

## Subdivided 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: 2016 Responsible: Faculty of Chemistry and Pharmacy Responsible: Institute of Pharmacy and Food Chemistry

JMU Würzburg • generated 19-Apr-2025 • exam. reg. data record 82|096|-|-|H|2016



## **Learning Outcomes**

German contents and learning outcome available but not translated yet.

#### Wissenschaftliche Befähigung

- Die Absolventinnen und Absolventen können für die Beantwortung einer lebensmittelchemischen Fragestellung relevante Analyten auswählen und anhand der von ihnen ermittelten validen Analysenergebnisse korrekt die Identität und Qualität von Lebensmitteln bewerten.
- Um für lebensmittelchemische Fragestellungen relevante Analyten auswählen zu können, besitzen die Absolventinnen und Absolventen Grundkenntnisse aus den Bereichen der Biologie (insbesondere Botanik), Biochemie, Mikrobiologie, Chemie und Technologie der Lebensmittel. Diese eignen sie sich in den Lehrveranstaltungen der entsprechenden Module an und weisen ihr Wissen mit dem Bestehen der dazu gehörigen Klausuren nach.
- Um eine geeignete Bestimmungsmethode für den oder die Analyten auszuwählen, kennen die Absolventinnen und Absolventen zum einen die möglichen analytische Methoden und verstehen auf welchen chemischen und physikalischen Prinzipien diese basieren, und zum anderen verfügen sie über Kenntnisse im Bereich der Warenkunde und Lebensmittelchemie, um die Eignung einer Methode auch hinsichtlich erwarteter Menge, der Matrix des Lebensmittels und möglicher Interferenzen beurteilen zu können. Dass sich die Absolventinnen und Absolventen in Veranstaltungen der entsprechenden Module diese Kompetenzen aneignen, zeigen sie durch das Bestehen der jeweiligen Abschlussklausuren.
- Die Absolventinnen und Absolventen können bei der Versuchsplanung bisher angeeignetes Fachwissen auf konkrete experimentelle oder theoretische Aufgabenstellungen anwenden, systematische Einflussfaktoren und Fehlerquellen identifizieren sowie sicherheitsrelevante Aspekte berücksichtigen. Das hierfür notwendige Abstraktionsvermögen, die Problemlösungsstrategien und die Fähigkeit, komplexe Zusammenhänge zu strukturieren, eignen sich die Studierenden Schritt für Schritt an, indem sie in den chemischen Praktika vom ersten Semester an keine fertigen Versuchsvorschriften bearbeiten, sondern das Vorgehen für in jedem Semester komplexer werdenden anwendungsbezogenen Fragestellungen aus dem lebensmittelchemischen Alltag unter Begleitung der Lehrenden selbstständig entwickeln und in der Gruppe zu diskutieren. Dies beinhaltet auch das Festlegen geeigneter Qualitätssicherungsmaßnahmen zur Sicherstellung der Validität der Ergebnisse. Nach der Präsentation und Diskussion der geplanten Vorgehensweisen in Seminaren und Besprechungen, sowohl untereinander als auch mit der Lehrperson, zeigen die Studierenden, dass die geplanten Vorgehensweisen in den jeweiligen Praktika auch praktisch sicher umgesetzt und transparent dokumentiert werden können.
- Die Absolventinnen und Absolventen können die Aussagekraft und Limitierungen der Analysenergebnisse für den geplanten Zweck beurteilen. Durch die fachliche Begleitung der Praktikumsversuche, anstatt der Abnahme der Entscheidung über Richtig und Falsch durch die Lehrenden, übernehmen die Studierenden für die in den Praktika generierten Werte selbst Verantwortung.
- Auf die abschließende Beurteilung der Identität und Qualität der Lebensmittel aufgrund des Gesamtbildes der Analysenergebnisse werden die Studierenden durch die begleitete statistische Analyse der in den ersten vier Semestern von ihnen produzierten Analysenergebnissen hingeführt. In den letzten beiden Semestern erfolgt die Beurteilung der Qualität und Identität selbständig mithilfe der Anwendung des theoretischen Fachwissens in den Disziplinen der Biologie, Biochemie, Mikrobiologie, Chemie und Technologie der Lebensmittel und geeigneter statistischen Methoden.

#### Befähigung zur Aufnahme einer Erwerbstätigkeit

• Die beschriebene wissenschaftliche Befähigung entspricht essentiell den Anforderungen an eine/einen in einem Handelslabor tätigen LebensmittelchemikerIn ohne Aufgaben in der Methodenentwicklung. Mit den beschriebenen Kompetenzen ist zudem die Übernahme von Aufgaben

Bachelor's with 1 major Food Chemistry (2016)	JMU Würzburg • generated 19-Apr-2025 • exam. reg. da-	page 2 / 45
	ta record Bachelor (180 ECTS) Lebensmittelchemie - 2016	

im Bereich des Qualitätsmanagements in lebensmittel- und pharmazeutikaproduzierenden Betrieben möglich.

• Neben den rein fachlichen Kompetenzen kommen den Absolventinnen und Absolventen im Berufsleben die im Studium gesammelte Erfahrung mit Problemlösungsstrategien, erfolgreicher, zielorientierter Zusammenarbeit im Team und Eigenverantwortlichkeit zugute.

#### Persönlichkeitsentwicklung

• Die Absolventinnen und Absolventen wenden seit dem ersten Semester die Regeln guter wissenschaftlicher Praxis an und beachten sie. Die Lehrenden fördern zudem die Selbstverantwortung für den Wissenserwerb sowie ein an wissenschaftlichen Werten orientiertes Denken und Handeln. Das eigenverantwortliche Vertreten der Analysenergebnisse in den Praktika fördert das Bewusstsein für Selbstreflexion, Offenheit, Verlässlichkeit, Überprüfbarkeit, Transparenz, Objektivität und Eindeutigkeit.

#### Befähigung zum gesellschaftlichen Engagement

• Die Absolventinnen und Absolventen haben ihr Wissen bezüglich wirtschaftlicher, gesellschaftlicher und naturwissenschaftlicher Fragestellungen erweitert und können begründet Position beziehen. Durch die Behandlung aktueller Fragestellungen im Bereich des Verbraucherschutzes in den Lehrveranstaltungen werden die Studierenden für die wirtschaftliche und gesellschaftliche Bedeutung ihrer Tätigkeiten sensibilisiert und werden ermutigt ihre im Studium erarbeiteten Kompetenzen aktiv in die Gesellschaft einzubringen.

## Abbreviations used

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

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

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

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

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

## Conventions

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

## Notes

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

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

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

### In accordance with

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

#### ASPO2015

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

#### 27-Jul-2016 (2016-92)

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.

## The subject is divided into

Abbreviation	Module title	ECTS credits	Method of grading	page				
Compulsory Courses (150 ECTS credits)								
10-M-MCB-152-m01	Mathematics for students in Chemistry and Biology	5	NUM	32				
07-LMC-BI01-152-m01	General Biology of Economic Plants from Food and Forage	7	NUM	9				
08-LMC-AC1-152-m01	General and Inorganic Chemistry for Food Chemistry Students	14	NUM	16				
11-EFNF-152-m01	Introduction to Physics for Students of other Disciplines	7	NUM	34				
11-PFNF-152-m01	Laboratory Course Physics for Students of other Disciplines	3	B/NB	40				
08-LMC-AC2-152-m01	Quantitative Inorganic Chemistry for Food Chemistry Students	5	NUM	18				
08-LMC-AC3-152-m01	Quantitative Inorganic Analysis for Food Chemistry Students	14	B/NB	19				
08-PC-Bio-152-m01	Physical Chemistry for Biology Majors	5	NUM	31				
08-LMC-OC-152-m01	Organic Chemistry Including Nomenclature and Stereoche- mistry for Food Chemistry Students	10	NUM	29				
08-LMC-OCP-152-m01	Practical Course in Organic Chemistry for Food Chemistry Stu- dents	10	B/NB	30				
03-TR-152-m01	Toxicology and legal studies	3	NUM	7				
08-BC1-152-m01	Biochemistry 1	5	NUM	12				
08-BC2-152-m01	Biochemistry 2	5	NUM	14				
08-LMC-IA-152-m01	Introduction to Instrumental Analysis for Food Chemistry Stu- dents	5	NUM	23				
08-LMC-LMA-152-m01	Instrumental Analysis for Food Chemistry Students	10	B/NB	24				
08-LMC-LMC0-162-m01	Introduction to Food Chemistry	5	NUM	25				
07-LMC-BIO2-152-m01	Microbiology for Food Chemistry students	5	B/NB	11				
03-LMC-HYG-152-m01	Microbiology of Food and Hygiene for Food Chemistry Students	5	NUM	6				
08-LMC-LMC-162-m01	Food Chemistry	14	NUM	26				
08-LMC-LMCP-152-m01	Practical Course in Food Chemistry	13	B/NB	27				
Key Skills Area (20 ECTS c	redits)		•					
General Key Skills (5 ECT Students may select any	<b>S credits)</b> of the modules offered as part of the pool of general transferable	e skills (AS	Q) of JMU.					
Subject-specific Key Skil	s (15 ECTS credits)							
Subject-specific Key Sk	ills, Compulsory Courses (15 ECTS credits)							
08-LMC-FSQ1-162-m01	Analysis Strategies	5	B/NB	21				
08-LMC-FSQ2-152-m01	Quality Management	5	B/NB	22				
08-LMC-MBA-152-m01	Introduction to Molecular Biological Analysis for Food Che- mistry Students	5	B/NB	28				
Thesis (10 ECTS credits)								
08-LMC-BA-152-m01	Bachelor Thesis Food Chemistry	10	NUM	20				

Modul					Abbreviation
Microb	oiology	of Food and Hygiene f	or Food Chemistry Stud	ents	03-LMC-HYG-152-m01
Module coordinator				Module offe	red by
		giene and Microbiolog	۲V	Faculty of M	•
ECTS	· · ·	od of grading	Only after succ. com		
5		rical grade		•	
Durati	on	Module level	Other prerequisites		
1 seme	ester	undergraduate			
Conter	nts				
food-c	ontami				nicrobiology. This includes relevant, ovoke; antimicrobial drugs/substances
Intend	ed lear	ning outcomes			
ons, pa logy); l infectio	arasites knowle on, ster es of mi	<ul> <li>for food chemistry ar dge on the diagnosis a ilisation); fundamenta</li> </ul>	nd food technology (dec nd cultivation of microo ls of the pathogenesis o	ay, intoxicati organisms; kr of important l	organisms, toxin producers, viruses, pri ons, analytical microbiology, biotechno owledge on microbial inactivation (dis- numan pathogens and clinical conse- nfectives and the development of drug
Course	es (type	, number of weekly co	ntact hours, language –	· if other than	German)
V (2) +	P (2)	· · · · ·			
Metho	d of ass		, language — if other tha e can be chosen to earn		xamination offered — if not every seme
b) oral	examir		nutes) or e each (approx. 20 minu s of 2, approx. 30 minu		
Alloca	tion of	olaces			
Additio	onal inf	ormation			
prüfter state-c	n Leben ertified	smittelchemikerinnen	und Lebensmittelchem nCh) in conjunction with	iker (Regulati	bildung und Prüfung der Staatlich ge- on on the training and examination of er f) and No. II 1. Letter b) of Annex 1 of
Worklo	oad				
150 h					
	ng cycl	e			
	0 9 9				
Referre	ed to in	IPOL (examination ro	gulations for teaching-o	egree progra	mmes)
Neieili			Salations for teaching-t	regree progra	innes)
 Modul	e appea	ars in			
		gree (1 major) Food Ch	emistry (2015)		
		gree (1 major) Food Ch			
Bachel					
	lor's de				
Bache		gree (1 major) Food Ch gree (1 major) Food Ch	emistry (2019)		

Module title Abbreviation							
Toxico	Toxicology and legal studies 03-TR-152-mo1						
Module coordinator Module offered by							
lecturer of lecture "Toxikologie und Rechtskunde" Faculty of Medicine							
ECTS	Method of grading	Only after succ. con	npl. of module(s)				
3	numerical grade						
Duratio	on Module level	Other prerequisites					
1 seme	ster undergraduate						
Conter	its						
Basics toxicol	of legal regulations for chemist ogy.	s (handling and trans	portation of hazardo	ous materials), funda	amentals of		
Intend	ed learning outcomes						
The stu	idents master the basics of lega well as the fundamentals of to		nists (handling and t	ransport of hazardo	us substan-		
	s (type, number of weekly cont		if other than Germa	n)			
V (1) +			n other than defind				
			an Carman avamina	tion offered if not			
	<b>d of assessment</b> (type, scope, la formation on whether module o			tion onered — If not	every seme-		
	examination (approx. 90 minu	tes)					
Allocat	ion of places						
Additio	onal information						
	ing to § 2 para. 2 sentence 2 AF ex 1 to the APOLmCh and No. 5 a			er g) and i) and No. I	l 1st letter d)		
Worklo							
90 h							
Teachi	ng cycle						
Referre	ed to in LPO I (examination reg	ulations for teaching-o	degree programmes)				
§ 22	Nr. 1 h)						
§ 22							
§ 22							
	e appears in						
	or's degree (1 major) Biochemis						
	or's degree (1 major) Chemistry						
	or's degree (1 major) Food Cher	• -					
	ate examination for the teachin		• -				
	First state examination for the teaching degree Grundschule Didactics in Chemistry (Primary School) (2015)						
First state examination for the teaching degree Realschule Chemistry (2015) First state examination for the teaching degree Gymnasium Chemistry (2015)							
	First state examination for the teaching degree Sonderpädagogik Didactics in Chemistry (Middle School) (2015)						
	First state examination for the teaching degree Solderpadagogic Didactics in Chemistry (Middle School) (2015)						
	First state examination for the teaching degree Mittelschule Didactics in Chemistry (Middle School) (2015)						
	's degree (1 major) Chemistry (2						
	or's degree (1 major) Food Cher						
	or's degree (1 major) Biochemis	-					
Bachel	or's degree (1 major) Chemistry	(2017)					
Bachelor's	with 1 major Food Chemistry (2016)		generated 19-Apr-2025 • exa		page 7 / 45		

#### Julius-Maximilians-UNIVERSITÄT WÜRZBURG

Master's degree (1 major) Chemistry (2018)

Bachelor's degree (1 major) Food Chemistry (2019)

First state examination for the teaching degree Mittelschule Chemistry (2020 (Prüfungsordnungsversion 2015)) First state examination for the teaching degree Mittelschule Didactics in Chemistry (Middle School) (2020 (Prüfungsordnungsversion 2015))

First state examination for the teaching degree Sonderpädagogik Didactics in Chemistry (Middle School) (2020 (Prüfungsordnungsversion 2015))

Bachelor's degree (1 major) Food Chemistry (2021)

Bachelor's degree (1 major) Biochemistry (2022)

Master's degree (1 major) Chemistry (2024)

Bachelor's degree (1 major) Food Chemistry (2025)

General Biology of Economic Plants from Food and Forage         07-LMC-BI01-152-m01           Module coordinator         Module offered by           holder of the Chair of Plant Physiology and Biophysics         Faculty of Biology           ZTS         Method of grading         Only after succ. compl. of module(s)           7         numerical grade            2 semester         undergraduate            Contents         Module brevel         Other prerequisites           2 semester         undergraduate            Contents         The first part of the winter semester course, will discuss the plant cell, the smallest unit of the plant organism, strating with its macroscopic structure. The course will option 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 necessary to understand the form (anatomy, morphology and cytology, the course will discuss the plant organism. The summer semester sourse, students have acquired 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 the plant taxonomy. morphology and cytology, the course will discuss the plant taxonomy. morphology and cytology, the course will discuss the plant taxonomy. morphology and cytology, the course will aspect selected to the breefing of thes crops. In this contact, the course will point out differences that may be used, for example, for the microscopic identification of a variety of food	Module title Abbreviation							
holder of the Chair of Plant Physiology and Biophysics       Faculty of Biology         ECTS       Method of grading       Only after succ. compl. of module(s)         7       numerical grade	Genera	07-LMC-BIO1-152-m01						
ECTS         Method of grading         Only after succ. compl. of module(s)           7         numerical grade            Duration         Module level         Other prerequisites           2 semester         undergraduate            Contents            The first part of the winter semester course will discuss the plant cell, the smallest unit of the plant organism, 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 necessary to understand the form (anatomy, morphology and cytology, the curse will discuss the photosynthesis as well as other physiological 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 microscopic identification of a variety of food and fodder crops.           Intended learning 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.           • Fundamental knowledge of the distinguishing characteristics, genetics, photosynthesis and physiology of epresentatives of the plant kingdom with special attention to crops.           • Fundamental knowledge of the microscopic examination of crops.	Module coordinator				Module offered by			
7         numerical grade            Duration         Module level         Other prerequisites           2 semester         undergraduate            Contents             The first part of the winter semester course will discuss the plant cell, the smallest unit of the plant organism, starting with its macroscopic structure before moving on to its microscopic structure. The course will coint out differences and similarities between prokaryotic cells (calcreia, archaebacteria) and eukaryotic cells (calmals, plants). In the second part of the winter semester course, students will acquire the fundamental knowledge necessary to understand the form (antomy, morphology and cytology, and function of plant organisms. The summer 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 curse will discuss the pho-tosynthesis as well as smell as other physiological 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 microscopic identification of a variety of food and fodder crops.           Intended learning 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 plant kingdom with special attention to crops.           - Fundamental knowledge of the distinguishing characteristics, genetics, photosynthesis and physiology of representatives of the plant kingdom with special attention to crops.	holder of the Chair of Plant Physiology a		and Biophysics	Faculty of Biology				
Duration         Module level         Other prerequisites           2 semester         undergraduate            Contents            The first part of the winter semester course will discuss the plant cell, the smallest unit of the plant organism, 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 necessary to understand the form (anatomy, morphology and cytology) and function of plant organisms. The summer 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 the photosynthesis as well as other physiological and genetic aspects of selected crops and their compounds as well as sapects related to the breeding of these crops. In this context, the course will ploint out differences that may be used, for example, for the microscopic identification of a variety of food and fodder crops.           Intended learning outcomes         Intended learning 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 and physiology of representatives of the plant kingdom with special attention to crops.           Fundamental knowledge of the distinguishing characteristics, photosynthesis and physiology of representatives of kingorianatomical and morphologic	ECTS	Methe	od of grading	Only after succ. con	npl. of module(s)			
2 semester undergraduate Contents The first part of the winter semester course will discuss the plant cell, the smallest unit of the plant organism, starting with lis 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 necessary to understand the form (anatomy, morphology and cytology) and function of plant organism. The summer 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 the photosynthesis as well as other physiological 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 microscopic identification of a variety of food and fodder crops. Intendel learning 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, photosynthesis and physiology of food and fodder crops. Fundamental knowledge of the components and functioning of microscopes. Fundamental knowledge of the microscopic examination of crops. Fundamental knowledge of the microscopic and histological plant traits as well as of the every semester, students be well as of the specific characteristics, genetics, photosynthesis and physiology of food and fodder crops. Fundamental knowledge of the components and functioning of microscopes. Fundame	7	nume	rical grade					
Contents         The first part of the winter semester course will discuss the plant cell, the smallest unit of the plant organism, 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 necessary to understand the form (anatomy, morphology and cytology) and function of plant organisms. The summer semester course will introduce students to the fundamental principles of botany, using the example of food and fodder crops. Taking into account their taxnomy, morphology and cytology, the course will point out differences that may be used, for example, for the microscopic identification of a variety of food and fodder crops.         Intende learning outcomes       Intende learning 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, photosynthesis and physiology of representatives of the plant kingdom with special attention to crops.         • Fundamental knowledge of the components and functioning of microscopes.         • Fundamental knowledge of the microscopic examination of crops.         • Fundamental knowledge of the eitinguishing characteristics, genetics, photosynthesis and physiology of representatives of the microscopic and histological plant traits as well	Duratio	n		Other prerequisites				
The first part of the winter semester course will discuss the plant cell, the smallest unit of the plant organism, 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 necessary to understand the form (anatomy, morphology and cytology) and function of plant organisms. The sum er semester course vill 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 the photosynthesis as well as other physiological and genetic aspects of selected crops and their compounds as well as spects related to the breeding of these crops. In this contex, the course will point out differences that may be used, for example, for the microscopic identification of a variety of food and fodder crops. Intended learning outcomes Intended learning 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, photosynthesis and physiology of representatives of the plant kingdom with special attention to crops. Fundamental knowledge of the components and functioning of microscopes. Fundamental knowledge of the microscopic examination of crops. Fundamental knowledge of the components and functioning of microscopes. Fundamental knowledge of the components and functioning of microscopes. Fundamental knowledge of the components and functioning of microscopes. Fundamental knowledge of the components and functio	2 seme	ster	undergraduate					
starting with its macroscopic structure before moving on to its microscopic structure. The course will point out differences and similarities between prokanyotic cells (bacteria, archaebacteria) and eukaryotic cells (animals, plants). In the second part of the winter semester course, students will acquire the fundamental knowledge necessary to understand the form (anatomy, morphology and cytology) and function of plant organisms. The summer semester course will incoduce 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 the photosynthesis as well as other physiological 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 microscopic identification of a variety of food and fodder crops.  Intended learning 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, photosynthesis and physiology of representatives of the plant kingdom with special attention to crops. Fundamental knowledge of the components and functioning of microscopes. Fundamental knowledge of the microscopic examination of crops. Fundamental knowledge of the microscopic examination of crops. Fundamental knowledge of the second plant cells and their compounds of food and fodder crops. Fundamental knowledge of the second plant cells and their compounds of food and fodder crops. Fundamental knowledge of major anatomical and morphological plant traits as well as of the compounds of food and fodder crops. Fundamental knowledge of maj	Conten	ts						
Intended learning 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, photosynthesis 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 histological plant preparations by light mi- croscopy. Courses (type, number of weekly contact hours, language — if other than German) V (2) + V (1) + P (4) Method of assessment (type, scope, language — if other than German, examination offered — if not every seme- ster, information on whether module can be chosen to earn a bonus) a) written examination of one candidate each (approx. 20 minutes) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes total) Allocation of places	starting differer plants) cessary mer ser and foc tosynth aspects	g with i nces ar . In the v to uno mester Ider cro lder s s relate	ts macroscopic structure ad similarities between pre- second part of the winte derstand the form (anator course will introduce stu ops. Taking into account to s well as other physiologied to the breeding of thes	before moving on to rokaryotic cells (bact r semester course, st ny, morphology and dents to the fundam their taxonomy, morp cal and genetic aspe e crops. In this conte	its microscopic struct eria, archaebacteria) tudents will acquire to cytology) and function ental principles of boo phology and cytology acts of selected crops ext, the course will poo	cture. The course will point out and eukaryotic cells (animals, the fundamental knowledge ne- on of plant organisms. The sum- otany, using the example of food y, the course will discuss the pho- s and their compounds as well as point out differences that may be		
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, photosynthesis 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 histological plant preparations by light mi- croscopy. <b>Courses</b> (type, number of weekly contact hours, language — if other than German) V (2) + V (1) + P (4) <b>Method of assessment</b> (type, scope, language — if other than German, examination offered — if not every seme- ster, information on whether module can be chosen to earn a bonus) a) written examination (60 to 120 minutes) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes total) <b>Allocation of places</b> •- <b>Additional information</b> Pursuant to Section 2 Subsection 2 Sentence 2 Verordnung über die Ausbildung und Prüfung der Staatlich ge- prüften Lebensmittelchemikerinnen und Lebensmittelchemiker (Regulation on the training and examination of state-certified food chemists, APOLmCh) in conjunction with No. I 2. Letter e) of Annex 1 of APOLmCh and No. 5 of Annex 2 of APOLmCh. <b>Workload</b>			· · · · ·		inety of food and fou	luer crops.		
V (2) + V (1) + P (4) <b>Method of assessment</b> (type, scope, language — if other than German, examination offered — if not every seme- ster, information on whether module can be chosen to earn a bonus) a) written examination (60 to 120 minutes) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes total) <b>Allocation of places</b>  <b>Additional information</b> Pursuant to Section 2 Subsection 2 Sentence 2 Verordnung über die Ausbildung und Prüfung der Staatlich ge- prüften Lebensmittelchemikerinnen und Lebensmittelchemiker (Regulation on the training and examination of state-certified food chemists, APOLmCh) in conjunction with No. I 2. Letter e) of Annex 1 of APOLmCh and No. 5 of Annex 2 of APOLmCh. <b>Workload</b>	macron cells. Ir o F o F F B F F C	nolecu undam f repre undam f food undam undam asic fa undam roscop	les as well as of the spec ummer semester, student ental knowledge of the d sentatives of the plant kin ental knowledge of major and fodder crops. The sental knowledge of the c rental preparation skills. miliarity with methods fo rental skills in the interpr y.	ific characteristics of is have acquired the listinguishing charac ngdom with special a r anatomical and mor omponents and func r the microscopic ex- etation of macroscop	the intracellular and following knowledge teristics, genetics, p attention to crops. phological plant train tioning of microscop amination of crops. pic and histological p	d extracellular structures of plant e and skills: hotosynthesis and physiology ts as well as of the compounds pes. plant preparations by light mi-		
Method of assessment (type, scope, language — if other than German, examination offered — if not every seme- ster, information on whether module can be chosen to earn a bonus) a) written examination (60 to 120 minutes) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes total) Allocation of places  Additional information Pursuant to Section 2 Subsection 2 Sentence 2 Verordnung über die Ausbildung und Prüfung der Staatlich ge- prüften Lebensmittelchemikerinnen und Lebensmittelchemiker (Regulation on the training and examination of state-certified food chemists, APOLmCh) in conjunction with No. I 2. Letter e) of Annex 1 of APOLmCh and No. 5 of Annex 2 of APOLmCh.			· · · · · ·	ict nours, language –	- II OLIIEI LIIAII GEIIIIA			
<ul> <li>b) oral examination of one candidate each (approx. 20 minutes) or</li> <li>c) oral examination in groups (groups of 2, approx. 30 minutes total)</li> <li>Allocation of places </li> <li> </li> <li>Additional information Pursuant to Section 2 Subsection 2 Sentence 2 Verordnung über die Ausbildung und Prüfung der Staatlich ge-prüften Lebensmittelchemikerinnen und Lebensmittelchemiker (Regulation on the training and examination of state-certified food chemists, APOLmCh) in conjunction with No. I 2. Letter e) of Annex 1 of APOLmCh and No. 5 of Annex 2 of APOLmCh. Workload</li></ul>	Method	d of ass	sessment (type, scope, la			tion offered — if not every seme-		
Additional information Pursuant to Section 2 Subsection 2 Sentence 2 Verordnung über die Ausbildung und Prüfung der Staatlich ge- prüften Lebensmittelchemikerinnen und Lebensmittelchemiker (Regulation on the training and examination of state-certified food chemists, APOLmCh) in conjunction with No. I 2. Letter e) of Annex 1 of APOLmCh and No. 5 of Annex 2 of APOLmCh. Workload	b) oral	examir	nation of one candidate e	ach (approx. 20 mini	-			
Pursuant to Section 2 Subsection 2 Sentence 2 Verordnung über die Ausbildung und Prüfung der Staatlich ge- prüften Lebensmittelchemikerinnen und Lebensmittelchemiker (Regulation on the training and examination of state-certified food chemists, APOLmCh) in conjunction with No. I 2. Letter e) of Annex 1 of APOLmCh and No. 5 of Annex 2 of APOLmCh. <b>Workload</b>	Allocat	ion of <sub>l</sub>	places					
Pursuant to Section 2 Subsection 2 Sentence 2 Verordnung über die Ausbildung und Prüfung der Staatlich ge- prüften Lebensmittelchemikerinnen und Lebensmittelchemiker (Regulation on the training and examination of state-certified food chemists, APOLmCh) in conjunction with No. I 2. Letter e) of Annex 1 of APOLmCh and No. 5 of Annex 2 of APOLmCh. <b>Workload</b>								
	Pursua prüften state-co	nt to So Leben ertified	ection 2 Subsection 2 Ser smittelchemikerinnen un food chemists, APOLmCl	d Lebensmittelchem	iker (Regulation on t	he training and examination of		
210 h	Worklo	ad						
	210 h							

#### Teaching cycle

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

--

#### Module appears in

Bachelor's degree (1 major) Food Chemistry (2015) Bachelor's degree (1 major) Food Chemistry (2016) Bachelor's degree (1 major) Food Chemistry (2019) Bachelor's degree (1 major) Food Chemistry (2021) Bachelor's degree (1 major) Food Chemistry (2025)

Microh	e title			Abbreviation	
	iology for Food Chemistry stud		07-LMC-BIO2-152-m	101	
Module coordinator			Module offered by		
holder of the Chair of Microbiology			Faculty of Biology		
ECTS	Method of grading	Only after succ. con	, , ,		
5	(not) successfully completed				
Duratio	on Module level	Other prerequisites	i		
1 seme	·				
Conten		1			
lecture control mutual produc apply f sterilis for the to perfe <b>Intendo</b> Studen technic ficatior	idamentals of bacteriology; duri will acquaint students with the of bacteria. In addition, it will e lists, commensals and pathogen ers of antibiotics, the role of ba undamental techniques for the ation and disinfection methods identification and classification orm experiments on antibiotic s ed learning outcomes the are familiar with the fundamental ques for addressing scientific is n of bacteria). es (type, number of weekly conta Ü (3)	fundamental princip explore the significant ins in humans. The lec cteriophages and hor cultivation and isolat . They will also apply n of bacteria. Addition ensitivity/resistance ental principles of ba sues in bacteriology a	les of the cultivation ce of bacteria both fo ture will also discus rizontal gene transfe ion of bacteria and v both classical macro and exercises will pro and horizontal gene cteriology. They are to and are able to apply	, enrichment, identif or global nutrient cyc s the significance of r. During exercises, s vill test the efficacy c oscopic and microsco vide students with an transfer. familiar with simple of these (e. g. detection	ication and eles and as bacteria as students will of a range of opic method n opportunit experimenta
	<b>d of assessment</b> (type, scope, la			tion offered — if not	every seme-
ster, in Log (ap Assess	formation on whether module c oprox. 30 pages) ment offered: Once a year, sum	an be chosen to earn		tion offered — if not	every seme-
ster, in Log (ap Assess	formation on whether module c oprox. 30 pages)	an be chosen to earn		ition offered — if not	every seme-
ster, in Log (ap Assess <b>Allocat</b> 	formation on whether module c oprox. 30 pages) ment offered: Once a year, sum <b>ion of places</b>	an be chosen to earn		ition offered — if not	every seme-
ster, in Log (ap Assess Allocat  Additic	formation on whether module c oprox. 30 pages) ment offered: Once a year, sum <b>ion of places</b> onal information	an be chosen to earn mer semester	a bonus)		
ster, in Log (ap Assess Allocat  Additic Pursua prüften state-c APOLm	formation on whether module coprox. 30 pages) ment offered: Once a year, sum <b>tion of places</b> <b>onal information</b> Int to Section 2 Subsection 2 Se a Lebensmittelchemikerinnen ur ertified food chemists, APOLmC oCh and No. 4 of Annex 3 of APO	an be chosen to earn mer semester ntence 2 Verordnung nd Lebensmittelchem th) in conjunction witl	a bonus) über die Ausbildung iker (Regulation on t	g und Prüfung der Sta he training and exan	aatlich ge- nination of
ster, in Log (ap Assess Allocat  Additic Pursua prüften state-c	formation on whether module coprox. 30 pages) ment offered: Once a year, sum <b>tion of places</b> <b>onal information</b> Int to Section 2 Subsection 2 Se a Lebensmittelchemikerinnen ur ertified food chemists, APOLmC oCh and No. 4 of Annex 3 of APO	an be chosen to earn mer semester ntence 2 Verordnung nd Lebensmittelchem th) in conjunction witl	a bonus) über die Ausbildung iker (Regulation on t	g und Prüfung der Sta he training and exan	aatlich ge- nination of
ster, in Log (ap Assess Allocat  Additic Pursua prüften state-c APOLm	formation on whether module coprox. 30 pages) ment offered: Once a year, sum <b>tion of places</b> <b>onal information</b> Int to Section 2 Subsection 2 Se a Lebensmittelchemikerinnen ur ertified food chemists, APOLmC oCh and No. 4 of Annex 3 of APO	an be chosen to earn mer semester ntence 2 Verordnung nd Lebensmittelchem th) in conjunction witl	a bonus) über die Ausbildung iker (Regulation on t	g und Prüfung der Sta he training and exan	aatlich ge- nination of
ster, in Log (ap Assess Allocat  Additic Pursua prüften state-c APOLm Worklo 150 h	formation on whether module coprox. 30 pages) ment offered: Once a year, sum <b>tion of places</b> <b>onal information</b> Int to Section 2 Subsection 2 Se a Lebensmittelchemikerinnen ur ertified food chemists, APOLmC oCh and No. 4 of Annex 3 of APO	an be chosen to earn mer semester ntence 2 Verordnung nd Lebensmittelchem th) in conjunction witl	a bonus) über die Ausbildung iker (Regulation on t	g und Prüfung der Sta he training and exan	aatlich ge- nination of
ster, in Log (ap Assess Allocat  Additic Pursua prüften state-c APOLm Worklo 150 h	formation on whether module coprox. 30 pages) ment offered: Once a year, sum <b>cion of places</b> <b>onal information</b> Int to Section 2 Subsection 2 Se a Lebensmittelchemikerinnen ur ertified food chemists, APOLmC aCh and No. 4 of Annex 3 of APO ad	an be chosen to earn mer semester ntence 2 Verordnung nd Lebensmittelchem th) in conjunction witl	a bonus) über die Ausbildung iker (Regulation on t	g und Prüfung der Sta he training and exan	aatlich ge- nination of
ster, in Log (ap Assess Allocat  Pursua prüfter state-c APOLm Worklo 150 h Teachin 	formation on whether module coprox. 30 pages) ment offered: Once a year, sum <b>cion of places</b> <b>onal information</b> Int to Section 2 Subsection 2 Se a Lebensmittelchemikerinnen ur ertified food chemists, APOLmC aCh and No. 4 of Annex 3 of APO ad	an be chosen to earn mer semester ntence 2 Verordnung nd Lebensmittelchem h) in conjunction with LmCh.	a bonus) über die Ausbildung iker (Regulation on t h No. II 2. Letter f) ar	g und Prüfung der Sta he training and exan id No. II 1. Letter b) o	aatlich ge- nination of
ster, in Log (ap Assess Allocat  Pursua prüfter state-c APOLm Worklo 150 h Teachin 	formation on whether module coprox. 30 pages) ment offered: Once a year, sum <b>cion of places</b> <b>onal information</b> Int to Section 2 Subsection 2 Se a Lebensmittelchemikerinnen ur ertified food chemists, APOLmC aCh and No. 4 of Annex 3 of APO bad	an be chosen to earn mer semester ntence 2 Verordnung nd Lebensmittelchem h) in conjunction with LmCh.	a bonus) über die Ausbildung iker (Regulation on t h No. II 2. Letter f) ar	g und Prüfung der Sta he training and exan id No. II 1. Letter b) o	aatlich ge- nination of
ster, in Log (ap Assess Allocat  Additio Pursua prüften state-c APOLm Worklo 150 h Teachii  Referre	formation on whether module coprox. 30 pages) ment offered: Once a year, sum tion of places onal information Int to Section 2 Subsection 2 Se to Lebensmittelchemikerinnen un ertified food chemists, APOLmC toCh and No. 4 of Annex 3 of APO oad ng cycle ed to in LPO I (examination regu	an be chosen to earn mer semester ntence 2 Verordnung nd Lebensmittelchem h) in conjunction with LmCh.	a bonus) über die Ausbildung iker (Regulation on t h No. II 2. Letter f) ar	g und Prüfung der Sta he training and exan id No. II 1. Letter b) o	aatlich ge- nination of
ster, in Log (ap Assess Allocat  Pursua prüften state-c APOLm Worklo 150 h Teachin  Referre  Modulo	formation on whether module coprox. 30 pages) ment offered: Once a year, sum <b>tion of places</b> <b>onal information</b> Int to Section 2 Subsection 2 Se the Lebensmittelchemikerinnen un ertified food chemists, APOLmC the And No. 4 of Annex 3 of APO or And <b>ng cycle</b> <b>ed to in LPO I</b> (examination regular e appears in	an be chosen to earn mer semester ntence 2 Verordnung nd Lebensmittelchem h) in conjunction with LmCh.	a bonus) über die Ausbildung iker (Regulation on t h No. II 2. Letter f) ar	g und Prüfung der Sta he training and exan id No. II 1. Letter b) o	aatlich ge- nination of
ster, in Log (ap Assess Allocat  Pursua prüfter state-c APOLm Worklo 150 h Teachii  Referre Bachel	formation on whether module coprox. 30 pages) ment offered: Once a year, sum tion of places onal information Int to Section 2 Subsection 2 Se to Lebensmittelchemikerinnen un ertified food chemists, APOLmC toCh and No. 4 of Annex 3 of APO oad ng cycle ed to in LPO I (examination regu	an be chosen to earn mer semester ntence 2 Verordnung nd Lebensmittelchem h) in conjunction with LmCh.	a bonus) über die Ausbildung iker (Regulation on t h No. II 2. Letter f) ar	g und Prüfung der Sta he training and exan id No. II 1. Letter b) o	aatlich ge- nination of
ster, in Log (ap Assess Allocat  Pursua prüfter state-c APOLm Worklo 150 h Teachin  Referre Bachel Bachel Bachel	formation on whether module coprox. 30 pages) ment offered: Once a year, sum <b>tion of places</b> <b>onal information</b> Int to Section 2 Subsection 2 Section 2 Section 2 Subsection 2 Subsection 2 Section 2 Market a Lebensmittelchemikerinnen ur ertified food chemists, APOLmC aCh and No. 4 of Annex 3 of APO bad <b>ng cycle</b> <b>ed to in LPO I</b> (examination regulated e appears in or's degree (1 major) Food Chem	an be chosen to earn mer semester ntence 2 Verordnung nd Lebensmittelchem (h) in conjunction with LmCh. ulations for teaching-on nistry (2015) nistry (2016)	a bonus) über die Ausbildung iker (Regulation on t h No. II 2. Letter f) ar	g und Prüfung der Sta he training and exan id No. II 1. Letter b) o	aatlich ge- nination of
ster, in Log (ap Assess Allocat  Additio Pursua prüften state-c APOLm Worklo 150 h Teachin  Referre  Bachel Bachel Bachel Bachel	formation on whether module c oprox. 30 pages) ment offered: Once a year, sum ion of places onal information nt to Section 2 Subsection 2 Se the Lebensmittelchemikerinnen ur ertified food chemists, APOLmC aCh and No. 4 of Annex 3 of APO bad ng cycle ed to in LPO I (examination regu e appears in or's degree (1 major) Food Chem or's degree (1 major) Food Chem	an be chosen to earn mer semester ntence 2 Verordnung nd Lebensmittelchem ch) in conjunction with LmCh. ulations for teaching-on nistry (2015) nistry (2016) nistry (2019)	a bonus) über die Ausbildung iker (Regulation on t h No. II 2. Letter f) ar	g und Prüfung der Sta he training and exan id No. II 1. Letter b) o	aatlich ge- nination of
ster, in Log (ap Assess Allocat  Pursua prüften state-c APOLm Worklo 150 h Teachi 150 h Teachi  Referre  Bachel Bachel Bachel Bachel Bachel	formation on whether module coprox. 30 pages) ment offered: Once a year, sum <b>ion of places</b> <b>onal information</b> Int to Section 2 Subsection 2 Section 2 Section 2 Subsection 2 Subsection 2 Section 2 Section 2 Sectified food chemists, APOLmC ach and No. 4 of Annex 3 of APO ad <b>ng cycle</b> <b>ed to in LPO I</b> (examination regulated to the section 1 (examination regulated to the section 1) Food Chem or's degree (1 major) Food Chem or's degree (1 major) Food Chem	an be chosen to earn mer semester ntence 2 Verordnung nd Lebensmittelchem ch) in conjunction with LmCh. ulations for teaching-on nistry (2015) nistry (2016) nistry (2019) nistry (2021)	a bonus) über die Ausbildung iker (Regulation on t h No. II 2. Letter f) ar	g und Prüfung der Sta he training and exan id No. II 1. Letter b) o	aatlich ge- nination of

Module title Abbreviation							
Biochemistry 1 08-BC1-152-m01							
Module coordinator Module of					<u> </u>		
holder of the Chair of Biochemistry				Chair of Biochemist	try		
ECTS Method of grading Only after succ. compl. of module(s)							
5		rical grade					
Durati	on	Module level	Other prerequisites				
1 seme	ester	undergraduate					
Conte	nts						
mistry tertian sis, glu tion, fa	. A parti y and qu uconeog atty acid	ctures and exercises, thi cular focus is on the bioo uaternary structures), cat genesis, citric acid cycle, I synthesis), nucleotide r structure of the DNA and	chemistry of proteins alytic strategies and cellular respiration, p netabolism, the urea	(amino acids, peptio enzyme kinetics, car photosynthesis), fatt cycle and amino aci	le bonds, primary, s bohydrate metabolis y acid metabolism (l	econdary, sm (glycoly- beta oxida-	
Intend	led learn	ning outcomes					
		e become familiar with th dule. They are able to de				ere discus-	
Course	<b>es</b> (type	, number of weekly conta	act hours, language –	- if other than Germa	n)		
V (2) +	· Ü (1)						
		sessment (type, scope, la on on whether module c			tion offered — if not	every seme-	
writter	n examiı	nation (approx. 60 to 90	minutes)				
Alloca	tion of p	olaces					
Additi	onal inf	ormation					
		2 para. 2 sentence 2 AP POLmCh and No. 3 of anr			er e) and No. II 1st le	tter c) of an-	
Workl	oad						
150 h							
Teach	ing cycl	e					
	-	LPO I (examination regu	llations for teaching-	degree programmes)			
§ 42							
§621		•					
	le appea		hm ( (				
		gree (1 major) Biochemis					
		gree (1 major) Biology (20 gree (1 major) Chemistry	-				
		gree (1 major) Chemistry gree (1 major) Food Chen	-				
	Bachelor's degree (1 major) Functional Materials (2015)						
First st	tate exa	mination for the teaching	g degree Grundschule	• -			
		mination for the teaching		• -			
		mination for the teaching					
		mination for the teaching		Cnemistry (2015)			
		gree (1 major) Food Chen gree (1 major) Biology (20	•				
			··/)				
Bachelor's	s with 1 maj	or Food Chemistry (2016)		generated 19-Apr-2025 • exa	-	page 12 / 45	



Bachelor's degree (1 major) Biochemistry (2017) Bachelor's degree (1 major) Chemistry (2017) Module studies (Bachelor) Chemistry (2019) Bachelor's degree (1 major) Food Chemistry (2019) Module studies (Bachelor) Orientierungsstudien (2020) First state examination for the teaching degree Mittelschule Chemistry (2020 (Prüfungsordnungsversion 2015)) Bachelor's degree (1 major) Biology (2021) Bachelor's degree (1 major) Functional Materials (2021) Bachelor's degree (1 major) Food Chemistry (2022) Bachelor's degree (1 major) Biochemistry (2022) Bachelor's degree (1 major) Biology (2022) Bachelor's degree (1 major) Functional Materials (2025)

Bachelor's degree (1 major) Food Chemistry (2025)

Modul	e title				Abbreviation	
Bioche	emistry	2			08-BC2-152-m01	
Madula coordinator						
Module coordinator			Module offered by			
holder of the Chair of Biochemistry			r	Chair of Biochemis	try	
ECTS		od of grading	Only after succ. con	pl. of module(s)		
5	nume	rical grade				
Duratio	on	Module level	Other prerequisites			
1 seme	ester	undergraduate				
Conter	nts					
mistry. tional i	. A parti regulati	cular focus is on replica	tion, DNA repair, trans	cription, mRNA mat	damental principles of bioc uration, translation and tran The module also discusses t	ısla-
Intend	ed learr	ning outcomes				
		become familiar with th dule. They are able to de			biochemistry that were disc ellular systems.	:us-
Course	es (type,	number of weekly cont	act hours, language —	if other than Germa	in)	
V (2) +	Ü (1)					
		essment (type, scope, l on on whether module o			tion offered — if not every s	eme-
written	n examir	nation (approx. 60 to 90	minutes)			
	tion of p		- ·			
Allocut						
	1. 6					
		ormation				
prüfter state-c	n Leben certified	smittelchemikerinnen u	nd Lebensmittelchem Ch) in conjunction with	iker (Regulation on t	g und Prüfung der Staatlich § he training and examination nd No. II 1. Letter c) of Annex	n of
Worklo	-					
	Jau		_			
150 h			_			
Teachi	ng cycl	9	_			
Referre	ed to in	LPOI (examination reg	ulations for teaching-o	legree programmes)		
Modul	e appea	rs in				
		gree (1 major) Biochemis	stry (2015)			
		gree (1 major) Biology (2				
		gree (1 major) Chemistry				
		gree (1 major) Food Cher				
		gree (1 major) Food Cher				
		gree (1 major) Biology (2				
		gree (1 major) Biochemis				
Bachel	lor's deg	gree (1 major) Chemistry	(2017)			
		gree (1 major) Food Cher				
		gree (1 major) Biology (2				
		gree (1 major) Food Cher				
Bachel	lor's deg	gree (1 major) Biochemis	stry (2022)			
Bachelor's	s with 1 mai	or Food Chemistry (2016)	JMU Würzburg •	generated 19-Apr-2025 • exa	am. reg. da- page 14	4 / 45
			-	or (180 ECTS) Lebensmittelch		



Bachelor's degree (1 major) Biology (2022) Bachelor's degree (1 major) Food Chemistry (2025)

Module	Module title Abbreviation						
General and Inorganic Chemistry for Food Chemistry Students 08-LMC-AC1-152-mo1							
Module coordinator Module offered					<b>I</b>		
holder	ofthe	Chair of Food Chemistry		Institute of Pharma	icy and Food Chemistry		
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)			
14	nume	rical grade					
Duratio	on	Module level	Other prerequisites				
1 seme	ster	undergraduate					
Conten	Its						
bonds, and ch mical e well as	intram emical quatio their q	olecular forces, solution kinetics; chemical equili ns and stoichiometry, ch	s and heterogeneous brium; the law of ma emical behaviour of r ysis with a special foo	systems; fundamer ss action; acid-base eactants (elements	e of elements; types of chemical ntal principles of thermodynamics systems and redox systems; che and categories of substances) as nmonly found in foods that may		
Intend	ed lear	ning outcomes	-				
the mo viour o actions dents h pender date th	st impo f group to det nave de ntly per neir resu	ortant elements. They are s of inorganic substance ect inorganic ions as wel eveloped essential lab sk form qualitative analyses ults.	able to independent s. They are able to ap l as to detect the pres ills and can work safe s of drinking water to	ly set up chemical e ply their theoretical sence of inorganic ic ely and competently detect inorganic com	istry including stoichiometry and equations and predict the beha- knowledge in the lab and use re- ons in mixtures and matrices. Stu- in a lab. They are able to inde- mpounds, identify them and vali-		
		, number of weekly conta	ict hours, language –	- if other than Germa	an)		
V (2) +	S (2) +	P (8)					
		s <b>essment</b> (type, scope, la ion on whether module c			ation offered — if not every seme-		
c) oral [a) Vor sessmo pletion testate	examin testate ent of p and w and N	ation in groups of 2 canc and Nachtestate (pre and practical assignments (ap ritten documentation (ap achtestate (pre and post-	lidates (approx. 30 m d post-experiment ex prox. 2 to 4 pages pe prox. 1 to 2 pages) of experiment exams, a	inutes total)] and ams, approx. 15 min r analysis, no more <sup>7</sup> a theoretical assigr pprox. 15 minutes),	date each (approx. 20 minutes) o nutes), documentation and as- than 60 pages total) or b) com- iment (approx. 30 minutes), Vor- documentation and assessment more than 60 pages total).]		
•	ion of	· · · · · · · · · · · · · · · · · · ·	<u>, , , , , , , , , , , , , , , , , , , </u>				
Additic	onal inf	ormation					
Pursuant to Section 2 Subsection 2 Sentence 2 Verordnung über die Ausbildung und Prüfung der Staatlich ge- prüften Lebensmittelchemikerinnen und Lebensmittelchemiker (Regulation on the training and examination of state-certified food chemists, APOLmCh) in conjunction with No. I 2. Letter a) and No. I 1. Letter a) of Annex 1 of APOLmCh and No. 1 of Annex 2 of APOLmCh.							
Worklo	ad						
420 h							
Teachi	ng cycl	e					
Referre	ed to in	LPOI (examination regu	lations for teaching-	degree programmes	)		
					,		

#### Module appears in

Bachelor's with 1 major Food Chemistry (2016)

Bachelor's degree (1 major) Food Chemistry (2015) Bachelor's degree (1 major) Food Chemistry (2016) Bachelor's degree (1 major) Food Chemistry (2019)

Module	e title				Abbreviation
Quanti	tative l	norganic Chemistry for F	ood Chemistry Stude	nts	08-LMC-AC2-152-m01
Module coordinator				Module offered by	
holder	of the (	Chair of Food Chemistry		Institute of Pharma	cy and Food Chemistry
ECTS		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				
ces) as	well as		anic analysis with a s		nts and categories of substan- ients commonly found in foods
Intende	ed lear	ning outcomes			
		w suitable methods for th s in samples are calculat			nderstand how the concentrati- ntrations themselves.
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	in)
V (3) +	Ü (1)				
		sessment (type, scope, la ion on whether module ca			tion offered — if not every seme-
b) oral	examir	mination (60 to 120 minu nation of one candidate e ation in groups (groups c	ach (approx. 20 minu		
Allocat	ion of <b>p</b>	olaces			
	2				
Additio	nal inf	ormation			
prüften state-ce	Leben ertified	smittelchemikerinnen un	d Lebensmittelchem h) in conjunction with	iker (Regulation on t	g und Prüfung der Staatlich ge- he training and examination of d No. I 1. Letter a) of Annex 1 of
Worklo	ad				
150 h					
Teachi	ng cycl	e			
Referre	d to in	LPO I (examination regu	lations for teaching-o	legree programmes)	
Module	e appea	ars in			
		gree (1 major) Food Cherr	nistry (2015)		
		gree (1 major) Food Cherr			
Bachel	or's de	gree (1 major) Food Chem	istry (2019)		

Quanti	e title				Abbreviation	
	itative I	norganic Analysis for Fo	od Chemistry Studen	ts	08-LMC-AC3-152-m	01
Module coordinator			Module offered by	<u> </u>		
holder of the Chair of Food Chemistry					cy and Food Chemis	trv
ECTS		od of grading	Only after succ. con		•) ••••••••••••••••••	
14		successfully completed	08-LMC-AC1	1		
Duratio	on	Module level	Other prerequisites	i		
2 seme	ester	undergraduate				
Conter	nts					
ces) as and pr or toxic	s well as ocess w cologica		anic analysis with a s	pecial focus on elem	ients commonly fou	nd in drinking
Intend	ed lear	ning outcomes	,			
relevar compe on of t	nce of tl etently a hose re	b to precisely and correc ne results obtained. Stuc and determine relevant d sults in reference to the r , number of weekly conta	lents will develop the ata for the interpretat nature of the water sa	ir strategies indepention of the results ob ample.	ndently, perform the tained as well as for	ir analyses
P (10) -	+ S (1) +	- S (1)				
		<b>sessment</b> (type, scope, la on on whether module c			tion offered — if not	every seme-
a) Vortestate and Nachtestate (pre and post-experiment exams, approx. 15 minutes), documentation and as- sessment of practical assignments (approx. 2 to 4 pages per analysis, no more than 60 pages total) or b) completion and written documentation (approx. 1 to 2 pages) of a theoretical assignment (approx. 30 minu- tes), Vortestate and Nachtestate (pre and post-experiment exams, approx. 15 minutes), documentation and as- sessment of practical assignments in lab notebook (approx. 2 to 4 pages per analysis, no more than 60 pages to- tal) and talk (approx. 20 minutes)						
tal) an	d talk (a	ractical assignments in l	ab notebook (approx			tion and as-
tal) an Assess	d talk (a	ractical assignments in l approx. 20 minutes) ffered: Once a year, sum	ab notebook (approx			tion and as-
tal) an Assess	d talk (a sment o	ractical assignments in l approx. 20 minutes) ffered: Once a year, sum	ab notebook (approx			tion and as-
tal) and Assess Allocat	d talk (a sment o <b>tion of p</b>	ractical assignments in l approx. 20 minutes) ffered: Once a year, sum	ab notebook (approx			tion and as-
tal) and Assess Allocat  Additio Pursua prüfter state-c	d talk (a sment o tion of p onal info ant to Se n Leben certified	ractical assignments in l approx. 20 minutes) ffered: Once a year, sum <b>blaces</b>	ab notebook (approx mer semester ntence 2 Verordnung nd Lebensmittelchem h) in conjunction witl	. 2 to 4 pages per an über die Ausbildung iker (Regulation on t	alysis, no more thar g und Prüfung der St he training and exar	tion and as- n 60 pages to- aatlich ge- nination of
tal) and Assess Allocat  Additio Pursua prüfter state-c	d talk (a sment o tion of p onal info ant to Se n Leben certified nCh and	ractical assignments in l approx. 20 minutes) ffered: Once a year, sum blaces ormation ection 2 Subsection 2 Se smittelchemikerinnen ur food chemists, APOLmC	ab notebook (approx mer semester ntence 2 Verordnung nd Lebensmittelchem h) in conjunction witl	. 2 to 4 pages per an über die Ausbildung iker (Regulation on t	alysis, no more thar g und Prüfung der St he training and exar	tion and as- n 60 pages to- aatlich ge- nination of
tal) and Assess Allocat  Additio Pursua prüfter state-c APOLm	d talk (a sment o tion of p onal info ant to Se n Leben certified nCh and	ractical assignments in l approx. 20 minutes) ffered: Once a year, sum blaces ormation ection 2 Subsection 2 Se smittelchemikerinnen ur food chemists, APOLmC	ab notebook (approx mer semester ntence 2 Verordnung nd Lebensmittelchem h) in conjunction witl	. 2 to 4 pages per an über die Ausbildung iker (Regulation on t	alysis, no more thar g und Prüfung der St he training and exar	tion and as- n 60 pages to- aatlich ge- nination of
tal) and Assess Allocat  Additio Pursua prüfter state-c APOLm Worklo 420 h	d talk (a sment o tion of p onal info ant to Se n Leben certified nCh and	ractical assignments in l approx. 20 minutes) ffered: Once a year, sum <b>places</b> ormation ection 2 Subsection 2 Se smittelchemikerinnen ur food chemists, APOLmC No. 1 of Annex 2 of APO	ab notebook (approx mer semester ntence 2 Verordnung nd Lebensmittelchem h) in conjunction witl	. 2 to 4 pages per an über die Ausbildung iker (Regulation on t	alysis, no more thar g und Prüfung der St he training and exar	tion and as- n 60 pages to- aatlich ge- nination of
tal) and Assess Allocat  Additio Pursua prüfter state-c APOLm Worklo 420 h	d talk (a sment o tion of p onal info ant to Se n Leben certified nCh and oad	ractical assignments in l approx. 20 minutes) ffered: Once a year, sum <b>places</b> ormation ection 2 Subsection 2 Se smittelchemikerinnen ur food chemists, APOLmC No. 1 of Annex 2 of APO	ab notebook (approx mer semester ntence 2 Verordnung nd Lebensmittelchem h) in conjunction witl	. 2 to 4 pages per an über die Ausbildung iker (Regulation on t	alysis, no more thar g und Prüfung der St he training and exar	tion and as- n 60 pages to- aatlich ge- nination of
tal) and Assess Allocat  Additio Pursua prüfter state-c APOLm Worklo 420 h Teachi 	d talk (a sment o tion of p onal info ant to Se n Leben certified nCh and oad	ractical assignments in l approx. 20 minutes) ffered: Once a year, sum <b>places</b> ormation ection 2 Subsection 2 Se smittelchemikerinnen ur food chemists, APOLmC No. 1 of Annex 2 of APO	ab notebook (approx mer semester ntence 2 Verordnung nd Lebensmittelchem h) in conjunction with LmCh.	über die Ausbildung iker (Regulation on t h No. I 2. Letter a) an	alysis, no more thar g und Prüfung der St he training and exan d No. I 1. Letter a) of	tion and as- n 60 pages to- aatlich ge- nination of
tal) and Assess Allocat  Additio Pursua prüfter state-c APOLm Worklo 420 h Teachi 	d talk (a sment o tion of p onal info ant to Se n Leben certified nCh and oad	ractical assignments in l approx. 20 minutes) ffered: Once a year, sum olaces ormation ection 2 Subsection 2 Se smittelchemikerinnen ur food chemists, APOLmC I No. 1 of Annex 2 of APO	ab notebook (approx mer semester ntence 2 Verordnung nd Lebensmittelchem h) in conjunction with LmCh.	über die Ausbildung iker (Regulation on t h No. I 2. Letter a) an	alysis, no more thar g und Prüfung der St he training and exan d No. I 1. Letter a) of	tion and as- n 60 pages to- aatlich ge- nination of
tal) and Assess Allocat  Additio Pursua prüfter state-c APOLm Worklo 420 h Teachi  Referro	d talk (a sment o tion of p onal info ant to Se n Leben certified nCh and oad	ractical assignments in l approx. 20 minutes) ffered: Once a year, sum olaces ormation ection 2 Subsection 2 Se smittelchemikerinnen ur food chemists, APOLmC I No. 1 of Annex 2 of APO e E E E LPO I (examination regu	ab notebook (approx mer semester ntence 2 Verordnung nd Lebensmittelchem h) in conjunction with LmCh.	über die Ausbildung iker (Regulation on t h No. I 2. Letter a) an	alysis, no more thar g und Prüfung der St he training and exan d No. I 1. Letter a) of	tion and as- n 60 pages to- aatlich ge- nination of
tal) and Assess Allocat  Pursua prüfter state-c APOLm Worklo 420 h Teachi  Referro Bachel	d talk (a sment o tion of p onal info ant to Se n Leben certified nCh and oad ing cycl ed to in e appea lor's de	ractical assignments in l approx. 20 minutes) ffered: Once a year, sum olaces ormation ection 2 Subsection 2 Se smittelchemikerinnen ur food chemists, APOLmC No. 1 of Annex 2 of APO No. 1 of Annex 2 of APO E E E E E E E E E E E E E E E E E E E	ab notebook (approx mer semester ntence 2 Verordnung nd Lebensmittelchem h) in conjunction with LmCh.	über die Ausbildung iker (Regulation on t h No. I 2. Letter a) an	alysis, no more thar g und Prüfung der St he training and exan d No. I 1. Letter a) of	tion and as- n 60 pages to- aatlich ge- nination of
tal) and Assess Allocat Pursua prüfter state-c APOLm Worklo 420 h Teachi  Referro  Bachel Bachel	d talk (a sment o tion of p onal info ant to Se n Leben certified nCh and oad ing cyclo ed to in e appea lor's deg lor's deg	ractical assignments in l approx. 20 minutes) ffered: Once a year, sum olaces ormation ection 2 Subsection 2 Se smittelchemikerinnen ur food chemists, APOLmC l No. 1 of Annex 2 of APO l No. 1 of Annex 2 of APO e LPO I (examination regu ars in gree (1 major) Food Chen gree (1 major) Food Chen	ab notebook (approx mer semester ntence 2 Verordnung nd Lebensmittelchem h) in conjunction with LmCh. Ilations for teaching-on nistry (2015) nistry (2016)	über die Ausbildung iker (Regulation on t h No. I 2. Letter a) an	alysis, no more thar g und Prüfung der St he training and exan d No. I 1. Letter a) of	tion and as- n 60 pages to- aatlich ge- nination of
tal) and Assess Allocat  Pursua prüfter state-c APOLm Worklo 420 h Teachi  Referro Bachel Bachel Bachel Bachel	d talk (a sment o tion of p onal info ant to Se n Leben certified nCh and oad ing cycl ing cycl ed to in e appea lor's de lor's de lor's de	ractical assignments in l approx. 20 minutes) ffered: Once a year, sum olaces ormation ection 2 Subsection 2 Se smittelchemikerinnen ur food chemists, APOLmC No. 1 of Annex 2 of APO No. 1 of Annex 2 of APO E E E E E E E E E E E E E E E E E E E	ab notebook (approx mer semester ntence 2 Verordnung nd Lebensmittelchem h) in conjunction with LmCh. Ilations for teaching-on nistry (2015) nistry (2016)	über die Ausbildung iker (Regulation on t h No. I 2. Letter a) an	alysis, no more thar g und Prüfung der St he training and exan d No. I 1. Letter a) of	tion and as- n 60 pages to aatlich ge- nination of

Modul	le title				Abbreviation
Bachelor Thesis Food Chemistry         o8-LMC-BA-152-mo1					
Module coordinator				Module offered by	
		Chair of Food Chemistry			cy and Food Chemistry
ECTS	-	od of grading	Only after succ. con		
10		rical grade		<u> </u>	
Durati	on	Module level	Other prerequisites		
1 seme	ester	undergraduate			
Conte	nts	·			
		gives students the opport scientific methods they h			problem within a given time frame
Intend	led lear	ning outcomes		· -	
		able to conduct research to present the results of t			the principles of good scientific
Course	<b>es</b> (type	, number of weekly conta	ct hours, language –	- if other than Germa	ın)
Νο cou	urses as	signed to module			
ster, ir		ion on whether module ca			ition offered — if not every seme-
	tion of				
Additi	onal inf	ormation	·		
		lete: 8 weeks.			
Workl	•				
300 h					
-	ing cycl	e			
Referr	ed to in	LPOI (examination regu	lations for teaching-o	degree programmes)	
Modul	le appea	ars in			
Bachelor's degree (1 major) Food Chemistry (2015)					
		gree (1 major) Food Chem			
Bache	lor's de	gree (1 major) Food Chem	nistry (2019)		
		gree (1 major) Food Chem			
Bache	lor's de	gree (1 major) Food Chem	iistry (2025)		

Module	e title				Abbreviation
Analysi	is Strat	egies			08-LMC-FSQ1-162-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. con	npl. of module(s)	· · ·
5	(not) s	successfully completed			
Duratio	n	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	ts				
					ative analyses. Calibration strate- a with statistical methods.
Intende	ed lear	ning outcomes			
		e learned how to plan, pe validate their results.	rform and evaluate a	nalyses, use statisti	cal methods to interpret the data
Course	<b>s</b> (type	, number of weekly conta	ict hours, language –	- if other than Germa	n)
S (2) +	S (2)		-		
ster, in written	formati exercis	on on whether module case (approx. 10 pages)	an be chosen to earn		tion offered — if not every seme-
Allocat		ffered: Once a year, wint	ersemester		
AllULAL		Jaces			
 Additio	nal inf	ormation			
Pursua prüften	nt to Se Leben	ection 2 Subsection 2 Se	nd Lebensmittelchem	iker (Regulation on t	; und Prüfung der Staatlich ge- he training and examination of Annex 1 of APOLmCh.
Worklo	ad				
150 h					
Teachi	ng cycl	e			
			-		
Referre	d to in	LPOI (examination regu	lations for teaching-	degree programmes)	
Module	e appea	urs in			
		gree (1 major) Food Chem	nistry (2016)		
Dathen		gree (I major) roou enen	115(1) (2010)		

Modul	e title				Abbreviation
Quality	y Mana	gement			08-LMC-FSQ2-152-m01
Modul	Module coordinator			Module offered by	<u> </u>
holder	of the	Chair of Food Chemistry		Institute of Pharma	cy and Food Chemistry
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
5	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ester	undergraduate			
Conter	nts				
Quality	/ assura	ance in the lab.			
Intend	ed lear	ning outcomes			
		able to apply the fundam ly standard operating pro		dustrial quality assu	rance as well as to independently
Course	<b>es</b> (type	, number of weekly conta	ict hours, language –	- if other than Germa	in)
V (1) +	Ü (2)				
		sessment (type, scope, la ion on whether module ca			tion offered — if not every seme-
term pa	aper (a	pprox. 20 pages)			
Allocat	tion of	places			
Additio	onal inf	ormation			
Worklo	bad				
150 h					
Teachi	ng cycl	e			
	- /				
Referre	ed to in	LPOI (examination regu	lations for teaching-	degree programmes)	
Modul	e appea	ars in			
Bachel	lor's de	gree (1 major) Food Cherr	nistry (2015)		
Bachel	lor's de	gree (1 major) Food Cherr	nistry (2016)		

Module					Abbreviation
Introdu	uction t	o Instrumental Analysis	for Food Chemistry S	tudents	08-LMC-IA-152-m01
Module	e coord	inator		Module offere	d by
holder	of the (	Chair of Food Chemistry		Institute of Ph	armacy and Food Chemistry
ECTS		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	Its				
Fundar methoo		principles of the analysis	of organic molecules	s; physical sepa	aration techniques and measurement
Intend	ed lear	ning outcomes			
familia	r with t	ypical fields of application	on of those methods a	as well as with t	d electrochemistry. They have become he necessary detectors. They know ly and how to interpret them.
Course	<b>s</b> (type	, number of weekly conta	ct hours, language –	· if other than G	erman)
V (3)					
		sessment (type, scope, la ion on whether module ca			mination offered — if not every seme-
b) oral	examir	mination (60 to 120 minu nation of one candidate e nation in groups (groups o	ach (approx. 20 minu		
Allocat	ion of p	olaces			
Additio	onal inf	ormation			
prüften state-c	n Leben ertified	smittelchemikerinnen ur	d Lebensmittelchem	iker (Regulatior	ldung und Prüfung der Staatlich ge- n on the training and examination of a) of Annex 1 of APOLmCh and No. 1 o
Worklo	ad				
150 h	-				
Teachi	ng cycl	e			
Referre	ed to in	LPO I (examination regu	lations for teaching-o	legree program	mes)
Module	e appea	ars in			
		gree (1 major) Food Cherr	nistry (2015)		
		gree (1 major) Food Chem			
		gree (1 major) Food Chem			
Bachel	or's de	gree (1 major) Food Chem	nistry (2021)		
Bachel	or's de	gree (1 major) Food Cherr	istry (2025)		

Module	title				Abbreviation
Instrum	nental	Analysis for Food Chemis	stry Students		08-LMC-LMA-152-m01
Module	e coord	inator		Module offered by	
holder	ofthe	Chair of Food Chemistry		Institute of Pharma	cy and Food Chemistry
ECTS	Methe	od of grading	Only after succ. con	npl. of module(s)	
10	(not)	successfully completed	08-LMC-AC3, 08-LM	C-OCP	
			or o8-OCP1-LMC		
Duratio	n	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	ts				
		principles of the analysis ctroscopic and chromato	-	oducts, cosmetics, c	consumer goods and feeds; in
Intende	ed lear	ning outcomes	<u>-</u>		
spectro	scopic		i) and chromatograph		tative analyses of foods using atography, high performance li-
Course	<b>s</b> (type	, number of weekly conta	ict hours, language –	- if other than Germa	in)
S (1) + S	S (1) +	P (10)			
ster, inf a) Vorte sessme	formati estate a ent of p	ion on whether module c and Nachtestate (pre and practical assignments (ap	an be chosen to earn l post-experiment exa prox. 2 to 4 pages pe	a bonus) ams, approx. 15 minu r analysis, no more 1	
tes), Vo	ortestat	te and Nachtestate (pre a	nd post-experiment e	exams, approx. 15 m	assignment (approx. 30 minu- inutes), documentation and as- alysis, no more than 60 pages to
Allocat	ion of <sub>l</sub>	places			
Additio	nal inf	ormation	-		
prüften state-ce	Leben ertified	smittelchemikerinnen ur	nd Lebensmittelchem h) in conjunction with	iker (Regulation on t	g und Prüfung der Staatlich ge- he training and examination of d No. I 1. Letter a) of Annex 1 of
Worklo	ad				
300 h					
Teachir	ıg cycl	e			
Referre	d to in	LPOI (examination regu	lations for teaching-	degree programmes)	
Module	annes	ars in			
		gree (1 major) Food Chem	nistry (2015)		
		gree (1 major) Food Chen gree (1 major) Food Chen			
		gree (1 major) Food Chen gree (1 major) Food Chen	•		
		gree (1 major) Food Chem			

	e title				Abbreviation
Introdu	uction t	o Food Chemistry			08-LMC-LMC0-162-m01
Modul	e coord	inator		Module offered by	<u> </u>
holder	ofthe	Chair of Food Chemistry		Institute of Pharma	cy and Food Chemistry
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 seme	ester	undergraduate			
Conten	nts		-		
Introdu	uction t	o the chemistry of food c	onstituents.		
Intend	ed lear	ning outcomes			
		familiar with the fundame as their importance in fo		erties and reactions	of proteins, carbohydrates and
Course	<b>es</b> (type	, number of weekly conta	act hours, language –	- if other than Germa	in)
V (2) +	Ü (1)				
		sessment (type, scope, la ion on whether module c			tion offered — if not every seme-
b) oral	examir	mination (60 to 120 minu nation of one candidate e nation in groups (groups (	ach (approx. 20 mini	-	
Allocat	tion of	places			
 Additic	onal inf	ormation			
Pursua prüfter	ant to S n Leben certified	ection 2 Subsection 2 Se smittelchemikerinnen ur	nd Lebensmittelchem	iker (Regulation on t	g und Prüfung der Staatlich ge- he training and examination of d No. I 1. Letter a) of Annex 1 of
Pursua prüfter state-c	ant to Sent to S Sent to Sent to S Sent to Sent to S Sent to Sent to S Sent to Sent to	ection 2 Subsection 2 Se smittelchemikerinnen ur	nd Lebensmittelchem	iker (Regulation on t	he training and examination of
Pursua prüfter state-c APOLm	ant to Sent to S Sent to Sent to S Sent to Sent to S Sent to Sent to S Sent to Sent to	ection 2 Subsection 2 Se smittelchemikerinnen ur	nd Lebensmittelchem	iker (Regulation on t	he training and examination of
Pursua prüfter state-c APOLm <b>Worklo</b> 150 h	ant to Sent to S Sent to Sent to S Sent to Sent to S Sent to Sent to S Sent to Sent to	ection 2 Subsection 2 Se smittelchemikerinnen ur food chemists, APOLmC	nd Lebensmittelchem	iker (Regulation on t	he training and examination of
Pursua prüfter state-c APOLm <b>Worklo</b> 150 h	ant to Son Leben certified nCh. Dad	ection 2 Subsection 2 Se smittelchemikerinnen ur food chemists, APOLmC	nd Lebensmittelchem	iker (Regulation on t	he training and examination of
Pursua prüfter state-c APOLm <b>Worklo</b> 150 h <b>Teachi</b>	ant to S n Leben rertified nCh. Dad	ection 2 Subsection 2 Se smittelchemikerinnen ur food chemists, APOLmC	nd Lebensmittelchem h) in conjunction wit	iker (Regulation on t	he training and examination of d No. I 1. Letter a) of Annex 1 of
Pursua prüfter state-c APOLm <b>Worklo</b> 150 h <b>Teachi</b>	ant to S n Leben rertified nCh. Dad	ection 2 Subsection 2 Se Ismittelchemikerinnen ur I food chemists, APOLmC	nd Lebensmittelchem h) in conjunction wit	iker (Regulation on t	he training and examination of d No. I 1. Letter a) of Annex 1 of
Pursua prüfter state-c APOLm <b>Worklo</b> 150 h <b>Teachi</b>  <b>Referre</b>	ant to S n Leben rertified nCh. Dad	ection 2 Subsection 2 Se Ismittelchemikerinnen ur I food chemists, APOLmC <b>e</b> LPOI (examination regu	nd Lebensmittelchem h) in conjunction wit	iker (Regulation on t	he training and examination of d No. I 1. Letter a) of Annex 1 of
Pursua prüfter state-c APOLm Worklo 150 h Teachi  Referre  Modulo	ant to Sen Leben certified nCh. Dad ing cycl ed to in e appea	ection 2 Subsection 2 Se Ismittelchemikerinnen ur I food chemists, APOLmC <b>e</b> LPOI (examination regu	nd Lebensmittelchem h) in conjunction with lations for teaching-	iker (Regulation on t	he training and examination of d No. I 1. Letter a) of Annex 1 of

Modul	le title				Abbreviation
Food Chemistry     o8-LMC-LMC-162-mo1					08-LMC-LMC-162-m01
Modul	le coord	inator		Module offered by	
		Chair of Food Chemistry			cy and Food Chemistry
ECTS		od of grading	Only after succ. con		, , ,
14	nume	rical grade			
Durati	on	Module level	Other prerequisites		
2 sem	ester	undergraduate			
Conte	nts				
		o products and feeds (in Fundamental principles.			arbohydrates and lipids) and
Intend	led lear	ning outcomes			
of food topic r	ds that elated f	contain carbohydrates, lip to the composition of foo	pids and proteins. Th ds and food technolo	ey are able to prepa gy.	uents as well as of the analysis re and present a seminar about a
		, number of weekly conta	ct hours, language –	- if other than Germa	in)
V (2) +	- S (2) +	V (1) + S (2)			
		<b>sessment</b> (type, scope, la ion on whether module c			tion offered — if not every seme-
b) oral c) oral	l examiı examir	mination (60 to 120 minu nation of one candidate e nation in groups (groups o of grade	ach (approx. 20 minu	-	
Alloca	tion of	places			
Additi	onal inf	ormation	·		
Workle	oad				
420 h					
	ing cycl	e			
			-		
Referr	ed to in	LPOI (examination regu	lations for teaching-	degree programmes)	
Modul	le appea	ars in			
		gree (1 major) Food Chem	nistry (2016)		

Module					Abbreviation
Practic	al Cour	se in Food Chemistry			08-LMC-LMCP-152-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		, , ,
13	(not) s	successfully completed	o8-LMC-LMA		
Duratio	'n	Module level	Other prerequisites		
2 seme	ester	undergraduate			
Conten	ts				
					luding the interpretation of mea Is that contain carbohydrates an
Intend	ed lear	ning outcomes			
to, food foods,	ds that verify t	contain carbohydrates, line accuracy of the results	ipids and proteins. The obtained and interp	ney will select appro ret them on the basi	
		, number of weekly conta	ct hours, language –	- if other than Germa	n)
P (10) +	- P (14)				
		s <b>essment</b> (type, scope, la on on whether module ca			tion offered — if not every seme
b) com tes), Vo sessmo tal) and	pletion ortestat ent of p d summ	e and Nachtestate (pre a ractical assignments in l aary report (approx. 15 to	ion (approx. 1 to 2 pa nd post-experiment e ab notebook (approx	ges) of a theoretical exams, approx. 15 m	nan 60 pages total) or assignment (approx. 30 minu- inutes), documentation and as- alysis, no more than 60 pages to
Allocat	ion of p	olaces			
Pursua prüften	nt to Se Leben		d Lebensmittelchem	iker (Regulation on t	g und Prüfung der Staatlich ge- he training and examination of Annex 1 of APOLmCh.
Worklo	ad				
390 h					
Teachi	ng cycl	e			
Referre	ed to in	LPOI (examination regu	lations for teaching-o	degree programmes)	
··		un in			
	e appea	ITS IN			
			• • • • •		
Bachel		gree (1 major) Food Chem gree (1 major) Food Chem	,		

Module	e title				Abbreviation
Introdu	iction t	o Molecular Biological A	nalysis for Food Chen	nistry Students	08-LMC-MBA-152-m01
Module	e coord	inator		Module offered by	^
holder	of the (	Chair of Food Chemistry		Institute of Pharma	cy and Food Chemistry
ECTS	1	od of grading	Only after succ. com	pl. of module(s)	
5 (not) successfully completed 08-LMC-LMA					
Duratio		Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	ts				
Theoret	tical an	d practical principles of	methods in molecula	r biology.	
Intende	ed lear	ning outcomes			
	garose	gel electrophoresis and r			isolation, polymerase chain reac- erpret molecular biological data
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	an)
P (3) + 3	S (2)				
		<b>sessment</b> (type, scope, la ion on whether module c			tion offered — if not every seme-
b) com tes), Vo sessme tal)	pletion ortestat ent of p	e and Nachtestate (pre a ractical assignments in l	ion (approx. 1 to 2 pa nd post-experiment e	ges) of a theoretical exams, approx. 15 m	than 60 pages total) or assignment (approx. 30 minu- inutes), documentation and as- alysis, no more than 60 pages to-
Allocat	ion of j	DIACES			
 Additio	nal inf	ormation			
Worklo	ad				
150 h					
Teachi	ng cycl	e			
		-			
	<u></u>	-			
		LPOI (examination regu	lations for teaching-c	legree programmes)	
			lations for teaching-c	legree programmes)	
	ed to in	LPOI (examination regu	lations for teaching-c	legree programmes)	
 Referre  Module Bachele	ed to in e appea or's de	LPOI (examination regu	iistry (2015)	legree programmes)	

Organi	e title				Abbreviation
organi	ic Chem	istry Including Nomenc	lature and Stereocher	mistry for Food Che-	08-LMC-OC-152-m01
	Studen			1	_
	e coord			Module offered by	
holder mistry		Chair of Medicinal and P	harmaceutical Che-	Institute of Pharma	cy and Food Chemistry
ECTS					
10	numerical grade				
Duration         Module level         Other prerequisites					
1 semester undergraduate					
Conter	nts				
on type ses an ces; st	es and i d, in pa ructure	mechanisms; chemical or rticular, naturally occurr and reactivity; fundame	characteristics; chemi ring substances); cher ental principles of synt	cal behaviour of read mistry of functional g thetic and biopolyme	ulas, structural formulas; reacti- ctants (important bonding clas- groups and categories of substan ers. Ilar, naturally occurring substan-
	od loar	ning outcomes			
chemio Studer vial na	cal com nts have imes of key con	pounds on the basis of e learned the IUPAC rule compounds and know h	their functional group s for naming organic c low to translate the na	s. compounds. They ha ame of a compound i	the behaviour and properties of ve become familiar with the tri- nto its structural formula. They les for naming stereochemical
		, number of weekly cont	act hours, language –	– if other than Germa	n)
S (1) +	S (1) + \	/ (1) + V (3)			
		<b>sessment</b> (type, scope, l on on whether module of			tion offered — if not every seme-
b) oral	examir	mination (60 to 120 min nation of one candidate ation in groups (groups	each (approx. 20 mini		
Allassi	tion of p		or 2, upprox. Jo minu	lles lolal)	
Allocal		JIALES			
 		Jaces			
	onal inf	ormation			
 <b>Additic</b> Pursua prüfter state-c	ant to Se n Leben certified	ormation ection 2 Subsection 2 Se smittelchemikerinnen u	entence 2 Verordnung nd Lebensmittelchem Ch) in conjunction witl	über die Ausbildung iker (Regulation on t	g und Prüfung der Staatlich ge- he training and examination of d No. I 1. Letter b) of Annex 1 of
 <b>Additic</b> Pursua prüfter state-c APOLm	ant to Se n Leben certified nCh and	ormation ection 2 Subsection 2 Se smittelchemikerinnen u food chemists, APOLm(	entence 2 Verordnung nd Lebensmittelchem Ch) in conjunction witl	über die Ausbildung iker (Regulation on t	he training and examination of
 Pursua prüfter state-c APOLm <b>Worklo</b>	ant to Se n Leben certified nCh and	ormation ection 2 Subsection 2 Se smittelchemikerinnen u food chemists, APOLm(	entence 2 Verordnung nd Lebensmittelchem Ch) in conjunction witl	über die Ausbildung iker (Regulation on t	he training and examination of
 Pursua prüfter state-c APOLm <b>Worklo</b> 300 h	ant to Se n Leben certified nCh and	ormation ection 2 Subsection 2 Se smittelchemikerinnen u food chemists, APOLmo l No. 2 of Annex 2 of APO	entence 2 Verordnung nd Lebensmittelchem Ch) in conjunction witl	über die Ausbildung iker (Regulation on t	he training and examination of
 Pursua prüfter state-c APOLm <b>Worklo</b> 300 h	ant to Se n Leben certified nCh and oad	ormation ection 2 Subsection 2 Se smittelchemikerinnen u food chemists, APOLmo l No. 2 of Annex 2 of APO	entence 2 Verordnung nd Lebensmittelchem Ch) in conjunction witl	über die Ausbildung iker (Regulation on t	he training and examination of
 Pursua prüfter state-c APOLm Worklo 300 h Teachi	ant to Se n Leben certified nCh and oad ing cycl	ormation ection 2 Subsection 2 Se smittelchemikerinnen u food chemists, APOLm( l No. 2 of Annex 2 of AP( e	entence 2 Verordnung nd Lebensmittelchem Ch) in conjunction with DLmCh.	über die Ausbildung iiker (Regulation on t h No. I 2. Letter b) an	he training and examination of d No. I 1. Letter b) of Annex 1 of
 Pursua prüfter state-c APOLm Worklo 300 h Teachi	ant to Se n Leben certified nCh and oad ing cycl	ormation ection 2 Subsection 2 Se smittelchemikerinnen u food chemists, APOLmo l No. 2 of Annex 2 of APO	entence 2 Verordnung nd Lebensmittelchem Ch) in conjunction with DLmCh.	über die Ausbildung iiker (Regulation on t h No. I 2. Letter b) an	he training and examination of d No. I 1. Letter b) of Annex 1 of
 Pursua prüfter state-c APOLm Worklo 300 h Teachi  Referro	ant to Se n Leben certified nCh and oad ing cycl ed to in	ormation ection 2 Subsection 2 Se smittelchemikerinnen u food chemists, APOLm( No. 2 of Annex 2 of AP( e E	entence 2 Verordnung nd Lebensmittelchem Ch) in conjunction with DLmCh.	über die Ausbildung iiker (Regulation on t h No. I 2. Letter b) an	he training and examination of d No. I 1. Letter b) of Annex 1 of
 Pursua prüfter state-c APOLm Worklc 300 h Teachi  Referre	ant to Se n Leben certified nCh and oad ing cycl ed to in e appea	ormation ection 2 Subsection 2 Se smittelchemikerinnen u food chemists, APOLm( No. 2 of Annex 2 of AP( e E	entence 2 Verordnung nd Lebensmittelchem Ch) in conjunction with DLmCh.	über die Ausbildung iiker (Regulation on t h No. I 2. Letter b) an	he training and examination of d No. I 1. Letter b) of Annex 1 of

Modul				<u>.</u>	Abbreviation
Practic	al Cou	rse in Organic Chemistry	for Food Chemistry S	Students	08-LMC-OCP-152-m01
Modul	e coord	linator		Module offered	l by
holder mistry	ofthe	Chair of Medicinal and P	harmaceutical Che-		Irmacy and Food Chemistry
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	)
10		successfully completed	08-LMC-AC1		
Duratio	on	Module level	Other prerequisites		
1 semester undergraduate		undergraduate		afety-related skil	examination (90 to 120 minutes) ser- lls and is a prerequisite for atten-
Conter	nts				
on type ses an	es and d, in pa	mechanisms; chemical o	haracteristics; chemi ing substances); cher	cal behaviour of nistry of functior	ormulas, structural formulas; reacti- reactants (important bonding clas- nal groups and categories of substar lymers.
Intend	ed lear	ning outcomes			
		able to perform synthese ne the identity and purity	•	ies of substance	s using essential techniques as well
Course	<b>es</b> (type	, number of weekly cont	act hours, language –	- if other than Ge	erman)
P (12)					
		<b>sessment</b> (type, scope, l ion on whether module o			nination offered — if not every seme
sessm b) com tes), Ve	ent of p pletion ortesta	practical assignments (ap and written documenta te and Nachtestate (pre a	oprox. 2 to 4 pages pe tion (approx. 1 to 2 pa and post-experiment	r analysis, no m ages) of a theoret exams, approx. 1	minutes), documentation and as- ore than 60 pages total) or tical assignment (approx. 30 minu- 15 minutes), documentation and as- er analysis, no more than 60 pages to
Allocat	tion of	places			
Additio	onal inf	ormation			
prüfter state-c	n Leber ertified	ısmittelchemikerinnen u	nd Lebensmittelchem Ch) in conjunction wit	iker (Regulation	dung und Prüfung der Staatlich ge- on the training and examination of b) and No. I 1. Letter b) of Annex 1 of
Worklo	oad				
300 h					
Teachi	ng cycl	le			
Referre	ed to in	LPOI (examination reg	ulations for teaching-	degree programr	nes)
Modul	e appea	ars in			
Bachel	lor's de	gree (1 major) Food Cher	nistry (2015)		
	lor's de				

Bachelor's with 1 major Food Chemistry (2016)

Module	e title				Abbreviation			
Physic	al Cher	nistry for Biology Majors	i		08-PC-Bio-152-m01			
		•						
Module				Module offered by				
		ture "Thermodynamik, Ki le der Biologie and Leber		Institute of Physica	l and Theoretical Chemistry			
ECTS	Meth	od of grading	Only after succ. com	npl. of module(s)				
5	nume	rical grade						
Duratio	on	Module level	Other prerequisites					
1 seme	ester	undergraduate	safety-related skills		amination serves as proof of all e for attendance of the lab cour-			
Conten	nts	L	se.					
		liscusses the fundament	al principles of therm	odynamics, kinetics	and electrochemistry.			
		ning outcomes			,			
Studen mistry.	nts have They a	e become familiar with th re able to understand an	d explain fundamenta	al processes in natu				
Course	<b>s</b> (type	, number of weekly conta	ict hours, language —	- if other than Germa	n)			
V (2) +	Ü (1) +	P (1)						
		sessment (type, scope, la ion on whether module c			tion offered — if not every seme-			
ments,	log (ap ment o	prox. 5 to 10 pages) ffered: Once a year, wint		ox. 15 minutes each)	, assessment of practical assign-			
Additic	onal inf	ormation						
Pursua prüften state-c	nt to So Leben ertified	ection 2 Subsection 2 Se smittelchemikerinnen ur	nd Lebensmittelchem h) in conjunction with	iker (Regulation on t	; und Prüfung der Staatlich ge- he training and examination of d No. I 1. Letter c) of Annex 1 of			
Worklo	ad							
150 h								
Teachi	ng cycl	e						
Referre	ed to in	LPOI (examination regu	lations for teaching-o	legree programmes)				
Module	e appea	ars in						
Bachel Bachel	or's de or's de	gree (1 major) Biology (20 gree (1 major) Food Chen gree (1 major) Food Chen gree (1 major) Biology (20	nistry (2015) nistry (2016)					
	or's de	gree (1 maior) Food Chem	Bachelor's degree (1 major) Biology (2017) Bachelor's degree (1 major) Food Chemistry (2019)					
Bachel		gree (1 major) Food Chen gree (1 major) Biology (20						

Mathematics for students in Chemistry and Biology       10-M-MCB-152         Module coordinator       Module offered by	
	2-m01
Module coordinator Module offered by	
Dean of Studies Mathematik (Mathematics) Institute of Mathematics	
ECTS Method of grading Only after succ. compl. of module(s)	
5 numerical grade	
Duration Module level Other prerequisites	
1 semester undergraduate	
Contents	
Functional relations, differentiation and integration of functions in one variable, curve sketchin of functions in several variables, power series, ordinary differential equations, systems of linea notions in statistics.	
Intended learning outcomes	
The student is able to recognise and phrase simple questions from natural sciences as mathen apply basic mathematical methods to them and interpret the results.	natical problems,
<b>Courses</b> (type, number of weekly contact hours, language — if other than German)	
V (3) + Ü (2)	
<b>Method of assessment</b> (type, scope, language — if other than German, examination offered — ster, information on whether module can be chosen to earn a bonus) written examination (approx. 90 to 120 minutes) and written exercises (approx. 25)	if not every seme-
Allocation of places	
Additional information	
Pursuant to Section 2 Subsection 2 Sentence 2 Verordnung über die Ausbildung und Prüfung d prüften Lebensmittelchemikerinnen und Lebensmittelchemiker (Regulation on the training and state-certified food chemists, APOLmCh) in conjunction with No. I 2. Letter f) of Annex 1 of APOL	l examination of
Workload	
150 h	
Teaching cycle	
-	
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)	
Module appears in	
Bachelor's degree (1 major) Biochemistry (2015)	
Bachelor's degree (1 major) Biology (2015)	
Bachelor's degree (1 major) Chemistry (2015)	
Bachelor's degree (1 major) Food Chemistry (2015)	
Bachelor's degree (1 major) Food Chemistry (2016)	
Bachelor's degree (1 major) Biology (2017)	
Bachelor's degree (1 major, 1 minor) Digital Humanities (2018)	
Bachelor's degree (1 major, 1 minor) Digital Humanities (2018) Bachelor's degree (1 major, 1 minor) Digital Humanities (Minor, 2018)	
Bachelor's degree (1 major, 1 minor) Digital Humanities (Minor, 2018)	
Bachelor's degree (1 major, 1 minor) Digital Humanities (Minor, 2018) Bachelor's degree (2 majors) Digital Humanities (2018)	
Bachelor's degree (1 major, 1 minor) Digital Humanities (Minor, 2018) Bachelor's degree (2 majors) Digital Humanities (2018) Bachelor's degree (1 major) Food Chemistry (2019)	
Bachelor's degree (1 major, 1 minor) Digital Humanities (Minor, 2018) Bachelor's degree (2 majors) Digital Humanities (2018) Bachelor's degree (1 major) Food Chemistry (2019) Bachelor's degree (1 major) Biology (2021) Bachelor's degree (1 major) Food Chemistry (2021) Bachelor's degree (1 major) Biology (2022)	
Bachelor's degree (1 major, 1 minor) Digital Humanities (Minor, 2018) Bachelor's degree (2 majors) Digital Humanities (2018) Bachelor's degree (1 major) Food Chemistry (2019) Bachelor's degree (1 major) Biology (2021) Bachelor's degree (1 major) Food Chemistry (2021)	



Bachelor's degree (1 major) Food Chemistry (2025)

Module	e title				Abbreviation				
Introdu	uction t	o Physics for Student	s of other Disciplines		11-EFNF-152-m01				
Modulo coordinator				Madula offered by					
Module coordinator			Module offered by						
	-	ector of the Institute o							
ECTS		od of grading	Only after succ. co	ompl. of module(s)					
7		rical grade							
Duration Module level		Other prerequisite	Other prerequisites						
2 seme		undergraduate							
Conten	ts								
Fundan physics		s of mechanics, vibrat	ion theory, thermodyna	amics, optics, science	e of electricity, atomic and nuclea				
Intende	ed lear	ning outcomes							
					to assign them to corresponding d evaluate these contexts.				
<b>Courses</b> (type, number of weekly contact hours, language — if other than German)									
V(4) + V(3)									
Metho	d of as		e, language — if other t e can be chosen to ear		ation offered — if not every seme-				
		nation (60 to 120 min							
Allocat		JIdles							
		ormation							
			APOLmCh in conjuncti annex 2 to the APOLmC		er d) and No. I 1st letter d) of an-				
Worklo	ad								
210 h									
Teachi	ng cycl	e							
Referre	d to in	<b>IPOI</b> (examination r	egulations for teaching	-degree programmes	)				
					)				
Module			( )						
		gree (1 major) Biology gree (1 major) Chemis							
Bachelor's degree (1 major) Psychology (2010)									
Bachelor's degree (1 major, 1 minor) Pedagogy (2013) Bachelor's degree (1 major, 1 minor) Political and Social Studies (2013)									
Bachelor's degree (1 major, 1 minor) Russian Language and Culture (2008)									
Bachelor's degree (2 majors) Special Education (2009)									
Magister Theologiae Catholic Theology (2013)									
First state examination for the teaching degree Gymnasium English (2009)									
			ning degree Gymnasiur						
First state examination for the teaching degree Gymnasium Chemistry (2009)									
First state examination for the teaching degree Gymnasium Geography (2009)									
First state examination for the teaching degree Gymnasium French Studies (2009)									
First sta	ate exa	mination for the teach	ning degree Gymnasiur	n German (2009)					
First sta	ate exa	mination for the teach	ning degree Gymnasiur	n History (2009)					
First sta	ate exa	mination for the teach	ning degree Gymnasiur	n Greek Philology (20	009)				
Bachelor's	with 1 ma	jor Food Chemistry (2016)		g • generated 19-Apr-2025 • ex					
			la record Bach	elor (180 ECTS) Lebensmittelo	nenne - 2010				

First state examination for the teaching degree Gymnasium Computer Science (2009) First state examination for the teaching degree Gymnasium Italian Studies (2009) First state examination for the teaching degree Gymnasium Catholic Theology (2009) First state examination for the teaching degree Gymnasium Latin Philology (2009) First state examination for the teaching degree Gymnasium Mathematics (2012) First state examination for the teaching degree Gymnasium Mathematics (2009) First state examination for the teaching degree Gymnasium Music (2009) First state examination for the teaching degree Gymnasium Physics (2009) First state examination for the teaching degree Gymnasium Russian (2009) First state examination for the teaching degree Gymnasium Social Science (2009) First state examination for the teaching degree Gymnasium Spanish Studies (2009) First state examination for the teaching degree Gymnasium Science of Sport (2009) First state examination for the teaching degree Gymnasium Music Education, Advanced Studies (2009) Bachelor's degree (2 majors) English and American Studies (2009) Bachelor's degree (2 majors) German Language and Literature (2013) Bachelor's degree (1 major) Biochemistry (2015) Bachelor's degree (1 major) Chemistry (2015) Bachelor's degree (1 major) Geography (2015) Bachelor's degree (1 major) Computer Science (2015) Bachelor's degree (1 major) Food Chemistry (2015) Bachelor's degree (1 major) Mathematics (2015) Bachelor's degree (1 major) Musicology (2015) Bachelor's degree (1 major) Physics (2015) Bachelor's degree (1 major) Psychology (2015) Bachelor's degree (1 major) Business Management and Economics (2015) Bachelor's degree (1 major) Nanostructure Technology (2015) Bachelor's degree (1 major) Biomedicine (2015) Bachelor's degree (1 major) Music Education (2015) Bachelor's degree (1 major) Computational Mathematics (2015) Bachelor's degree (1 major) Political and Social Studies (2015) Bachelor's degree (1 major) Functional Materials (2015) Bachelor's degree (1 major) Academic Speech Therapy (2015) Bachelor's degree (1 major) Indology/South Asian Studies (2015) Bachelor's degree (1 major, 1 minor) Egyptology (2015) Bachelor's degree (1 major, 1 minor) Pedagogy (2015) Bachelor's degree (1 major, 1 minor) History (2015) Bachelor's degree (1 major, 1 minor) Musicology (2015) Bachelor's degree (1 major, 1 minor) Philosophy (2015) Bachelor's degree (1 major, 1 minor) Pre- and Protohistoric Archaeology (2015) Bachelor's degree (1 major, 1 minor) Ancient World (2015) Bachelor's degree (1 major, 1 minor) Philosophy and Religion (2015) Bachelor's degree (1 major, 1 minor) Theological Studies (2015) Bachelor's degree (1 major, 1 minor) Political and Social Studies (2015) Bachelor's degree (1 major, 1 minor) Russian Language and Culture (2015) Bachelor's degree (1 major, 1 minor) German Language and Literature (2015) Bachelor's degree (2 majors) Egyptology (2015) Bachelor's degree (2 majors) Pedagogy (2015) Bachelor's degree (2 majors) Protestant Theology (2015) Bachelor's degree (2 majors) Musicology (2015) Bachelor's degree (2 majors) Philosophy (2015) Bachelor's degree (2 majors) Special Education (2015) Bachelor's degree (2 majors) Pre- and Protohistoric Archaeology (2015) Bachelor's degree (2 majors) Latin Philology (2015) Bachelor's with 1 major Food Chemistry (2016) JMU Würzburg • generated 19-Apr-2025 • exam. reg. data record Bachelor (180 ECTS) Lebensmittelchemie - 2016

Bachelor's degree (2 majors) Music Education (2015) Bachelor's degree (2 majors) Philosophy and Religion (2015) Bachelor's degree (2 majors) Theological Studies (2015) Bachelor's degree (2 majors) Political and Social Studies (2015) Bachelor's degree (2 majors) Russian Language and Culture (2015) Bachelor's degree (2 majors) Greek Philology (2015) Bachelor's degree (2 majors) European Ethnology (2015) Bachelor's degree (2 majors) Indology/South Asian Studies (2015) First state examination for the teaching degree Gymnasium English (2015) First state examination for the teaching degree Gymnasium Biology (2015) First state examination for the teaching degree Gymnasium Chemistry (2015) First state examination for the teaching degree Gymnasium Geography (2015) First state examination for the teaching degree Gymnasium French Studies (2015) First state examination for the teaching degree Gymnasium German (2015) First state examination for the teaching degree Gymnasium History (2015) First state examination for the teaching degree Gymnasium Greek Philology (2015) First state examination for the teaching degree Gymnasium Computer Science (2015) First state examination for the teaching degree Gymnasium Italian Studies (2015) First state examination for the teaching degree Gymnasium Catholic Theology (2015) First state examination for the teaching degree Gymnasium Latin Philology (2015) First state examination for the teaching degree Gymnasium Mathematics (2015) First state examination for the teaching degree Gymnasium Physics (2015) First state examination for the teaching degree Gymnasium Russian (2015) First state examination for the teaching degree Gymnasium Social Science (2015) First state examination for the teaching degree Gymnasium Spanish Studies (2015) First state examination for the teaching degree Gymnasium Science of Sport (2015) Bachelor's degree (2 majors) Geography (2015) Bachelor's degree (2 majors) French Studies (2015) Bachelor's degree (2 majors) History (2015) Bachelor's degree (2 majors) Sport Science (Focus on health and Pedagogics in Movement) (2015) Bachelor's degree (2 majors) German Language and Literature (2015) Bachelor's degree (1 major) Mathematical Physics (2016) First state examination for the teaching degree Gymnasium Music (2015) First state examination for the teaching degree Gymnasium Music Education, Advanced Studies (2015) Bachelor's degree (1 major, 1 minor) French Studies (2016) Bachelor's degree (2 majors) French Studies (2016) Bachelor's degree (1 major, 1 minor) Italian Studies (2016) Bachelor's degree (2 majors) Italian Studies (2016) Bachelor's degree (1 major, 1 minor) Spanish Studies (2016) Bachelor's degree (2 majors) Spanish Studies (2016) Bachelor's degree (1 major) Romanic Languages (French/Italian) (2016) Bachelor's degree (1 major) Romanic Languages (French/Spanish) (2016) Bachelor's degree (1 major) Romanic Languages (Italian/Spanish) (2016) Bachelor's degree (1 major) Business Information Systems (2016) First state examination for the teaching degree Gymnasium French Studies (2016) First state examination for the teaching degree Gymnasium Italian Studies (2016) First state examination for the teaching degree Gymnasium Spanish Studies (2016) Bachelor's degree (1 major) Games Engineering (2016) Bachelor's degree (1 major, 1 minor) English and American Studies (2016) Bachelor's degree (2 majors) English and American Studies (2016) First state examination for the teaching degree Gymnasium English (2016) Bachelor's degree (1 major) Media Communication (2016) Bachelor's degree (1 major) Food Chemistry (2016) Bachelor's with 1 major Food Chemistry (2016) JMU Würzburg • generated 19-Apr-2025 • exam. reg. dapage 36 / 45

ta record Bachelor (180 ECTS) Lebensmittelchemie - 2016

Bachelor's degree (1 major, 1 minor) Digital Humanities (2016) Bachelor's degree (1 major) Biology (2017) Bachelor's degree (1 major, 1 minor) Geography (2017) Bachelor's degree (1 major, 1 minor) History of Medieval and Modern Art (2017) Bachelor's degree (2 majors) History of Medieval and Modern Art (2017) Bachelor's degree (2 majors) Comparative Indo-European Linguistics (2017) Bachelor's degree (1 major) Aerospace Computer Science (2017) Bachelor's degree (1 major) Biochemistry (2017) Bachelor's degree (1 major) Chemistry (2017) Bachelor's degree (1 major, 1 minor) Museology and material culture (2017) Bachelor's degree (1 major) Economathematics (2017) Bachelor's degree (1 major) Games Engineering (2017) Bachelor's degree (1 major) Computer Science (2017) First state examination for the teaching degree Gymnasium Greek Philology (2018) Bachelor's degree (1 major) Media Communication (2018) Bachelor's degree (1 major) Biomedicine (2018) Bachelor's degree (1 major) Human-Computer Systems (2018) Bachelor's degree (2 majors) Classical Archaeology (2018) Bachelor's degree (1 major, 1 minor) Classical Archaeology (2018) Bachelor's degree (1 major, 1 minor) Digital Humanities (2018) Bachelor's degree (2 majors) Digital Humanities (2018) First state examination for the teaching degree Gymnasium Physics (2018) Bachelor's degree (1 major) Computer Science (2019) First state examination for the teaching degree Gymnasium Mathematics (2019) Bachelor's degree (1 major, 1 minor) English and American Studies (2019) Bachelor's degree (1 major) Indology/South Asian Studies (2019) Bachelor's degree (1 major) Business Information Systems (2019) Bachelor's degree (2 majors) Indology/South Asian Studies (2019) Bachelor's degree (1 major) Business Management and Economics (2019) Bachelor's degree (1 major) Modern China (2019) Bachelor's degree (1 major) Food Chemistry (2019) Bachelor's degree (1 major) Biomedicine (2020) Bachelor's degree (1 major) Pedagogy (2020) Bachelor's degree (1 major) Political and Social Studies (2020) Bachelor's degree (1 major) Business Information Systems (2020) Bachelor's degree (1 major, 1 minor) Political and Social Studies (2020) Bachelor's degree (2 majors) European Ethnology (2020) Bachelor's degree (2 majors) Political and Social Studies (2020) Bachelor's degree (2 majors) Special Education (2020) Bachelor's degree (1 major) Physics (2020) Bachelor's degree (1 major) Nanostructure Technology (2020) Bachelor's degree (1 major) Mathematical Physics (2020) Bachelor's degree (1 major) Aerospace Computer Science (2020) Bachelor's degree (1 major, 1 minor) Museology and material culture (2020) First state examination for the teaching degree Gymnasium Physics (2020) Bachelor's degree (1 major, 1 minor) Pedagogy (2020) Bachelor's degree (2 majors) Pedagogy (2020) First state examination for the teaching degree Gymnasium Political and Social Studies (2020) Bachelor's degree (1 major) Psychology (2020) Bachelor's degree (1 major) Biology (2021) Magister Theologiae Catholic Theology (2021) Bachelor's degree (2 majors) History (2021) Bachelor's degree (1 major, 1 minor) History (2021) Bachelor's with 1 major Food Chemistry (2016) JMU Würzburg • generated 19-Apr-2025 • exam. reg. data record Bachelor (180 ECTS) Lebensmittelchemie - 2016

First state examination for the teaching degree Gymnasium History (2021) Bachelor's degree (1 major) Media Communication (2021) Bachelor's degree (2 majors) Theological Studies (2021) Bachelor's degree (1 major, 1 minor) Theological Studies (2021) Bachelor's degree (1 major, 1 minor) English and American Studies (2021) Bachelor's degree (2 majors) English and American Studies (2021) First state examination for the teaching degree Gymnasium English (2021) Bachelor's degree (1 major) Functional Materials (2021) First state examination for the teaching degree Gymnasium Philosophy and Ethics (2021) Bachelor's degree (1 major) Computer Science und Sustainability (2021) Bachelor's degree (2 majors) Comparative Indo-European Linguistics (2021) Bachelor's degree (1 major) Food Chemistry (2021) Bachelor's degree (1 major) Quantum Technology (2021) Bachelor's degree (2 majors) Special Education (2021) Bachelor's degree (1 major) Business Information Systems (2021) Bachelor's degree (1 major) Economathematics (2021) Bachelor's degree (1 major) Business Management and Economics (2021) Bachelor's degree (1 major) Human-Computer Systems (2022) Bachelor's degree (1 major, 1 minor) Museology and material culture (2022) Bachelor's degree (1 major) Biochemistry (2022) Bachelor's degree (1 major) Biology (2022) Bachelor's degree (1 major) Economathematics (2022) Bachelor's degree (1 major) Mathematical Data Science (2022) Bachelor's degree (1 major) Artificial Intelligence and Data Science (2022) First state examination for the teaching degree Gymnasium Philosophy and Ethics (2022) Bachelor's degree (2 majors) Ancient Near Eastern Archaeology (2022) Bachelor's degree (1 major, 1 minor) Ancient World (2022) Bachelor's degree (2 majors) Ancient Near Eastern Studies (2022) Bachelor's degree (1 major) Franco-German studies: language, culture, digital competence (2022) First state examination for the teaching degree Gymnasium Russian (2023) First state examination for the teaching degree Gymnasium Mathematics (2023) First state examination for the teaching degree Gymnasium English (2023) First state examination for the teaching degree Gymnasium Geography (2023) Bachelor's degree (1 major) European Law (2023) Bachelor's degree (1 major, 1 minor) English and American Studies (2023) Bachelor's degree (2 majors) English and American Studies (2023) Bachelor's degree (1 major) Artificial Intelligence and Data Science (2023) Bachelor's degree (1 major) Mathematics (2023) Bachelor's degree (1 major) Business Information Systems (2023) Bachelor's degree (1 major) Economathematics (2023) Bachelor's degree (1 major, 1 minor) History of Medieval and Modern Art (2023) Bachelor's degree (2 majors) History of Medieval and Modern Art (2023) Bachelor's degree (2 majors) Special Education (2023) Bachelor's degree (1 major) Business Management and Economics (2023) Bachelor's degree (1 major) Geography (2023) Bachelor's degree (2 majors) Geography (2023) Bachelor's degree (1 major, 1 minor) Geography (2023) Bachelor's degree (2 majors) European Ethnology/Empiric Cultural Studies (2023) First state examination for the teaching degree Gymnasium German (2024) Bachelor's degree (1 major) Mathematical Physics (2024) Bachelor's degree (2 majors) German Language and Literature (2024) Bachelor's degree (1 major, 1 minor) German Language and Literature (2024) Bachelor's degree (1 major) Music Education (2024) Bachelor's with 1 major Food Chemistry (2016) JMU Würzburg • generated 19-Apr-2025 • exam. reg. dapage 38 / 45 ta record Bachelor (180 ECTS) Lebensmittelchemie - 2016

Bachelor's degree (2 majors) Music Education (2024) Bachelor's degree (1 major, 1 minor) Music Education (2024) Bachelor's degree (1 major) Indology/South Asian Studies (2024) Bachelor's degree (2 majors) Indology/South Asian Studies (2024) Bachelor's degree (1 major, 1 minor) Indology/South Asian Studies (2024) Bachelor's degree (1 major, 1 minor) Ancient World (2024) Bachelor's degree (2 majors) Digital Humanities (2024) Bachelor's degree (1 major, 1 minor) Digital Humanities (2024) Bachelor's degree (1 major) Midwifery (2024) Bachelor's degree (2 majors) Greek Philology (2024) Bachelor's degree (2 majors) Latin Philology (2024) First state examination for the teaching degree Gymnasium Latin Philology (2024) Bachelor's degree (1 major) Business Information Systems (2024) Bachelor's degree (1 major) Economathematics (2024) Bachelor's degree (1 major) Business Management and Economics (2024) Bachelor's degree (1 major) Artificial Intelligence and Data Science (2024) First state examination for the teaching degree Gymnasium English (2024) First state examination for the teaching degree Gymnasium History (2024) First state examination for the teaching degree Gymnasium Greek Philology (2024) Bachelor's degree (1 major) Human-Computer-Interaction (2024) Bachelor's degree (2 majors) Art Education (2024) Bachelor's degree (1 major) Digital Business & Data Science (2024) Bachelor's degree (1 major) Classics (2024) Bachelor's degree (1 major) Diversity, Ethics and Religions (2024) Bachelor's degree (1 major) Functional Materials (2025) Bachelor's degree (1 major) (2025) Bachelor's degree (1 major) Food Chemistry (2025) Bachelor's degree (1 major, 1 minor) European Ethnology/Empiric Cultural Studies (2025) Bachelor's degree (1 major) Pedagogy (2025) Bachelor's degree (2 majors) Pedagogy (2025) Bachelor's degree (1 major) Economathematics (2025) Bachelor's degree (1 major) Academic Speech Therapy (2025) Bachelor's degree (1 major, 1 minor) Pedagogy (2025) Bachelor's degree (1 major) Games Engineering (2025)

Module				Abbreviation				
Labora	tory Course Physics for Stude	nts of other Discipline	S	11-PFNF-152-m01				
Module	coordinator		Module offered by	Module offered by				
	ing Director of the Institute of A							
ECTS	Method of grading (not) successfully completed	Only after succ. compl. of module(s)						
3								
Duratio		Other prerequisites						
1 semester undergraduate								
Conten								
	experiments in the fields of m nance atomic and nuclear phy			cs, optics, X-rays, nu	clear magne			
Intende	ed learning outcomes							
perime of error derstar and ima	dents have recognised and un nts. They can conduct simple of s in experiments. They are abl nding of physical phenomena a aging methods as well as their	experiments in the lab e to compile a protoco and know the basic id applications, especia	oratory. They are abl ol for experimental pr eas and ways of func ally in the field of bior	e to identify and ass ocedures. They have tioning of different n medicine.	ess sources e a basic un-			
	<b>s</b> (type, number of weekly con	act nours, language -	– If other than Germa	III)				
P (4)								
	<b>d of assessment</b> (type, scope, formation on whether module			tion offered — if not	every seme-			
Each ex ments o	o minutes). «periment comprises preparati can each be repeated once.	on, performance and	evaluation. Test as w	ell as performance c	of experi-			
	ion of places							
	s part of pool of general transfe	erable skills (ASQ): 10	places (lottery)					
Additio	nal information							
	ng to § 2 para. 2 sentence 2 A the APOLmCh and No. 4 of ar			r d) and No. I 1st lett	er d) of an-			
Worklo	ad							
90 h								
-	ng cycle							
	d to in IDO L (avanting the second	ulations for to a him						
Referre	d to in LPO I (examination reg	utations for teaching-	uegree programmes)					
	e appears in							
	or's degree (1 major) Biology (2							
Bachelor's degree (1 major) Chemistry (2010)								
Bachelor's degree (1 major) Psychology (2010)								
Bachelor's degree (1 major, 1 minor) Pedagogy (2013)								
Bachelor's degree (1 major, 1 minor) Political and Social Studies (2013)								
Bachelor's degree (1 major, 1 minor) Russian Language and Culture (2008)								
Bachelor's degree (2 majors) Special Education (2009)								
Magister Theologiae Catholic Theology (2013) First state examination for the teaching degree Gymnasium English (2009)								
	ate examination for the teachin ate examination for the teachin							
Bachelor's	with 1 major Food Chemistry (2016)	-	• generated 19-Apr-2025 • exa	-	page 40 / 45			
		ta record Bache	lor (180 ECTS) Lebensmittelch	emie - 2016				

First state examination for the teaching degree Gymnasium Chemistry (2009) First state examination for the teaching degree Gymnasium Geography (2009) First state examination for the teaching degree Gymnasium French Studies (2009) First state examination for the teaching degree Gymnasium German (2009) First state examination for the teaching degree Gymnasium History (2009) First state examination for the teaching degree Gymnasium Greek Philology (2009) First state examination for the teaching degree Gymnasium Computer Science (2009) First state examination for the teaching degree Gymnasium Italian Studies (2009) First state examination for the teaching degree Gymnasium Catholic Theology (2009) First state examination for the teaching degree Gymnasium Latin Philology (2009) First state examination for the teaching degree Gymnasium Mathematics (2012) First state examination for the teaching degree Gymnasium Mathematics (2009) First state examination for the teaching degree Gymnasium Music (2009) First state examination for the teaching degree Gymnasium Physics (2009) First state examination for the teaching degree Gymnasium Russian (2009) First state examination for the teaching degree Gymnasium Social Science (2009) First state examination for the teaching degree Gymnasium Spanish Studies (2009) First state examination for the teaching degree Gymnasium Science of Sport (2009) First state examination for the teaching degree Gymnasium Music Education, Advanced Studies (2009) Bachelor's degree (2 majors) English and American Studies (2009) Bachelor's degree (2 majors) German Language and Literature (2013) Bachelor's degree (1 major) Biochemistry (2015) Bachelor's degree (1 major) Chemistry (2015) Bachelor's degree (1 major) Geography (2015) Bachelor's degree (1 major) Computer Science (2015) Bachelor's degree (1 major) Food Chemistry (2015) Bachelor's degree (1 major) Mathematics (2015) Bachelor's degree (1 major) Musicology (2015) Bachelor's degree (1 major) Physics (2015) Bachelor's degree (1 major) Psychology (2015) Bachelor's degree (1 major) Business Management and Economics (2015) Bachelor's degree (1 major) Nanostructure Technology (2015) Bachelor's degree (1 major) Biomedicine (2015) Bachelor's degree (1 major) Music Education (2015) Bachelor's degree (1 major) Computational Mathematics (2015) Bachelor's degree (1 major) Political and Social Studies (2015) Bachelor's degree (1 major) Functional Materials (2015) Bachelor's degree (1 major) Academic Speech Therapy (2015) Bachelor's degree (1 major) Indology/South Asian Studies (2015) Bachelor's degree (1 major, 1 minor) Egyptology (2015) Bachelor's degree (1 major, 1 minor) Pedagogy (2015) Bachelor's degree (1 major, 1 minor) History (2015) Bachelor's degree (1 major, 1 minor) Musicology (2015) Bachelor's degree (1 major, 1 minor) Philosophy (2015) Bachelor's degree (1 major, 1 minor) Pre- and Protohistoric Archaeology (2015) Bachelor's degree (1 major, 1 minor) Ancient World (2015) Bachelor's degree (1 major, 1 minor) Philosophy and Religion (2015) Bachelor's degree (1 major, 1 minor) Theological Studies (2015) Bachelor's degree (1 major, 1 minor) Political and Social Studies (2015) Bachelor's degree (1 major, 1 minor) Russian Language and Culture (2015) Bachelor's degree (1 major, 1 minor) German Language and Literature (2015) Bachelor's degree (2 majors) Egyptology (2015) Bachelor's degree (2 majors) Pedagogy (2015) Bachelor's with 1 major Food Chemistry (2016) JMU Würzburg • generated 19-Apr-2025 • exam. reg. dapage 41 / 45 ta record Bachelor (180 ECTS) Lebensmittelchemie - 2016

Bachelor's degree (2 majors) Protestant Theology (2015) Bachelor's degree (2 majors) Musicology (2015) Bachelor's degree (2 majors) Philosophy (2015) Bachelor's degree (2 majors) Special Education (2015) Bachelor's degree (2 majors) Pre- and Protohistoric Archaeology (2015) Bachelor's degree (2 majors) Latin Philology (2015) Bachelor's degree (2 majors) Music Education (2015) Bachelor's degree (2 majors) Philosophy and Religion (2015) Bachelor's degree (2 majors) Theological Studies (2015) Bachelor's degree (2 majors) Political and Social Studies (2015) Bachelor's degree (2 majors) Russian Language and Culture (2015) Bachelor's degree (2 majors) Greek Philology (2015) Bachelor's degree (2 majors) European Ethnology (2015) Bachelor's degree (2 majors) Indology/South Asian Studies (2015) First state examination for the teaching degree Gymnasium English (2015) First state examination for the teaching degree Gymnasium Biology (2015) First state examination for the teaching degree Gymnasium Chemistry (2015) First state examination for the teaching degree Gymnasium Geography (2015) First state examination for the teaching degree Gymnasium French Studies (2015) First state examination for the teaching degree Gymnasium German (2015) First state examination for the teaching degree Gymnasium History (2015) First state examination for the teaching degree Gymnasium Greek Philology (2015) First state examination for the teaching degree Gymnasium Computer Science (2015) First state examination for the teaching degree Gymnasium Italian Studies (2015) First state examination for the teaching degree Gymnasium Catholic Theology (2015) First state examination for the teaching degree Gymnasium Latin Philology (2015) First state examination for the teaching degree Gymnasium Mathematics (2015) First state examination for the teaching degree Gymnasium Physics (2015) First state examination for the teaching degree Gymnasium Russian (2015) First state examination for the teaching degree Gymnasium Social Science (2015) First state examination for the teaching degree Gymnasium Spanish Studies (2015) First state examination for the teaching degree Gymnasium Science of Sport (2015) Bachelor's degree (2 majors) Geography (2015) Bachelor's degree (2 majors) French Studies (2015) Bachelor's degree (2 majors) History (2015) Bachelor's degree (2 majors) Sport Science (Focus on health and Pedagogics in Movement) (2015) Bachelor's degree (2 majors) German Language and Literature (2015) Bachelor's degree (1 major) Mathematical Physics (2016) First state examination for the teaching degree Gymnasium Music (2015) First state examination for the teaching degree Gymnasium Music Education, Advanced Studies (2015) Bachelor's degree (1 major, 1 minor) French Studies (2016) Bachelor's degree (2 majors) French Studies (2016) Bachelor's degree (1 major, 1 minor) Italian Studies (2016) Bachelor's degree (2 majors) Italian Studies (2016) Bachelor's degree (1 major, 1 minor) Spanish Studies (2016) Bachelor's degree (2 majors) Spanish Studies (2016) Bachelor's degree (1 major) Romanic Languages (French/Italian) (2016) Bachelor's degree (1 major) Romanic Languages (French/Spanish) (2016) Bachelor's degree (1 major) Romanic Languages (Italian/Spanish) (2016) Bachelor's degree (1 major) Business Information Systems (2016) First state examination for the teaching degree Gymnasium French Studies (2016) First state examination for the teaching degree Gymnasium Italian Studies (2016) First state examination for the teaching degree Gymnasium Spanish Studies (2016) Bachelor's with 1 major Food Chemistry (2016) JMU Würzburg • generated 19-Apr-2025 • exam. reg. dapage 42 / 45 ta record Bachelor (180 ECTS) Lebensmittelchemie - 2016

Bachelor's degree (1 major) Games Engineering (2016) Bachelor's degree (1 major, 1 minor) English and American Studies (2016) Bachelor's degree (2 majors) English and American Studies (2016) First state examination for the teaching degree Gymnasium English (2016) Bachelor's degree (1 major) Media Communication (2016) Bachelor's degree (1 major) Food Chemistry (2016) Bachelor's degree (1 major, 1 minor) Digital Humanities (2016) Bachelor's degree (1 major) Biology (2017) Bachelor's degree (1 major, 1 minor) Geography (2017) Bachelor's degree (1 major, 1 minor) History of Medieval and Modern Art (2017) Bachelor's degree (2 majors) History of Medieval and Modern Art (2017) Bachelor's degree (2 majors) Comparative Indo-European Linguistics (2017) Bachelor's degree (1 major) Aerospace Computer Science (2017) Bachelor's degree (1 major) Biochemistry (2017) Bachelor's degree (1 major) Chemistry (2017) Bachelor's degree (1 major, 1 minor) Museology and material culture (2017) Bachelor's degree (1 major) Economathematics (2017) Bachelor's degree (1 major) Games Engineering (2017) Bachelor's degree (1 major) Computer Science (2017) First state examination for the teaching degree Gymnasium Greek Philology (2018) Bachelor's degree (1 major) Media Communication (2018) Bachelor's degree (1 major) Biomedicine (2018) Bachelor's degree (1 major) Human-Computer Systems (2018) Bachelor's degree (2 majors) Classical Archaeology (2018) Bachelor's degree (1 major, 1 minor) Classical Archaeology (2018) Bachelor's degree (1 major, 1 minor) Digital Humanities (2018) Bachelor's degree (2 majors) Digital Humanities (2018) First state examination for the teaching degree Gymnasium Physics (2018) Bachelor's degree (1 major) Computer Science (2019) First state examination for the teaching degree Gymnasium Mathematics (2019) Bachelor's degree (1 major, 1 minor) English and American Studies (2019) Bachelor's degree (1 major) Indology/South Asian Studies (2019) Bachelor's degree (1 major) Business Information Systems (2019) Bachelor's degree (2 majors) Indology/South Asian Studies (2019) Bachelor's degree (1 major) Business Management and Economics (2019) Bachelor's degree (1 major) Modern China (2019) Bachelor's degree (1 major) Food Chemistry (2019) Module studies (Bachelor) Orientierungsstudien (2020) Bachelor's degree (1 major) Biomedicine (2020) Bachelor's degree (1 major) Pedagogy (2020) Bachelor's degree (1 major) Political and Social Studies (2020) Bachelor's degree (1 major) Business Information Systems (2020) Bachelor's degree (1 major, 1 minor) Political and Social Studies (2020) Bachelor's degree (2 majors) European Ethnology (2020) Bachelor's degree (2 majors) Political and Social Studies (2020) Bachelor's degree (2 majors) Special Education (2020) Bachelor's degree (1 major) Physics (2020) Bachelor's degree (1 major) Nanostructure Technology (2020) Bachelor's degree (1 major) Mathematical Physics (2020) Bachelor's degree (1 major) Aerospace Computer Science (2020) Bachelor's degree (1 major, 1 minor) Museology and material culture (2020) First state examination for the teaching degree Gymnasium Physics (2020) Bachelor's degree (1 major, 1 minor) Pedagogy (2020) Bachelor's with 1 major Food Chemistry (2016)

 
 Bachelor's with 1 major Food Chemistry (2016)
 JMU Würzburg • generated 19-Apr-2025 • exam. reg. data record Bachelor (180 ECTS) Lebensmittelchemie - 2016
 page 43 / 45

Bachelor's degree (2 majors) Pedagogy (2020) First state examination for the teaching degree Gymnasium Political and Social Studies (2020) Bachelor's degree (1 major) Psychology (2020) Bachelor's degree (1 major) Biology (2021) Magister Theologiae Catholic Theology (2021) Bachelor's degree (2 majors) History (2021) Bachelor's degree (1 major, 1 minor) History (2021) First state examination for the teaching degree Gymnasium History (2021) Bachelor's degree (1 major) Media Communication (2021) Bachelor's degree (2 majors) Theological Studies (2021) Bachelor's degree (1 major, 1 minor) Theological Studies (2021) Bachelor's degree (1 major, 1 minor) English and American Studies (2021) Bachelor's degree (2 majors) English and American Studies (2021) First state examination for the teaching degree Gymnasium English (2021) Bachelor's degree (1 major) Functional Materials (2021) First state examination for the teaching degree Gymnasium Philosophy and Ethics (2021) Bachelor's degree (1 major) Computer Science und Sustainability (2021) Bachelor's degree (2 majors) Comparative Indo-European Linguistics (2021) Bachelor's degree (1 major) Food Chemistry (2021) Bachelor's degree (1 major) Quantum Technology (2021) Bachelor's degree (2 majors) Special Education (2021) Bachelor's degree (1 major) Business Information Systems (2021) Bachelor's degree (1 major) Economathematics (2021) Bachelor's degree (1 major) Business Management and Economics (2021) Bachelor's degree (1 major) Human-Computer Systems (2022) Bachelor's degree (1 major, 1 minor) Museology and material culture (2022) Bachelor's degree (1 major) Biochemistry (2022) Bachelor's degree (1 major) Biology (2022) Bachelor's degree (1 major) Economathematics (2022) Bachelor's degree (1 major) Mathematical Data Science (2022) Bachelor's degree (1 major) Artificial Intelligence and Data Science (2022) First state examination for the teaching degree Gymnasium Philosophy and Ethics (2022) Bachelor's degree (2 majors) Ancient Near Eastern Archaeology (2022) Bachelor's degree (1 major, 1 minor) Ancient World (2022) Bachelor's degree (2 majors) Ancient Near Eastern Studies (2022) Bachelor's degree (1 major) Franco-German studies: language, culture, digital competence (2022) First state examination for the teaching degree Gymnasium Russian (2023) First state examination for the teaching degree Gymnasium Mathematics (2023) First state examination for the teaching degree Gymnasium English (2023) First state examination for the teaching degree Gymnasium Geography (2023) Bachelor's degree (1 major) European Law (2023) Bachelor's degree (1 major, 1 minor) English and American Studies (2023) Bachelor's degree (2 majors) English and American Studies (2023) Bachelor's degree (1 major) Artificial Intelligence and Data Science (2023) Bachelor's degree (1 major) Mathematics (2023) Bachelor's degree (1 major) Business Information Systems (2023) Bachelor's degree (1 major) Economathematics (2023) Bachelor's degree (1 major, 1 minor) History of Medieval and Modern Art (2023) Bachelor's degree (2 majors) History of Medieval and Modern Art (2023) Bachelor's degree (2 majors) Special Education (2023) Bachelor's degree (1 major) Business Management and Economics (2023) Bachelor's degree (1 major) Geography (2023) Bachelor's degree (2 majors) Geography (2023) Bachelor's with 1 major Food Chemistry (2016) JMU Würzburg • generated 19-Apr-2025 • exam. reg. dapage 44 / 45 ta record Bachelor (180 ECTS) Lebensmittelchemie - 2016

Bachelor's degree (1 major, 1 minor) Geography (2023) Bachelor's degree (2 majors) European Ethnology/Empiric Cultural Studies (2023) First state examination for the teaching degree Gymnasium German (2024) Bachelor's degree (1 major) Mathematical Physics (2024) Bachelor's degree (2 majors) German Language and Literature (2024) Bachelor's degree (1 major, 1 minor) German Language and Literature (2024) Bachelor's degree (1 major) Music Education (2024) Bachelor's degree (2 majors) Music Education (2024) Bachelor's degree (1 major, 1 minor) Music Education (2024) Bachelor's degree (1 major) Indology/South Asian Studies (2024) Bachelor's degree (2 majors) Indology/South Asian Studies (2024) Bachelor's degree (1 major, 1 minor) Indology/South Asian Studies (2024) Bachelor's degree (1 major, 1 minor) Ancient World (2024) Bachelor's degree (2 majors) Digital Humanities (2024) Bachelor's degree (1 major, 1 minor) Digital Humanities (2024) Bachelor's degree (1 major) Midwifery (2024) Bachelor's degree (2 majors) Greek Philology (2024) Bachelor's degree (2 majors) Latin Philology (2024) First state examination for the teaching degree Gymnasium Latin Philology (2024) Bachelor's degree (1 major) Business Information Systems (2024) Bachelor's degree (1 major) Economathematics (2024) Bachelor's degree (1 major) Business Management and Economics (2024) Bachelor's degree (1 major) Artificial Intelligence and Data Science (2024) First state examination for the teaching degree Gymnasium English (2024) First state examination for the teaching degree Gymnasium History (2024) First state examination for the teaching degree Gymnasium Greek Philology (2024) Bachelor's degree (1 major) Human-Computer-Interaction (2024) Bachelor's degree (2 majors) Art Education (2024) Bachelor's degree (1 major) Digital Business & Data Science (2024) Bachelor's degree (1 major) Classics (2024) Bachelor's degree (1 major) Diversity, Ethics and Religions (2024) Bachelor's degree (1 major) Functional Materials (2025) Bachelor's degree (1 major) (2025) Bachelor's degree (1 major) Food Chemistry (2025) Bachelor's degree (1 major, 1 minor) European Ethnology/Empiric Cultural Studies (2025) Bachelor's degree (1 major) Pedagogy (2025) Bachelor's degree (2 majors) Pedagogy (2025) Bachelor's degree (1 major) Economathematics (2025) Bachelor's degree (1 major) Academic Speech Therapy (2025) Bachelor's degree (1 major, 1 minor) Pedagogy (2025) Bachelor's degree (1 major) Games Engineering (2025)