) Bachelor' degree (1 major) Food Chemistry (2009) Bachelor' degree (1 major) FOKUS Chemistry (2011) No final examination Special study offering (2010)

Module	title				Abbreviation	
General Biology of Economic Plants from Food and Forage			07-LMC-BIO1-092-m01			
Module	e coord	inator		Module offered by		
holder	of the (Chair of Plant Physiology	and Biophysics	Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
7	nume	rical grade				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
starting with its macroscopic structure before moving on to its microscopic structure. The course will point out differences and similarities between prokaryotic cells (bacteria, archaebacteria) and eukaryotic cells (animals, plants). In the second part of the winter semester course, students will acquire the fundamental knowledge ne- cessary to understand the form (anatomy, morphology and cytology) and function of plant organisms. The sum- mer semester course will introduce students to the fundamental principles of botany, using the example of food and fodder crops. Taking into account their taxonomy, morphology and cytology, the course will discuss physio- logical and genetic aspects of selected crops and their compounds as well as aspects related to the breeding of these crops. In this context, the course will point out differences that may be used, for example, for the micros-						
Intende	ed lear	ning outcomes	· · ·			
In the winter semester, students have acquired a knowledge of the structure of plant cells and their (biological) macromolecules as well as of the specific characteristics of the intracellular and extracellular structures of plant cells. In the summer semester, students have acquired the following knowledge and skills: - Fundamental knowledge of the distinguishing characteristics, genetics and physiology of representatives of the plant kingdom with special attention to crops Fundamental knowledge of major anatomical and morphological plant traits as well as of the compounds of food and fodder crops Fundamental knowledge of the components and functioning of microscopes Fundamental preparation skills Basic familiarity with methods for the microscopic examination of crops Fundamental skills in the interpretation of macroscopic and histologic plant preparations by light mi-						
Course	S (type, r	number of weekly contact hours, l	anguage — if other than Ger	rman)		
This mo compor o	odule c nent. 7-LMC- 7-LMC-	omprises 2 module comp BIO1-1-092: V + V (no info BIO1-2-092: V + Ü (no info	oonents. Information ormation on SWS (we ormation on SWS (we	on courses will be li ekly contact hours) a ekly contact hours) a	sted separately for each module and course language available) and course language available)	
module is	creditab	le for bonus)	ge — If other than German, (examination offered — if no	ot every semester, information on whether	
Assess low. Un vidual a	Assessment in this module comprises the assessments in the individual module components as specified be- low. Unless stated otherwise, successful completion of the module will require successful completion of all indi- vidual assessments.					
Assess Cell to t • 2 • w Assess and Min pic Ana	ment in the Pla ECTS, vritten o ment in croscop ilysis o	n module component o7- nt Organism Method of grading: nume examination (approx. 60 n module component o7- bic Analysis of Food and I f Food and Forage	LMC-BIO1-1-092: From erical grade minutes) LMC-BIO1-2-092: Gen Forage General Biolog	m the Plant Cell to th neral Biology and Mi gy and Microscopy o	ne Plant Organism From the Plant croscopy of Economic Plants, f Economic Plants, and Microsco-	

- 5 ECTS, Method of grading: numerical grade
- practical examination (approx. 2 to 3 hours, ungraded) and written examination (approx. 60 minutes)

Bachelor's with 1	major Food	Chemistry	(2009)	



Allocation of places

Additional information

Additional information will be listed separately for each module component.

• 07-LMC-BIO1-2-092: --

• 07-LMC-BIO1-1-092: Will include 3 teaching units on photosynthesis.

Workload

Teaching cycle

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

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Module appears in

Bachelor' degree (1 major) Food Chemistry (2009)

Module	e title				Abbreviation	
General and Inorganic Chemistry for Food Chemistry Students			nts	08-LMC-AC1-092-m01		
Module	e coord	inator		Module offered by		
holder	of the (Chair of Food Chemistry		Institute of Pharma	cy and Food Chemistry	
ECTS	Metho	od of grading	Only after succ. com	npl. of module(s)		
14	nume	rical grade				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
and che mical e well as pose er	emical quation their q nvironn	kinetics; chemical equili ns and stoichiometry, ch ualitative inorganic analy nental or toxicological ris	brium; the law of mas emical behaviour of r ysis with a special foc ks.	eaction; acid-base eactants (elements cus on elements con	systems and redox systems; che- and categories of substances) as amonly found in foods that may	
Intende	ed leari	ing outcomes	0 1:1 1:	<u>.</u>	1,	
Sare an		enic laboratory practices.	Qualitative analysis	of inorganic ions an	d ion mixtures in drinking water.	
	S (type, n	aformation on SWS (wool	anguage — If other than Ger	man) d cource language a	visilable)	
Mothor			Kiy contact nours) and	u course language a	vallable)	
module is	creditab	le for bonus)	ge – Il other than German, e		it every semester, information on whether	
written	exami	nation (approx. 120 minu	tes)			
Allocat	ion of p	olaces				
Additio	nal inf	ormation				
Worklo	ad					
Teachir	ng cycl	9				
Referre	d to in	LPO I (examination regulation	s for teaching-degree progra	mmes)		
Module	Module appears in					
Bachel	or' deg	ree (1 major) Food Chemi	stry (2009)			

Module title				Abbreviation		
Introduction to Physics for Students of Non-physics-related Minor Subjects				11-EFNF-072-m01		
Module	e coord	inator		Module offered by		
Manag	ing Dire	ector of the Institute of A	Applied Physics	Faculty of Physics a	nd Astronomy	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
7	nume	rical grade				
Duratio	on	Module level	Other prerequisites			
2 seme	ester	undergraduate				
Conten	ts		<u> </u>			
Mecha	nics, vi	bration theory, thermor	vnamics, ontics, scier	nce of electricity. Ato	mic and Nuclear Phy	sics
Intend	ed lear	ning outcomes				51051
The stu	idonte l	have knowledge of the				
Course		nave knowledge of the	Janguaga if other than Co	rman)		
	S (lype, r		, language — II other than Ger		abla)	
v + v (r		mation on SWS (weeki)		burse language avail	able)	
module is	d of ass s creditab	eessment (type, scope, lang le for bonus)	uage — if other than German,	examination offered — if no	t every semester, informati	on on whether
written	exami	nation (approx. 120 min	utes)			
Allocat	ion of p	olaces				
Only as	s part o	f pool of general key sk	ills (ASQ): 10 places. P	laces will be allocate	ed by lot.	
Additio	nal inf	ormation			,	
Worklo	ad					
Teachi	ng cvcl	e				
	<u> </u>					
Referre	d to in	IPOI (examination regulation	ins for teaching-degree progra	ammes)		
	u co m					
Module	e appea	urs in				
Bachel	or' deg	ree (1 major) Biochemis	try (2011)			
Bachel	or' deg	ree (1 major) Biochemis	try (2013)			
Bachel	or' deg	ree (1 major) Biochemis	try (2009)			
Bachel	or' deg	ree (1 major) Biology (2	011)			
Bachel	or' deg	ree (1 major) Biology (2)	007)			
Bachel	or deg	ree (1 major) Blology (2)	(2227)			
Bachel	or deg	ree (1 major) Chemistry	(2007)			
Bachel	or deg	ree (1 major) Chemistry	(2008)			
Bachol	or' dog	ree (1 major) Chemistry	(2010)			
Bachel	or' deg	ree (1 major) Chemistry	(2009)			
Bachel	or ucs or deg	ree (1 major) Geography	(2007)			
Bachel	Dachelor' degree (1 major) Geography (2008) Bachelor' degree (1 major) Geography (2010)					
Bachel	Bachelor' degree (1 major) Computer Science (2007)					
Bachel	or' deg	ree (1 major) Computer	Science (2014)			
Bachel	Bachelor' degree (1 major) Computer Science (2014)					
Bachel	or' deg	ree (1 major) Food Chen	nistry (2009)			
Bachel	or' deg	ree (1 major) Mathemat	ics (2008)			
Bachelor's	with 1 ma	jor Food Chemistry (2009)	JMU Würzburg •	generated 26-Aug-2024 • ex	am. reg. da-	page 12 / 37
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Bachelor' degree (1 major) Mathematics (2014) Bachelor' degree (1 major) Mathematics (2012) Bachelor' degree (1 major) Mathematics (2013) Bachelor' degree (1 major) Mathematics (2007) Bachelor' degree (1 major) Biomedicine (2009) Bachelor' degree (1 major) Computational Mathematics (2009) Bachelor' degree (1 major) Computational Mathematics (2014) Bachelor' degree (1 major) Computational Mathematics (2012) Bachelor' degree (1 major) Computational Mathematics (2013) Bachelor' degree (1 major) Computational Mathematics (2013) Bachelor' degree (1 major) Computational Mathematics (2013) Bachelor' degree (1 major) FOKUS Chemistry (2011)

Module title				Abbreviation		
Practical Course Physics for Students of Non-physics-related Minor Subjects				11-PFNF-072-m01		
Modul	e coord	inator		Module offered by		
Manag	ing Dire	ector of the Institute of A	Applied Physics	Faculty of Physics a	nd Astronomy	
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)		
3	(not)	successfully completed				
Durati	on	Module level	Other prerequisites			
1 seme	ester	undergraduate				
Conter	nts	·				
Mecha Physic	nics, vi s.	bration theory, thermod	ynamics, optics, X-ray	s, nuclear magnetic	resonance, Atomic a	nd Nuclear
Intend	ed lear	ning outcomes				
The stu	udents	have knowledge of the p	principles of Physics.			
Course	es (type, r	number of weekly contact hours	, language — if other than Ge	rman)		
P (no i	nformat	tion on SWS (weekly cor	ntact hours) and cours	e language available	2)	
Metho module i	d of ass s creditab	Sessment (type, scope, languole for bonus)	age — if other than German,	examination offered — if no	t every semester, informati	on on whether
a) oral	test (ai	oprox. 15 minutes) durin	g experiment and b) u	ngraded written exa	mination (approx. 90	o minutes)
Alloca	tion of	places		<u> </u>		
Only a	s part o	f pool of general key ski		laces will be allocate	ed by lot.	
Additi	onal inf	ormation			,	
Workle	oad					
			_			
Teachi	ng cycl	e				
Referre	ed to in	LPO I (examination regulatio	ns for teaching-degree progra	ummes)		
Modul	e appea	ars in				
Bache	lor' deg	ree (1 major) Biochemis	try (2011)			
Bache	lor' deg	ree (1 major) Biochemis	try (2013)			
Bache	lor' deg	ree (1 major) Biochemis	try (2009)			
Bache	lor' deg	ree (1 major) Biology (20	011)			
Bache	lor' deg	ree (1 major) Biology (20	007)			
Bache	lor' deg	ree (1 major) Biology (20	010)			
Bache	lor' deg	ree (1 major) Chemistry	(2007)			
Bache	lor' deg	ree (1 major) Chemistry	(2008)			
Bache	lor' deg	ree (1 major) Chemistry	(2010)			
Bache	Bachelor' degree (1 major) Chemistry (2009)					
Bache	Bachelor' degree (1 major) Geography (2007)					
Bache	lor' deg	ree (1 major) Geography	(2008)			
Bache	lor deg	ree (1 major) Geography	(2010)			
Bache	ior deg	ree (1 major) Computer	Science (2007)			
Bache	ior aeg	ree (1 major) Computer	Science (2014)			
Bache	ior deg	ree (1 major) Computer	SCIENCE (2010)			
Dache	ueg			concreted of Aug	am rog da	
bachelor's	with 1 ma	jor i oou chemistry (2009)	ta record Bachel	or (180 ECTS) Lebensmittelch	emie - 2009	page 14 / 37



Bachelor' degree (1 major) Biomedicine (2009) Bachelor' degree (1 major) Biomedicine (2013) Bachelor' degree (1 major) FOKUS Chemistry (2011)

Module title				Abbreviation		
Physical Chemistry for Biology Majors				08-PC-Bio-072-m01		
Module	coord	inator		Module offered by		
lecturer für Stuc	^r of lect lierend	ure "Thermodynamik, Ki le der Biologie and Leber	netik, Elektrochemie 1smittelchemie"	Institute of Physical	l and Theoretical Cho	emistry
ECTS	Metho	od of grading	Only after succ. con	pl. of module(s)		
5	nume	rical grade				
Duratio	n	Module level	Other prerequisites			
1 semes	ster	undergraduate				
Conten	ts					
This mo	dule d	iscusses the fundamenta	al principles of therm	odynamics, kinetics	and electrochemistr	y.
Intende	d learr	ning outcomes				
Studen mistry.	ts have They a	e become familiar with th re able to understand an	e fundamental princi d explain fundament	ples of thermodynan al processes in natur	nics, kinetics and elo re and engineering.	ectroche-
Courses	5 (type, n	umber of weekly contact hours, l	anguage — if other than Ger	man)		
This mo	odule c nent. 8-PC-B	omprises 2 module comp	ponents. Information	on courses will be lis	sted separately for e	ach module
• 0	8-PC-B	io-2-072: P (no informati	on on SWS (weekly co	ontact hours) and co	urse language availa	able)
Method module is	l of ass creditab	e ssment (type, scope, langua le for bonus)	ge — if other than German, o	examination offered — if no	t every semester, informati	on on whether
Assessment in this module comprises the assessments in the individual module components as specified be- low. Unless stated otherwise, successful completion of the module will require successful completion of all indi- vidual assessments. Assessment in module component o8-PC-Bio-1-o62: Thermodynamics, Kinetics, Electrochemistry (lecture) Ther- modynamics, Kinetics, Electrochemistry (lecture) • 4 ECTS, Method of grading: numerical grade • written examination (60 minutes) Assessment in module component o8-PC-Bio-2-o72: Physical Chemistry (lecture and lab) • 1 ECTS, Method of grading: (not) successfully completed • Vortestate (pre-experiment exams, approx. 15 minutes each), assessment of practical performance (log approx. 5 to 10 pages), Nachtestate (post-experiment exams, approx. 15 minutes each) • Assessment offered: once a year, winter semester Allocation of places 						
Worklo	ad					
Teachin	ig cycl	e				
Referred to in LPO I (examination regulations for teaching-degree programmes)						
Module	appea	ins in				
Bachelo Bachelo	or' deg or' deg	ree (1 major) Biology (200 ree (1 major) Food Chemi	07) stry (2009)			
Bachelor's v	with 1 maj	or Food Chemistry (2009)	JMU Würzburg • ta record Bachel	generated 26-Aug-2024 • exa or (180 ECTS) Lebensmittelch	am. reg. da- emie - 2009	page 16 / 37

Module title					Abbreviation	
Quanti	tative l	norganic Chemistry for F	ood Chemistry Stude	ents	08-LMC-AC2-092-m01	
Module	e coord	inator		Module offered by		
holder	of the (Chair of Food Chemistry		Institute of Pharma	cy and Food Chemistry	
ECTS	Metho	od of grading	Only after succ. com	npl. of module(s)		
5	nume	rical grade				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
Chemic ces) as that ma	al equa well as ay pose	ations and stoichiometry s their quantitative inorga e environmental or toxico	, chemical behaviour anic analysis with a s logical risks.	of reactants (eleme pecial focus on elem	nts and categories of substan- nents commonly found in foods	
Intende	ed lear	ning outcomes				
results ferent r obtaine form th nature	In the nethod ed. In a at anal of the v	Quantitative Inorganic A s of analysis to quantify ddition, they will select a ysis competently, assess water sample.	nalysis module (Quar inorganic ions and w ppropriate methods the accuracy of the r	ntitative Anorganisch ill interpret the quali for the analysis of ar results obtained and	he Analyse), students will use dif- ity and relevance of the results n unknown water sample, per- l discuss them in reference to the	
Course	S (type, r	number of weekly contact hours, l	anguage — if other than Ger	man)		
V + Ü (r	no infor	mation on SWS (weekly o	contact hours) and co	ourse language avail	able)	
Method module is	d of ass creditab	sessment (type, scope, langua le for bonus)	ge — if other than German, e	examination offered — if no	ot every semester, information on whether	
written	exami	nation (120 minutes)				
Allocat	ion of p	olaces				
Additio	nal inf	ormation				
Worklo	ad					
Teachi	ng cycl	e				
Referre	d to in	LPO I (examination regulation	s for teaching-degree progra	mmes)		
Module	e appea	nrs in				
Bachel	Bachelor' degree (1 major) Food Chemistry (2009)					

Module title				Abbreviation	
Quantitative Inorganic Analysis for Food Chemistry Students			ts	08-LMC-AC3-092-m01	
Module	e coord	inator		Module offered by	
holder	of the (Chair of Food Chemistry		Institute of Pharma	cy and Food Chemistry
ECTS	Metho	od of grading	Only after succ. com	npl. of module(s)	
14	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	ts				
Chemic ces) as and pro or toxic	cal equa well as ocess w cologica	ations and stoichiometry their quantitative inorga vater that can be used to al risks.	, chemical behaviour anic analysis with a s determine the prover	of reactants (elemen pecial focus on elem nance of samples an	nts and categories of substan- ients commonly found in drinking d that may pose environmental
Intende	ed learr	ning outcomes			
Studen ters an ferent v	ts will i d will d water sa	ndependently search lite eliver a presentation on t amples, verify the accura	erature for the inorgar the results of their wo cy of the results obta	nic constituents of d ork. They will select a ined and interpret th	ifferent drinking and process wa- appropriate methods, analyse dif- nem on the basis of relevant data.
	S (type, n	aformation on SWS (wool	anguage — If other than Ger	man) d course language a	vailable)
Metho			an if other than Corman	u course language a	t even comester information on whether
module is	s creditab	le for bonus)			tevery semester, mornation on whether
oral exa of corre analyse	aminati ectness es (app	ons of one candidate ead and reproducibility of ar rox. 8 pages per analysis	ch during lab course nalyses including doc , approx. 80 pages to	(approx. 15 minutes) umentation in lab no otal)	, talk (approx. 20 minutes), proof otebook in the form of logs of
Allocat	ion of p	olaces			
Additio	onal info	ormation			
Worklo	ad				
Teachi	ng cycl	9			
Referre	ed to in	LPOI (examination regulations	s for teaching-degree progra	mmes)	
Module	e appea	irs in			
Bachel	or' deg	ree (1 major) Food Chemi	stry (2009)		

Module title			Abbreviation				
Toxicology and legal studies				03-TR-072-m01			
Module	e coord	inator		Module offered by	Module offered by		
lecture	r of lec	ture "Toxikologie und R	echtskunde"	Faculty of Medicine			
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	ts						
Basics toxicol	of lega ogy.	l regulations for chemis	sts (handling and trans	portation of hazardo	ous materials), funda	mentals of	
Intende	ed lear	ning outcomes					
The stu ces) as	idents well as	master the basics of leg s the fundamentals of t	al regulations for cher	nists (handling and t	ransport of hazardo	us substan-	
Course	S (type, r	number of weekly contact hours	s, language — if other than Ge	rman)			
V + V (r	no infor	mation on SWS (weekl	y contact hours) and co	ourse language avail	able)		
Methoo module is	d of ass s creditab	sessment (type, scope, lang	uage — if other than German,	examination offered — if no	t every semester, informati	on on whether	
written	exami	nation (approx. 90 min	 utes)				
Allocat	ion of j	olaces					
Additio	nal inf	ormation					
Additio	inat init						
Worklo	bed						
WORKIO							
Teachi	ng cycl	e					
Referre	ed to in	LPOI (examination regulation	ons for teaching-degree progra	ammes)			
Module	e appea	ars in					
Bachel	or' deg	ree (1 major) Biochemis	stry (2011)				
Bachel	or' deg	ree (1 major) Biochemis	stry (2013)				
Bachel	or deg	ree (1 major) Biocnemis	stry (2009)				
Bachel	or deg	ree (1 major) Chemistry	(200/)				
Bachel	or deg	ree (1 major) Chemistry	(2008)				
Bachol	or' dog	ree (1 major) Chemistry	(2010)				
Bachel	or' dag	ree (1 major) Errod Cher	(2009) nistry (2000)				
Bachel	or deg or deg	ree (1 major) FOKUS Ch	emistry (2009)				
Master	Dachelor degree (1 major) FORUS Chemistry (2011) Master's degree (1 major) Chemistry (2012)						
Master	Master's degree (1 major) Chemistry (2013) Master's degree (1 major) Chemistry (2010)						
Master	's degr	ee (1 major) Chemistry	(2014)				
First sta	ate exa	mination for the teachi	ng degree Grundschule	e Chemistry (2009)			
First sta	First state examination for the teaching degree Hauptschule Chemistry (2009)						
First sta	ate exa	mination for the teachi	ng degree Realschule (Chemistry (2009)			
First sta	ate exa	mination for the teachi	ng degree Gymnasium	Chemistry (2009)			
Bachelor's	with 1 ma	jor Food Chemistry (2009)	JMU Würzburg • ta record Bachel	generated 26-Aug-2024 • ex or (180 ECTS) Lebensmittelch	am. reg. da- emie - 2009	page 19 / 37	



First state examination for the teaching degree Mittelschule Chemistry (2013)

Module title Abbreviation					Abbreviation
Biochemistry for Food Chemistry Students					08-LMC-BC-092-m01
Module	coord	inator		Module offered by	
holder o	of the C	Chair of Food Chemistry	_	Institute of Pharma	cy and Food Chemistry
ECTS	Metho	od of grading	Only after succ. com	npl. of module(s)	
6	nume	rical grade			
Duratio	n	Module level	Other prerequisites		
2 seme	ster	undergraduate			
Content	ts				
The stru food co translat	icture a nstitue ion, ge	and function of macromo ents; energy generation; b eneral control mechanism	lecules; fundamenta piological oxidation; ns.	l principles of the bio enzymes and biocation	osynthesis and metabolism of alysis. Replication, transcription,
Intende	d learr	ning outcomes			
Student cell and	ts have I all fur	become familiar with the netions and the synthesis	e fundamental princi s of all cellular compa	ples of biochemistry artments and constit	including the structure of the uents.
Courses	5 (type, n	umber of weekly contact hours, l	anguage — if other than Ger	man)	
V + Ü + '	V + Ü (no information on SWS (v	weekly contact hours) and course languag	ge available)
Method module is	l of ass creditab	e essment (type, scope, langua le for bonus)	ge — if other than German, e	examination offered — if no	t every semester, information on whether
written	examir	nation (approx. 120 minu	tes) or oral examinat	ion (approx. 30 minu	ites)
Allocati	ion of p	olaces			
Additio	nal info	ormation			
Will inc sis.	lude a	total of 15 teaching units	on the generation of	energy, biological o	xidation, enzymes and biocataly-
Worklo	ad				
Teachin	ıg cycl	e			
Referred to in LPO I (examination regulations for teaching-degree programmes)					
Module appears in					
Bachelo	or' degi	ree (1 major) Food Chemi	stry (2009)		

	Module title Abbreviation				
Introduction to Instrumental Analysis for Food Chemistry Students 08-LMC-IA-092-m01					
Module coordinator			Module offered by		
holder of the Chair of Food	d Chemistry		Institute of Pharma	cy and Food Chemistry	
ECTS Method of gradin	g	Only after succ. com	pl. of module(s)		
5 numerical grade					
Duration Module lev	el	Other prerequisites			
1 semester undergradi	uate				
Contents					
Analysis of organic molec	ules; physica	l separation techniqu	es and measureme	nt methods.	
Intended learning outcom	ies				
Students have learned the familiar with typical fields how to analyse spectra ar	e principles o of applicatio d chromatog	f spectroscopy, chror n of those methods a rams mathematically	natography and elec s well as with the ne and statistically and	trochemistry. They have become ecessary detectors. They know d how to interpret them.	
Courses (type, number of week	y contact hours, l	anguage — if other than Ger	man)		
V (no information on SWS	(weekly cont	act hours) and course	e language available	<u>e)</u>	
Method of assessment (typ	pe, scope, langua	ge — if other than German, e	xamination offered — if no	t every semester, information on whether	
written examination (appr		tes)			
Allocation of places	0/4 120 11114				
Additional information					
Workload					
Teaching cycle					
Referred to in LPO I (examination regulations for teaching-degree programmes)					
Module appears in					
Bachelor' degree (1 major) Food Chemi	stry (2009)			

Module title					Abbreviation		
Instrumental Analysis for Food Chemistry Students					08-LMC-LMA-092-m01		
Module	e coord	inator		Module offered by			
holder	of the (Chair of Food Chemistry	<u>-</u>	Institute of Pharma	cy and Food Chemistry		
ECTS	Metho	od of grading	Only after succ. com	npl. of module(s)			
12	nume	rical grade					
Duratio	on	Module level	Other prerequisites				
1 seme	ster	undergraduate					
Conten	ts		-				
Fundar particu	nental lar spe	principles of the analysis ctroscopic and chromato	of foods, tobacco pr graphic methods.	oducts, cosmetics, c	consumer goods and feeds; in		
Intend	ed learı	ning outcomes					
Studen spectro quid ch	its have oscopic promate	e developed the ability to (photometry, fluorimetry ography, gas chromatogra	plan and perform qu) and chromatograph aphy) methods.	alitative and quantil nic (thin-layer chrom	tative analyses of foods using atography, high performance li-		
Course	S (type, n	number of weekly contact hours, l	anguage — if other than Ger	rman)			
P + V +	S (no i	nformation on SWS (weel	kly contact hours) an	d course language a	vailable)		
Metho module is	d of ass s creditab	essment (type, scope, langua le for bonus)	ge — if other than German, e	examination offered — if no	ot every semester, information on whether		
oral ex cal ass turer in approx	aminati ignmer icluding . 72 pa	ions of one candidate each hts (2 assignments, 180 n g documentation in lab no ges total)	ch during lab course ninutes each), compl otebook in the form c	(approx. 15 minutes) etion of practical as of logs of analyses (a), completion of written theoreti- signments as specified by the lec- pprox. 12 pages per assignment,		
Allocat	ion of p	olaces					
Additio	onal inf	ormation					
Worklo	ad						
Teaching cycle							
Referred to in LPO I (examination regulations for teaching-degree programmes)							
Module appears in							
Bachel	Bachelor' degree (1 major) Food Chemistry (2009)						

Module title Abbreviation					Abbreviation	
Introduction to Food Chemistry					08-LMC-LMC0-092-m01	
Module	e coord	inator		Module offered by		
holder	of the O	Chair of Food Chemistry		Institute of Pharma	cy and Food Chemistry	
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)		
5	nume	rical grade				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
Introdu	ction to	o the chemistry of food co	onstituents.			
Intende	ed learı	ning outcomes				
Studen lipids a	ts are f s well a	amiliar with the fundame as their importance in foo	ental structures, prop ods.	erties and reactions	of proteins, carbohydrates and	
Course	S (type, n	umber of weekly contact hours, l	anguage — if other than Ger	man)		
V + S (n	infor	mation on SWS (weekly o	contact hours) and co	ourse language availa	able)	
Methoo module is	d of ass creditab	essment (type, scope, langua le for bonus)	ge — if other than German, e	examination offered — if no	t every semester, information on whether	
written	examiı	nation (approx. 120 minu	tes)			
Allocat	ion of p	olaces				
Additio	nal inf	ormation				
Worklo	ad					
Teachir	Teaching cycle					
Referre	d to in	LPO I (examination regulations	s for teaching-degree progra	mmes)		
Module	Module appears in					
Bachel	Bachelor' degree (1 major) Food Chemistry (2009)					

Module title					Abbreviation	
Food chemistry 1					08-LMC-LMC1-092-m01	
Module	coord	inator		Module offered by		
holder	of the (Chair of Food Chemistry	_	Institute of Pharma	cy and Food Chemistry	
ECTS	Metho	od of grading	Only after succ. com	npl. of module(s)		
17	nume	rical grade				
Duratio	n	Module level	Other prerequisites			
1 semes	ster	undergraduate				
Conten	ts					
Knowle foods, t ticular f	dge of obacco ocus w	the fundamental principl o products and feeds incl /ill be on foods and feeds	es of the chemistry o luding the interpretat that contain carboh	f food constituents a ion of measured dat ydrates.	and methods for the analysis of a with statistical methods. A par-	
Intende	ed leari	ning outcomes				
Student of foods drawing deliver	ts have s that o g on the a prese	e developed a knowledge contain carbohydrates. Th eir knowledge about fooc entation on a related topi	of the composition a ney are able to write a I law and the compos c.	and chemical constit a report about a food sition of that food. Si	uents as well as of the analysis I that contains carbohydrates, tudents are able to prepare and	
Course	5 (type, n	umber of weekly contact hours, l	anguage — if other than Ger	rman)		
V + S +	P + S (I	no information on SWS (v	veekly contact hours)) and course languag	ge available)	
Method module is	l of ass creditab	s essment (type, scope, langua le for bonus)	ge — if other than German, e	examination offered — if no	t every semester, information on whether	
talk (ap of corre analyse ges)	prox. 2 ctness es (app	5 minutes), oral examina and reproducibility of ar rox. 6 pages per analysis	ations of one candida halyses including doc , approx. 60 pages to	te each during lab c cumentation in lab n otal), summary produ	ourse (approx. 15 minutes), proof otebook in the form of logs of uct analysis (approx. 15 to 20 pa-	
Allocati	ion of p	olaces				
Additio	nal inf	ormation				
Worklo	ad					
Teaching cycle						
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)					
Module	Module appears in					
Bachelo	Bachelor' degree (1 major) Food Chemistry (2009)					

Module title					Abbreviation	
Food chemistry 2					08-LMC-LMC2-092-m01	
Module	coord	inator		Module offered by		
holder	of the (Chair of Food Chemistry		Institute of Pharma	cy and Food Chemistry	
ECTS	Metho	od of grading	Only after succ. com	npl. of module(s)		
12	nume	rical grade				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
Knowle foods, t ticular f	dge of tobacc focus w	the fundamental principl o products and feeds incl vill be on foods and feeds	es of the chemistry o luding the interpretat that contain lipids.	f food constituents a ion of measured dat	and methods for the analysis of a with statistical methods. A par-	
Intende	ed lear	ning outcomes				
Studen of food protein pare an	ts have s that o s, draw d deliv	e developed a knowledge contain lipids and protein ving on their knowledge a ver a presentation on a re	of the composition a is. They are able to w bout food law and th lated topic.	and chemical constit rite a report about a ne composition of tha	uents as well as of the analysis food that contains lipids and at food. Students are able to pre-	
Course	S (type, r	number of weekly contact hours, l	anguage — if other than Ger	rman)		
S + V +	P + S (I	no information on SWS (v	veekly contact hours)) and course languag	ge available)	
Methoc module is	l of ass creditab	sessment (type, scope, langua le for bonus)	ge — if other than German, e	examination offered — if no	t every semester, information on whether	
talk (ap of corre analyse ges)	prox. 2 ectness es (app	5 minutes), oral examina and reproducibility of ar rox. 6 pages per analysis	ations of one candida aalyses including doc , approx. 60 pages to	te each during lab c umentation in lab n otal), summary produ	ourse (approx. 15 minutes), proof otebook in the form of logs of uct analysis (approx. 15 to 20 pa-	
Allocat	ion of p	olaces				
Additio	nal inf	ormation				
Worklo	ad					
Teaching cycle						
Referre	d to in	LPO I (examination regulations	s for teaching-degree progra	mmes)		
Module	appea	ars in				
Bachelo	or' deg	ree (1 major) Food Chemi	stry (2009)			

Module title				Abbreviation	
Organi Studen	Organic Chemistry o (Nomenclature and Stereochemistry) for Food Chemistry 08-LMC-OC0-092-m01 Students 08-LMC-OC0-092-m01				
Module	e coord	inator		Module offered by	
holder mistry	of the (Chair of Medicinal and Ph	armaceutical Che-	Institute of Pharma	cy and Food Chemistry
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
5	nume	rical grade	08-LMC-AC2 and 08	-LMC-AC3	
Duratio	on	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	Its				
Stereo ring su	chemis bstance	try and nomenclature of t es.	he most important b	onding classes , in p	articular that of naturally occur-
Intende	ed lear	ning outcomes			
vial nai grasp k compo	mes of key con unds.	compounds and know ho cepts and the significanc	by to translate the na e of stereochemistry	and have learned ru	nto its structural formula. They les for naming stereochemical
Course	S (type, r	number of weekly contact hours, l	anguage — if other than Ger	rman)	
S + Ü +	S (no i	nformation on SWS (wee	kly contact hours) an	d course language a	vailable)
Methoe module is	d of ass s creditab	sessment (type, scope, langua le for bonus)	ge — if other than German, o	examination offered — if no	t every semester, information on whether
written	exami	nation (approx. 60 minut	es)		
Allocat	ion of p	olaces			
Additio	onal inf	ormation			
Worklo	ad				
Teaching cycle					
Referred to in LPO I (examination regulations for teaching-degree programmes)					
Module	e appea	in in			
Bachel	or' deg	ree (1 major) Food Chemi	stry (2009)		

Module title					Abbreviation
Organi	c Chem	istry for Food Chemistry	Students		08-LMC-OC1-092-m01
Module	e coord	inator		Module offered by	
holder mistry	of the (Chair of Medicinal and Ph	armaceutical Che-	Institute of Pharma	cy and Food Chemistry
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
5	nume	rical grade	o8-LMC-AC2 and o8	-LMC-AC3	
Duratio	n	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	ts				
Fundan on type ses and ces; str	nental es and i d, in pa ructure	principles, e.g. nomencla mechanisms; chemical cl rticular, naturally occurri and reactivity; fundamer	iture, types of chemic haracteristics; chemi ng substances); cher ital principles of synt	cal bonds; sum form cal behaviour of reac nistry of functional g hetic and biopolyme	ulas, structural formulas; reacti- ctants (important bonding clas- groups and categories of substan- ers.
Intende	ed lear	ning outcomes			
Studen chemic	ts unde al com	erstand fundamental read pounds on the basis of th	ction mechanisms an neir functional group	d are able to predict s.	the behaviour and properties of
Course	S (type, r	number of weekly contact hours, l	anguage — if other than Ger	man)	
V + Ü (r	no infor	mation on SWS (weekly o	contact hours) and co	ourse language avail	able)
Methoo module is	d of ass creditab	sessment (type, scope, langua le for bonus)	ge — if other than German, o	examination offered — if no	ot every semester, information on whether
written	exami	nation (approx. 120 minu	tes)		
Allocat	ion of p	olaces			
Additio	nal inf	ormation			
Worklo	ad				
Teaching cycle					
Referred to in LPO I (examination regulations for teaching-degree programmes)					
Module	appea	in in			
Bachel	Bachelor' degree (1 major) Food Chemistry (2009)				

Module title Abbreviation					Abbreviation
Practical Course in Organic Chemistry for Food Chemistry S				tudents	08-LMC-OC2-092-m01
Module	e coord	inator		Module offered by	
holder	of the C	Chair of Food Chemistry		Institute of Pharma	cy and Food Chemistry
ECTS	Metho	od of grading	Only after succ. com	npl. of module(s)	
10	(not) s	successfully completed	08-LMC-AC2 and 08	-LMC-AC3	
Duratio	n	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	ts		-		
Fundan on type ses and ces; str	nental es and r d, in pa ructure	principles, e.g. nomencla nechanisms; chemical cl rticular, naturally occurri and reactivity; fundamer	iture, types of chemic haracteristics; chemic ng substances); chem ital principles of synt	cal bonds; sum form cal behaviour of reac nistry of functional g hetic and biopolyme	ulas, structural formulas; reacti- ctants (important bonding clas- groups and categories of substan- ers.
Intende	ed learr	ning outcomes			
Studen as to de	ts are a etermin	able to perform syntheses ne the identity and purity	s of different categori of the products.	es of substances us	ing essential techniques as well
Course	S (type, n	umber of weekly contact hours, l	anguage — if other than Ger	man)	
P (no ir	format	ion on SWS (weekly cont	act hours) and cours	e language available	<u>a)</u>
Method module is	d of ass creditab	essment (type, scope, langua le for bonus)	ge — if other than German, e	examination offered — if no	ot every semester, information on whether
oral exa	aminati	ions (approx. 15 minutes	each) and logs (appr	ox. 65 pages)	
Allocat	ion of p	olaces			
Additio	nal inf	ormation			
Worklo	ad				
Teaching cycle					
Referre	d to in	LPO I (examination regulation	s for teaching-degree progra	mmes)	
Module	e appea	irs in			
Bachel	Bachelor' degree (1 major) Food Chemistry (2009)				

Module title					Abbreviation	
Microbiology for Food Chemistry students					07-LMC-BIO2-092-m01	
Module	e coord	inator		Module offered by		
holder	of the (Chair of Microbiology		Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)		
5	(not) s	successfully completed				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
Fundan viruses	nental , fungi,	principles of the systema mycoplasmas, chlamydi	tics, morphology and ia, Rickettsia).	metabolic physiolo	gy of microorganisms (bacteria,	
Intende	ed learı	ning outcomes				
Sterile and dif	technic ferentia	ques, bacterial culture, pl ation of microorganisms.	hysiological and micr	oscopic techniques	for the detection, identification	
Course	S (type, n	umber of weekly contact hours, l	anguage — if other than Ger	man)		
V + Ü (r	no infor	mation on SWS (weekly o	contact hours) and co	ourse language avail	able)	
Method	d of ass	sessment (type, scope, langua	ge — if other than German, e	examination offered — if no	t every semester, information on whether	
log (ani	nrox 3	n nages)				
Allocat	ion of r	blaces				
Additio	nal inf	ormation				
Worklo	ad					
Teachir	Teaching cycle					
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)					
Module	Module appears in					
Bachelo	or' deg	ree (1 major) Food Chemi	stry (2009)			

Module title				Abbreviation		
Microbiology of Food and Hygiene for Food Chemistry Students			ents	03-LMC-HYG-092-m01		
Module	e coord	inator		Module offered by		
Institut	e of Hy	giene and Microbiology	_	Faculty of Medicine		
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)		
5	nume	rical grade				
Duratio	on	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
The stu food-co hygien	idents v ontamir e mana	will gain knowledge on fo nating microorganisms ar gement, food decay.	od-related topics of I nd the infections/dise	nygiene and microbi eases they provoke;	ology. This includes relevant, antimicrobial drugs/substances;	
Intende	ed lear	ning outcomes				
gy, cyto ons, pa logy); k infectio quence resista	ology an arasites knowled on, ster es of mi nces.	nd physiology; knowledg) for food chemistry and dge on the diagnosis and ilisation); fundamentals crobial infection; fundam	e on the role of patho food technology (dec cultivation of microo of the pathogenesis o nentals of medically r	ogens (microorganis) ay, intoxications, an Irganisms; knowledg of important human elevant antiinfective	ms, toxin producers, viruses, pri- halytical microbiology, biotechno- ge on microbial inactivation (dis- pathogens and clinical conse- es and the development of drug	
Course	S (type, r	number of weekly contact hours, l	anguage — if other than Ger	man)		
V + P (r	no infor	mation on SWS (weekly o	contact hours) and co	urse language avail	able)	
Metho module is	d of ass s creditab	essment (type, scope, langua le for bonus)	ge — if other than German, e	examination offered — if no	ot every semester, information on whether	
written	examiı	nation (approx. 60 minut	es)			
Allocat	ion of p	olaces				
Additio	nal inf	ormation				
Worklo	ad					
Teaching cycle						
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)					
Module	Module appears in					
Bachel	Bachelor' degree (1 major) Food Chemistry (2009)					



Thesis (10 ECTS credits)

Module title					Abbreviation	
Bachelor Thesis					08-LMC/BA-092-m01	
Module	e coord	inator		Module offered by		
degree Chemis	progra stry)	mme coordinator Lebens	mittelchemie (Food	Institute of Pharma	cy and Food Chemistry	
ECTS	Metho	od of grading	Only after succ. com	npl. of module(s)		
10	nume	rical grade				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
This mo and usi	odule g ing the	ives students the opport scientific methods they h	unity to research and nave learned during t	write on a defined p he programme.	problem within a given time frame	
Intende	ed leari	ning outcomes				
Studen practice	ts are a e, and t	able to conduct research to present the results of t	on a defined problem heir work in written f	n/topic, adhering to orm.	the principles of good scientific	
Course	S (type, n	umber of weekly contact hours, l	anguage — if other than Ger	rman)		
(no info	ormatio	n on SWS (weekly contac	t hours) and course	language available)		
Method module is	d of ass creditab	s essment (type, scope, langua ₎ le for bonus)	ge — if other than German, e	examination offered — if no	t every semester, information on whether	
written	thesis	(approx. 20 to 30 pages)				
Allocat	ion of p	olaces				
Additio	nal inf	ormation				
Worklo	ad					
Teachir	Teaching cycle					
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)					
Module	e appea	in				
Bachel	or' deg	ree (1 major) Food Chemi	stry (2009)			



Subject-specific Key Skills

(15 ECTS credits)

Module	title				Abbreviation		
Analysi	s Strat	egies			08-LMC-FSQ1-092-m01		
Module coordinator				Module offered by			
holder	of the C	Chair of Food Chemistry		Institute of Pharmacy and Food Chemistry			
ECTS	CTS Method of grading		Only after succ. com	ifter succ. compl. of module(s)			
5	(not) s) successfully completed					
Duration		Module level	Other prerequisites				
1 semester		undergraduate					
Conten	ts						
The occupation of a food chemist. General strategies for qualitative and quantitative analyses. Calibration strate- gies. Accuracy and quality of chemical analyses. Interpretation of measured data with statistical methods.							
Intende	ed learr	ning outcomes					
Students have learned how to plan, perform and evaluate analyses, use statistical methods to interpret the data obtained and validate their results.							
Course	S (type, n	umber of weekly contact hours, l	anguage — if other than Ger	man)			
R + S (no information on SWS (weekly contact hours) and course language available)							
Method	l of ass	essment (type, scope, langua	ge — if other than German, e	examination offered — if no	t every semester, information on whether		
module is	creditab	le for bonus)					
project	report	(approx. 15 pages)					
Allocat	ion of p	olaces					
Additio	nal info	ormation					
Workload							
Teaching cycle							
Referred to in LPO I (examination regulations for teaching-degree programmes)							
Module appears in							
Bachelor' degree (1 major) Food Chemistry (2009)							

Module	e title			Abbreviation			
Quality	mana	gement			08-LMC-FSQ2-092-m01		
Module	e coord	inator		Module offered by			
holder of the Chair of Food Chemistry				Institute of Pharmacy and Food Chemistry			
ECTS	Metho	od of grading	Only after succ. compl. of module(s)				
5	nume	rical grade	o8-LMC-IA				
Duration Module level		Other prerequisites					
1 semester		undergraduate					
Conten	ts						
Quality	assura	nce in the lab.					
Intende	ed leari	ning outcomes					
Students are able to apply the fundamental principles of industrial quality assurance as well as to independently write and apply standard operating procedures.							
Courses	S (type, n	umber of weekly contact hours, l	anguage — if other than Ger	man)			
V + Ü (r	no infor	mation on SWS (weekly o	contact hours) and co	ourse language avail	able)		
Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)							
term paper (approx. 10 pages) with presentation (approx. 15 minutes)							
Allocation of places							
Additio	nal inf	ormation					
Workload							
Teaching cycle							
Referred to in LPO I (examination regulations for teaching-degree programmes)							
Module appears in							
Bachelor' degree (1 major) Food Chemistry (2009)							

Module	title			Abbreviation		
Introduction to Molecular Biological Analysis for Food Chemistry Students 08-LMC-MBA-092-mo1						
Module coordinator				Module offered by		
holder of the Chair of Food Chemistry				Institute of Pharmacy and Food Chemistry		
ECTS	Method of grading		Only after succ. compl. of module(s)			
5	5 numerical grade		o8-LMC-IA, o8-LMC-LMA, o8-LMC-LMo, lab course of module o8-LMC- LMC2			
Duration Mc		Module level	Other prerequisites			
1 semester		undergraduate				
Conten	ts					
Theoret	tical an	d practical principles of	methods in molecula	r biology.		
Intende	ed lear	ning outcomes				
Students are able to perform essential molecular biological techniques for DNA isolation, polymerase chain reac- tion, agarose gel electrophoresis and restriction enzyme digestion. They can interpret molecular biological data independently.						
Course	S (type, r	number of weekly contact hours, l	anguage — if other than Ger	man)		
S + P (n	io infor	mation on SWS (weekly o	contact hours) and co	urse language avail	able)	
Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)						
completion of written theoretical assignments (4 to 5 assignments, 30 minutes each), completion of practical as- signments as specified by the lecturer including documentation in lab notebook in the form of logs of analyses (approx, 20 pages total)						
Allocation of places						
Additional information						
Workload						
Teaching cycle						
Referred to in LPO I (examination regulations for teaching-degree programmes)						
Module appears in						
Bachelor' degree (1 major) Food Chemistry (2009)						