

## Subdivided Module Catalogue for the Subject

# **Mathematics**

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

> Examination regulations version: 2014 Responsible: Institute of Mathematics

JMU Würzburg • generated 26-Aug-2024 • exam. reg. data record 82|105|-|-|H|2014

## **Course of Studies - Contents and Objectives**

The mathematics Bachelor programme is offered by the Department of Mathematics, with a total of currently (SS 2010) 9 chairs.

At the end of this course of study, the student should be familiar with the main branches of mathematics, taught methods of mathematical reasoning and working as well as analytical thinking, abstract concepts and the ability to recognize and construct complex structures and interconnections.

Through the course these skills which the students acquire provide the basic knowledge required for a consecutive Bachelor-Masters degree. Moreover, they can later familiarize themselves with the many areas of society which mathematical methods can be applied to or be of use. This is supported through the study of an integrated elective application-oriented subject (biology, chemistry, geography, computer science, philosophy, physics or economics) in which the students' choice is trusted to utilize the basic ideas and technical skills of the subject where mathematical methods apply.

In the mathematics Bachelor study, the main emphasis is put on basic mathematical knowledge, method knowledge and the development of the mental constructs which are typical for mathematics. The acquisition of special topics in different secondary branches of mathematics is subordinate.

For the Bachelor thesis the student should work on a thematic and temporally closely limited frame in order to carry out a mathematical task, using well-known procedures and scientific criteria under guidance but, to a large extent, independently.

The exam enables the acquisition of a comparable, international degree in the field of mathematics and provides the framework of a consecutive Bachelor-Masters degree as an initial professional qualification which can be used as a mean for entry into the working world or as preparation for further Masters study. The exam should ascertain whether the candidate overlooks the context of the basics in mathematics and possesses the ability to use the corresponding scientific methods, with regards to mathematics and the selected elective application-oriented subjects.

## Abbreviations used

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

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

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

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

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

## Conventions

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

## Notes

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

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

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

## In accordance with

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

#### ASP02009

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

#### 24-Mar-2014 (2014-4)

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 (109	ECTS credits)	•	•	
Compulsory Courses An	alysis (29 ECTS credits)			
10-M-ANA-G-131-m01	Fundamentals Analysis	8	B/NB	99
10-M-ANA-Ü-131-m01	Overview Analysis	12	NUM	100
10-M-VAN-131-m01	Advanced Analysis	9	NUM	125
Compulsory Courses Lin	ear Algebra (20 ECTS credits)		•	
10-M-LNA-G-131-m01	Fundamentals Linear Algebra	8	B/NB	111
10-M-LNA-Ü-131-m01	Overview Linear Algebra	12	NUM	112
Compulsory Courses Ap	plied Mathematics (20 ECTS credits)		•	
10-M-ANW-G-131-m01	Fundamentals Applied Mathematics	8	B/NB	101
10-M-ANW-Ü-131-m01	Overview Applied Mathematics	12	NUM	102
<b>Compulsory Courses Pu</b>	re Mathematics (20 ECTS credits)			
10-M-REI-G-131-m01	Fundamentals Pure Mathematics	8	B/NB	116
10-M-REI-Ü-131-m01	Overview Pure Mathematics	12	NUM	117
Compulsory Courses Sp	ecialisation Mathematics (20 ECTS credits)	1	1	
10-M-SPZ-G-131-m01	Fundamentals Advanced Mathematics	8	B/NB	121
10-M-SPZ-Ü-131-m01	Overview Advanced Mathematics	12	NUM	123
Compulsory Electives (40	ECTS credits)	1	I	
	athematics (10 ECTS credits)			
10-M-EFM-131-m01	Introduction to Stochastics Financial Mathematics	9	NUM	106
10-M-ERG-131-m01	Selected Topics from Mathematics	10	NUM	107
10-M-GES-131-m01	Selected Topics from the History of Mathematics	4	B/NB	110
10-M-MSC-131-m01	Mathematical Writing	4	B/NB	113
10-M-PRO-131-m01	Proseminar Mathematics	4	B/NB	115
10-M-SCH-131-m01	School Mathematics from a Higher Perspective	4	B/NB	118
10-M-SE2-131-m01	Additional Seminar in Mathematics	5	B/NB	119
Philosophie (Philosophy	of the following application-oriented subjects, each with the sp Biologie (Biology), Chemie (Chemistry), Geographie (Geography ), Physik (Physics), Wirtschaftswissenschaft (Business Manage	pecified ma y), Informat ement and E	ndatory course ik (Computer S Economics).	es and, cience
	ubject Biology (40 ECTS credits)	1	1	·
07-1A1ZPF-AF-141- m01	The Plant Kingdom (AF)	5	NUM	29
07-1A1TI-AF-141-m01	Evolution and the Animal Kingdom (AF)	5	NUM	28
07-2A2PHYPF-AF-141-	Plant Physiology (AF)		NILIAA	24
m01		4	NUM	31
07-2A2PHYTI-AF-141-	Animal Physiology (AF)		NUM	22
m01		4		32
07-2A2GENV-AF-141-	Genetics, Neurobiology, Behaviour (AF)		NUM	20
m01	Generics, Neuropiology, Denaviour (AF)	5		30
07-M-BST-132-m01	Mathematical Biology and Biostatistics	4	NUM	58
07-3A3E- BIOPF-AF-141-m01	Developmental Biology of Plants (AF)	4	NUM	34

Bachelor's with 1 major Mathematics (2014)

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<b></b>			1	
07-3A3OE- KO-132-m01	Plant and Animal Ecology	6	NUM	37
07-3A3GEM- T-132-m01	Genes, Molecules, Technologies		NUM	35
07-3A3BC-141-m01	Basic Biochemistry (AF)	4	NUM	33
07-4A4FAU-AF-141- m01	The Fauna of Germany (AF)	7	NUM	38
07-4S1NVO1-132-m01	Neurobiology 1	5	NUM	45
07-4S1N- VO2-132-m01	Integrative Behavioral Biology 1	5	NUM	47
07-4S1NV03-132-m01	Functional Morphology of Arthropods	5	NUM	49
	Basics in Light- and Electron-Microscopy	5	NUM	39
	Analysis of Chromosomes	5	NUM	41
	Special Bioinformatics 1	5	NUM	43
	Molecular modelling - From DNA to Protein	5	NUM	51
07-4S1PS2-132-m01	Methods in Plant Ecophysiology	5	NUM	53
	Pharmaceutical Drugs in Plants	5	NUM	55
07-S1-LP1-132-m01	Laboratory Practical Course I	5	NUM	61
07-S1-Ex1-132-m01	Excursion I	5	NUM	59
07-S1-IP1-132-m01	Interdisciplinary Project I	5	NUM	60
07-5EP-132-m01	External Practical Course	10	NUM	57
			NUM	62
07-S2-IP2-132-m01	Interdisciplinary Project II	10 10	NUM	63
07-S2-LP2-132-m01	Laboratory Practical Course II	10	NUM	64
, -	ubject Chemistry (32 ECTS credits)	10		04
	Subject Chemistry Compulsory Courses (26 ECTS credits)			
08-CM1-112-m01	Introduction to Inorganic Chemistry for Students of Mathema- tics and other Subjects	6	NUM	65
08-0C1-141-m01	Organic Chemistry 1	5	NUM	66
08-PC1-141-m01	Physical Chemistry 1: Principles of quantum mechanics and	8	NUM	68
11-EFNF-072-m01	spectroscopy Introduction to Physics for Students of Non-physics-related Mi- nor Subjects	7	NUM	127
Application-oriented	Subject Chemisty Compulsory Electives (14 ECTS credits)			
08-0C2-141-m01	Organic Chemistry 2	0	NUM	67
08-002-141-1101	Physical and Theoretical Chemistry 3: Symmetry and Quantum	9		07
08-PC3-141-m01	Chemistry	6	NUM	69
08-TC-141-m01	Theoretical Models in Chemistry	3	NUM	70
Application-oriented S	ubject Geography (40 ECTS credits)			
09-HG1SI-102-m01	Introduction to the Geography of Cities, Towns and Villages	5	NUM	73
09-HG1WI-102-m01	Introduction to Economic Geography	5	NUM	75
09-HG1SO-102-m01	Introduction to Social and Population Geography	5	NUM	74
09-PG1ExD-102-m01	General Physical Geography 1 (Earth System: Exogeneous Dy- namics - Geomorphology)	5	NUM	77
09-PG1KS-102-m01	General Physical Geography 2 (Earth System: Climate System)	5	NUM	78

09-PG1EnD-102-m01	2-mo1 General Physical Geography 3 (Earth System: Endogenic Dyna- mics)		5	NUM	76
09-FERN1-102-m01	Remote Se	nsing 1	5	NUM	71
09-FERN2-102-m01	Remote Se	-	5	NUM	72
Application-oriented S	ubject Com	puter Science (40 ECTS credits)			
10-I-ADSV-141-m01	Algorithm	and data structures	5	NUM	81
10-I-ADST-141-m01	Tutorial Alg	gorithm and data structures	5	B/NB	80
10-I-AGT-141-m01	Algorithmi	c Graph Theory	5	NUM	82
10-I-3D-141-m01	3D Point C	loud Processing	5	NUM	79
10-I-DB-141-m01	Data Bases	5	5	NUM	83
10-I-IÜV-141-m01	Informatio	n Transmission	5	NUM	85
10-I-IÜT-141-m01	Tutorial Inf	ormation Transmission	5	B/NB	84
10-I-KT-141-m01	Computati	onal Complexity	5	NUM	86
10-I-LOG-141-m01	Logic for in	formatics	5	NUM	87
10-I-00P-141-m01	Object orie	ented Programming	5	NUM	88
10-I-PP-141-m01	Practical C	ourse in Programming	10	B/NB	89
10-I-RAK-141-m01	Computer	Architecture	5	NUM	90
10-I-RALV-141-m01	Digital com	iputer systems	5	NUM	92
10-I-RALT-141-m01	Tutorial Dig	gital computer systems	5	B/NB	91
10-I-RK-141-m01	Computer	Networks	8	NUM	93
10-I-STV-141-m01	Software T	echnology	5	NUM	95
10-I-STT-141-m01	Tutorial So	ftware Technology	5	B/NB	94
10-I-SWP-141-m01	Practical co	ourse in software	10	B/NB	96
10-I-TIV-141-m01	Theoretica	l Informatics	5	NUM	98
10-I-TIT-141-m01	Tutorial Th	eoretical Informatics	5	B/NB	97
Application-oriented S	ubject Phil	osophy (40 ECTS credits)			
Application-oriented	Subject Ph	ilosophy Compulsory Courses (15 ECTS credits)			
	Principles	of Philosophy: historical epochs, main works, aut-			
06-B-P1G-141-m01	hors		5	NUM	9
06-B-P2G1-141-m01	Philosophi	cal principles of arts and humanities	5	NUM	10
06-B-P2G2-141-m01	Philosophi	cal principles of natural sciences and technology	5	NUM	11
Application-oriented	Subject Ph	ilosophy Compulsory Electives (15 ECTS credits)			
06-B-P3-141-m01	Theoretica	l Philosophy	10	NUM	12
06-B-P4-141-m01	Practical P	hilosophy	10	NUM	13
06-B-P5-141-m01	History of I	Philosophy	10	NUM	14
06-B-P6-141-m01	Issues of r	esearch in philosophy	10	NUM	15
06-B-W1-141-m01	Text Analys	sis: Ancient Philosophy	5	NUM	18
06-B-W2-141-m01	Text Analys	sis: Medieval Philosophy	5	NUM	20
06-B-W3-141-m01	Text Analys	sis: Modern Philosophy	5	NUM	21
06-B-W4-141-m01	Text Analys	sis: Contemporary Philosophy	5	NUM	22
06-B-W5-141-m01	Basic disci	plines of theoretical philosophy	5	NUM	23
06-B-W6-141-m01	Specific di	sciplines of theoretical philosophy	5	NUM	24
06-B-W7-141-m01	· ·	plines of practical philosophy	5	NUM	25
06-B-W8-141-m01	Specific di	sciplines of practical philosophy	5	NUM	26
06-B-W9-141-m01	· ·	of Older Philosophy	5	NUM	27
06-B-W10-141-m01	Problems o	of Modern Philosophy	5	NUM	16
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06-B-W11-141-m01	Problems of Theoretical Philosophy	5	NUM	17
06-B-W12-141-m01	Problems of Practical Philosophy	5	NUM	19
Application-oriented	Subject Physics (33 ECTS credits)			
	Subject Physics Compulsory Courses: Basics (14 ECTS credits)			
	Introduction to Physics Part 1 for students of Physics Related			1
11-ENNF1-062-m01	Minor Subjects	7	NUM	129
11-ENNF2-062-m01	Introduction to Physics Part 2 for students of Physics Related Minor Subjects	7	NUM	130
Application-oriented	Subject Physics Compulsory Electives 1: Lab Course (9 ECTS cre	dits)		
	Physics Laboratory Course for students of Physics Related Mi-	uitoj		1
11-PNNF-062-m01	nor Subjects	3	B/NB	133
11-P-PA-092-m01	Practical Course A	5	B/NB	134
11-P-NFB-122-m01	Basic Practical Course B (Minor Studies)	4	B/NB	132
	Subject Physics Compulsory Electives 2 (24 ECTS credits)	4	БЛИВ	132
- 11-KM may neither - 11-STE may neither - 11-TQM may neither	ons are not permitted: be combined with 11-QAM nor with 11-FKP. be combined with 11-ST nor with 11-ED. r be combined with 11-TM nor with 11-QM.		NUM	
11-ED-141-mo1	Theoretical Electrodynamics	8	NUM	126
11-FKP-141-m01	Solid State Physics 1	8	NUM	131
11-QAM-141-m01	Quanta, Atoms, Molecules	8	NUM	136
11-QM-141-m01	Quantum Mechanics	8	NUM	137
11-ST-141-m01	Statistical Mechanics and Thermodynamics	8	NUM	138
11-TM-141-m01	Theoretical Mechanics	8	NUM	139
Application-oriented	Subject Business Management and Economics (40 ECTS credits)			
Application-oriented	Subject Business Management and Economics Compulsory Cou	rses (30 E	CTS credits)	
12-EBWL-G-132-m01	Introduction to Business Administration	5	NUM	142
12-EVWL-G-132-m01	Introduction to Economics	5	NUM	144
12-ExtUR-G-132-m01	Financial Accounting	5	NUM	146
12-IntUR-G-132-m01	Managerial Accounting	5	NUM	150
12-Mak1-G-132-m01	Macroeconomics 1	5	NUM	152
12-Mik1-G-132-m01	Microeconomics 1	5	NUM	158
Application-oriented	Subject Business Management and Economics Compulsory Elec	tives	1	
12-BPL-G-132-m01	Supply, Production and Operations Management. An Introduc- tion	5	NUM	140
12-I&F-G-132-m01	Investment and Finance. An Introduction	5	NUM	148
12-Mak2-G-132-m01	Macroeconomics 2	5	NUM	154
12-Mark-G-132-m01	Introduction to Market-Oriented Management	5	NUM	156
12-Mik2-G-132-m01	Microeconomics 2	5	NUM	160
12-WiPo-G-132-mo1	Principles of Economic Policy	5	NUM	162
Thesis (11 ECTS credits)		)	nom	102
10-M-BAM-122-m01	Thesis Mathematics (Bachelor Thesis)	11	NUM	104
Subject-specific Key Skill		11	NOM	104
10-M-COM-131-m01		4	B/NB	105
10-10-2010-131-1101	Computational Mathematics Programming course for students of Mathematics and other		ס/ווש	105
10-M-PRG-131-m01	subjects	3	B/NB	114
10-M-GBM-131-m01	Basic Notations and Methods of Mathematical Reasoning	2	B/NB	109

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WÜRZBURG	I A WELLY IN A WELLY I	Mathematics
WORZBORG		Bachelor's with 1 major, 180 ECTS credits

10-M-ASM-131-m01	Reasoning and Writing in Mathematics	2	B/NB	103
10-M-SEM-131-m01	Seminar Mathematics	5	B/NB	120

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	data record Bachelor (180 ECTS) Mathematik - 2014	

Modul	e title				Abbreviation
Princip	oles of I	Philosophy: historical ep	ochs, main works, au	ithors	06-B-P1G-141-m01
Modul	e coord	inator		Module offered by	
holder	ofthe	Chair of Practical Philoso	phy	Institute of Philoso	phy
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
5	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ester	undergraduate			
Conter	nts				
		o the systems and the his duction to formal logic; i			emic writing and research in phi- osophy.
		ning outcomes			
Ability as tran issues	to appl sparen in a str	ly the principles of logic t cy, consistency, discursiv ructured and linguistically	o argumentation; abi vity, completeness, a y and rhetorically app	lity to apply general nd generalisability; propriate way.	of philosophy. Formal outcomes: principles of argumentation such ability to present philosophical
		, number of weekly conta			
		mation on SWS (weekly o			
		<b>sessment</b> (type, scope, la ion on whether module ca			ation offered — if not every seme-
oral ex	aminat	ion (approx. 25 minutes)			
Allocat	tion of <sub>l</sub>	places			
Additio	onal inf	ormation			
Worklo	bad				
Teachi	ng cycl	e			
Referre	ed to in	LPOI (examination regu	lations for teaching-o	degree programmes	)
Modul	e appea	ars in			
Bachel	lor' deg	ree (1 major) Mathematic	s (2014)		

Module title					Abbreviation	
Philoso	ophical	principles of arts and h	umanities		06-B-P2G1-141-m01	
Module	e coord	inator		Module offered by		
holder	ofthe	Chair of Theoretical Phil	osophy	Institute of Philoso	phy	
ECTS	Methe	od of grading	Only after succ. con	npl. of module(s)		
5	nume	rical grade				
Duratio	on	Module level	Other prerequisites	;		
1 seme	ster	undergraduate				
Conten	ts					
Introdu science		o the theory of intellectu	ual disciplines; philos	ophical bases of the	humanities and the social	
Intend	ed lear	ning outcomes				
culture texts a ta; abil <b>Course</b>	, and k nd issu ity to p <b>s</b> (type	nowledge. Formal outco	omes (skills to be teste oncepts and philosop sitions in a structured cact hours, language –	ed in assessments): hical positions into o l and linguistically a - if other than Germa	an)	
	-	•			ation offered — if not every seme-	
ster, in	format	ion on whether module	can be chosen to earn	a bonus)	·	
written	exami	nation (approx. 90 minu	ites)			
Allocat	ion of <sub>l</sub>	places				
	r of sul				be allocated according to the ect semesters, places will be allo-	
Additio	onal inf	ormation				
Worklo	ad					
Teachi	ng cycl	e				
Referre	ed to in	LPOI (examination reg	ulations for teaching-	degree programmes		
Module						
Module	e appea	ars in				

Philos	e title				Abbreviation
Philosophical principles of natural sciences and technolog			ences and technology	y	06-B-P2G2-141-m01
Module coordinator				Module offered by	
holder	ofthe	Chair of Theoretical Philo	<u>, , ,</u>	Institute of Philoso	phy
ECTS		od of grading	Only after succ. com	npl. of module(s)	
5	nume	rical grade			
Duratio		Module level	Other prerequisites		
1 seme	ester	undergraduate			
Conter	nts				
Introdu ring.	uction t	o the theory of intellectu	al disciplines; philoso	ophical bases of the	natural sciences and enginee-
Intend	ed lear	ning outcomes			
texts a ta; abi <b>Course</b> V + S (I	ind issu lity to p es (type no info	ies; ability to organise co present philosophical pos e, number of weekly conta rmation on SWS (weekly	ncepts and philosoph sitions in a structured act hours, language – contact hours) and co	nical positions into o and linguistically ap - if other than Germa purse language avail	in)
ster, in	nformat	ion on whether module c	an be chosen to earn		
		nation (approx. 90 minut	tes)		
Allocat	tion of	places			
			ls (ASQ): maximum 2	o places Places will	
		bject semesters. Among a			be allocated according to the ect semesters, places will be allo-
numbe cated b	by lot.	bject semesters. Among a Formation			
numbe cated b	by lot.	-			be allocated according to the ect semesters, places will be allo-
numbe cated b	by lot. onal inf	-			
numbe cated b Additic	by lot. onal inf	-			
numbe cated b Additic  Worklo	by lot. onal inf oad	ormation			
numbe cated b Additio  Worklo	by lot. onal inf	ormation			
numbe cated h Additic  Worklo  Teachi 	by lot. onal inf oad ing cycl	ormation	applicants with the sa	ame number of subje	ect semesters, places will be allo-
numbe cated h Additio  Worklo  Teachi 	by lot. onal inf oad ing cycl	e	applicants with the sa	ame number of subje	ect semesters, places will be allo-
numbe cated b Additic  Worklo  Teachi  Referre	by lot. onal inf oad ing cycl	Formation	applicants with the sa	ame number of subje	ect semesters, places will be allo-

Module title				Abbreviation		
Theoretical Philosophy     06-B-P3-					06-B-P3-141-m01	
Module	e coord	inator		Module offered by		
holder	of the C	Chair of Theoretical Philo	sophy	Institute of Philosop	ohy	
ECTS		od of grading	Only after succ. com	pl. of module(s)		
10	<u> </u>	rical grade				
Duratio		Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
Introdu	ction to	o theoretical philosophy,	using basic problem	s and paradigmatic t	texts.	
Intende	ed learr	ning outcomes				
betwee mentat of theo losoph	Intended learning outcomes: Content-related outcomes: An overview of basic problems and positions in theore- tical philosophy; an overview of systems and disciplines in theoretical philosophy; ability to use and distinguish between different methods in theoretical philosophy; familiarity with, and ability to evaluate, methods of argu- mentation and justification within theoretical philosophy; ability to reflect on the factors involved in the process of theoretical opinion formation. Formal outcomes (skills to be tested in the assessment): Ability to analyse phi- losophical texts and issues; ability to organise concepts and philosophical positions into overarching intellectu- al schemata; ability to present philosophical positions in a structured and linguistically appropriate manner.					
	· · · · · ·	, number of weekly conta			, , , ,	
V + S +	S (no i	nformation on SWS (weel	kly contact hours) and	d course language av	vailable)	
		e <b>ssment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-	
oral exa	aminati	on (approx. 25 minutes)	in one of the semina	rs (seminar to be sel	ected by students)	
Allocat	ion of p	olaces				
Additio	nal info	ormation				
Workload						
Teaching cycle						
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)						
Module	e appea	irs in				
Bachel	Bachelor' degree (1 major) Mathematics (2014)					

Module title				Abbreviation	
Practic	al Philo	osophy			06-B-P4-141-m01
Module	e coord	inator		Module offered by	
holder	of the (	Chair of Practical Philoso	phy	Institute of Philoso	ohy
ECTS		od of grading	Only after succ. com	pl. of module(s)	
10	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	ts				
Introdu	iction to	o practical philosophy, us	sing basic problems a	and paradigmatic te>	kts.
Intende	ed learı	ning outcomes			
tical ph betwee tation a ral opir texts ar	nilosopl en differ and jus nion for nd issu	hy; an overview of system rent methods in practical tification within practical mation. Formal outcomes	ns and disciplines in philosophy; knowled philosophy; ability to s (skills to be tested i ncepts and philosoph	practical philosophy dge of, and ability to o reflect on the facto n the assessment): nical positions into o	oblems and positions in prac- r; ability to use and distinguish evaluate, methods of argumen- rs involved in the process of mo- Ability to analyse philosophical overarching intellectual schema- propriate manner.
		, number of weekly conta			
V + S +	S (no i	nformation on SWS (weel	kly contact hours) an	d course language a	vailable)
		e <b>ssment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-
written	examiı	nation (approx. 90 minut	es) in one of the sem	inars (seminar to be	selected by students)
Allocat	ion of p	olaces			
Additio	onal info	ormation			
Worklo	ad				
Teaching cycle					
Referre	ed to in	LPO I (examination regu	lations for teaching-c	legree programmes)	
Module	e appea	irs in			
Bachel	or' deg	ree (1 major) Mathematic	s (2014)		

Module title Abbreviation				Abbreviation	
History of Philosophy					06-B-P5-141-m01
Module	e coord	inator		Module offered by	
holder	of the C	Chair of the History of Phi	losophy	Institute of Philosop	ohy
ECTS		od of grading	Only after succ. com	pl. of module(s)	
10	nume	rical grade			
Duratio	n	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	ts				
Introdu	ction to	o the history of philosoph	iy, using basic proble	ems and paradigmati	ic texts.
Intende	ed learr	ning outcomes			
with, un story of texts ar mata 6.	ndersta philos nd posi . ability	nding of, and ability to e ophy Formal outcomes (s	valuate methods and skills to be tested in t e concepts and philo l positions in a struct	l questions of schola he assessment): 4. a sophical positions in ured and linguistica	
		nformation on SWS (weel			
		e <b>ssment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-
written	examir	nation (approx. 90 minut	es) in one of the semi	inars (seminar to be	selected by students)
Allocat	ion of p	olaces			
Additio	nal info	ormation			
Worklo	ad				
Teaching cycle					
Referre	d to in	LPOI (examination regu	lations for teaching-c	legree programmes)	
			0		
Module	e appea	irs in			
Bachel	or' deg	ree (1 major) Mathematic	s (2014)		

Module title				Abbreviation			
Issues of research in philosophy					06-B-P6-141-m01		
Module	e coord	inator		Module offered by			
holder	of the (	Chair of the History of Phi	losophy	Institute of Philoso	ohy		
ECTS		od of grading	Only after succ. com	pl. of module(s)			
10	nume	rical grade					
Duratio	on	Module level	Other prerequisites				
1 seme	ster	undergraduate					
Conten	ts						
Selecte	ed resea	arch issues in philosophy	/.				
Intende	ed lear	ning outcomes					
philosc issues;	ophy. Fo ability	ormal outcomes (skills to	be tested in the asse olarly work; ability to	essment): Ability to a	tanding of scholarly inquiry in analyse philosophical texts and elop philosophical issues and to		
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	· if other than Germa	n)		
V + S +	S (no i	nformation on SWS (weel	kly contact hours) and	d course language a	vailable)		
		<b>essment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-		
oral exa	aminat	ion (approx. 25 minutes)	in one of the semina	rs (seminar to be sel	ected by students)		
Allocat	ion of p	olaces					
Additio	onal inf	ormation					
Worklo	ad						
Teachi	ng cycl	e					
Referre	<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)						
Module	Module appears in						
		ree (1 major) Mathematic	s (2014)				

					Abbreviation		
Problems of Modern Philosophy					06-B-W10-141-m01		
Module	e coord	inator		Module offered by			
holder	of the C	Chair of the History of Phi	losophy	Institute of Philosop	ohy		
ECTS		od of grading	Only after succ. com	pl. of module(s)			
5	nume	rical grade					
Duratio	n	Module level	Other prerequisites				
1 seme	ster	undergraduate					
Conten	ts						
Probler	ns in ea	arly modern and contemp	oorary philosophy.				
Intende	ed learr	ning outcomes					
philosc ments, logic to discurs	ophy (ea and th argum ivity, co	arly modern to contempo eories. Formal outcomes entation; ability to apply	rary); in-depth knowl (skills to be tested in general principles of Ilisability; ability to p	edge of the history of the assessment): A argumentation such	sophical problems of modern of philosophical concepts, argu- bility to apply the principles of n as transparency, consistency, l issues in a structured and lin-		
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)		
S (no ir	nformat	ion on SWS (weekly cont	act hours) and cours	e language available	)		
		s <b>essment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-		
term pa	aper (ap	oprox. 12 pages)					
Allocat	ion of p	olaces					
Additio	nal info	ormation					
Worklo	ad						
Teachi	Teaching cycle						
Referre	d to in	LPOI (examination regu	lations for teaching-c	legree programmes)			
			0				
Module	e appea	in in					
Bachel	Bachelor' degree (1 major) Mathematics (2014)						

Module title					Abbreviation	
Problems of Theoretical Philosophy					06-B-W11-141-m01	
Module	e coord	inator		Module offered by		
holder	of the C	Chair of Theoretical Philo	sophy	Institute of Philosop	ohy	
ECTS		od of grading	Only after succ. com	pl. of module(s)		
5	nume	rical grade				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
Probler	ns in th	eoretical philosophy.				
Intende	ed learr	ning outcomes				
sophy. mentat comple	Formal ion; ab teness	outcomes (skills to be te ility to apply general prin	ested in the assessme ciples of argumentat	ent): Ability to apply ion such as transpar	f problems in theoretical philo- the principles of logic to argu- rency, consistency, discursivity, structured and linguistically and	
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)	
S (no ir	format	ion on SWS (weekly cont	act hours) and cours	e language available	)	
		e <b>ssment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-	
term pa	aper (ap	oprox. 12 pages)				
Allocat	ion of p	olaces				
Additio	nal inf	ormation				
Worklo	ad					
Teaching cycle						
Referre	<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)					
			0	_ , 0 /		
Module	e appea	in in				
Bachel	Bachelor' degree (1 major) Mathematics (2014)					

Module title					Abbreviation	
Text Analysis: Ancient Philosophy					06-B-W1-141-m01	
Module	e coord	inator		Module offered by		
holder	of the C	Chair of the History of Phi	losophy	Institute of Philoso	ohy	
ECTS		od of grading	Only after succ. com	pl. of module(s)		
5	nume	rical grade				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
Ancient	t philos	ophical texts.				
Intende	ed learr	ning outcomes				
king int sic assu the ass (when v	to acco umptio essme writing	unt the historical and intention of the second strain of the second stra	ellectual context of th thought, culture, and nilosophical texts and organise historical co	neir origin - knowled knowledge Formal o l issues - ability to fo ncepts and philoso	s of ancient philosophy while ta- ge of, and ability to criticise, ba- butcomes (skills to be tested in blow the rules of scholarly work phical positions into overarching cal issues	
Course	<b>s</b> (type,	, number of weekly conta	ct hours, language —	if other than Germa	n)	
S (no ir	format	ion on SWS (weekly cont	act hours) and cours	e language available	2)	
		e <b>ssment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-	
written	examir	nation (approx. 90 minut	es) or term paper (ap	prox. 12 pages)		
Allocat	ion of p	olaces				
Additio	nal info	ormation				
Worklo	ad					
Teaching cycle						
Referre	d to in	LPO I (examination regu	lations for teaching-c	legree programmes)		
Module	e appea	irs in				
Bachelor' degree (1 major) Mathematics (2014)						

Module title				Abbreviation		
Problems of Practical Philosophy					06-B-W12-141-m01	
Module	e coord	inator		Module offered by		
holder	of the (	Chair of Practical Philoso	ohy	Institute of Philosop	ohy	
ECTS	<u> </u>	od of grading	Only after succ. com	pl. of module(s)		
5	L	rical grade				
Duratio		Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
Probler	ns in p	ractical philosophy.				
Intende	ed learı	ning outcomes				
phy. Fo tation; pletene	rmal ou ability ess, and	utcomes (skills to be test to apply general principle	ed in the assessment es of argumentation s	t): Ability to apply the	f problems in practical philoso- e principles of logic to argumen- , consistency, discursivity, com- tured and linguistically and rhe-	
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)	
S (no ir	nformat	ion on SWS (weekly cont	act hours) and course	e language available	)	
		s <b>essment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-	
term pa	aper (ap	oprox. 12 pages)				
Allocat	ion of p	olaces				
Additio	nal inf	ormation				
Worklo	ad					
Teaching cycle						
Referre	d to in	LPOI (examination regu	lations for teaching-c	legree programmes)		
Module	e appea	irs in				
Bachel	or' deg	ree (1 major) Mathematic	s (2014)			

Module title Abbreviation					
Text A	nalysis	Medieval Philosophy		06-B-W2-141-m01	
Modul	e coord	inator		Module offered by	
		Chair of the History of Phi	losophy	Institute of Philoso	phy
ECTS	-	od of grading	Only after succ. con		,
5		rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conter	ts				
Mediev	al phil	osophical texts.			
Intend	ed lear	ning outcomes			
sic ass in the a ability	umptio assessr to inde	ns in pre-modern system nent): Ability to analyse p pendently develop philos	s of thought, culture, philosophical texts ar sophical issues and t	and knowledge. For nd issues; ability to f o present them in ar	
		, number of weekly conta			
		tion on SWS (weekly cont			
		s <b>essment</b> (type, scope, la ion on whether module ca			tion offered — if not every seme-
written	exami	nation (approx. 90 minut	es) or term paper (ap	prox. 12 pages)	
Allocat	ion of <sub>l</sub>	olaces			
Additio	onal inf	ormation			
Worklo	ad				
Teaching cycle					
Referre	ed to in	LPOI (examination regu	lations for teaching-o	degree programmes)	
Modul	Module appears in				
Bachel	or' deg	ree (1 major) Mathematic	s (2014)		

Module title					Abbreviation	
Text Analysis: Modern Philosophy					06-B-W3-141-m01	
Module	e coord	inator		Module offered by		
holder	of the (	Chair of Practical Philosop	ohy	Institute of Philosop	bhy	
ECTS		od of grading	Only after succ. com	pl. of module(s)		
5	L	rical grade				
Duratio		Module level	Other prerequisites			
1 seme		undergraduate				
Conten	ts					
Moderr	n philos	sophical texts.				
Intende	ed learı	ning outcomes				
ge of, a mal out follow t linguist	nd abi tcomes the rule tically a	lity to criticise, basic assu (skills to be tested in the s of scholarly work; abili appropriate manner.	umptions of systems a assessment): Ability ty to independently d	of thought, culture, a / to analyse philosop evelop philosophica	of modern philosophy; knowled- and knowledge of modernity. For- phical texts and issues; ability to Il issues and to present them in a	
		, number of weekly conta				
S (no ir	format	ion on SWS (weekly cont	act hours) and course	e language available	)	
		<b>essment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-	
written	examiı	nation (approx. 90 minut	es)			
Allocat	ion of p	olaces				
Additio	nal inf	ormation				
Worklo	ad					
Teaching cycle						
Referre	d to in	LPOI (examination regu	lations for teaching-d	legree programmes)		
Module	e appea	irs in				
Bachel	or' deg	ree (1 major) Mathematic	s (2014)			

Module title				Abbreviation		
Text Analysis: Contemporary Philosophy					06-B-W4-141-m01	
Module	e coord	inator		Module offered by		
holder	of the (	Chair of Practical Philosop	ohy	Institute of Philosop	ohy	
ECTS	<u> </u>	od of grading	Only after succ. com	pl. of module(s)		
5	L	rical grade				
Duratio		Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
Conter	porary	philosophical texts.				
Intende	ed leari	ning outcomes				
knowle contem texts ai	dge of, porary nd issu	and ability to criticise, b world. Formal outcomes	asic assumptions of : (skills to be tested in Iles of scholarly work	systems of thought, the assessment): A ; ability to independ	of contemporary philosophy; culture, and knowledge of the bility to analyse philosophical lently develop philosophical issu-	
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)	
S (no ir	nformat	ion on SWS (weekly cont	act hours) and cours	e language available	2)	
		essment (type, scope, la on on whether module ca			tion offered — if not every seme-	
written	examiı	nation (approx. 90 minut	es)			
Allocat	ion of p	olaces				
Additio	nal inf	ormation				
Worklo	ad					
Teaching cycle						
Referre	d to in	LPOI (examination regu	lations for teaching-c	legree programmes)		
Module	e appea	ars in				
Bachel	or' deg	ree (1 major) Mathematic	s (2014)			

Module title					Abbreviation	
Basic disciplines of theoretical philosophy					06-B-W5-141-m01	
Module coordinator Mod				Module offered by		
holder	of the (	Chair of Theoretical Philo	sophy	Institute of Philoso	ohy	
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)		
5	nume	rical grade				
Duratio	on	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
Probler	ms in a	nd theoretical models of	basic disciplines of t	heoretical philosoph	ıy.	
Intende	ed lear	ning outcomes				
philoso issues;	ophy. Fo ; ability	ormal outcomes (skills to	be tested in the asse olarly work; ability to	essment): Ability to a	nental disciplines of theoretical analyse philosophical texts and elop philosophical issues and to	
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	· if other than Germa	n)	
S (no ir	nformat	ion on SWS (weekly cont	act hours) and cours	e language available	2)	
		<b>essment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-	
term pa	aper (aj	oprox. 12 pages) or oral e	xamination (approx.	25 minutes)		
Allocat	ion of p	olaces				
Additio	onal inf	ormation				
Worklo	ad					
Teachi	ng cycl	e				
Referre	<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)					
Module	e appea	urs in				
Bachel	or' deg	ree (1 major) Mathematic	s (2014)			

Modul	e title				Abbreviation
Specific disciplines of theoretical philosophy 06-B-W6-141-m01					
Modul	e coord	inator		Module offered by	Į
holder	ofthe	Chair of Theoretical Philo	osophy	Institute of Philoso	phy
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	· ·
5	nume	rical grade			
Durati	on	Module level	Other prerequisites	;	
1 seme	ester	undergraduate			
Conter	nts				
Proble	ms in a	nd theoretical models of	f special disciplines o	f theoretical philoso	phy.
Intend	ed lear	ning outcomes			
ability them i	to follo n a ling	w the rules of scholarly used and the second s	work; ability to indepe anner.	endently develop ph	philosophical texts and issues; ilosophical issues and to present
Course	<b>es</b> (type	, number of weekly cont	act hours, language –	- if other than Germa	an)
S (no i	nforma	tion on SWS (weekly cor	tact hours) and cours	e language available	2)
		<b>sessment</b> (type, scope, l ion on whether module o			tion offered — if not every seme-
term p	aper (a	pprox. 12 pages) or oral	examination (approx.	25 minutes)	
Alloca	tion of <sub>l</sub>	olaces			
Additio	onal inf	ormation			
Worklo	ad				
Teachi	ng cycl	e			
			_		
Referre	ed to in	LPOI (examination reg	ulations for teaching-	degree programmes	
Modul	e appea	ars in			
		ree (1 major) Mathemati			

Module title Abbreviation					Abbreviation	
Basic disciplines of practical philosophy					06-B-W7-141-m01	
Modul	e coord	inator		Module offered by	<u> </u>	
holder	ofthe	Chair of Practical Philoso	phy	Institute of Philoso	phy	
ECTS		od of grading	Only after succ. con	npl. of module(s)		
5	nume	rical grade				
Duratio	on	Module level	Other prerequisites			
1 seme	ester	undergraduate				
Conten	nts					
Proble	ms in a	nd theoretical models of	basic disciplines of p	oractical philosophy.		
Intend	ed lear	ning outcomes				
es; abi sent th	lity to f	ollow the rules of scholar a linguistically appropriat	rly work; ability to ind e manner.	ependently develop	lyse philosophical texts and issu- philosophical issues and to pre-	
		, number of weekly conta				
S (no ii	nforma	tion on SWS (weekly cont	tact hours) and cours	e language available	e)	
		<b>sessment</b> (type, scope, la ion on whether module c			tion offered — if not every seme-	
term pa	aper (a	pprox. 12 pages) or oral e	xamination (approx.	25 minutes)		
Allocat	tion of <sub>l</sub>	olaces				
			-			
Additio	onal inf	ormation				
Worklo	ad					
Teachi	ng cycl	e				
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)						
Modul	e appea	ars in				
Bachelor' degree (1 major) Mathematics (2014)						

Modul	e title				Abbreviation
Specif	ic disci	plines of practical philos	ophy		06-B-W8-141-m01
Modul	e coord	inator		Module offered by	<u> </u>
holder	ofthe	Chair of Practical Philoso	phy	Institute of Philoso	phy
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
5	nume	rical grade			
Durati	on	Module level	Other prerequisites		
1 seme	ester	undergraduate			
Conter	nts				
Proble	ms in a	nd theoretical models of	special disciplines of	f practical philosoph	ıy.
Intend	ed lear	ning outcomes			
Formal to follo	l outcor ow the r	nes (skills to be tested in	the assessment): Ab	oility to analyse philo	ciplines of practical philosophy. osophical texts and issues; ability nical issues and to present them
Course	<b>es</b> (type	, number of weekly conta	act hours, language —	- if other than Germa	in)
S (no i	nforma	tion on SWS (weekly cont	tact hours) and cours	e language available	e)
		<b>sessment</b> (type, scope, la ion on whether module ca			tion offered — if not every seme-
term p	aper (a	pprox. 12 pages) or oral e	examination (approx.	25 minutes)	
Allocat	tion of <sub>l</sub>	places			
Additio	onal inf	ormation			
Worklo	oad		-		
Teachi	ng cycl	e	-		
	,				
Referre	ed to in	LPOI (examination regu	llations for teaching-o	degree programmes)	
Modul	e appea	ars in			

Module title					Abbreviation
Probler	ms of O	lder Philosophy			06-B-W9-141-m01
Module	e coord	inator		Module offered by	
holder	of the (	Chair of the History of Phi	losophy	Institute of Philosop	ohy
ECTS	<u> </u>	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				
Probler	ns in a	ncient and medieval phil	osophy.		
Intende	ed learı	ning outcomes			
losophy ries. Fo tation; pletene	y (ancie rmal ou ability ess, and	ent/medieval); in-depth k utcomes (skills to be test to apply general principle	nowledge of the hist ed in the assessment es of argumentation s	ory of philosophical ): Ability to apply the uch as transparency	sophical problems of older phi- concepts, arguments, and theo- e principles of logic to argumen- , consistency, discursivity, com- tured and linguistically and rhe-
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)
S (no ir	nformat	ion on SWS (weekly cont	act hours) and cours	e language available	)
		s <b>essment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-
term pa	aper (ap	oprox. 12 pages)			
Allocat	ion of p	olaces			
Additio	nal inf	ormation			
Worklo	ad				
Teachi	ng cycl	e			
Referre	d to in	LPOI (examination regu	lations for teaching-c	legree programmes)	
Module	e appea	irs in			
Bachel	or' deg	ree (1 major) Mathematic	s (2014)		

Module	e title				Abbreviation
Evoluti	ion and	the Animal Kingdom (AF			07-1A1TI-AF-141-m01
Module	Module coordinator Module offered				<u> </u>
		Professorship of Zoology	at the Department of		
	nmicro	scopy	,	, ,	
ECTS		od of grading	Only after succ. con	pl. of module(s)	
5	·	rical grade			
Duration		Module level undergraduate	Other prerequisites		
Conten		undergraduate			
theses the exa groups forms a	will be ample o in the a	discussed, and students f animals, students will b animal kingdom, student ctions of animal organisr	will be introduced to be introduced to the p s will acquire the fun	o major phylogenetic phylogenetic diversit damental knowledg	nental mechanisms and hypo- c reconstruction methods. Using ty of eukaryotes. At the level of e necessary to understand the discussed in an evolutionary and
Intend	ed learı	ning outcomes			
most s micros crosco <b>Course</b>	uitable copes. py Fu <b>s</b> (type	for investigating particul - Fundamental skills in th ndamental preparation s , number of weekly conta	ar scientific issues le interpretation of m kills. ct hours, language –	Familiarity with the acroscopic and hist if other than Germa	
	-	mation on SWS (weekly o			
ster, in	formati	on on whether module ca	an be chosen to earn		ition offered — if not every seme-
		nation (approx. 60 minut	es)		
Allocat	tion of p	olaces			
Additio	onal info	ormation			
 Worklo					
WORKIO	Jau				
Teach	ngevel	0			
reacht	ng cycl	C			
Referre	ad to in	LPOI (examination regu	lations for teaching	legree programmoc)	
Modula	e appea	urs in			
Bachel Bachel	or' deg or' deg	ree (1 major) Computer S ree (1 major) Mathematic ree (1 major) Computatio	s (2014)	14)	

Modul	e title				Abbreviation
The Pla	ant King	gdom (AF)			07-1A1ZPF-AF-141-m01
Modul	e coord	inator		Module offered by	<u> </u>
holder	of the (	Chair of Plant Physiology	and Biophysics	Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
5	nume	rical grade			
Duratio	on	Module level	Other prerequisites	i	
1 seme	ester	undergraduate			
Conter	nts				
of grou forms a	ıps in th	ne plant kingdom, studen ctions of plant organisms	ts will acquire the fu	ndamental knowled	versity of eukaryotes. At the level ge necessary to understand the scussed in an evolutionary and
		ning outcomes	,		
function ons by Course V + Ü (Metho	oning of light m es (type no infor d of ass	microscopes Fundame icroscopy Fundamenta , number of weekly conta mation on SWS (weekly o sessment (type, scope, la	ntal skills in the inte l preparation skills. ct hours, language – contact hours) and co nguage — if other the	rpretation of macros - if other than Germa ourse language avail an German, examina	
	-	ion on whether module ca nation (approx. 60 minut		a bonus)	
	tion of p				
Additio	onal inf	ormation			
Worklo	bad				
Teachi	ng cycl	e			
Referre	ed to in	LPOI (examination regu	lations for teaching-	degree programmes)	
			-		
Modul	e appea	ars in			
		ree (1 major) Mathematic	s (2014)		
Bachel	lor' deg	ree (1 major) Computatio	nal Mathematics (20	14)	

Modul	e title				Abbreviation
Geneti	cs, Neu	ırobiology, Behaviour (Al	7)		07-2A2GENV-AF-141-m01
Modul	e coord	inator		Module offered by	
Dean c	of Studi	es Biologie (Biology)		Faculty of Biology	
ECTS		od of grading	Only after succ. con		
5	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ester	undergraduate			
Conter	nts				
Fundar	mental	principles of genetics, ne	urobiology and beha	vioural biology.	
Intend	ed lear	ning outcomes			
		understand that there are nal behaviour.	e molecular, cellular a	and system biologica	al mechanisms and processes in-
Course	<b>es</b> (type	, number of weekly conta	act hours, language –	- if other than Germa	n)
V + Ü (	no info	rmation on SWS (weekly	contact hours) and co	ourse language avail	able)
		<b>sessment</b> (type, scope, la ion on whether module c			tion offered — if not every seme-
written	exami	nation (approx. 60 to 90	minutes)		
Allocat	tion of	places			
Additio	onal inf	ormation			
Worklo	bad		-		
Teachi	ng cycl	e			
Referre	ed to in	LPOI (examination regu	llations for teaching-o	degree programmes)	
Modul	e appea	ars in			
	-	ree (1 major) Computer S	•		
	-	ree (1 major) Mathematic	-	、 、	
Bache	lor' deg	ree (1 major) Computatio	nal Mathematics (20	14)	

Module	e title				Abbreviation
Plant P	hysiol	ogy (AF)			07-2A2PHYPF-AF-141-m01
Module	e coord	inator		Module offered by	
holder	ofthe	Chair of Plant Physiology	and Biophysics	Faculty of Biology	
ECTS	ï	od of grading	Only after succ. con	· · · · ·	
4	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	ts				
opport the bio nal env genera	unity to ochemis /ironme l princi	develop the fundamenta stry of the cell and will the ent of plants in particular.	al skills for working ir en move on to discus . Using the example c nodule will also elabo	n a biological laborat s the physiological p of plants, the module	gy and will provide them with an tory. The module will first address processes that regulate the inter- e will introduce students to the eristic peculiarities of plants in
	-	ning outcomes			
thods f <b>Course</b> V + Ü (1	for the i <b>s</b> (type no info	nvestigation of fundame , number of weekly conta mation on SWS (weekly o	ntal physiological pro oct hours, language – contact hours) and co	ocesses in plants. - if other than Germa ourse language avail	
		ion on whether module ca			
written	exami	nation (approx. 60 minut	es)		
Allocat	ion of	olaces			
Additio	onal inf	ormation			
Worklo	ad				
Teachi	ng cycl	e			
Referre	ed to in	LPOI (examination regu	lations for teaching-o	degree programmes)	
Module	e appea	ars in			
	-	ree (1 major) Mathematic ree (1 major) Computatio			

Module	e title				Abbreviation
Animal	Physio	logy (AF)			07-2A2PHYTI-AF-141-m01
Module	e coordi	nator		Module offered by	
holder logy	of the C	hair of Behavioral Physic	ology and Sociobio-	Faculty of Biology	
ECTS	Metho	d of grading	Only after succ. con	npl. of module(s)	
4	numer	ical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	lts				
module ration a	e will fo and exc	cus on neurophysiology retion).			in a physiological laboratory. The ts of metabolic physiology (respi-
Intend	ed learn	ing outcomes			
					regulation of organisms. They ha- sentation of scientific results.
Course	<b>s</b> (type,	number of weekly conta	ct hours, language –	- if other than Germa	an)
V + Ü (I	no infor	mation on SWS (weekly	contact hours) and co	ourse language avail	able)
		<b>essment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-
written	examir	ation (approx. 60 minut	es)		
Allocat	ion of p	laces			
Additio	onal info	ormation			
Worklo	ad				
Teachi	ng cycle	9			
Referre	ed to in	LPO I (examination regu	lations for teaching-	degree programmes)	
Module	e appea	rs in			
		ree (1 major) Mathematic	s (2014)		
	-	ree (1 major) Computatio		14)	

Modul	e title				Abbreviation
Basic I	Biocher	nistry (AF)			07-3A3BC-141-m01
Modul	e coord	inator		Module offered by	<u> </u>
holder	ofthe	Chair of Plant Physiology	and Biophysics	Faculty of Biology	
ECTS	1	od of grading	Only after succ. con	npl. of module(s)	
4	nume	rical grade			
Durati	on	Module level	Other prerequisites		
1 seme	ester	undergraduate			
Conter	nts				
dents v will be transla formed	with de come fa ation) ai d on sel	eper insights into the mo amiliar with fundamental nd the biochemistry of ca	lecular biology and b principles of molecu rbohydrates, lipids, p scussed in the lecture	iochemistry of proka lar biology (replication proteins and nucleic e. The exercise will c	nt, the lecture will provide stu- aryotes and eukaryotes. Students on, transcription, splicing and acids. Experiments will be per- over practical aspects of lab work protein isolation).
		ning outcomes		,	
Studer	nts are f	amiliar with the fundame	ental principles of bio	chemistry.	
Course	<b>es</b> (type	, number of weekly conta	ct hours, language –	- if other than Germa	ın)
V + Ü (	no info	rmation on SWS (weekly o	contact hours) and co	ourse language avail	able)
		s <b>essment</b> (type, scope, la ion on whether module ca			tion offered — if not every seme-
writter	ı exami	nation (approx. 60 minut	es)		
Alloca	tion of <sub>l</sub>	places			
Additio	onal inf	ormation			
Worklo	oad				
Teachi	ng cycl	e			
Referre	ed to in	LPOI (examination regu	lations for teaching-	degree programmes)	
			·		
Modul	e appea	ars in			
	-	ree (1 major) Mathematic ree (1 major) Computatio	-	14)	

Modul	e title				Abbreviation
Develo	pmenta	al Biology of Plants (AF)			07-3A3EBIOPF-AF-141-m01
Modul	e coord	inator		Module offered by	
holder	of the (	Chair of Plant Physiology	and Biophysics	Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	· · · ·	
4	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ester	undergraduate			
Conter	nts				
over a	plant's	entire life cycle from gerr	nination to reproduct	tion. The module wil	of plant developmental biology l discuss the molecular determi- as well as their plasticity.
		ning outcomes	-		
nisms bryonio ty of de	underly c axes. evelopn	ing pattern formation, m 6. Physiological aspects nental biological process	orphogenesis and or of the developmenta es: regulation by end	ganogenesis in plant l processes in plants logenous and enviro	
		, number of weekly conta			
V + Ü (	no info	mation on SWS (weekly o	contact hours) and co	ourse language avail	able)
		s <b>essment</b> (type, scope, la ion on whether module ca			tion offered — if not every seme-
written	exami	nation (approx. 60 minut	es)		
Allocat	tion of p	olaces			
Additio	onal inf	ormation			
Worklo	ad				
Teachi	ng cycl	e			
Referre	ed to in	LPOI (examination regu	lations for teaching-	degree programmes)	
Modul	e appea	ars in			
		ree (1 major) Mathematic	s (2014)		

Module title					Abbreviation	
Genes,	Molec	ules, Technologies		07-3A3GEMT-132-m01		
Module	e coord	inator		Module offered by		
Dean o	f Studi	es Biologie (Biology)		Faculty of Biology		
ECTS	Methe	od of grading	f grading Only after succ. compl. of module(s)			
6	nume	rical grade				
Duratio	on	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
ng topi <i>to Gene</i>	cs: The e <i>tics</i> ) a	e section <i>Spezielle Geneti</i> nd will deepen the stude	k (Special Genetics) v nts' knowledge of top	vill build on <i>Einführu</i> bics from the followin	Il include lectures on the followi- ing in die Genetik (Introduction ng areas: structure and evolution nificant genetic mechanisms. The	

to Genetics) and will deepen the students' knowledge of topics from the following areas: structure and evolution of the eukaryotic genome, regulatory RNA, epigenetically and evolutionarily significant genetic mechanisms. The section will also focus on methods of gene expression profiling, reverse genetics and modern methods of gene function and gene sequence analysis. In the lecture *Einführung in die Bioinformatik (Introduction to Bioinformatics*), students will acquire an overview of major areas in the field of bioinformatics: protein sequence and protein domain analysis, phylogeny and evolution of sequences, protein structure, RNA/DNA sequences and structures, cellular networks (regulation, metabolism) and systems biology. During the section *Einführung in die Biotechnologie (Introduction to Biotechnology*), students will acquire an overview of the following topics: history of biotechnology, DNA and RNA technologies, recombinant antibodies, molecular diagnostics, nanobiotechnology, biomaterials, bioprocess engineering, microbial biotechnology, transgenic animals and plants, microfluidics. The lecture *Einführung in die Pharmakokinetik (Introduction to Pharmacokinetics*) will provide students with an overview of the rational development of drugs and active agents. The module component will discuss an important aspect for biologists in more detail: the optimisation of the pharmacokinetics of small molecules and proteins. Pharmacokinetics describes the uptake, distribution, metabolism and elimination of a drug or xenobiotic in an organism.

#### Intended learning outcomes

Students possess an advanced knowledge on genome evolution and the regulation of gene expression and are familiar with current methods in genetics as well as methods for the analysis of DNA and protein databases. They have acquired an overview of both traditional and modern methods in biotechnology and are familiar with fundamental topics in biotechnology. Students have acquired an overview of the fundamental principles of the development and review of active agents in research, clinical practice and the pharmaceutical industry. They are familiar with methods and technologies in biology and are able to evaluate potential applications of these in research and industry.

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

V (no information on SWS (weekly contact hours) and course language available)

**Method of assessment** (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

written examination (approx. 90 minutes)

Allocation of places

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#### Additional information

Workload

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Teaching cycle

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

Bachelor's with 1 major Mathematics (2014)

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#### Module appears in

Bachelor' degree (1 major) Biology (2013) Bachelor' degree (1 major) Computer Science (2014) Bachelor' degree (1 major) Mathematics (2014) Bachelor' degree (1 major) Computational Mathematics (2014) Bachelor's degree (1 major, 1 minor) Biology (Minor, 2013)

Bachelor's with 1 major Mathematics (2014)	JMU Würzburg • generated 26-Aug-2024 • exam. reg. data record Bachelor (180 ECTS) Mathematik - 2014	page 36 / 163
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Module title					Abbreviation		
Plant and Animal Ecology					07-3A30EK0-132-m01		
Module	e coord	inator		Module offered by			
Dean of	f Studie	es Biologie (Biology)		Faculty of Biology			
ECTS		od of grading	Only after succ. com	pl. of module(s)			
6	L	rical grade					
Duratio		Module level	Other prerequisites				
1 seme		undergraduate					
Conten							
and bio as on th fundam	otic env ne strue nental r	ironments. The module v cture and dynamics of po	vill focus on the funct pulations, communit y, will become famili	ional adaptation to ies and ecosystems. ar with examples of	and animals with their abiotic environmental conditions as well . Students will be introduced to research findings and will acqui- t ecological problems.		
		ning outcomes	,				
Studen portant	ts are f abiotio vironm	amiliar with the fundame c and biotic factors that i rent. In addition, they un	nfluence the distribut	ion and frequency o	ecology and with the most im- f occurrence of organisms in has to the assessment of envi-		
Course	<b>s</b> (type,	number of weekly conta	ct hours, language —	if other than Germa	n)		
V + Ü (r	no infor	mation on SWS (weekly o	contact hours) and co	urse language availa	able)		
		essment (type, scope, la on on whether module ca			tion offered — if not every seme-		
written	examir	nation (approx. 90 minut	es)				
Allocat	ion of p	olaces					
Additio	nal info	ormation					
Worklo	ad						
Teachir	ng cycl	e					
Referre	d to in	LPOI (examination regu	lations for teaching-d	legree programmes)			
Module	e appea	rs in					
Bachelo Bachelo Bachelo Bachelo	Bachelor' degree (1 major) Biology (2013) Bachelor' degree (1 major) Computer Science (2014) Bachelor' degree (1 major) Mathematics (2014) Bachelor' degree (1 major) Computational Mathematics (2014) Bachelor's degree (1 major, 1 minor) Biology (Minor, 2013)						

Module	title				Abbreviation
The Fauna of Germany (AF)					07-4A4FAU-AF-141-m01
Module coordinator Module offered b					
holder	of the (	Chair of Animal Ecology a	nd Tropical Biology	Faculty of Biology	
ECTS		od of grading	Only after succ. com	, -,	
7	nume	rical grade			
Duratio	n	Module level	Other prerequisites		
1 seme	ster	undergraduate	Admission prerequis (minimum 80%).	site to assessment: r	regular attendance of field trips
Conten	ts				
They wi identify specific solidate	ill acqu ving spo c habita e the ki	ire a fundamental knowlecies, using specimens o ats or lifestyles. Exercises	edge of the systemati f animals. Selection of in a variety of habita	ics and taxonomy of of specimens will be ats will provide stude	to be found in Central Europe. these animals and will practise taxon-specific and will represent ents with an opportunity to con- pecimens including their ecology
Intende	ed leari	ning outcomes			
of spec predict	ies, stu wheth		the biology and ecol tors and are of conse	logy of these species ervation concern.	of the morphology and habitats s as well as, where applicable, to n)
V + Ü +	E (no i	nformation on SWS (wee	kly contact hours) an	d course language av	vailable)
		<b>essment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-
		ment with practical com ffered: once a year, sumr		minutes)	
Allocat	ion of p	olaces			
Additio	nal inf	ormation			
Worklo	ad				
Teachir	ng cycl	e			
Referre	d to in	LPOI (examination regu	lations for teaching-c	legree programmes)	
Module					
	-	ree (1 major) Mathematic ree (1 major) Computatio		14)	

Basics in Ligh				Abbreviation		
	Basics in Light- and Electron-Microscopy			07-4S1MZ1-132-m01		
Module coordinator Module offer			Module offered by			
head of the Department of Electronmicroscopy Faculty of Biology						
ECTS Meth	od of grading	Only after succ. con	npl. of module(s)			
5 nume	rical grade					
Duration	Module level	Other prerequisites				
1 semester	undergraduate					
Contents						
Fundamental	principles of confocal las	ser scanning microsco	opy and electron mid	croscopy.		
ntended lear	ning outcomes					
Students have	e acquired theoretical kn	owledge and practica	al skills in the area o	f light and electron microscopy.		
	, number of weekly conta			- ,,		
	mation on SWS (weekly					
	•			ation offered — if not every seme-		
	ion on whether module c			and oncica in not every selle.		
	nation (approx. 30 to 60					
Allocation of						
allocated as f ogy) with 180	ollows: Places will prima ECTS credits. Should the	rily be allocated to st e module be used in o	udents of the Bache other subjects, there	f available places, places will be lor's degree subject Biologie (Bic will be two quotas: 95% of pla- ogy) with 180 ECTS credits and		

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3	ac	he	lor'	s	wit	h :	1	maj	jor	Ν	lat	he	ma	tics	(	(2014)	

## Workload

Teaching cycle

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

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# Module appears in

Bachelor' degree (1 major) Biology (2013)

Bachelor' degree (1 major) Mathematics (2014)

Bachelor' degree (1 major) Computational Mathematics (2014)

Bachelor's with 1 major Mathematics (2014)	JMU Würzburg • generated 26-Aug-2024 • exam. reg.	page 40 / 163
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					T	
Module title Analysis of Chromosomes					Abbreviation	
Analysi	s of Ch	iromosomes			07-4S1MZ2-132-m01	
Module	coord	inator		Module offered by		
head of	f the De	epartment of Electronmic	roscopy	Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)		
5	nume	rical grade				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
Overvie	w of th	e structure of chromosor	nes of somatic and m	neiotic cells.		
Intende	ed lear	ning outcomes				
Studen	ts are a	able to analyse chromoso	omal structures.			
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	an)	
V + Ü (r	no infor	mation on SWS (weekly o	contact hours) and co	ourse language avail	lable)	
					ation offered — if not every seme-	
		on on whether module ca		a Donus)		
		nation (approx. 30 to 60 i	ininules)			
Allocat					f available places, places will be	
logy) wi ces will 5% of p ject Bio themati ject Bio ble in o the oth places, courses dure, a tive mo they be plicants of ECTS all mod themati firstly, a and, se position cording qualitat	ith 180 be allo laces ( logie ( ics and logy (a ne quo er quo there v s of a m pplicar dule w come a s' previ credit lule con ik (Mat accordi condly n in a t t to this tive rar ng quo nents c	ECTS credits. Should the boated to students of the a minimum of one particle Biology) with 60 ECTS cred Mathematik (Mathematic s well as potentially to st bas well as well as well as a st bas well as well as well as a st bas well as well as well as well as a st bas well as well as well as well as a st bas well as well as well as well as a st bas well as well as well as well as a st bas well as well as well as well as a st bas well as well as well as well as a st bas well as well as well as well as a st bas well as well as well as well as a st bas well as well as well as well as well as a st bas well as well as well as well as a st bas well as well as well as well as well as well as a st bas well as well as well as a st bas well as well as well as well as well as well as a st bas well as well as well as a st bas well as well as well as well as a st bas well as well as well as well as a st bas well as well as well as well as well as a st bas well as well as well as well as well as a	e module be used in c Bachelor's degree su ipant in total) will be edits and to students ics), each with 180 EC tudents of other 'impe applications, the ren in one module compe on for the courses of re concerned will be a cessfully completed a onsideration. A waiting ess group 1 (95%): Pla ents. For this purpose I their average grade of Biologie (Biology) ( application. This will e weighted according number of ECTS credi lated as the sum of the policants with the sam Selection process grade es): total number of E among applicants wit	other subjects, there ubject Biologie (Biologie allocated to student of the Bachelor's de CTS credits, as part of orting' subjects). Sh naining places will b onent, several course one module compor allocated in a standa at least one other mo ng list will be mainta aces will primarily be of all assessments t (excluding Chemie ( be done as follows to the number of EC its achieved (quantif hese two rankings, a ne ranking, places w CTS credits already h the same number	lor's degree subject Biologie (Bio- e will be two quotas: 95% of pla- ogy) with 180 ECTS credits and ts of the Bachelor's degree sub- egree subjects Computational Ma- of the application-oriented sub- rould the number of places availa- be allocated to applicants from es with a restricted number of nent. In this case, places on all ardised procedure. In this proce- odule component of the respec- ained and places re-allocated as e allocated according to the ap- ranked according to the number taken during their studies or of Chemistry), Physik (Physics), Ma- : First, applicants will be ranked, CTS credits (qualitative ranking) tative ranking). The applicants' and places will be allocated ac- vill be allocated according to the will be allocated according to the of ECTS credits achieved, pla-	
ces will	be all	ocated by lot. Quota 2 (29	5% of places): numbe	er of subject semeste	ers of the respective applicant;	
				-	ers of the respective applicant; llocated by lot. Quota 3 (25% of	

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Bache	elor's	s with	1 ma	ijor N	Nath	nemat	ics (	(2014)	)

places): allocation by lot. Should the module be used only in the Bachelor's degree subject Biologie (Biology)

with 180 ECTS credits, places will be allocated according to the selection process of group 1.

## Workload

Teaching cycle

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

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# Module appears in

Bachelor' degree (1 major) Biology (2013)

Bachelor' degree (1 major) Mathematics (2014)

Bachelor' degree (1 major) Computational Mathematics (2014)

Bachelor's with 1 major Mathematics (2014)	JMU Würzburg • generated 26-Aug-2024 • exam. reg.	page 42 / 163
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Module	-				Abbreviation
Special	Bioinf	ormatics 1			07-4S1MZ6-132-m01
Module	coord	inator		Module offered by	
		Chair of Bioinformatics		Faculty of Biology	
		od of grading	Only after succ. com	, .,	
		rical grade			
Duration	า	Module level	Other prerequisites		
1 semes	ter	undergraduate			
Content	s				
	al prin	ciples of evolutionary bio			ics (methods and markers), fun- A structure prediction, phylogene-
Intende	d learr	ning outcomes	,		
Students netic rec			databases for sequer	nce analysis, RNA str	ructure prediction and phyloge-
Courses	(type	, number of weekly conta	ct hours, language —	if other than Germa	in)
V + Ü (no	o infor	mation on SWS (weekly	contact hours) and co	ourse language avail	able)
					ition offered — if not every seme-
		on on whether module ca	an be chosen to earn	a bonus)	
		o to 20 pages) ssessment: German or El	nglish		
Allocatio	on of p	olaces			
allocate logy) wit ces will 1 5% of pl ject Biol thematic ject Biol ble in or the othe places, t courses dure, ap tive moc they bec plicants of ECTS all modu thematil firstly, a and, sec position cording qualitati followin compon ces will	d as for the second second be allo aces ( ogie (lo cs and ogy (a ogy (a requote there w of a m oplican dule w come a ' previ credite alle cord cordite credite alle cord to this source and condly in a the to this source and condly in a the to this source and condly in a the to this source and condly in a the condly in	bllows: Places will primar ECTS credits. Should the poated to students of the a minimum of one partic Biology) with 60 ECTS cre Mathematik (Mathemat s well as potentially to st ta exceed the number of ta. Should there be, within will be a uniform regulatin todule component that a the who already have suc ill be given preferential co available. Selection proce ous academic achievements they have achieved and ponents in the subject hematics)) at the time of ng to their average grade a coording to their total hird ranking will be calcu third ranking. Among ap thing or otherwise by lot. cas: Quota 1 (50% of plac f the Faculty of Biology; a poated by lot. Quota 2 (29)	ily be allocated to stue module be used in of Bachelor's degree su ipant in total) will be edits and to students ics), each with 180 EG udents of other 'imper applications, the rem n one module compor- on for the courses of re concerned will be cessfully completed a onsideration. A waiti ess group 1 (95%): Pla ents. For this purpose I their average grade of Biologie (Biology) of application. This will weighted according number of ECTS credi lated as the sum of the policants with the sam Selection process gra- es): total number of fa- among applicants with 5% of places): number	udents of the Bachel other subjects, there ubject Biologie (Biolo allocated to student of the Bachelor's de CTS credits, as part of orting' subjects). Sh naining places will b onent, several course one module compor allocated in a standa at least one other mo ng list will be mainta aces will primarily be of all assessments t (excluding Chemie (G be done as follows: to the number of EC its achieved (quantif hese two rankings, a ne ranking, places w oup 2 (5%): Places w ECTS credits already th the same number er of subject semeste	f available places, places will be lor's degree subject Biologie (Bio ogy) with 180 ECTS credits and ts of the Bachelor's degree sub- egree subjects Computational Ma of the application-oriented sub- ould the number of places availa- be allocated to applicants from es with a restricted number of nent. In this case, places on all ardised procedure. In this proce- odule component of the respec- ained and places re-allocated as e allocated according to the ap- ranked according to the number taken during their studies or of Chemistry), Physik (Physics), Ma- e: First, applicants will be ranked, TS credits (qualitative ranking) tative ranking). The applicants' and places will be allocated ac- vill be allocated according to the achieved in modules/module of ECTS credits achieved, pla- ers of the respective applicant; located by lot. Quota 3 (25% of

places): allocation by lot. Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, places will be allocated according to the selection process of group 1.

# Additional information

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Workload

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# Teaching cycle

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

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#### Module appears in

Bachelor' degree (1 major) Biology (2013)

Bachelor' degree (1 major) Mathematics (2014)

Bachelor' degree (1 major) Computational Mathematics (2014)

Bachelor's with 1 major Mathematics (2014)	JMU Würzburg • generated 26-Aug-2024 • exam. reg.	page 44 / 163
	data record Bachelor (180 ECTS) Mathematik - 2014	

Module ti				Abbreviation
Neurobiol	07-4S1NVO1-132-m01			
Module co	oordinator		Module offered by	
holder of	the Chair of Neurobiology and	d Genetics	Faculty of Biology	
	lethod of grading	Only after succ. con	npl. of module(s)	
	umerical grade			
Duration	Module level	Other prerequisites		
1 semeste	er undergraduate			
Contents				
	logy and methods in molecula ep behaviour and endogenou		rogenetic model syst	em Drosophila and humans)
Intended	learning outcomes			
	have acquired an advanced k Int methods in neurobiology.	nowledge of the neu	robiology of a model	l organism and are able to apply
Courses (	type, number of weekly conta	ct hours, language –	- if other than Germa	n)
Ü + S (no	information on SWS (weekly o	contact hours) and co	ourse language avail	able)
	<b>f assessment</b> (type, scope, la mation on whether module ca			tion offered — if not every seme-
tes per ca 2 hours; t will be inf	ndidate) or e) presentation (a	approx. 20 to 30 minu ding to subject area b	utes) or f) practical ex out will not exceed a	candidates (approx. 20 minu- xamination (on average approx. maximum of 4 hours). Students urse.
		har of applications a	vacad the number of	available places, places will be
allocated logy) with ces will be 5% of place ject Biolog thematics ject Biolog ble in one the other places, th courses o dure, app tive modul they beco plicants' p of ECTS cr all module thematik firstly, acc and, seco position in cording to qualitative following component	as follows: Places will primar 180 ECTS credits. Should the e allocated to students of the ces (a minimum of one partici gie (Biology) with 60 ECTS cre and Mathematik (Mathemati gy (as well as potentially to st e quota exceed the number of quota. Should there be, within here will be a uniform regulation f a module component that an licants who already have succe the will be given preferential come available. Selection proce previous academic achievement e components in the subject of (Mathematics)) at the time of cording to their average grade andly, according to their total n a third ranking will be calcu to this third ranking. Among ap e ranking or otherwise by lot. quotas: Quota 1 (50% of plac nts of the Faculty of Biology; a	ily be allocated to stra module be used in of Bachelor's degree su ipant in total) will be edits and to students ics), each with 180 E0 sudents of other 'imp applications, the ren n one module compo- on for the courses of re concerned will be cessfully completed onsideration. A waiti ess group 1 (95%): Pl- ents. For this purpose I their average grade of Biologie (Biology) application. This will weighted according number of ECTS cred lated as the sum of to plicants with the sar Selection process gr es): total number of among applicants with	udents of the Bachel other subjects, there ubject Biologie (Biolo allocated to student of the Bachelor's de CTS credits, as part of orting' subjects). Sho naining places will b onent, several course one module compor allocated in a standa at least one other mod ng list will be mainta aces will primarily be e, applicants will be of all assessments t (excluding Chemie (C l be done as follows: to the number of EC its achieved (quantit hese two rankings, a ne ranking, places w oup 2 (5%): Places w ECTS credits already th the same number	available places, places will be lor's degree subject Biologie (Bio- will be two quotas: 95% of pla- ogy) with 180 ECTS credits and is of the Bachelor's degree sub- gree subjects Computational Ma- of the application-oriented sub- ould the number of places availa- e allocated to applicants from es with a restricted number of nent. In this case, places on all ardised procedure. In this proce- odule component of the respec- ained and places re-allocated as e allocated according to the ap- ranked according to the number aken during their studies or of Chemistry), Physik (Physics), Ma- First, applicants will be ranked, TS credits (qualitative ranking) cative ranking). The applicants' and places will be allocated ac- vill be allocated according to the achieved in modules/module of ECTS credits achieved, pla- ers of the respective applicant;

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	data record Bachelor (180 ECTS) Mathematik - 2014	1

# UNIVERSITÄT WÜRZBURG

among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, places will be allocated according to the selection process of group 1.

# Additional information

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Workload

# Teaching cycle

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

# Module appears in

Bachelor' degree (1 major) Biology (2013) Bachelor' degree (1 major) Mathematics (2014)

Bachelor' degree (1 major) Computational Mathematics (2014)

Bachelor's with 1 major Mathematics (2014)	JMU Würzburg • generated 26-Aug-2024 • exam. reg.	page 46 / 163
	data record Bachelor (180 ECTS) Mathematik - 2014	

	e title				Abbreviation
Integra	ative Be	ehavioral Biology 1			07-4S1NVO2-132-m01
Module coordinator				Module offered by	^
holder of the Chair of Behavioral Physiology and Sociobio- Faculty of Biology logy					
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
5	1	rical grade		• • • •	
Duratio	on	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	nts		-		
sing of	olfacto		anisation of behaviou		oment, perception and proces- oehaviour, reproductive beha-
Intend	ed lear	ning outcomes			
		e acquired an advanced current studies on relev		a of behavioural biol	ogy and are able to deliver pre-
Course	<b>s</b> (type	, number of weekly cont	act hours, language –	- if other than Germa	in)
V + S (r	no info	rmation on SWS (weekly	contact hours) and co	ourse language avail	able)
		<b>sessment</b> (type, scope, l ion on whether module o			tion offered — if not every seme
		ed about the method an			
will be	inform				maximum of 4 hours). Students
Allocat Numbe allocat logy) w ces wil 5% of p ject Bic themat ject Bic ble in c the oth places, course: dure, a tive mc they be plicant of ECTS all moc themat firstly, and, se positio	tion of plated as firith 1800 l be all blaces blogie ( blogie ( tics and blogie ( tics and blogy (a blogy (a bl	ed about the method an places aces: 20. Should the nur ollows: Places will prima b ECTS credits. Should the ocated to students of the (a minimum of one parti Biology) with 60 ECTS credited d Mathematik (Mathematiks) as well as potentially to a bota exceed the number of ta. Should there be, with will be a uniform regulated nodule component that and available. Selection pro- ious academic achievent s they have achieved and mponents in the subject thematics)) at the time of ing to their average grad of, according to their total hird ranking will be calc	nber of applications e arily be allocated to structure e module be used in or e Bachelor's degree structure cipant in total) will be redits and to students students of other 'imp of applications, the rem in one module compo- tion for the courses of are concerned will be ccessfully completed consideration. A waiti cess group 1 (95%): Pl nents. For this purpose of their average grade t of Biologie (Biology) of application. This will le weighted according l number of ECTS cred ulated as the sum of t	xceed the number of udents of the Bachel other subjects, there ubject Biologie (Biolo allocated to student of the Bachelor's de CTS credits, as part of orting' subjects). Sh naining places will b onent, several course one module compor allocated in a standa at least one other mo ng list will be mainta aces will primarily be e, applicants will be of all assessments t (excluding Chemie (C l be done as follows to the number of EC its achieved (quantif hese two rankings, a	maximum of 4 hours). Students
Allocat Numbe allocat logy) w ces wil 5% of p ject Bic themat ject Bic ble in c the oth places, course dure, a tive mo they be plicant of ECTS all moo themat firstly, and, se positio cording qualita	tion of pla er of pla ed as fr ith 180 l be all blaces blogie ( tics and blogy (a blogy (a bl	ed about the method an places aces: 20. Should the nur ollows: Places will prima e ECTS credits. Should the ocated to students of the (a minimum of one parti Biology) with 60 ECTS cred d Mathematik (Mathema as well as potentially to so the acceed the number of the should there be, with will be a uniform regulat nodule component that available. Selection prote- ious academic achieven s they have achieved an mponents in the subject thematics)) at the time of ing to their average grad available to their total hird ranking will be calc s third ranking. Among a nking or otherwise by lot	nber of applications e arily be allocated to structure e module be used in or e Bachelor's degree structure cipant in total) will be redits and to students students of other 'imp of applications, the rem in one module compo- tion for the courses of are concerned will be ccessfully completed consideration. A waiti cess group 1 (95%): Pl nents. For this purpose of their average grade t of Biologie (Biology) of application. This will le weighted according l number of ECTS cred ulated as the sum of t applicants with the sar t. Selection process gr	xceed the number of udents of the Bachel other subjects, there ubject Biologie (Biole allocated to student of the Bachelor's de CTS credits, as part of orting' subjects). Sh naining places will b onent, several course one module compor allocated in a standa at least one other mo ng list will be mainta aces will primarily be e, applicants will be of all assessments t (excluding Chemie (I l be done as follows to the number of EC its achieved (quantif hese two rankings, a me ranking, places w oup 2 (5%): Places v	maximum of 4 hours). Students urse. f available places, places will be lor's degree subject Biologie (Bio will be two quotas: 95% of pla- ogy) with 180 ECTS credits and ts of the Bachelor's degree sub- gree subjects Computational Ma of the application-oriented sub- ould the number of places available e allocated to applicants from es with a restricted number of nent. In this case, places on all ardised procedure. In this proce- odule component of the respec- ained and places re-allocated as e allocated according to the ap- ranked according to the number aken during their studies or of Chemistry), Physik (Physics), Ma : First, applicants will be ranked TS credits (qualitative ranking) tative ranking). The applicants' and places will be allocated ac-

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components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, places will be allocated according to the selection process of group 1.

#### Additional information

Workload

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#### Teaching cycle

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

#### Module appears in

Bachelor' degree (1 major) Biology (2013) Bachelor' degree (1 major) Mathematics (2014) Bachelor' degree (1 major) Computational Mathematics (2014) Bachelor's degree (1 major, 1 minor) Biology (Minor, 2013)

Bachelor's with 1 major Mathematics (2014)	JMU Würzburg • generated 26-Aug-2024 • exam. reg.	page 48 / 163
	data record Bachelor (180 ECTS) Mathematik - 2014	

Modul					Abbreviation	
Functio	onal Mo	orphology of Arthropods	5		07-4S1NVO3-132-m	101
Modul	e coord	linator		Module offered by	/	
		Chair of Animal Ecology	and Tropical Biology	Faculty of Biology		
ECTS		od of grading	Only after succ. com	, , ,		
5		rical grade		1 ( )		
Duratio	on	Module level	Other prerequisites			
1 seme	ester	undergraduate				
Conter	nts					
Morph	iology, a	anatomy, phylogeny and	l ecology of arthropods	5.		
		ning outcomes				
		able to explain arthropo ecosystems.	d radiations in a funct	ional context as we	ell as to explain the im	nportance of
Course	es (type	, number of weekly cont	tact hours, language –	- if other than Germ	ian)	
		rmation on SWS (weekly				
Metho	d of as	sessment (type, scope, l	language — if other tha	an German, examir	ation offered — if not	every seme
		ion on whether module				
term p	aper (a	pprox. 5 to 10 pages)				
Allocat	tion of	places				
allocat logy) w ces wil 5% of j ject Bio themat ject Bio	ted as f vith 180 Il be all places ologie ( tics and ology (a	aces: 20. Should the nur ollows: Places will prima o ECTS credits. Should th ocated to students of th (a minimum of one parti (Biology) with 60 ECTS co d Mathematik (Mathema as well as potentially to ota exceed the number of	arily be allocated to stu ne module be used in o e Bachelor's degree su cipant in total) will be redits and to students atics), each with 180 E0 students of other 'imp	udents of the Bach other subjects, then ubject Biologie (Bio allocated to studen of the Bachelor's o CTS credits, as part orting' subjects). S	elor's degree subject e will be two quotas: ology) with 180 ECTS on ts of the Bachelor's of legree subjects Comp of the application-or hould the number of	Biologie (Bi 95% of pla- credits and degree sub- utational <i>N</i> iented sub- places avai
allocat logy) w ces wil 5% of j ject Bid thema ject Bid ble in o the oth places course dure, a tive mo they be plicant of ECTS all moo thema firstly, and, se positio cording followi compo ces wil	ted as f vith 18c ll be all places ologie ( tics and ology (a one quo s, there es of a n applicat odule w ecome ts' prev S credit dule co tik (Ma' accord econdly on in a t g to this ative ran ing quo onents o ll be all	ollows: Places will prima o ECTS credits. Should the ocated to students of the (a minimum of one parti (Biology) with 60 ECTS credited d Mathematik (Mathematass well as potentially to store the second the number of the second the second the second the second the second the second the second the second the second the second the the second the second the second the second the second the second the second the second the second the second the second the second the second the second the second the second the second the second the second t	arily be allocated to stu be module be used in or e Bachelor's degree su cipant in total) will be redits and to students attics), each with 180 EC students of other 'import of applications, the ren hin one module compo- tion for the courses of are concerned will be ccessfully completed a consideration. A waiti cess group 1 (95%): Pla nents. For this purpose to f Biologie (Biology) of application. This will de weighted according l number of ECTS credi- sulated as the sum of the applicants with the sam t. Selection process group ces): total number of F g among applicants with 25% of places): number	udents of the Bach other subjects, ther ubject Biologie (Bio allocated to stude of the Bachelor's of CTS credits, as part orting' subjects). S naining places will onent, several cour- one module compo- allocated in a stand at least one other m ng list will be main aces will primarily be of all assessments (excluding Chemie l be done as follow to the number of E its achieved (quant hese two rankings, ne ranking, places oup 2 (5%): Places ECTS credits alread th the same number of subject semes	elor's degree subject re will be two quotas: alogy) with 180 ECTS of the sof the Bachelor's of legree subjects Comp of the application-or hould the number of be allocated to applie ses with a restricted r onent. In this case, pla dardised procedure. In nodule component of tained and places re- be allocated according to taken during their str (Chemistry), Physik (I s: First, applicants wi CTS credits (qualitative itative ranking). The a and places will be allocated accord will be allocated accord will be allocated accord y achieved in module of ECTS credits achi ters of the respective	Biologie (B 95% of pla- redits and degree sub- utational <i>N</i> iented sub- places avai cants from number of aces on all n this proce the respec- allocated a: g to the ap- the numbe udies or of Physics), M Il be ranked ve ranking) applicants' located ac- ording to the ording to the s/module eved, pla- applicant;
allocat logy) w ces wil 5% of p ject Bid themation ject Bid ble in of the oth places dure, a tive mo they be plicant of ECTS all moo themation firstly, and, se positio cording qualita followi compo ces wil among places with 18	ted as f vith 180 ll be all places ologie ( tics and ology (a one quo her quo s, there es of a n applicat odule w ecome ts' prev S credit dule co tik (Ma accord econdly on in a t g to this ative rai ing quo onents o ll be all g applicat on in a t g to this ative rai ing quo onents o ll be all g applicat	ollows: Places will prima o ECTS credits. Should the ocated to students of th (a minimum of one parti (Biology) with 60 ECTS credited d Mathematik (Mathematas as well as potentially to ota exceed the number of ta. Should there be, with will be a uniform regulat nodule component that nts who already have su vill be given preferential available. Selection pro- ious academic achieven as they have achieved ar mponents in the subject thematics)) at the time of ing to their average grace v, according to their tota chird ranking. Among a nking or otherwise by lot tas: Quota 1 (50% of pla of the Faculty of Biology; ocated by lot. Quota 2 (2 ants with the same num ation by lot. Should the occedits, places will be a	arily be allocated to stude the module be used in or e Bachelor's degree su- cipant in total) will be redits and to students atics), each with 180 EC students of other 'impo- of applications, the rem- hin one module compo- tion for the courses of are concerned will be ccessfully completed a consideration. A waiti cess group 1 (95%): Pla- nents. For this purpose and their average grade t of Biologie (Biology) of application. This will de weighted according l number of ECTS credi- sulated as the sum of the publicants with the sam t. Selection process gra- tes): total number of E samong applicants with the samets. Senter the samets among applicants with the samets. Senter of subject semests module be used only i	udents of the Bach other subjects, ther ubject Biologie (Bio allocated to studen of the Bachelor's of CTS credits, as part orting' subjects). S naining places will onent, several cour- one module compo- allocated in a stand at least one other m ng list will be main aces will primarily be of all assessments (excluding Chemie l be done as follow to the number of E its achieved (quant hese two rankings, ne ranking, places oup 2 (5%): Places ECTS credits alread th the same number of subject semes ers, places will be a n the Bachelor's de	elor's degree subject e will be two quotas: ology) with 180 ECTS of the sof the Bachelor's of legree subjects Comp of the application-or hould the number of p be allocated to applic ses with a restricted r onent. In this case, pla dardised procedure. In nodule component of tained and places re- be allocated according to taken during their str (Chemistry), Physik (I s: First, applicants wi CTS credits (qualitative itative ranking). The a and places will be allocated accord will be allocated accord will be allocated accord y achieved in module of ECTS credits achi ters of the respective allocated by lot. Quot egree subject Biologie	Biologie (Bi 95% of pla- credits and degree sub- utational M iented sub- places avail cants from number of aces on all n this proce the respec- allocated as g to the ap- the numbe udies or of Physics), Ma Il be ranked ve ranking) applicants' located ac- ording to the ording to the s/module eved, pla- applicant; a 3 (25% of
allocat logy) w ces wil 5% of j ject Bid thema ject Bid ble in o the oth places course dure, a tive mo they be plicant of ECTS all mod thema firstly, and, se positio cording qualita followi compo ces wil among places	ted as f vith 180 ll be all places ologie ( tics and ology (a one quo her quo s, there es of a n applicat odule w ecome ts' prev S credit dule co tik (Ma accord econdly on in a t g to this ative rai ing quo onents o ll be all g applicat on in a t g to this ative rai ing quo onents o ll be all g applicat	ollows: Places will prima o ECTS credits. Should the ocated to students of the (a minimum of one parti (Biology) with 60 ECTS credited d Mathematik (Mathematas well as potentially to so the exceed the number of the swell as potentially to so the exceed the number of the should there be, with will be a uniform regulat nodule component that not a component that not a lready have su vill be given preferential available. Selection pro- ious academic achieven they have achieved ar mponents in the subject thematics)) at the time of ing to their average grace v, according to their tota third ranking will be calco third ranking. Among a nking or otherwise by lot tas: Quota 1 (50% of pla of the Faculty of Biology; ocated by lot. Quota 2 (2 ants with the same num ation by lot. Should the	arily be allocated to stude the module be used in or e Bachelor's degree su- cipant in total) will be redits and to students atics), each with 180 E0 students of other 'impo- of applications, the rem- hin one module compo- tion for the courses of are concerned will be ccessfully completed a consideration. A waiti cess group 1 (95%): Pla- nents. For this purpose and their average grade t of Biologie (Biology) of application. This will de weighted according l number of ECTS credi- sulated as the sum of the sulated as the sum of the publicants with the sam t. Selection process gra- tes): total number of E samong applicants with the samets. Sulated as the sum of the sulated as the sum of the subservers of subject semestar module be used only i	udents of the Bach other subjects, ther ubject Biologie (Bio allocated to studen of the Bachelor's of CTS credits, as part orting' subjects). S naining places will onent, several cour- one module compo- allocated in a stand at least one other m ng list will be main aces will primarily be of all assessments (excluding Chemie l be done as follow to the number of E its achieved (quant hese two rankings, ne ranking, places oup 2 (5%): Places ECTS credits alread th the same number of subject semes ers, places will be a n the Bachelor's de	elor's degree subject e will be two quotas: ology) with 180 ECTS of the sof the Bachelor's of legree subjects Comp of the application-or hould the number of p be allocated to applic ses with a restricted r onent. In this case, pla dardised procedure. In nodule component of tained and places re- be allocated according to taken during their str (Chemistry), Physik (I s: First, applicants wi CTS credits (qualitative itative ranking). The a and places will be allocated accord will be allocated accord will be allocated accord y achieved in module of ECTS credits achi ters of the respective allocated by lot. Quot egree subject Biologie	Biologie (B 95% of pla- credits and degree sub- utational <i>N</i> iented sub- places avai cants from number of aces on all n this proce the respec- allocated a g to the ap- the number udies or of Physics), M Il be ranked ve ranking) applicants' located ac- ording to the s/module eved, pla- applicant; a 3 (25% of
allocat logy) w ces wil 5% of j ject Bid thema ject Bid ble in o the oth places course dure, a tive mo they be plicant of ECTS all moo thema firstly, and, so positio cordins qualita followi compo ces wil among places with 18 <b>Additio</b>	ted as f vith 18c ll be all places ologie ( tics and ology (a one quo her quo s, there es of a n applicat odule w ecome ts' prev S credit dule co tik (Ma accord econdly on in a t g to this ative rai ing quo onents o ll be all g applicat on in a t g to this ative rai ing quo onents o ll be all g applicat	ollows: Places will prima o ECTS credits. Should the ocated to students of th (a minimum of one parti (Biology) with 60 ECTS credited d Mathematik (Mathematas as well as potentially to ota exceed the number of ta. Should there be, with will be a uniform regulat nodule component that nts who already have su vill be given preferential available. Selection pro- ious academic achieven as they have achieved ar mponents in the subject thematics)) at the time of ing to their average grace v, according to their tota chird ranking. Among a nking or otherwise by lot tas: Quota 1 (50% of pla of the Faculty of Biology; ocated by lot. Quota 2 (2 ants with the same num ation by lot. Should the occedits, places will be a	arily be allocated to stude the module be used in or e Bachelor's degree su- cipant in total) will be redits and to students attics), each with 180 EC students of other 'import of applications, the rem- hin one module compo- tion for the courses of are concerned will be ccessfully completed a consideration. A waiti cess group 1 (95%): Pla- nents. For this purpose and their average grade to f Biologie (Biology) of application. This will be weighted according l number of ECTS credit sulated as the sum of the applicants with the sam t. Selection process gra- tes): total number of E samong applicants with the sam stress of places): number of subject semester module be used only i allocated according to	udents of the Bach other subjects, ther ubject Biologie (Bio allocated to studen of the Bachelor's of CTS credits, as part orting' subjects). S naining places will onent, several cour- one module compo- allocated in a stand at least one other m ng list will be main aces will primarily be of all assessments (excluding Chemie l be done as follow to the number of E its achieved (quant hese two rankings, ne ranking, places oup 2 (5%): Places ECTS credits alread th the same number of subject semes ers, places will be a n the Bachelor's de	elor's degree subject re will be two quotas: ology) with 180 ECTS of the sof the Bachelor's of legree subjects Comp of the application-ord hould the number of be allocated to applic ses with a restricted r onent. In this case, plu dardised procedure. In nodule component of tained and places re- be allocated according to taken during their str (Chemistry), Physik (I s: First, applicants wi CTS credits (qualitative itative ranking). The a and places will be allocated accord will be allocated accord will be allocated accord y achieved in module or of ECTS credits achi ters of the respective allocated by lot. Quot egree subject Biologie ess of group 1.	Biologie (B 95% of pla redits and degree sub- utational <i>N</i> iented sub- places avai cants from number of aces on all n this proce the respec allocated a g to the ap- the number udies or of Physics), M Il be rankee ve ranking) applicants' located ac- ording to th ording to th

## Workload

Teaching cycle

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

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# Module appears in

Bachelor' degree (1 major) Biology (2013)

Bachelor' degree (1 major) Mathematics (2014)

Bachelor' degree (1 major) Computational Mathematics (2014)

Bachelor's with 1 major Mathematics (2014)	JMU Würzburg • generated 26-Aug-2024 • exam. reg.	page 50 / 163
	data record Bachelor (180 ECTS) Mathematik - 2014	

Module coord				Abbreviation
	delling - From DNA to Pro	otein		07-4S1PS1-132-m01
	Module coordinator		Module offered by	<u> </u>
holder of the	older of the Chair of Plant Physiology and Biophysics Faculty of Biology			
	od of grading	Only after succ. con	npl. of module(s)	
5 nume	rical grade			
Duration	Module level	Other prerequisites		
1 semester	undergraduate			
Contents				
	ell as on the search for a			function of nucleic acids and molecules using databases and
Intended lear	ning outcomes			
	e acquired a specialist kr ork with relevant databas		ture-function relation	nships of macromolecules and
Courses (type	, number of weekly conta	act hours, language –	- if other than Germa	n)
V + Ü (no info	rmation on SWS (weekly	contact hours) and co	ourse language avail	able)
	<b>sessment</b> (type, scope, la ion on whether module c			tion offered — if not every seme-
computerised	practical examination (a	approx. 6 hours)		
Allocation of	places			
5% of places ject Biologie	(a minimum of one partic Biology) with 60 ECTS crud Mathematik (Mathemat	ipant in total) will be edits and to students	allocated to student	ogy) with 180 ECTS credits and

Workload

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Teaching cycle

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

# Module appears in

Bachelor' degree (1 major) Biology (2013) Bachelor' degree (1 major) Mathematics (2014) Bachelor' degree (1 major) Computational Mathematics (2014) Bachelor's degree (1 major, 1 minor) Biology (Minor, 2013)

Bachelor's with 1 major Mathematics (2014)	JMU Würzburg • generated 26-Aug-2024 • exam. reg.	page 52 / 163
	data record Bachelor (180 ECTS) Mathematik - 2014	

Metho	e title				Abbreviation
	Methods in Plant Ecophysiology				07-4S1PS2-132-m01
Module coordinator			Module offered by	/	
		Chair of Plant Physiology	and Biophysics	Faculty of Biology	
ECTS	1	od of grading	Only after succ. cor		
5		rical grade			
Duratio	on	Module level	Other prerequisites	5	
1 seme	ster	undergraduate			
Conter	its		•		
		riments to introduce stu erimental findings in a c			plant ecophysiology as well as di
Intend	ed learr	ning outcomes			
		ble to use current metho in a scientific context.	ods in plant ecophys	iology as well as to	document experimental findings
Course	<b>s</b> (type,	number of weekly conta	act hours, language -	– if other than Germ	nan)
Ü + S (	no infor	mation on SWS (weekly	contact hours) and c	ourse language ava	ilable)
		<b>essment</b> (type, scope, la on on whether module c			nation offered — if not every seme
log (ap	prox. 10	o to 20 pages)	-		
Allocat	tion of p	laces			
logy) w ces wil 5% of µ	vith 180 I be allo places (	ollows: Places will primate ECTS credits. Should the ocated to students of the a minimum of one partice	rily be allocated to st e module be used in e Bachelor's degree s ipant in total) will be	tudents of the Bach other subjects, ther subject Biologie (Bio e allocated to studen	of available places, places will be elor's degree subject Biologie (Bi re will be two quotas: 95% of pla- plogy) with 180 ECTS credits and nts of the Bachelor's degree sub- legree subjects Computational M

Workload

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# Teaching cycle

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

# Module appears in

Bachelor' degree (1 major) Biology (2013) Bachelor' degree (1 major) Mathematics (2014) Bachelor' degree (1 major) Computational Mathematics (2014) Bachelor's degree (1 major, 1 minor) Biology (Minor, 2013)

Bachelor's with 1 major Mathematics (2014)	JMU Würzburg • generated 26-Aug-2024 • exam. reg.	page 54 / 163
	data record Bachelor (180 ECTS) Mathematik - 2014	

Pharmaceutical Drugs in Plants         Module cordinator         Module offered by           Index condinator         Faculty of Biology         Faculty of Biology           ECTS         Method of grading         Only after succ. compl. of module(s)         5           numerical grade              Duration         Module level         Other prerequisites            1 semester         undergraduate             Contents              This module will introduce students to the major active agent groups in medicinal plants and phytopharmaceut cals as well as to their application in pharmacy. Microscopic and phytochemical analyses will be performed and the requirements and analytical methods of the pharmacopoeia.           Students have acquired a specialist knowledge on active agents from medicinal plants and phytopharmaceuticals as well as on the requirements and analytical methods of the pharmacopoeia.           Courses (type, number of weekly contact hours, language – if other than German)         U + 5 (no information on SWS (weekly contact hours) and course language available)           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 eam a bonus)           a) written examination (approx, 4p to 6 ominutes) or b) log (approx, no to 2p ages) or c) oral examination of a scanidate or places           Number of p	Module title			Abbreviation		
holder of the Chair of Pharmaceutical Biology         Faculty of Biology           ECTS         Method of grading         Only after succ. compl. of module(s)           5         numerical grade            Duration         Module level         Other prerequisites           1 semester         undergraduate            Contents          Contents           This module will introduce students to the major active agent groups in medicinal plants and phytopharmaceut cals as well as to their application in pharmacy. Microscopic and phytochemical analyses will be performed and the requirements and analytical methods of the pharmacopoeia.           Students have acquired a specialist knowledge on active agents from medicinal plants and phytopharmaceuticals as well as on the requirements and analytical methods of the pharmacopoeia.           Courses (type, number of weekly contact hours, language — if other than German)         U + S (no information on SWS (weekly contact hours) and course language available)           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 eam a bonus)           a) written examination (approx. 45 to 6 minutes) or b) po (gapprox. 10 to 20 pages) or c) oral examination of a validate (approx. 20 minutes) or the assessment prior to the course.           Allocated as follows: Places will primarily be allocated to students of the Bachelor's degree subject Biologie (Biology) with 480 ECTS credits. Should the module be used in other subjects, there will	Pharm					
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2 hours; time to complete varies according to subject area but will not exceed a maximum of 4 hours). Students will be informed about the method and length of the assessment prior to the course. <b>Allocation of places</b> Number of places: 15. Should the number of applications exceed the number of available places, places will be allocated as follows: Places will primarily be allocated to students of the Bachelor's degree subject Biologie (Bilogy) with 180 ECTS credits. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one participant in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subject Biologie (Biology) are potentially to students of other 'importing' subjects). Should the number of applications, the remaining places will be allocated to applicate to avail ble in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration. A waiting list will be maintained and places re-allocated as they become available. Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Ma thematik (Mathematics)) at the time of application. This						
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Allocation of places Number of places: 15. Should the number of applications exceed the number of available places, places will be allocated as follows: Places will primarily be allocated to students of the Bachelor's degree subject Biologie (Bi logy) with 180 ECTS credits. Should the module be used in other subjects, there will be two quotas: 95% of pla- ces will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one participant in total) will be allocated to students of the Bachelor's degree sub- ject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational M. thematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented sub- ject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places avail ble in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in a standardised procedure. In this proce dure, applicants who already have successfully completed at least one other module component of the respec- tive module will be given preferential consideration. A waiting list will be maintained and places re-allocated as they become available. Selection process group 1 (95%): Places will primarily be allocated according to the ap- plicants' previous academic achievements. For this purpose, applicants will be ranked during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Ma thematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ran						
allocated as follows: Places will primarily be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits. Should the module be used in other subjects, there will be two quotas: 95% of places (a minimum of one participant in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one participant in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Methematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places avail ble in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in a standardised procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration. A waiting list will be maintained and places re-allocated as they become available. Selection process group 1 (95%): Places will primarily be allocated according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked firstly, according to their average grade weighted according to the numker). The applicants' position in a third ranking, Among					•	
I to How many avoid to a big to the formation of the test of the test of the second standard test is the second se	allocat logy) w ces wil 5% of p ject Bid themat ject Bid ble in of the oth places course dure, a tive mo they be plicant of ECTS all mod themat firstly, and, se positio cording qualita	ted as folle vith 180 EC ll be alloca places (an ologie (Bio tics and N ology (as w one quota ner quota. , there will s of a moo applicants odule will ecome ava ts' previou S credits t dule comp tik (Mathe according econdly, a on in a thir g to this th titve ranki	ows: Places will primar CTS credits. Should the ated to students of the minimum of one particle ology) with 60 ECTS cred thematik (Mathematik well as potentially to st exceed the number of Should there be, within and there be, within the a uniform regulation dule component that and who already have succe be given preferential co ailable. Selection process academic achievement hey have achieved and conents in the subject of ematics) at the time of the to their average grade according to their total of red ranking will be calcun hird ranking. Among ap ng or otherwise by lot.	ily be allocated to struct module be used in of Bachelor's degree su- ipant in total) will be dits and to students ics), each with 180 EG udents of other 'imp- applications, the ren n one module compo- on for the courses of re concerned will be cessfully completed a onsideration. A waiti ess group 1 (95%): Pla- ents. For this purpose I their average grade of Biologie (Biology) application. This will weighted according number of ECTS cred lated as the sum of to plicants with the sar Selection process gr	udents of the Bachel other subjects, there ubject Biologie (Biolo allocated to student of the Bachelor's de CTS credits, as part of orting' subjects). She naining places will b onent, several course one module compor allocated in a standa at least one other mo ng list will be mainta aces will primarily be e, applicants will be of all assessments t (excluding Chemie (O l be done as follows: to the number of EC its achieved (quantit hese two rankings, a ne ranking, places w oup 2 (5%): Places w	or's degree subject Biologie (Bio- will be two quotas: 95% of pla- ogy) with 180 ECTS credits and is of the Bachelor's degree sub- gree subjects Computational Ma- of the application-oriented sub- ould the number of places availa- e allocated to applicants from es with a restricted number of nent. In this case, places on all ardised procedure. In this proce- odule component of the respec- ained and places re-allocated as e allocated according to the ap- ranked according to the number aken during their studies or of Chemistry), Physik (Physics), Ma- First, applicants will be ranked, TS credits (qualitative ranking) rative ranking). The applicants' and places will be allocated ac- rill be allocated according to the vill be allocated according to the

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ces will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, places will be allocated according to the selection process of group 1.

#### Additional information

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Workload

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#### Teaching cycle

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

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# Module appears in

Bachelor' degree (1 major) Biology (2013)

Bachelor' degree (1 major) Mathematics (2014)

Bachelor' degree (1 major) Computational Mathematics (2014)

Bachelor's with 1 major Mathematics (2014)	JMU Würzburg • generated 26-Aug-2024 • exam. reg.	page 56 / 163
	data record Bachelor (180 ECTS) Mathematik - 2014	

Modul	e title				Abbreviation
Extern	al Pract	tical Course			07-5EP-132-m01
Module coordinator				Module offered by	
Coordi	nator B	ioCareers		Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. com	npl. of module(s)	
10	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ester	undergraduate	Please consult with	academic advisory s	service in advance.
Conter	nts				
				iniversity research ir	stitution or a business. Contents
		ned by the respective ins	titution.		
Intend	ed lear	ning outcomes			
		familiar with the structure o work in their professior		ons and businesses	and have developed skills which
Course	<b>s</b> (type	, number of weekly conta	ct hours, language –	- if other than Germa	ın)
P (no i	nformat	tion on SWS (weekly cont	act hours) and cours	e language available	2)
		sessment (type, scope, la ion on whether module ca			tion offered — if not every seme-
tes per 2 hour will be	candic s; time inform	late) or e) presentation (a to complete varies accor- ed about the method and	approx. 20 to 30 minu ding to subject area b	utes) or f) practical e out will not exceed a	candidates (approx. 20 minu- xamination (on average approx. maximum of 4 hours). Students urse.
Allocat	tion of <sub>l</sub>	places			
Additio	onal inf	ormation			
Worklo	bad				
Teachi	ng cycl	e			
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)				
	e appea				
	-	ree (1 major) Biology (20:	-		
	-	ree (1 major) Mathematic			
	-	ree (1 major) Computatio gree (1 major, 1 minor) Bi		14)	
Dache	u sue	gree (1 major, 1 mmor) Bl	ology (Millior, 2013)		

Module title Abbreviation					Abbreviation
Mathematical Biology and Biostatistics         o7-M-BST-132-r					07-M-BST-132-m01
Modul	e coord	inator		Module offered by	<u> </u>
holder	ofthe	Chair of Bioinformatics		Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
4	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conter	ts				
Fundar	mental	principles of the most im	portant mathematica	l and statistical met	hods in biology.
Intend	ed lear	ning outcomes			
		have acquired fundamen as well as the mathemati			s, the interpretation of readings
Course	<b>s</b> (type	, number of weekly conta	ct hours, language –	- if other than Germa	in)
V + Ü (	no info	rmation on SWS (weekly o	contact hours) and co	ourse language avail	able)
		<b>sessment</b> (type, scope, la ion on whether module ca			tion offered — if not every seme-
written	exami	nation (approx. 60 minut	es)		
Allocat	ion of	places			
Additio	onal inf	ormation			
Worklo	ad				
Teachi	ng cycl	e			
Referre	ed to in	LPOI (examination regu	lations for teaching-	degree programmes)	
Modul	e appea	ars in			
	-	ree (1 major) Biochemistr			
	-	ree (1 major) Biology (201			
	-	ree (1 major) Computer S			
	-	ree (1 major) Mathematic	•	<b>`</b>	
	-	ree (1 major) Computation	-	14)	
Bachel	or's de	gree (1 major, 1 minor) Bi	010gy (Minor, 2013)		

Module title					Abbreviation
Excursion I				_	07-S1-Ex1-132-m01
Module coordinator Module offered by					<u> </u>
Coordi	inator B	ioCareers		Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. con	· · · · · · · · · · · · · · · · · · ·	
5	nume	rical grade		•	
Durati	on	Module level	Other prerequisites	i	
1 seme	ester	undergraduate	Please consult with	academic advisory	service in advance.
Conter	nts				
Conter	nts of th	ne field trip to be determin	ned by the respective	e institution.	
Intend	ed lear	ning outcomes			
Studer	nts have	e developed skills which	qualify them to work	in their profession.	
Course	es (type	, number of weekly conta	ct hours, language –	- if other than Germa	an)
		tion on SWS (weekly cont			
<ul> <li>Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)</li> <li>a) written examination (approx. 45 to 60 minutes) or b) log (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or e) presentation (approx. 20 to 30 minutes) or f) practical examination (on average approx. 2 hours; time to complete varies according to subject area but will not exceed a maximum of 4 hours). Students will be informed about the method and length of the assessment prior to the course.</li> <li>Allocation of places</li> </ul>					
2 hour will be	rs; time inform	late) or e) presentation (a to complete varies accor ed about the method and	approx. 20 to 30 mini ding to subject area l	utes) or f) practical e but will not exceed a	xamination (on average approx. maximum of 4 hours). Students
2 hour will be Allocat	rs; time inform tion of	late) or e) presentation (a to complete varies accor ed about the method and	approx. 20 to 30 mini ding to subject area l	utes) or f) practical e but will not exceed a	xamination (on average approx. maximum of 4 hours). Students
2 hour will be Allocat	rs; time inform tion of	date) or e) presentation (a to complete varies accord ed about the method and places	approx. 20 to 30 mini ding to subject area l	utes) or f) practical e but will not exceed a	xamination (on average approx. maximum of 4 hours). Students
2 hour will be Allocat	s; time inform tion of onal inf	date) or e) presentation (a to complete varies accord ed about the method and places	approx. 20 to 30 mini ding to subject area l	utes) or f) practical e but will not exceed a	xamination (on average approx. maximum of 4 hours). Students
2 hour will be Allocat  Additio	s; time inform tion of onal inf	date) or e) presentation (a to complete varies accord ed about the method and places	approx. 20 to 30 mini ding to subject area l	utes) or f) practical e but will not exceed a	xamination (on average approx. maximum of 4 hours). Students
2 hour will be Allocat Additio	s; time inform tion of onal inf	date) or e) presentation (a to complete varies accord ed about the method and places	approx. 20 to 30 mini ding to subject area l	utes) or f) practical e but will not exceed a	xamination (on average approx. maximum of 4 hours). Students
2 hour will be Allocat Additio  Worklo	s; time inform tion of onal inf oad	date) or e) presentation (a to complete varies accord ed about the method and places	approx. 20 to 30 mini ding to subject area l	utes) or f) practical e but will not exceed a	xamination (on average approx. maximum of 4 hours). Students
2 hour will be Allocat  Additio  Worklo  Teachi	s; time inform tion of   onal inf oad	date) or e) presentation (a to complete varies accord ed about the method and places formation	approx. 20 to 30 mini ding to subject area l l length of the assess	utes) or f) practical e but will not exceed a sment prior to the co	xamination (on average approx. maximum of 4 hours). Students urse.
2 hour will be Allocat  Additio  Worklo  Teachi 	s; time inform tion of   onal inf oad	date) or e) presentation (a to complete varies accord ed about the method and places	approx. 20 to 30 mini ding to subject area l l length of the assess	utes) or f) practical e but will not exceed a sment prior to the co	xamination (on average approx. maximum of 4 hours). Students urse.
2 hour will be Allocat  Additio  Worklo  Teachi  Referro	s; time inform tion of   onal inf oad	date) or e) presentation (a to complete varies accord ed about the method and places formation e LPO I (examination regu	approx. 20 to 30 mini ding to subject area l l length of the assess	utes) or f) practical e but will not exceed a sment prior to the co	xamination (on average approx. maximum of 4 hours). Students urse.
2 hour will be Allocat Additio  Worklo  Teachi  Referro  Modul	s; time inform tion of p onal inf oad ing cycl ed to in e appea	date) or e) presentation (a to complete varies accord ed about the method and places formation e LPO I (examination regu	approx. 20 to 30 minu ding to subject area b l length of the assess lations for teaching-	utes) or f) practical e but will not exceed a sment prior to the co	xamination (on average approx. maximum of 4 hours). Students urse.
2 hour will be Allocat Additio  Worklo  Teachi  Referro  Bache	s; time inform tion of p onal inf oad ing cycl ed to in e appea lor' deg	date) or e) presentation (a to complete varies accord ed about the method and places formation e LPO I (examination regu	approx. 20 to 30 minu ding to subject area b l length of the assess lations for teaching- 13)	utes) or f) practical e but will not exceed a sment prior to the co	xamination (on average approx. maximum of 4 hours). Students urse.
2 hour will be Allocat  Additio  Worklo  Teachi  Referro  Bachel Bachel	s; time inform tion of onal inf oad ing cycl ed to in e appea lor' deg lor' deg	ate) or e) presentation (a to complete varies accorded about the method and places formation e LPO I (examination reguration ars in ree (1 major) Biology (200	approx. 20 to 30 minu ding to subject area l l length of the assess lations for teaching- 13) s (2014)	utes) or f) practical e but will not exceed a sment prior to the co degree programmes)	xamination (on average approx. maximum of 4 hours). Students urse.

Module title					Abbreviation					
Interdisciplinary Project I					07-S1-IP1-132-m01					
Module coordinator				Module offered by	/					
Coordi	inator B	ioCareers		Faculty of Biology						
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)						
5	nume	rical grade								
Durati	on	Module level	Other prerequisites							
1 seme	ester	undergraduate	Please consult with	academic advisory	service in advance.					
Conter	nts									
Conter	nts of th	ne project to be determine	ed by the competent	coordinators; conte	ents will vary according to topic.					
Intend	ed lear	ning outcomes								
Studer	nts hav	e developed skills which	qualify them to work	in their profession.						
Course	<b>es</b> (type	, number of weekly conta	ct hours, language –	- if other than Germ	an)					
R (no i	nforma	tion on SWS (weekly cont	act hours) and cours	e language availab	le)					
		<b>sessment</b> (type, scope, la ion on whether module ca			ation offered — if not every seme-					
will be		ed about the method and			a maximum of 4 hours). Students ourse.					
		<u>.</u>								
Additi	onal inf	ormation								
Workle	oad									
			· · · · · · · · · · · · · · · · · · ·							
Teachi	ing cycl	e								
Referr	ed to in	LPOI (examination regu	lations for teaching-	legree programmes	5)					
Modul	e appea	ars in								
			13)		Bachelor' degree (1 major) Biology (2013)					
Bache		Bachelor' degree (1 major) Biology (2013) Bachelor' degree (1 major) Mathematics (2014)								
	Bachelor' degree (1 major) Computational Mathematics (2014)									
	-		nal Mathematics (20	14)						

Module title Abbreviation					Abbreviation	
Labora	Laboratory Practical Course I     07-S1-LP1-132-m01					
Module coordinator Module offered by					<u> </u>	
Coordi	nator B	ioCareers		Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)		
5	nume	rical grade				
Duratio	on	Module level	Other prerequisites			
1 seme	ester	undergraduate	Please consult with	academic advisory s	service in advance.	
Conter	nts					
		coursed is offered by an itiution.	institution that is par	t of the University. C	ontents to be determined by the	
Intend	ed lear	ning outcomes				
Studer	nts have	e developed skills which	qualify them to work	in their profession.		
Course	<b>es</b> (type	, number of weekly conta	ct hours, language –	- if other than Germa	ın)	
P (no ii	nformat	tion on SWS (weekly cont	act hours) and cours	e language available	e)	
a) writt candid tes per 2 hours will be	ten exa late eac r candic s; time	h (approx. 30 minutes) o late) or e) presentation (a to complete varies accord ed about the method and	o minutes) or b) log r d) oral examination approx. 20 to 30 minu ding to subject area b	(approx. 10 to 20 pag in groups of up to 3 utes) or f) practical e out will not exceed a	ges) or c) oral examination of one candidates (approx. 20 minu- xamination (on average approx. maximum of 4 hours). Students urse.	
		Jaces				
Additio	onal inf	ormation				
Worklo	bad					
Teachi	ng cycl	е				
Referre	<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)					
Modul	e appea	ars in				
Bachel Bachel	Bachelor' degree (1 major) Biology (2013) Bachelor' degree (1 major) Mathematics (2014) Bachelor' degree (1 major) Computational Mathematics (2014) Bachelor's degree (1 major, 1 minor) Biology (Minor, 2013)					

Module title					Abbreviation	
Excursion II					07-S2-EX2-132-m01	
Module	coordi	nator		Module offered by		
Coordina	ator Bi	oCareers		Faculty of Biology		
		od of grading	Only after succ. com	pl. of module(s)		
L	r	rical grade				
Duration		Module level	Other prerequisites			
1 semes	ter	undergraduate	Please consult with	academic advisory s	service in advance.	
Content	S					
Contents	s of th	e field trip to be determin	ned by the respective	institution.		
Intendeo	d learn	ing outcomes				
Students	s have	developed skills which	qualify them to work i	in their profession.		
Courses	(type,	number of weekly conta	ct hours, language —	if other than Germa	ın)	
E (no inf	ormat	ion on SWS (weekly cont	act hours) and course	e language available	2)	
					tion offered — if not every seme-	
		on on whether module ca		-		
candida tes per c 2 hours;	te eac candid time t	h (approx. 30 minutes) o ate) or e) presentation (a	r d) oral examination approx. 20 to 30 minu ding to subject area b	in groups of up to 3 tes) or f) practical e ut will not exceed a	ges) or c) oral examination of one candidates (approx. 20 minu- xamination (on average approx. maximum of 4 hours). Students urse.	
Allocatio	on of p	laces				
Addition	nal info	ormation				
Workloa	ıd					
Teaching	g cycle	9				
Referred	l to in	LPOI (examination regu	lations for teaching-c	legree programmes)		
Module	appea	rs in				
Bachelo	r' degr	ree (1 major) Biology (201	13)			
	-	ee (1 major) Mathematic	-			
		ree (1 major) Computatio		14)		
Bachelo	r's deg	gree (1 major, 1 minor) Bi	ology (Minor, 2013)			

Module title					Abbreviation		
Interdisciplinary Project II 07-S2-IP2-132-m01					07-S2-IP2-132-m01		
Module coordinator Module offered by							
Coordi	nator B	ioCareers		Faculty of Biology			
ECTS	1	od of grading	Only after succ. con				
10	1	rical grade		•			
Duratio	on	Module level	Other prerequisites				
1 seme	ester	undergraduate	Please consult with	academic advisory	service in advance.		
Conter	nts						
Conter	nts of th	ne project to be determine	ed by the competent	coordinators; conte	nts will vary according to topic.		
Intend	ed lear	ning outcomes			· · ·		
Studer	nts have	e developed skills which	qualify them to work	in their profession.			
		, number of weekly conta	· · ·	•	an)		
		tion on SWS (weekly cont					
			-		· · · · · · · · · · · · · · · · · · ·		
			<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)				
candid tes per	late ead r candio	mination (approx. 45 to 6 ch (approx. 30 minutes) o date) or e) presentation (a	o minutes) or b) log r d) oral examination approx. 20 to 30 minu	(approx. 10 to 20 pa in groups of up to 3 utes) or f) practical e	ges) or c) oral examination of one candidates (approx. 20 minu- examination (on average approx.		
candid tes per 2 hours will be	late ead r candio s; time inform	mination (approx. 45 to 6 ch (approx. 30 minutes) o date) or e) presentation (a to complete varies accor ed about the method and	o minutes) or b) log r d) oral examination approx. 20 to 30 minu ding to subject area l	(approx. 10 to 20 pa in groups of up to utes) or f) practical e out will not exceed a	3 candidates (approx. 20 minu- examination (on average approx. a maximum of 4 hours). Students		
candid tes per 2 hours will be	late ead r candio s; time	mination (approx. 45 to 6 ch (approx. 30 minutes) o date) or e) presentation (a to complete varies accor ed about the method and	o minutes) or b) log r d) oral examination approx. 20 to 30 minu ding to subject area l	(approx. 10 to 20 pa in groups of up to utes) or f) practical e out will not exceed a	3 candidates (approx. 20 minu- examination (on average approx. a maximum of 4 hours). Students		
candid tes per 2 hours will be Allocat	late ead r candio s; time inform <b>tion of</b>	mination (approx. 45 to 6 ch (approx. 30 minutes) o date) or e) presentation (a to complete varies accor ed about the method and <b>places</b>	o minutes) or b) log r d) oral examination approx. 20 to 30 minu ding to subject area l	(approx. 10 to 20 pa in groups of up to utes) or f) practical e out will not exceed a	3 candidates (approx. 20 minu- examination (on average approx. a maximum of 4 hours). Students		
candid tes per 2 hours will be Allocat	late ead r candio s; time inform <b>tion of</b>	mination (approx. 45 to 6 ch (approx. 30 minutes) o date) or e) presentation (a to complete varies accor ed about the method and	o minutes) or b) log r d) oral examination approx. 20 to 30 minu ding to subject area l	(approx. 10 to 20 pa in groups of up to utes) or f) practical e out will not exceed a	3 candidates (approx. 20 minu- examination (on average approx. a maximum of 4 hours). Students		
candid tes per 2 hours will be Allocat  Additic	late ead r candic s; time inform tion of onal inf	mination (approx. 45 to 6 ch (approx. 30 minutes) o date) or e) presentation (a to complete varies accor ed about the method and <b>places</b>	o minutes) or b) log r d) oral examination approx. 20 to 30 minu ding to subject area l	(approx. 10 to 20 pa in groups of up to utes) or f) practical e out will not exceed a	3 candidates (approx. 20 minu- examination (on average approx. a maximum of 4 hours). Students		
candid tes per 2 hours will be Allocat	late ead r candic s; time inform tion of onal inf	mination (approx. 45 to 6 ch (approx. 30 minutes) o date) or e) presentation (a to complete varies accor ed about the method and <b>places</b>	o minutes) or b) log r d) oral examination approx. 20 to 30 minu ding to subject area l	(approx. 10 to 20 pa in groups of up to utes) or f) practical e out will not exceed a	3 candidates (approx. 20 minu- examination (on average approx. a maximum of 4 hours). Students		
candid tes per 2 hour: will be Allocat  Additic  Worklo	late eac r candio s; time inform tion of ponal inf	mination (approx. 45 to 6 ch (approx. 30 minutes) o date) or e) presentation (a to complete varies accor ed about the method and <b>places</b>	o minutes) or b) log r d) oral examination approx. 20 to 30 minu ding to subject area l	(approx. 10 to 20 pa in groups of up to utes) or f) practical e out will not exceed a	3 candidates (approx. 20 minu- examination (on average approx. a maximum of 4 hours). Students		
candid tes per 2 hour: will be Allocat  Additic  Worklo	late ead r candic s; time inform tion of onal inf	mination (approx. 45 to 6 ch (approx. 30 minutes) o date) or e) presentation (a to complete varies accor ed about the method and <b>places</b>	o minutes) or b) log r d) oral examination approx. 20 to 30 minu ding to subject area l	(approx. 10 to 20 pa in groups of up to utes) or f) practical e out will not exceed a	3 candidates (approx. 20 minu- examination (on average approx. a maximum of 4 hours). Students		
candid tes per 2 hour: will be Allocat  Additic  Worklo  Teachi	late eac r candid s; time inform tion of onal inf oad	mination (approx. 45 to 6 ch (approx. 30 minutes) o date) or e) presentation (a to complete varies accor ed about the method and places	o minutes) or b) log r d) oral examination approx. 20 to 30 minu ding to subject area b l length of the assess	(approx. 10 to 20 pa in groups of up to 3 utes) or f) practical e out will not exceed a sment prior to the co	3 candidates (approx. 20 minu- examination (on average approx. a maximum of 4 hours). Students ourse.		
candid tes per 2 hour: will be Allocat  Worklo  Teachi  Referre	late eac r candid s; time inform tion of onal inf oad	mination (approx. 45 to 6 ch (approx. 30 minutes) o date) or e) presentation (a to complete varies accor ed about the method and <b>places</b>	o minutes) or b) log r d) oral examination approx. 20 to 30 minu ding to subject area b l length of the assess	(approx. 10 to 20 pa in groups of up to 3 utes) or f) practical e out will not exceed a sment prior to the co	3 candidates (approx. 20 minu- examination (on average approx. a maximum of 4 hours). Students ourse.		
candid tes per 2 hour: will be Allocat  Morklo  Teachi  Referre	late eac r candid s; time inform tion of onal inf oad ng cycl	mination (approx. 45 to 6 ch (approx. 30 minutes) o date) or e) presentation (a to complete varies accor ed about the method and places formation	o minutes) or b) log r d) oral examination approx. 20 to 30 minu ding to subject area b l length of the assess	(approx. 10 to 20 pa in groups of up to 3 utes) or f) practical e out will not exceed a sment prior to the co	3 candidates (approx. 20 minu- examination (on average approx. a maximum of 4 hours). Students ourse.		
candid tes per 2 hour: will be Allocat  Additio  Worklo  Teachi  Referro  Modulo	late eac r candio s; time inform tion of onal inf oad ng cycl ed to in e appea	mination (approx. 45 to 6 ch (approx. 30 minutes) o date) or e) presentation (a to complete varies accorr ed about the method and places formation	o minutes) or b) log r d) oral examination approx. 20 to 30 minu ding to subject area b l length of the assess	(approx. 10 to 20 pa in groups of up to 3 utes) or f) practical e out will not exceed a sment prior to the co	3 candidates (approx. 20 minu- examination (on average approx. a maximum of 4 hours). Students ourse.		
candid tes per 2 hour: will be Allocat  Additic  Worklo  Teachi  Referre  Bachel	late ead r candid s; time inform tion of onal inf oad ad age to in e appea lor' deg	mination (approx. 45 to 6 ch (approx. 30 minutes) of date) or e) presentation (a to complete varies accorr ed about the method and places formation	o minutes) or b) log r d) oral examination approx. 20 to 30 minu ding to subject area b l length of the assess all length	(approx. 10 to 20 pa in groups of up to 3 utes) or f) practical e out will not exceed a sment prior to the co	3 candidates (approx. 20 minu- examination (on average approx. a maximum of 4 hours). Students ourse.		
candid tes per 2 hour: will be Allocat  Additic  Worklc  Teachi  Referre Bachel Bachel	late each r candid s; time inform tion of onal inf onal inf oad ed to in e appea lor' deg lor' deg	mination (approx. 45 to 6 ch (approx. 30 minutes) o date) or e) presentation (a to complete varies accorr ed about the method and places formation	o minutes) or b) log r d) oral examination approx. 20 to 30 minu ding to subject area b d length of the assess lations for teaching- (lations for teaching- (13) (5 (2014)	(approx. 10 to 20 pa in groups of up to 3 utes) or f) practical e out will not exceed a sment prior to the co degree programmes	3 candidates (approx. 20 minu- examination (on average approx. a maximum of 4 hours). Students ourse.		

Module title					Abbreviation					
Labora	atory Pr	actical Course II			07-S2-LP2-132-m01					
Modul	e coord	linator		Module offered by	1					
Coordi	nator B	ioCareers		Faculty of Biology						
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)						
10	nume	rical grade								
Durati	on	Module level	Other prerequisites	i						
1 seme	ester	undergraduate	Please consult with	academic advisory	service in advance.					
Conter	nts									
		coursed is offered by an titution.	institution that is par	t of the University. (	Contents to be determined by the					
Intend	ed lear	ning outcomes								
		familiar with the structur profession.	es of internal instituti	ons and have devel	oped skills which qualify them to					
Course	es (type	, number of weekly conta	act hours, language –	- if other than Germa	an)					
P (no i	nforma	tion on SWS (weekly con	tact hours) and cours	e language availabl	e)					
		<b>sessment</b> (type, scope, la ion on whether module c			ation offered — if not every seme-					
tes per 2 hour will be	r candio s; time inform	date) or e) presentation ( to complete varies accor ed about the method an	approx. 20 to 30 minu ding to subject area b	utes) or f) practical e out will not exceed a	a) written examination (approx. 45 to 60 minutes) or b) log (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or e) presentation (approx. 20 to 30 minutes) or f) practical examination (on average approx. 2 hours; time to complete varies according to subject area but will not exceed a maximum of 4 hours). Students will be informed about the method and length of the assessment prior to the course.					
			Allocation of places							
Additi	onal inf									
		ormation	_							
		ormation								
	oad	ormation								
	bad	ormation								
 Worklo	oad ing cycl									
 Worklo										
 Worklo  Teachi 	ing cycl		ulations for teaching-o	degree programmes;	)					
 Worklo  Teachi 	ing cycl	e	ulations for teaching-o	degree programmes;	)					
 Worklo  Teachi  Referro 	ing cycl	e LPOI (examination regu	ulations for teaching-	degree programmes	)					
 Worklo  Teachi  Referro  Modul	ing cycl ed to in e appea	e LPOI (examination regu		degree programmes;	)					
 Worklo  Teachi  Referro  Bache	ed to in ed to in e appea lor' deg	e LPOI (examination regu	13)	degree programmes)	)					
 Worklo  Teachi  Referro  Modul Bache Bache	ing cycl ed to in e appea lor' deg lor' deg	e LPO I (examination regu ars in ree (1 major) Biology (20	13) cs (2014)		)					

Introduction to Inorganic Chemistry for Students of Mathematics and other       08-CM1-112-m01         Subjects       Module coordinator       Module offered by         Institute of Inorganic Chemistry       Institute of Inorganic Chemistry         Chemistry       Institute of Inorganic Chemistry         ECTS       Method of grading       Only after succ. compl. of module(s)         6       numerical grade          Duration       Module level       Other prerequisites         1 semester       undergraduate          Contents           Fundamental principles of general and inorganic chemistry.          Intended learning outcomes           Students have become familiar with the fundamental principles of general and inorganic chemistry.       Courses (type, number of weekly contact hours, language – if other than German)         V (no information on SWS (weekly contact hours) and course language available)          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)          Allocation of places                 Additional information <t< th=""><th colspan="6">Module title Abbreviation</th></t<>	Module title Abbreviation							
Module coordinator         Module offered by           lecturer of lecture "Experimentalchemie" (Experimental Chemistry)         Institute of Inorganic Chemistry           ECTS         Method of grading         Only after succ. compl. of module(s)           Institute of Inorganic Chemistry         Institute of Inorganic Chemistry           Duration         Module level         Other prerequisites           1 semester         undergraduate         -           Contents         Fundamental principles of general and inorganic chemistry.           Intended learning outcomes         Students have become familiar with the fundamental principles of general and inorganic chemistry.           Courses (type, number of weekly contact hours, language — if other than German)         V (no information on SWS (weekly contact hours) and course language available)           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)           written examination (approx. 90 minutes)           Allocation of places                 Module appears in           Bachelor' degree (1 major) Mathematics (2012)           Bachelor' degree (1 major) Mathematics (2013)           Bachelor' degree (1 major) Computational Mathematics (2014)           Bachelor' degree (1 major) Computational Mathematics (2012)	Introdu					08-CM1-112-m01		
lecturer of lecture "Experimentalchemie" (Experimental Chemistry) ECTS Method of grading Only after succ. compl. of module(s) 6 numerical grade - Duration Module level Other prerequisites 1 semester undergraduate - Contents Fundamental principles of general and inorganic chemistry. Intended learning outcomes Students have become familiar with the fundamental principles of general and inorganic chemistry. Courses (type, number of weekly contact hours, language — if other than German) V (no information on SWS (weekly contact hours) and course language available) 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) written examination (approx. 90 minutes) Allocation of places  Workload  Referred to in LPO 1 (examination regulations for teaching-degree programmes)  Module appears in Bachelor' degree (1 major) Mathematics (2012) Bachelor' degree (1 major) Mathematics (2013) Bachelor' degree (1 major) Computational Mathematics (2014) Bachelor' degree (1 major) Computational Mathematics (2012)	•	Subjects						
Chemistry/       Method of grading       Only after succ. compl. of module(s)         6       numerical grade          Duration       Module level       Other prerequisites         1 semester       undergraduate          Contents         Fundamental principles of general and inorganic chemistry.         Intended learning outcomes         Students have become familiar with the fundamental principles of general and inorganic chemistry.         Contracts         Contracts         Students have become familiar with the fundamental principles of general and inorganic chemistry.         Contracts         Contracts         Contracts (type, number of weekly contact hours, language — if other than German)         V (no information on SWS (weekly contact hours) and course language available)         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)         written examination (approx. 90 minutes)         Additional information	Module	e coord	inator		Module offered by			
ECTS       Method of grading       Only after succ. compl. of module(s)         6       numerical grade          Duration       Module level       Other prerequisites         1 semester       undergraduate          Contents         Fundamental principles of general and inorganic chemistry.         Intended learning outcomes         Students have become familiar with the fundamental principles of general and inorganic chemistry.         Courses (type, number of weekly contact hours, language — if other than German)         V (no information on SWS (weekly contact hours) and course language available)         Method of places	lecture	r of lect	ture "Experimentalchemi	e" (Experimental	Institute of Inorgan	ic Chemistry		
6         numerical grade            Duration         Module level         Other prerequisites           1 semester         undergraduate            Conters         Fundamental principles of general and inorganic chemistry.         Intender principles of general and inorganic chemistry.           Intender levering outcomes         Students have become familiar with the fundamental principles of general and inorganic chemistry.           Courses (type, number of weekly contact hours, language — if other than German)         V(no information on SWS (weekly contact hours) and course language available)           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)           written examination (approx. 90 minutes)           Aldication of places								
Duration       Module level       Other prerequisites         1 semester       undergraduate          Contents       Fundamental principles of general and inorganic chemistry.         Intended learning outcomes       Students have become familiar with the fundamental principles of general and inorganic chemistry.         Courses (type, number of weekly contact hours, language — if other than German)       V (no information on SWS (weekly contact hours) and course language available)         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)         written examination (approx. 90 minutes)         Allocation of places               Additional information               Referred to in LPO I (examination regulations for teaching-degree programmes)               Module appears in         Bachelor' degree (1 major) Mathematics (2012)         Bachelor' degree (1 major) Mathematics (2013)         Bachelor' degree (1 major) Computational Mathematics (2014)         Bachelor' degree (1 major) Computational Mathematics (2012)	_			Only after succ. con	npl. of module(s)			
1 semester       undergraduate          Contents         Fundamental principles of general and inorganic chemistry.         Intended learning outcomes         Students have become familiar with the fundamental principles of general and inorganic chemistry.         Courses (type, number of weekly contact hours, language — if other than German)         V (no information on SWS (weekly contact hours) and course language available)         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)         written examination (approx. 90 minutes)         Allocation of places               Workload               Referred to in LPO I (examination regulations for teaching-degree programmes)            Module appears in         Bachelor' degree (1 major) Mathematics (2014)         Bachelor' degree (1 major) Mathematics (2013)         Bachelor' degree (1 major) Computational Mathematics (2014)         Bachelor' degree (1 major) Computational Mathematics (2014)         Bachelor' degree (1 major) Computational Mathematics (2014)	-							
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Courses (type, number of weekly contact hours, language — if other than German) V (no information on SWS (weekly contact hours) and course language available) 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) written examination (approx. 90 minutes) Allocation of places Additional information Workload Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Bachelor' degree (1 major) Mathematics (2014) Bachelor' degree (1 major) Computational Mathematics (2012) Bachelor' degree (1 major) Computational Mathematics (2012)	Intende	ed lear	ning outcomes					
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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)         written examination (approx. 90 minutes)         Allocation of places            Additional information            Workload            Teaching cycle            Referred to in LPO I (examination regulations for teaching-degree programmes)            Module appears in         Bachelor' degree (1 major) Mathematics (2014)         Bachelor' degree (1 major) Mathematics (2012)         Bachelor' degree (1 major) Computational Mathematics (2014)	Course	<b>s</b> (type	, number of weekly conta	ct hours, language –	- if other than Germa	an)		
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)         written examination (approx. 90 minutes)         Allocation of places            Additional information            Workload            Teaching cycle            Referred to in LPO I (examination regulations for teaching-degree programmes)            Module appears in         Bachelor' degree (1 major) Mathematics (2014)         Bachelor' degree (1 major) Mathematics (2012)         Bachelor' degree (1 major) Computational Mathematics (2014)	V (no ir	format	ion on SWS (weekly cont	act hours) and cours	e language available	2)		
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Allocation of places Additional information Workload Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Bachelor' degree (1 major) Mathematics (2014) Bachelor' degree (1 major) Mathematics (2012) Bachelor' degree (1 major) Mathematics (2013) Bachelor' degree (1 major) Computational Mathematics (2014) Bachelor' degree (1 major) Computational Mathematics (2012)						·····,···,		
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Workload Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Bachelor' degree (1 major) Mathematics (2014) Bachelor' degree (1 major) Mathematics (2012) Bachelor' degree (1 major) Mathematics (2013) Bachelor' degree (1 major) Computational Mathematics (2012) Bachelor' degree (1 major) Computational Mathematics (2012)								
Teaching cycle            Referred to in LPO I (examination regulations for teaching-degree programmes)            Module appears in         Bachelor' degree (1 major) Mathematics (2014)         Bachelor' degree (1 major) Mathematics (2012)         Bachelor' degree (1 major) Mathematics (2013)         Bachelor' degree (1 major) Computational Mathematics (2014)	Additio	nal inf	ormation					
Teaching cycle            Referred to in LPO I (examination regulations for teaching-degree programmes)            Module appears in         Bachelor' degree (1 major) Mathematics (2014)         Bachelor' degree (1 major) Mathematics (2012)         Bachelor' degree (1 major) Mathematics (2013)         Bachelor' degree (1 major) Computational Mathematics (2014)								
Teaching cycle            Referred to in LPO I (examination regulations for teaching-degree programmes)            Module appears in         Bachelor' degree (1 major) Mathematics (2014)         Bachelor' degree (1 major) Mathematics (2012)         Bachelor' degree (1 major) Mathematics (2013)         Bachelor' degree (1 major) Computational Mathematics (2014)	Worklo	ad						
Referred to in LPO I (examination regulations for teaching-degree programmes)            Module appears in         Bachelor' degree (1 major) Mathematics (2014)         Bachelor' degree (1 major) Mathematics (2012)         Bachelor' degree (1 major) Mathematics (2013)         Bachelor' degree (1 major) Computational Mathematics (2014)         Bachelor' degree (1 major) Computational Mathematics (2012)	WORKO							
Referred to in LPO I (examination regulations for teaching-degree programmes)            Module appears in         Bachelor' degree (1 major) Mathematics (2014)         Bachelor' degree (1 major) Mathematics (2012)         Bachelor' degree (1 major) Mathematics (2013)         Bachelor' degree (1 major) Computational Mathematics (2014)         Bachelor' degree (1 major) Computational Mathematics (2012)	Toochi		•					
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Bachelor' degree (1 major) Mathematics (2014) Bachelor' degree (1 major) Mathematics (2012) Bachelor' degree (1 major) Mathematics (2013) Bachelor' degree (1 major) Computational Mathematics (2014) Bachelor' degree (1 major) Computational Mathematics (2012)	Referre	d to in	LPUI (examination regu	lations for teaching-o	legree programmes)			
Bachelor' degree (1 major) Mathematics (2014) Bachelor' degree (1 major) Mathematics (2012) Bachelor' degree (1 major) Mathematics (2013) Bachelor' degree (1 major) Computational Mathematics (2014) Bachelor' degree (1 major) Computational Mathematics (2012)								
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Bachelor' degree (1 major) Computational Mathematics (2012)		-		-	14)			
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Dachelor uestee (1     d 0 ) Collidud    0    d        d    e    d   C (2013)		-						

Module title					Abbreviation		
Organic Chemistry 1					08-0C1-141-m01		
Module	coord	inator		Module offered by			
holder	of the F	Professorship of Organic	Chemistry	Institute of Organic	Chemistry		
ECTS		od of grading	Only after succ. com	pl. of module(s)			
5	nume	rical grade					
Duratio		Module level	Other prerequisites				
1 seme	ster	undergraduate					
Conten	ts						
the bor organic	iding si compo	ituation of carbon and int	troduces students to liscusses the fundam	the nomenclature of nental principles of s	of organic chemistry. It examines simple and moderately complex tereochemistry, substitution, ad-		
Intende	ed learr	ning outcomes					
of nom lecules	enclatu . They a rpose,	ire to determine simple s are able to describe and f	ubstance names. Stu formulate some of the	dents are able to an e most important rea	e able to use different systems alyse the stereochemistry of mo- ctions in organic chemistry. For ions and can use them for simple		
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)		
V + Ü (r	no infor	mation on SWS (weekly o	contact hours) and co	ourse language availa	able)		
		essment (type, scope, la on on whether module ca			tion offered — if not every seme-		
nutes)	or oral	nation (approx. 90 to 180 examination in groups (g ssessment: German, Eng	roups of 2, approx. 3		didate each (approx. 20 to 30 mi-		
Allocat	ion of p	olaces					
Additio	nal info	ormation					
Worklo	ad						
Teachir	ng cycl	e					
Referre	d to in	LPOI (examination regu	lations for teaching-c	legree programmes)			
Module	appea	irs in					
Bachel	or' deg	ree (1 major) Mathematic	s (2014)				
Bachel	or' degi	ree (1 major) Computatio	nal Mathematics (201	14)			

Module title				Abbreviation	
Organic Chemistry 2					08-0C2-141-m01
Module	coord	inator		Module offered by	
holder	of the C	Chair of Physically Organi	c Chemistry	Institute of Organic	Chemistry
ECTS		od of grading	Only after succ. com	pl. of module(s)	
9	nume	rical grade			
Duratio		Module level	Other prerequisites		
1 semes		undergraduate			
Conten	ts				
the exa on reac well as	mple o tions to rearrar	f carbonyl compounds, it o complex reaction mech	extends the student anisms. The course a htroduces students to	s' knowledge of sub lso focuses on oxida	fic reactions of aromatics. Using stitution, elimination and additi- ation and reduction reactions as nethods of infrared spectrosco-
Intende	ed learr	ning outcomes			
bonyl ca they ca unknow to draw	ompou n plan vn reac conclu	nds. They are able to des and formulate multi-stag tions. Students are able usions regarding the mole	scribe specific reaction e syntheses with com to describe important ecular structure.	ons of carbonyls and aplex reaction mecha t spectroscopic meth	e the varying reactivity of car- aromatics. For that purpose, anisms and can transfer them to nods, to evaluate a spectrum and
		, number of weekly conta			
		nformation on SWS (wee			
		s <b>essment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-
		nation (approx. 180 to 24 ssessment: German, Eng			
Allocati	ion of p	olaces			
Additio	nal info	ormation			
Worklo	ad				
Teachir	ng cycle	e			
Referre	d to in	LPOI (examination regu	lations for teaching-c	legree programmes)	
Module	appea	irs in			
Bachelo	or' degi	ree (1 major) Mathematic	s (2014)		
Bachelo	or' degi	ree (1 major) Computatio	nal Mathematics (201	14)	

Module title					Abbreviation	
Physical Chemistry 1: Principles of quantum mechanics and				d spectroscopy	08-PC1-141-m01	
Module	e coord	inator		Module offered by		
lecture	r of lec oskopie	ture "Grundlagen der Qu e" (Principles of Quantun			al and Theoretical Chemistry	
ECTS		od of grading	Only after succ. con	npl. of module(s)		
8		rical grade				
Duratio	on	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	Its					
the bas the mo UV-VIS	sis of th dule fo spectre differe	ne following models: part cuses on vibrational spe oscopy. In addition, the r	icle in a box, harmon ctroscopy, angular m nodule discusses line	ic oscillator and rig omentum quantisat ear operators, eigen	chanics. It analyses molecules on id rotor. As regards spectroscopy, ion, microwave spectroscopy and walue problems, matrix represen- athematical bases of the topics li-	
Intend	ed lear	ning outcomes				
to desc quantu <b>Course</b>	cribe di Im mec <b>s</b> (type		thods. In addition, st act hours, language –	udents know how to		
Metho	d of ass		anguage — if other th	an German, examina	ation offered — if not every seme-	
nutes)	or oral	nation (approx. 90 to 180 examination in groups (§ ssessment: German, Eng	groups of 2, approx. 3		ndidate each (approx. 20 to 30 mi	
Allocat	ion of <sub>l</sub>	olaces				
Additio	onal inf	ormation				
Worklo	ad					
Teachi	ng cycl	e				
Referre	ed to in	LPOI (examination regu	lations for teaching-	degree programmes	)	
		Referred to in LPO I (examination regulations for teaching-degree programmes)				
Module appears in						
Module	e appea	ars in				
		a <b>rs in</b> ree (1 major) Mathematio	cs (2014)			

Module title Abbreviation						
Physica	Physical and Theoretical Chemistry 3: Symmetry and Quantum Chemistry         08-PC3-141-m01					
Module	coord	inator		Module offered by		
lecturer	oflect	ture		Institute of Physica	l and Theoretical Chemistry	
		od of grading	Only after succ. com	pl. of module(s)		
6	nume	rical grade				
Duratio		Module level	Other prerequisites			
1 semes	ster	undergraduate				
Content	ts					
This mo	dule d	liscusses the fundamenta	al principles of quant	um chemistry and s	ymmetry in chemistry.	
Intende	d learı	ning outcomes				
		e become familiar with th e able to apply the knowle			emistry and symmetry in che-	
Courses	s (type	, number of weekly conta	ct hours, language —	· if other than Germa	an)	
V + V +	Ü + Ü (	no information on SWS (	weekly contact hours	) and course langua	ge available)	
		<b>sessment</b> (type, scope, la ion on whether module ca			ation offered — if not every seme-	
nutes) c	or oral	nation (approx. 90 to 180 examination in groups (g ssessment: German, Eng	roups of 2, approx. 3		didate each (approx. 20 to 30 mi-	
Allocati	ion of p	olaces				
Additio	nal inf	ormation				
Workloa	ad					
Teachin	ig cycl	e				
Referre	<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)					
Module appears in						
Bachelor' degree (1 major) Mathematics (2014)						
Bachelo	Bachelor' degree (1 major) Computational Mathematics (2014)					

Module title Abbreviation							
Theoretical Models in Chemistry					08-TC-141-m01		
Module coordinator				Module offered by	<u> </u>		
lecturer of lecture "Quantenchemie"				Institute of Physical and Theoretical Chemistry			
	TS Method of grading Only after succ. co			npl. of module(s)			
3	nume	rical grade					
Duration Module level		Other prerequisites					
1 semester undergraduate							
Content	ts						
This module provides students with deeper insights into advanced topics in quantum chemistry. It focuses on spin, the Pauli principle, Slater determinants, the Hartree-Fock method, correlation energy, configuration interac- tion and excited states, the Born-Oppenheimer approximation and bonding models of H2+.							
Intende	ed lear	ning outcomes					
Student	ts are a	able to describe excited s	states of molecules w	ith the help of key c	oncepts and models.		
Courses	<b>s</b> (type	, number of weekly conta	act hours, language –	- if other than Germa	an)		
V + Ü (n	no infor	mation on SWS (weekly	contact hours) and co	ourse language avail	able)		
<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)							
written examination (approx. 90 to 180 minutes) or oral examination of one candidate each (approx. 20 to 30 mi- nutes) or oral examination in groups (groups of 2, approx. 30 minutes) Language of assessment: German, English							
Allocati	-		<u>.</u>				
Additio	nal inf	ormation					
Workload							
Teaching cycle							
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)							
Module appears in							
Bachelor' degree (1 major) Mathematics (2014) Bachelor' degree (1 major) Computational Mathematics (2014)							
Bachelor acgree (1 major) computational mathematics (2014)							

Module	title			Abbreviation		
Remote	e Sensi	ng 1			09-FERN1-102-m01	
Module coordinator				Module offered by		
holder of the Chair of Remote Sensing				Institute of Geography and Geology		
ECTS		od of grading	Only after succ. compl. of module(s)			
5 numerical grade						
Duratio	n	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
Introdu	ction to	o "Geographical Remote S	Sensing".			
Intende	ed learr	ning outcomes				
		ess the following skills: d of different sensor and			System, Remote Sensing against	
Course	s (type	number of weekly conta	ct hours, language —	if other than Germa	n)	
		mation on SWS (weekly c				
<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)						
written	examir	nation (approx. 45 minute	es)			
Allocat	ion of p	olaces				
Additio	nal inf	ormation				
Worklo	ad					
Teachir	ng cycl	9				
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)						
§ 66 (1) 2. Geographie Methoden der Geographie						
Module appears in						
Bachelor' degree (1 major) Computer Science (2014) Bachelor' degree (1 major) Mathematics (2014) Bachelor' degree (1 major) Mathematics (2012) Bachelor' degree (1 major) Mathematics (2013) Bachelor's degree (1 major, 1 minor) Geography (Minor, 2012) Bachelor's degree (1 major, 1 minor) Geography (Focus Physical Geography) (2010) Bachelor's degree (1 major, 1 minor) Geography (Focus Human Geography) (2010) Bachelor's degree (2 majors) Geography (2010)						

Module	title			Abbreviation			
Remote Sensing 2					09-FERN2-102-m01		
Module coordinator				Module offered by			
holder of the Chair of Remote Sensing				Institute of Geography and Geology			
ECTS			Only after succ. compl. of module(s)				
5 numerical grade							
Duration		Module level	Other prerequisites				
1 semester undergraduate							
Conten	ts						
Applica	tion of	Remote Sensing to Geog	raphy.				
Intende	ed learr	ning outcomes					
		e skills of current geograp of application possibiliti			cross-sectional methodology, ications.		
Courses	s (type	, number of weekly conta	ct hours, language —	if other than Germa	n)		
· · · · · · · · · · · · · · · · · · ·		mation on SWS (weekly c					
<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) written examination (approx. 45 minutes)							
Allocat							
Additio	nal info	ormation					
Worklo	ad						
Teaching cycle							
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)							
Module appears in							
Bachelor' degree (1 major) Computer Science (2014)							
Bachelor' degree (1 major) Mathematics (2014)							
Bachelor' degree (1 major) Mathematics (2012)							
Bachelor' degree (1 major) Mathematics (2013)							
Bachelor's degree (1 major, 1 minor) Geography (Minor, 2012)							
	Bachelor's degree (1 major, 1 minor) Geography (Focus Physical Geography) (2010)						
	Bachelor's degree (1 major, 1 minor) Geography (Focus Human Geography) (2010)						
Bachelor's degree (2 majors) Geography (2010)							

Modul	e title				Abbreviation
Introduction to the Geography of Cities, Towns and Villages 09-HG1SI-102-m01					09-HG1SI-102-m01
Module coordinator Module offered by					<u> </u>
holder	ofthe	Professorship of Cultural	Geography	Institute of Geogra	phy and Geology
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
5	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ester	undergraduate			
Conter	nts				
Introdu	uction t	o "Settlement Geograph	/".		
Intend	ed lear	ning outcomes			
	-	sess knowledge of Urbar	Geography as well a	s in Geography of Ru	Iral Settlements.
		, number of weekly cont			
		mation on SWS (weekly			
	-	·			ation offered — if not every seme-
		ion on whether module of			alon oncrea in not every senie
written	exami	nation (approx. 45 minut	es)		
	tion of				
Additio	onal inf	ormation			
Worklo	bad				
Teachi	ng cycl	e			
Referre	ed to in	LPOI (examination reg	llations for teaching-	degree programmes	
	-	graphie Humangeograp			
		graphie Humangeograp			
Modul	e appea	ars in			
Bachel	lor' deg	ree (1 major) Mathemati	cs (2014)		
Bachel	Bachelor' degree (1 major) Mathematics (2012)				
	Bachelor' degree (1 major) Mathematics (2013)				
	Bachelor' degree (1 major) Political and Social Studies (2011)				
		gree (1 major, 1 minor) G			
		gree (1 major, 1 minor) P		•, · ·	
		gree (1 major, 1 minor) P			2012)
D I I	lor's de	gree (2 majors) Pre- and	Protohistoric Archaed	10gy (2012)	

Module title					Abbreviation			
Introduction to Social and Population Geography					09-HG1SO-102-m01			
Modul	e coord	inator		Module offered by	<u> </u>			
holder	of the l	Professorship of Social	Geography	Institute of Geogra	phy and Geology			
ECTS	Meth	od of grading	Only after succ. co	mpl. of module(s)				
5	nume	rical grade						
Duratio	on	Module level	Other prerequisites	5				
1 seme	ester	undergraduate						
Conter	nts							
Introdu	uction t	o "Social and Population	on Geography".					
Intend	ed lear	ning outcomes						
			ial and Population Geo	graphy as well as Civ	vilisation Geographical Research.			
			itact hours, language -					
		,	y contact hours) and co		·			
					ation offered — if not every seme-			
			can be chosen to earr		allon offered in hot every serie			
written	exami	nation (approx. 45 min	utes)					
	tion of							
Additio	onal inf	ormation						
Worklo	bad							
Teachi	ng cycl	e						
	ing cycl							
Referre	ed to in	LPOI (examination re	gulations for teaching-	degree programmes				
	_	graphie Humangeogra						
		graphie Humangeogra						
	e appea							
Bachelor' degree (1 major) Mathematics (2014)								
	Bachelor' degree (1 major) Mathematics (2012)							
	Bachelor' degree (1 major) Mathematics (2013)							
Bachel	lor' deg	ree (1 major) Mathema	lics (2013)	Bachelor' degree (1 major) Political and Social Studies (2011)				
Bachel Bachel				1)				
Bachel Bachel Bachel	lor' deg	ree (1 major) Political a						
Bachel Bachel Bachel Bachel	lor' deg lor's de	ree (1 major) Political a gree (1 major, 1 minor)	nd Social Studies (201	12)				
Bachel Bachel Bachel Bachel Bachel	lor' deg lor's de lor's de	ree (1 major) Political a gree (1 major, 1 minor) gree (1 major, 1 minor)	nd Social Studies (201 Geography (Minor, 201	12) Archaeology (2012)	2012)			

Module title					Abbreviation	
Introduction to Economic Geography					09-HG1WI-102-m01	
Module	e coord	inator		Module offered by		
holder	of the F	Professorship of Economi	c Geography	Institute of Geograp	bhy and Geology	
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)		
5	nume	rical grade				
Duratio	on	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
Introdu	ction to	o "Economic Geography".				
Intende	ed learı	ning outcomes				
		sess knowledge of Econo on theory and developme		are also acquainted	with the geographical economic	
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)	
-		mation on SWS (weekly c				
Metho	d of ass		nguage — if other tha	an German, examina	tion offered — if not every seme-	
written	exami	nation (approx. 45 minute	es)			
Allocat	ion of p	olaces				
Additio	nal inf	ormation				
Worklo	ad					
Teachi	ng cycl	e				
Referre	d to in	LPOI (examination regu	lations for teaching-c	legree programmes)		
		graphie Humangeograph				
§ 66 (1)	) 1. Geo	graphie Humangeograph	ie			
Module appears in						
	-	ree (1 major) Mathematic				
	Bachelor' degree (1 major) Mathematics (2012)					
	-	ree (1 major) Mathematic	-	)		
		ree (1 major) Political anc gree (1 major, 1 minor) Ge				
		gree (1 major, 1 minor) Ge gree (1 major, 1 minor) Pr				
		gree (1 major, 1 minor) Pr			2012)	
		gree (2 majors) Pre- and F			-	

Module title					Abbreviation
Genera	al Phys	ical Geography 3 (Earth S	System: Endogenic Dy	ynamics)	09-PG1EnD-102-m01
Modul	e coord	inator		Module offered by	* 
	of the lesearch	Professorship of Geodyna I	amics and Geomate-	Institute of Geogra	phy and Geology
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
5	nume	rical grade			
Durati	on	Module level	Other prerequisites		
1 seme	ester	undergraduate			
Conte	nts				
res of nesis, quake	importa sedime s, oroge	nt rock forming, ecologic ents/ sedimentary rocks, enesis, continental crust,	ally important minera metamorphosis; geol	als, volcanism/ igne ogical structures, oc	on/structure of the Earth, featu- ous rocks, plutonism/magma ge- cean floor, plate tectonics, earth-
Intend	ed lear	ning outcomes			
Stude	nts disp	ose over basic knowledg	e of endogenous dyn	amics	
Course	<b>es</b> (type	, number of weekly conta	act hours, language —	- if other than Germa	an)
V + T (I	no infor	mation on SWS (weekly o	contact hours) and co	urse language avail	able)
ster, ir	nformat	ion on whether module c	an be chosen to earn		ation offered — if not every seme-
		nation (approx. 45 minut	es)		
Alloca	tion of	places			
	_				
Additi	onal inf	ormation			
	_				
Workle	oad				
Teachi	ing cycl	е			
Referr	ed to in	LPOI (examination regu	llations for teaching-o	degree programmes)	
	§ 47 (1) 1. Geographie Physiogeographie § 66 (1) 1. Geographie Physiogeographie				
Modul	e appea	ars in			
Bachelor' degree (1 major) Mathematics (2014) Bachelor' degree (1 major) Mathematics (2012) Bachelor' degree (1 major) Mathematics (2013) Bachelor's degree (1 major, 1 minor) Geography (Minor, 2012)					

Module title					Abbreviation	
Genera	l Physi	cal Geography 1 (Earth S	ystem: Exogeneous I	<b>Oynamics - Geomor-</b>	09-PG1ExD-102-m01	
pholog	phology)					
Module coordinator Module offered by			·			
holder	of the I	Professorship of Physical	Geography	Institute of Geograp	ohy and Geology	
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)		
5	nume	rical grade				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
lation p solutio tains o	orocess n: mon r Aeolia	es and accumulation res oprocessual large forms,	ults: gravitative, fluvi e.g. endogenous/tec deflation (enclosed)	al, glacial and perig tonic forms like volo	orphology. Erosion and accumu- lacial, Aeolian, marin, littoral, canoes, break clod, fold moun- sual large forms, e.g. glacial se-	
Intend	ed lear	ning outcomes				
Studen	ts disp	ose over basic knowledg	e of exogenous dyna	mics and geomorph	ology.	
Course	<b>s</b> (type	, number of weekly conta	ict hours, language —	if other than Germa	ın)	
V + T (n	o infor	mation on SWS (weekly o	contact hours) and co	urse language availa	able)	
ster, in	formati examii	on on whether module canation (approx. 45 minute	an be chosen to earn		ition offered — if not every seme	
Allocal		Jaces				
Additio	nal inf	ormation				
Auditio						
 Worklo	- 4					
workto	au					
Teachi	ng cycl	e				
				•		
		LPOI (examination regu		legree programmes)		
		graphie Physiogeograph graphie Physiogeograph				
Module	e appea	ars in				
Bachel Bachel Bachel Bachel	or' deg or' deg or's deg or's deg	ree (1 major) Mathematic ree (1 major) Mathematic ree (1 major) Mathematic gree (1 major, 1 minor) Ge gree (1 major, 1 minor) Pr	s (2012) s (2013) eography (Minor, 2012 e- and Protohistoric A	rchaeology (2012)		
Bachel	or's de	gree (2 majors) Pre- and I	Protohistoric Archaeo	logy (2012)		

Module title					Abbreviation
Gener	al Phys	ical Geography 2 (Earth S	System: Climate Syst	em)	09-PG1KS-102-m01
Module coordinator				Module offered by	
holde	r of the	Professorship of Climatol	ogy	Institute of Geogra	phy and Geology
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
5	nume	erical grade			
Durati	on	Module level	Other prerequisites		
1 sem	ester	undergraduate			
Conte	nts				
tion a					elestial mechanical basics; radia d appearance of the terrestrial cli
Intend	led lear	ning outcomes			
Stude	nts will	gain a basic physical unc	lerstanding of the Ea	rth's climate system	
Cours	es (type	, number of weekly conta	act hours, language –	- if other than Germa	an)
		mation on SWS (weekly o			
Alloca	tion of	nation (approx. 45 minut places formation	es)		
Workl	oad				
Teach	ing cyc	le			
Referr	ed to in	LPOI (examination regu	llations for teaching-	degree programmes)	)
		ographie Physiogeograph ographie Physiogeograph			
Modu	le appe	ars in			
Bache	Bachelor' degree (1 major) Mathematics (2014)				
	Bachelor' degree (1 major) Mathematics (2012)				
	-	ree (1 major) Mathematic	_	、 、	
Bache	lor's de	gree (1 major, 1 minor) Ge	eography (Minor, 201	2)	

Module title					Abbreviation
3D Poir	nt Clou	d Processing			10-l-3D-141-m01
Module coordinator				Module offered by	
holder	of the (	Chair of Computer Scienc	e XVII	Institute of Comput	er Science
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				
	, registi				oc-trees), calculating normals, k- mapping, applications to mobile
Intende	ed learı	ning outcomes			
munica data pr	ite with ocessii	engineers / surveyors /	CV people / etc. Stud that real application	ents are able to solv scenarios are challe	d processing and are able to com- ve problems of modern sensor enging in terms of computational i issues.
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)
V + Ü (r	no infor	mation on SWS (weekly o	contact hours) and co	urse language avail	able)
		<b>essment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-
written oral exa	examiı aminati		y an oral examination 2, approx. 30 minutes	of one candidate ea	t the beginning of the course, the ach (approx. 20 minutes) or an
Allocat	ion of p	olaces			
Additio	nal inf	ormation			
Worklo	ad				
Teachi	ng cycl	e			
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)					
Module	e appea	nrs in			
Bachel	or' deg	ree (1 major) Computer Se	cience (2014)		
	•	ree (1 major) Mathematic	•		
		ree (1 major) Computation			
Bachel	or' deg	ree (1 major) Aerospace (	computer Science (20	914)	

				Abbreviation	
Tutoria	l Algori	ithm and data structures			10-I-ADST-141-m01
Module	e coord	inator		Module offered by	
Dean of	f Studie	es Informatik (Computer S	Science)	Institute of Comput	er Science
ECTS		od of grading	Only after succ. com	pl. of module(s)	
5	(not) s	successfully completed			
Duratio	n	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	ts				
-		alysis of algorithms, recu trees, graphs, basic grap			ods, data structures, abstract da-
Intende	ed learr	ning outcomes			
studen prograr	ts are fans. The	amiliar with the basic par	radigms of the desigr imate the run-time be	of algorithms and a haviour of algorithm	y describe and analyse them. The are able to apply them in practical as and to prove their correctness. n)
		ion on SWS (weekly cont			
ster, in a) com	formati pletion ly) or b)	on on whether module ca of approx. 11 exercise sh	an be chosen to earn eets with approx. 4 e	a bonus) xercises per sheet (e	tion offered — if not every seme- 50% of exercises to be completed sessment to be selected by the
Allocat		olaces			
Additio	nal info	ormation			
Worklo	ad				
Teachir	ng cycl	9			
Referre	d to in	LPOI (examination regu	lations for teaching-c	legree programmes)	
·					
Module appears in					
Bachelo Bachelo Bachelo	Bachelor' degree (1 major) Computer Science (2014) Bachelor' degree (1 major) Mathematics (2014) Bachelor' degree (1 major) Computational Mathematics (2014) Bachelor' degree (1 major) Aerospace Computer Science (2014)				

Module title			Abbreviation			
Algorit	hm and	data structures			10-I-ADSV-141-m01	
Module	e coord	inator		Module offered by		
Dean of	f Studie	es Informatik (Computer S	Science)	Institute of Comput	er Science	
ECTS		od of grading	Only after succ. com	pl. of module(s)		
5	nume	rical grade				
Duratio		Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
-		alysis of algorithms, recu trees, graphs, basic grap			ods, data structures, abstract da-	
Intende	ed learr	ning outcomes				
student prograr	ts are fans. The	amiliar with the basic par	radigms of the design mate the run-time be	of algorithms and a haviour of algorithm	y describe and analyse them. The are able to apply them in practical ns and to prove their correctness.	
· · · · · · · · · · · · · · · · · · ·		ion on SWS (weekly cont				
ster, inf written written oral exa	formati examir examir aminati	on on whether module ca nation (approx. 60 to 120 nation can be replaced by on in groups (groups of 2	an be chosen to earn minutes); if annound / an oral examination	a bonus) ed by the lecturer at of one candidate ea	tion offered — if not every seme- t the beginning of the course, the ach (approx. 20 minutes) or an	
Allocat	ion of p	olaces				
Additio	nal info	ormation				
Worklo	aū					
Teachir	ig cycl	6				
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)						
Module			• / `			
Bachelo Bachelo	Bachelor' degree (1 major) Computer Science (2014) Bachelor' degree (1 major) Mathematics (2014) Bachelor' degree (1 major) Computational Mathematics (2014) Bachelor' degree (1 major) Aerospace Computer Science (2014)					

Module title					Abbreviation	
Algorit	hmic G	raph Theory			10-I-AGT-141-m01	
Module	e coord	inator		Module offered by		
holder	of the (	Chair of Computer Science	e l	Institute of Comput	er Science	
ECTS		od of grading	Only after succ. com			
5	nume	rical grade				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
colouri of grap prograr	ngs, wo h probl ns or h	ork with planar graphs an ems, we also become far ow we show that they are	d find out how the ra niliar with new conce	nking algorithm of G pts, for example how	ximal flows, find matchings and boogle works. Using the examples w we model problems as linear	
		ning outcomes				
cipants	are ab		om the course helps	solve a given graph	problems. In addition, the parti- problem algorithmically. In this prithms.	
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	ın)	
		mation on SWS (weekly o				
		essment (type, scope, la on on whether module ca			tion offered — if not every seme-	
written oral exa	examiı aminati		an oral examination , approx. 30 minutes	of one candidate ea	t the beginning of the course, the ach (approx. 20 minutes) or an	
Allocat	ion of p	olaces				
Additio	nal inf	ormation				
Worklo	ad					
Teachi	ng cycl	e				
Referre	<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)					
Module	e appea	irs in				
		ree (1 major) Computer S	cience (2014)			
	-	ree (1 major) Mathematic				
		ree (1 major) Computation				
Bachel	or' deg	ree (1 major) Aerospace (	computer Science (20	914)		

Module title Abbreviation					Abbreviation	
Data Bases					10-I-DB-141-m01	
Module	coord	inator		Module offered by		
Dean of	Studie	es Informatik (Computer S	Science)	Institute of Comput	er Science	
ECTS		od of grading	Only after succ. com	pl. of module(s)		
5	nume	rical grade				
Duratio	n	Module level	Other prerequisites			
1 semes	ster	undergraduate				
Content	ts					
Relation ment.	nal alge	ebra and complex SQL st	atements; database	olanning and normal	l forms; transaction manage-	
Intende	d learr	ning outcomes				
The stu	dents p	oossess knowledge abou	t database modelling	g and queries in SQL	as well as transactions.	
Courses	s (type,	number of weekly conta	ct hours, language —	if other than Germa	n)	
		mation on SWS (weekly o				
ster, inf written written oral exa	ormati examir examir aminati ge of a	on on whether module ca nation (approx. 60 to 120 nation can be replaced by on in groups (groups of 2 ssessment: German, Eng	an be chosen to earn minutes); if annound y an oral examination 2, approx. 30 minutes	a bonus) ced by the lecturer at of one candidate ea	tion offered — if not every seme- t the beginning of the course, the ach (approx. 20 minutes) or an	
Additio	nal info	ormation				
Worklo	ad					
Teachin	ig cycl	9				
Referre	d to in	LPOI (examination regu	lations for teaching-o	legree programmes)		
Module appears in						
Bachelor' degree (1 major) Computer Science (2014) Bachelor' degree (1 major) Mathematics (2014) Bachelor' degree (1 major) Business Information Systems (2014) Bachelor' degree (1 major) Computational Mathematics (2014) Bachelor' degree (1 major) Aerospace Computer Science (2014)						

				Abbreviation		
Tutorial Information Transmission					10-I-IÜT-141-m01	
Module	e coordi	inator		Module offered by		
holder	of the C	Chair of Computer Scienc	e III	Institute of Comput	er Science	
ECTS		od of grading	Only after succ. com	pl. of module(s)		
5	(not) s	successfully completed				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
theory,	spectru		, modulation techniq	ue, structure of digit	d fault correction, information tal transmission systems, intro-	
Intende	ed learr	ning outcomes				
		oossess a technical, theo a knowledge that is nece			ucture of systems for information	
Courses	<b>s</b> (type,	number of weekly conta	ct hours, language —	if other than Germa	n)	
Ü (no ir	nformat	ion on SWS (weekly cont	act hours) and cours	e language available	2)	
ster, inf a) comp	formati oletion y) or b)	on on whether module ca of approx. 11 exercise sh	an be chosen to earn eets with approx. 4 e	a bonus) xercises per sheet (s	tion offered — if not every seme- 50% of exercises to be completed sessment to be selected by the	
Allocat		lares				
Additio	nal info	ormation				
Worklo	ad					
Teachir	ng cyclo	9				
Referre	d to in	LPO I (examination regu	lations for teaching-d	legree programmes)		
Module	Module appears in					
Bachelo Bachelo	Bachelor' degree (1 major) Computer Science (2014) Bachelor' degree (1 major) Mathematics (2014) Bachelor' degree (1 major) Computational Mathematics (2014) Bachelor' degree (1 major) Aerospace Computer Science (2014)					

Module title				Abbreviation			
Information Transmission					10-I-IÜV-141-m01		
Module	e coord	inator		Module offered by			
holder	of the C	Chair of Computer Science	e III	Institute of Comput	er Science		
ECTS		od of grading	Only after succ. com	pl. of module(s)			
5	nume	rical grade					
Duratio	n	Module level	Other prerequisites				
1 seme	ster	undergraduate					
Conten	ts						
theory,	spectr		, modulation techniq	ue, structure of digit	d fault correction, information tal transmission systems, intro-		
Intende	ed learr	ning outcomes					
		oossess a technical, theo a knowledge that is nece	-	-	ucture of systems for information		
Course	<b>s</b> (type	number of weekly conta	ct hours, language —	if other than Germa	n)		
V (no in	format	ion on SWS (weekly cont	act hours) and course	e language available	)		
		essment (type, scope, la on on whether module ca			tion offered — if not every seme-		
written	examir		/ an oral examination	of one candidate ea	t the beginning of the course, the ach (approx. 20 minutes) or an		
Allocat	ion of p	olaces					
Additio	nal inf	ormation					
Worklo	ad						
Teachir	ıg cycl	9					
Referre	d to in	LPOI (examination regu	lations for teaching-d	legree programmes)			
Module	Module appears in						
Bachel	or' degi	ree (1 major) Computer S	cience (2014)				
	-	ree (1 major) Mathematic					
	-	ree (1 major) Computation					
Bachelor' degree (1 major) Aerospace Computer Science (2014)							

Module title			Abbreviation			
Computational Complexity					10-I-KT-141-m01	
Module	e coord	inator		Module offered by		
Dean of	f Studie	es Informatik (Computer S	Science)	Institute of Comput	er Science	
ECTS		od of grading	Only after succ. com	pl. of module(s)		
5	nume	rical grade				
Duratio		Module level	Other prerequisites			
1 seme		undergraduate				
Conten						
sumpti	on vers		terminism versus ind	eterminism, hierarch	nd time classes, memory con- nical theorems, translation me- of systems.	
	· · ·	ning outcomes			,	
classes determ probler	, gener inism v ns, Turi	al relationships between ersus indeterminism, hie ing reduction, interactive	space and time clas erarchical theorems, t proof systems.	ses, memory consun ranslation methods,	complexity measurements and nption versus computation time, , P-NP problem, completeness	
		, number of weekly conta				
		mation on SWS (weekly o			· ·	
		s <b>essment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-	
written oral exa	examir aminati		y an oral examination 2, approx. 30 minutes	of one candidate ea	t the beginning of the course, the ach (approx. 20 minutes) or an	
Allocat	ion of p	olaces				
Additio	nal info	ormation				
Worklo	ad					
Teaching cycle						
Referre	<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)					
Module appears in						
	Bachelor' degree (1 major) Computer Science (2014)					
	-	ree (1 major) Mathematic		<b>`</b>		
Bachel	Bachelor' degree (1 major) Computational Mathematics (2014)					

Module title Abbreviation					Abbreviation	
Logic for informatics					10-l-LOG-141-m01	
Module	e coord	inator		Module offered by		
Dean o	f Studie	es Informatik (Computer S	Science)	Institute of Comput	er Science	
ECTS		od of grading	Only after succ. com	pl. of module(s)		
5	nume	rical grade				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
		mantics of propositional ets, syntax and semantic		nd normal forms, Ho	rn formulas, SAT, resolution, infi-	
Intende	ed learı	ning outcomes				
					ositional logic, equivalence and semantics of predicate logic.	
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)	
V + Ü (r	no infor	mation on SWS (weekly o	contact hours) and co	ourse language avail	able)	
ster, in written	formati examii	on on whether module ca nation (approx. 60 to 120	an be chosen to earn minutes); if annound	a bonus) ced by the lecturer a	tion offered — if not every seme- t the beginning of the course, the ach (approx. 20 minutes) or an	
		ion in groups (groups of 2				
Allocat	ion of p	olaces				
Additio	nal inf	ormation				
Worklo	ad					
Teachir	ng cycl	6				
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)						
Module appears in						
Bachelor' degree (1 major) Computer Science (2014) Bachelor' degree (1 major) Mathematics (2014) Bachelor' degree (1 major) Computational Mathematics (2014)						

Module title				Abbreviation		
Object oriented Programming					10-I-OOP-141-m01	
Module	e coord	inator		Module offered by		
Dean of	f Studie	es Informatik (Computer S	Science)	Institute of Comput	er Science	
ECTS		od of grading	Only after succ. com	pl. of module(s)		
5	nume	rical grade				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
Polymo ment.	rphism	, generic programming, r	neta programming, w	eb programming, te	mplates, document manage-	
Intende	ed learr	ning outcomes				
The stu their pr		•	rent paradigms of obj	ect-oriented progran	nming and have experience in	
Courses	<b>s</b> (type,	, number of weekly conta	ct hours, language —	if other than Germa	n)	
V + Ü (r	no infor	mation on SWS (weekly o	contact hours) and co	urse language avail	able)	
		e <b>ssment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-	
written oral exa	examir aminati		y an oral examination 2, approx. 30 minutes	of one candidate ea	t the beginning of the course, the ach (approx. 20 minutes) or an	
Allocat	ion of p	olaces				
Additio	nal info	ormation				
Worklo	ad					
Teachir	ng cycl	9				
Referre	d to in	LPOI (examination regu	lations for teaching-c	legree programmes)		
Module	e appea	irs in				
Bachelo	or' deg	ree (1 major) Computer S	cience (2014)			
	-	ree (1 major) Mathematic				
	-	ree (1 major) Business Int	-	-		
	-	ree (1 major) Computation		•		
Bachelor' degree (1 major) Aerospace Computer Science (2014)						

Module title Abbreviation				Abbreviation		
Practical Course in Programming					10-I-PP-141-m01	
Module	e coord	inator		Module offered by		
Dean of	f Studie	es Informatik (Computer S	Science)	Institute of Comput	er Science	
ECTS		od of grading	Only after succ. com	pl. of module(s)		
10	(not) s	successfully completed				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
The pro	gramm	ning language Java. Indep	endent creation of sr	nall to middle-sized	, high-quality Java programs.	
Intende	ed learı	ning outcomes				
The stu	dents a	are able to independently	/ develop small to mi	ddle-sized, high-qua	ality Java programs.	
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)	
P (no in	format	ion on SWS (weekly cont	act hours) and cours	e language available	2)	
ster, inf	formati	on on whether module ca	an be chosen to earn	a bonus)	tion offered — if not every seme-	
lf annoi	unced l ation o	by the lecturer at the beg	inning of the course,	the written examina	tion can be replaced by an oral in groups (groups of 2, approx.	
Allocat	ion of p	olaces				
Additio	nal inf	ormation				
Additio	nal info	ormation on module dura	tion: 1 to 2 semester	S.		
Worklo						
Teachir	ng cycl	۵				
	<u>15 cyce</u>					
Poforro	d to in	IPOL (examination regu	lations for teaching	legree programmes)		
Referred to in LPO I (examination regulations for teaching-degree programmes)						
	Module appears in Bachelor' degree (1 major) Computer Science (2014)					
	-	ree (1 major) Computer S				
	-	ree (1 major) Computation		14)		
	-	ree (1 major) Aerospace (		•		

Module title				Abbreviation		
Computer Architecture					10-I-RAK-141-m01	
Module	e coord	inator		Module offered by		
Dean of	f Studie	es Informatik (Computer S	Science)	Institute of Compute	er Science	
ECTS		od of grading	Only after succ. com	pl. of module(s)		
5	nume	rical grade				
Duratio		Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
		architectures, command ector processors, multi-c	, – –	pipelining, statical a	and dynamic instruction schedu-	
Intende	ed learr	ning outcomes				
		naster the most importar operating systems.	nt techniques to desig	gn fast computers as	s well as their interaction with	
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)	
		mation on SWS (weekly o				
		essment (type, scope, la on on whether module ca			tion offered — if not every seme-	
written oral exa	examir aminati		/ an oral examination 2, approx. 30 minutes	of one candidate ea	t the beginning of the course, the ach (approx. 20 minutes) or an	
Allocat	ion of p	olaces				
Additio	nal inf	ormation				
Worklo	ad					
Teachir	ıg cycl	6				
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)						
	Module appears in					
Bachelor' degree (1 major) Computer Science (2014) Bachelor' degree (1 major) Mathematics (2014) Bachelor' degree (1 major) Computational Mathematics (2014) Bachelor' degree (1 major) Aerospace Computer Science (2014)						

Module title			Abbreviation			
Tutorial Digital computer systems				10-I-RALT-141-m01		
Module	e coord	inator		Module offered by		
holder	ofthe	Chair of Computer Scienc	e V	Institute of Comput	er Science	
ECTS		od of grading	Only after succ. com	pl. of module(s)		
5	(not) s	successfully completed				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
					nchronous and asynchronous cir- programming, memory hierarchy.	
Intende	ed lear	ning outcomes				
ming of	feasyr				up to the design and program- rare description languages for the	
Courses	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)	
Ü (no ir	nforma	tion on SWS (weekly cont	act hours) and cours	e language available	2)	
		s <b>essment</b> (type, scope, la ion on whether module ca			tion offered — if not every seme-	
	ly) or b				50% of exercises to be completed sessment to be selected by the	
Allocat	ion of <sub>l</sub>	olaces				
Additio	nal inf	ormation				
Worklo	ad					
Teachir	ן ופ גערו	ρ				
	. <u>5</u> .yet	•				
Referre	d to in	<b>IPOI</b> (examination regu	lations for teaching.	legree programmes)		
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)						
Module appears in						
		ree (1 major) Computer S	cience (2014)			
	-	ree (1 major) Computer S				
	-	ree (1 major) Computation	-	14)		
	-	ree (1 major) Aerospace (	-			

Module title A				Abbreviation		
Digital computer systems					10-I-RALV-141-m01	
Module	coordi	nator		Module offered by		
Dean of	Studie	es Informatik (Computer S	Science)	Institute of Comput	er Science	
		d of grading	Only after succ. com	pl. of module(s)		
5	numer	ical grade				
Duration	n	Module level	Other prerequisites			
1 semes	ter	undergraduate				
Content	S					
					chronous and asynchronous cir- programming, memory hierarchy.	
Intende	d learn	ing outcomes				
ming of	easy n				up to the design and program- are description languages for the	
Courses	(type,	number of weekly conta	ct hours, language —	if other than Germa	n)	
V (no inf	format	ion on SWS (weekly cont	act hours) and course	e language available	)	
		<b>essment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-	
written e	examir		/ an oral examination	of one candidate ea	t the beginning of the course, the ach (approx. 20 minutes) or an	
Allocatio	on of p	laces				
Addition	nal info	ormation				
Workloa	ad					
Teachin	g cycle	9				
	<u> </u>					
Referred	d to in	LPOI (examination regu	lations for teaching-c	legree programmes)		
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)						
Module appears in						
		ree (1 major) Computer So	cience (2014)			
	-	ree (1 major) Mathematic	•			
	-	ree (1 major) Computation				
Bachelo	r' degr	ree (1 major) Aerospace (	Computer Science (20	914)		

Module title				Abbreviation		
Compu	Computer Networks 10-I-RK-141-mo1					
Module	e coord	inator		Module offered by		
holder	of the C	Chair of Computer Scienc	e III	Institute of Comput	er Science	
ECTS	· · · · · · · · · · · · · · · · · · ·	od of grading	Only after succ. com	pl. of module(s)		
8	nume	rical grade				
Duratio		Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
of comp and str chies, c and ISC	puter n ucture dataflov D archit	etworks and communicat of computer networks: new control and traffic cont ecture models. Internet:	tion systems: problen etwork structure, netv rol, transfer network. structure and basic m	n statement and intr vork access, access Communication pro nechanism, TCP/IP, r	systems. Performance analysis oduction to method architecture methods, digital transfer hierar- tocols: fundamental principles routing, network management. mmunication systems and net-	
Intende	ed learr	ning outcomes	,			
		oossess an intricate knov damental principles to ra		e of computer netwo	orks and communication systems	
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)	
V + Ü (r	no infor	mation on SWS (weekly o	contact hours) and co	urse language avail	able)	
		e <b>ssment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-	
written oral exa	examir aminati		y an oral examination 2, approx. 30 minutes	of one candidate ea	t the beginning of the course, the ach (approx. 20 minutes) or an	
Allocat	ion of p	olaces				
Additio	nal info	ormation				
Worklo	ad					
			,			
Teachi	ng cycl	9				
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)						
Module	Module appears in					
	Bachelor' degree (1 major) Computer Science (2014)					
	-	ree (1 major) Mathematic				
Bachel	or' degi	ree (1 major) Computatio	nal Mathematics (201	-		
Bachel	Bachelor' degree (1 major) Aerospace Computer Science (2014)					

Module title Abbreviation						
Tutorial Software Technology					10-I-STT-141-m01	
Module	e coord	inator		Module offered by		
Dean o	f Studi	es Informatik (Computer	Science)	Institute of Comput	er Science	
ECTS		od of grading	Only after succ. com	pl. of module(s)		
5	(not) s	successfully completed				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
	s and c				r interfaces, foundations of da- L, XML, scripting languages, web	
Intende	ed lear	ning outcomes				
		possess a fundamental the second s		cal knowledge on the	e design and development of	
Course	<b>s</b> (type	, number of weekly conta	ict hours, language —	- if other than Germa	in)	
Ü (no ir	nforma	tion on SWS (weekly cont	tact hours) and cours	e language available	e)	
ster, in a) com	format pletion ly) or b	on on whether module ca of approx. 11 exercise sh	an be chosen to earn eets with approx. 4 e	a bonus) exercises per sheet (e	ition offered — if not every seme- 50% of exercises to be completed sessment to be selected by the	
Allocat	ion of <sub>l</sub>	olaces				
Additio	nal inf	ormation				
Worklo	ad					
Teachi	ng cycl	e				
	-3 -9 -1	-				
Referre	d to in	LPO I (examination regu	lations for teaching.	legree programmes)		
Module appears in						
	Bachelor' degree (1 major) Computer Science (2014)					
	Bachelor' degree (1 major) Mathematics (2014)					
Bachelor' degree (1 major) Business Information Systems (2014)						
	Bachelor' degree (1 major) Computational Mathematics (2014)					
Bachel	or' deg	ree (1 major) Aerospace (	Computer Science (20	014)		

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Modul	Module title Abbreviation						
Softwa	Software Technology 10-I-STV-141-m01						
Modul	e coord	inator		Module offered by	<u> </u>		
Dean o	of Studi	es Informatik (Computer	Science)	Institute of Comput	ter Science		
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)			
5	nume	rical grade					
Duratio	on	Module level	Other prerequisites				
1 seme	ester	undergraduate					
Conter	nts						
	s and c	•	· · · · ·	<b>u</b> ,	r interfaces, foundations of da- L, XML, scripting languages, web		
Intend	ed lear	ning outcomes					
		possess a fundamental t ems, in particular for the		cal knowledge on the	e design and development of		
Course	<b>s</b> (type	, number of weekly conta	act hours, language –	- if other than Germa	in)		
V (no i	nforma	tion on SWS (weekly con	tact hours) and cours	e language available	e)		
written	exami aminat	nation can be replaced b ion in groups (groups of	y an oral examinatior	n of one candidate e	t the beginning of the course, the ach (approx. 20 minutes) or an		
Allocut							
Additio		ormation					
Auunt							
Worklo	bad						
Teachi	ng cycl	e					
Referre	ed to in	LPOI (examination regu	ulations for teaching-	degree programmes)			
Modul	Module appears in						
Bachel	Bachelor' degree (1 major) Computer Science (2014)						
	Bachelor' degree (1 major) Mathematics (2014)						
	Bachelor' degree (1 major) Business Information Systems (2014)						
	Bachelor' degree (1 major) Computational Mathematics (2014)						
Bachel	Bachelor' degree (1 major) Aerospace Computer Science (2014)						

Module	e title				Abbreviation	
Practic	al cour	se in software			10-I-SWP-141-m01	
Modul	e coord	inator		Module offered by		
Dean o	f Studi	es Informatik (Computer	Science)	Institute of Comput	er Science	
ECTS	Metho	od of grading	Only after succ. con	pl. of module(s)		
10	(not) s	successfully completed	10-I-PP,10-I-STV			
Duratio	on	Module level	Other prerequisites			
1 seme	ster	undergraduate	u u u u u u u u u u u u u u u u u u u		ADSV, 10-I-ADST, 10-I-SST are re-	
			quired. Prior comple	etion of these modul	es is highly recommended.	
Conten	Its		,			
cation	of solu		ML) and milestones, (	user manual, progra	uirements specifications, specifi- mming documentation, presenta-	
Intend	ed lear	ning outcomes				
The stu small t		possess the practical skil	ls for the design, dev	velopment and exect	ution of a software project in	
Course	<b>s</b> (type	, number of weekly conta	ct hours, language –	- if other than Germa	n)	
P (no ir	nformat	ion on SWS (weekly cont	act hours) and cours	e language available		
ster, in	formati	on on whether module c	an be chosen to earn	a bonus)	tion offered — if not every seme-	
		a larger software project r group)	in groups (approx. 3	oo hours per person	) and final presentation (approx.	
Allocat	ion of <sub>l</sub>	olaces				
Additio	onal inf	ormation				
Worklo	ad					
Teachi	ng cycl	e				
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)						
Module appears in						
Bachel	or' deg	ree (1 major) Computer S	cience (2014)			
	Bachelor' degree (1 major) Mathematics (2014)					
Bachel	or' deg	ree (1 major) Computatio	nal Mathematics (20	14)		

Module title			Abbreviation		
Tutorial Theoretical Informatics			10-I-TIT-141-m01		
Module coordinator		Module offered by			
Dean of Studies Informatik (Computer	Science)	Institute of Comput	er Science		
ECTS Method of grading	Only after succ. com	pl. of module(s)			
5 (not) successfully completed					
Duration Module level	Other prerequisites				
1 semester undergraduate					
Contents					
Computability, decidability, countabili guages, context-sensitive languages, c					
Intended learning outcomes					
The students possess a fundamental a tability, finite automata, regular sets, g complexity of computations, P-NP prob Courses (type, number of weekly conta	generative grammars, plem, NP completenes	context-free languages.	ges, context-sensitive languages,		
Ü (no information on SWS (weekly con					
<b>Method of assessment</b> (type, scope, la ster, information on whether module c			tion onered — If not every seme-		
a) completion of approx. 11 exercise sh correctly) or b) written examination (ap candidate.					
Allocation of places					
Additional information	-				
Workload					
Teaching cycle					
Referred to in LPO I (examination regu	llations for teaching-c	legree programmes)			
Module appears in					
Bachelor' degree (1 major) Computer S					
Bachelor' degree (1 major) Mathematic	cs (2014)				
Bachelor' degree (1 major) Mathematic Bachelor' degree (1 major) Computatio Bachelor' degree (1 major) Aerospace (	s (2014) nal Mathematics (201	-			

Module					Abbreviation	
Theoret	ical Inf	formatics			10-I-TIV-141-m01	
Module	coordi	inator		Module offered by		
Dean of	Studie	es Informatik (Computer S	Science)	Institute of Compute	er Science	
· · · · · ·		od of grading	Only after succ. com	pl. of module(s)		
- I	r	rical grade				
Duratio		Module level	Other prerequisites			
1 semes	ster	undergraduate				
Content	S					
		, decidability, countabilit xt-sensitive languages, c	-		e grammars, context-free lan- NP completeness.	
Intende	d learr	ning outcomes				
tability,	finite a		enerative grammars,	context-free languag	computability, decidability, coun- ges, context-sensitive languages,	
Courses	; (type,	number of weekly conta	ct hours, language —	if other than Germa	n)	
V (no in	format	ion on SWS (weekly cont	act hours) and cours	e language available	)	
		<b>essment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-	
written e	examir		/ an oral examination	of one candidate ea	the beginning of the course, the ach (approx. 20 minutes) or an	
Allocati	on of p	olaces				
Addition	nal info	ormation				
Workloa	ad					
Teachin	g cycle	9				
Referred	d to in	LPOI (examination regu	lations for teaching-c	legree programmes)		
Module	appea	rs in				
		ree (1 major) Computer So	cience (2014)			
	-	ree (1 major) Mathematic				
		ree (1 major) Computation				
Bachelo	or' degr	ree (1 major) Aerospace C	Computer Science (20	14)		

Module					Abbreviation	
Fundamentals Analysis			10-M-ANA-G-131-m01			
Module	e coord	inator		Module offered by		
Dean of	f Studie	es Mathematik (Mathema	atics)	Institute of Mathem	atics	
ECTS		od of grading	Only after succ. com	pl. of module(s)		
8	(not) s	successfully completed				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
		and completeness, basic al and integral calculus in		convergence and di	ivergence of sequences and se-	
Intende	ed learı	ning outcomes				
central	proof r	nethods in analysis and o	can employ them to s	olve easy problems.	He/She is acquainted with the He/she is able to perform easy s precisely and clearly in written	
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)	
V + Ü (r	no infor	mation on SWS (weekly o	contact hours) and co	ourse language availa	able)	
		<b>sessment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-	
		nation (approx. 90 to 180 ssessment: German, Eng			with approx. 4 exercises each	
Allocat	ion of p	olaces				
Additio	nal inf	ormation				
Worklo	ad					
Teachir	Teaching cycle					
Referre	<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)					
Module	Module appears in					
		ree (1 major) Mathematic	s (2014)			
Bachelo	or' deg	ree (1 major) Computation	nal Mathematics (201	14)		

Module	title				Abbreviation	
Overvie	w Ana	lysis			10-M-ANA-Ü-131-m01	
Module	coord	inator		Module offered by		
Dean of	fStudie	es Mathematik (Mathema	atics)	Institute of Mathem	atics	
ECTS		od of grading	Only after succ. com	pl. of module(s)		
12	nume	rical grade				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
ries, dif	ferenti		n one variable, furthe		ivergence of sequences and se- erations, differential calculus	
Intende	ed learr	ning outcomes				
them in	depen ckgrou	dently, He/She has an ov nd and geometric interpr	verview over the fund	amental notions and	analysis and is able to apply I concepts of analysis, their ana- xpress them adequately in writ-	
Course	<b>s</b> (type,	, number of weekly conta	ct hours, language —	if other than Germa	n)	
V + Ü (r	io infor	mation on SWS (weekly o	contact hours) and co	urse language avail	able)	
		e <b>ssment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-	
module	s 10-M	on of one candidate eacl -ANA-G and 10-M-ANA-Ü. ssessment: German, Eng			nave reference to the contents of	
Allocat	ion of p	olaces				
Additio	nal info	ormation				
Worklo	ad					
Teaching cycle						
		-				
Referre	<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)					
Module	annea	irs in				
		ree (1 major) Mathematic	5 (2014)			
	-	ree (1 major) Computation		4)		
L		• • •	``````````````````````````````````````	-		

Module	e title				Abbreviation		
Fundan	nentals	S Applied Mathematics			10-M-ANW-G-131-m01		
Module	e coord	inator		Module offered by			
Dean o	f Studi	es Mathematik (Mathema	atics)	Institute of Mathem	atics		
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)			
8	(not) s	successfully completed					
Duratio	on	Module level	Other prerequisites				
1 seme	ster	undergraduate					
Conten	ts						
Numeri ons and tegratic Numeri itial val Stocha tion the sures a ted val	One of the following topics in applied mathematics: <b>Numerical Mathematics 1</b> (Solution of systems of linear equations and curve fitting problems, nonlinear equations and systems of equations, interpolation with polynomials, splines and trigonometric functions, numerical integration) <b>Numerical Mathematics 2</b> (Solution methods and applications for eigenvalue problems, linear programming, initial value problems for ordinary differential equations, boundary value problems) <b>Stochastics 1</b> (Combinatorics, Laplace models, selected discrete distributions, elementary measure and integration theory, continuous distributions: normal distribution, random variable, distribution function, product measures and stochastic independence, elementary conditional probability, characteristics of distributions: expected value and variance, limit theorems: law of large numbers, central limit theorem) <b>Stochastics 2</b> (Elements of data analysis, statistics of data in normal and other distributions, elements of multi-						
		ning outcomes					
He/She knows	e is acq about I	uainted with the central on the possibilities and limit	concepts and algorith ations of their applic	nms in this field, can ability.	field in applied mathematics. apply them independently and		
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)		
1) Ü + V	no info	rmation on SWS (weekly o	contact hours) and co	ourse language avail	able)		
		<b>sessment</b> (type, scope, la ion on whether module ca			tion offered — if not every seme-		
written oral exa	exami aminat		/ an oral examination 2, approx. 30 minutes	of one candidate ea	t the beginning of the course, the ach (approx. 20 minutes) or an		
Allocat	ion of <b>j</b>	places					
Additio	onal inf	ormation					
Worklo	ad						
Teachi	ng cvcl	e					
Referre	ed to in	LPO I (examination regu	lations for teaching-c	legree programmes)			
 Module	annes	ars in					
		ree (1 major) Mathematic	s (2014)				
Dachel	oi ueg		5 (2014)				

Module					Abbreviation
Overview Applied Mathematics 10-M-ANW-Ü-131-m01					10-M-ANW-Ü-131-m01
Module	e coord	inator		Module offered by	
Dean o	of Studi	es Mathematik (Mathema	atics)	Institute of Mathem	atics
ECTS		od of grading	Only after succ. con	npl. of module(s)	
12	nume	rical grade			
Duratio	-	Module level	Other prerequisites		
1 seme		undergraduate			
Conten	its				
Two of the following topics in applied mathematics:         Numerical Mathematics 1 (Solution of systems of linear equations and curve fitting problems, nonlinear equations and systems of equations, interpolation with polynomials, splines and trigonometric functions, numerical integration)         Numerical Mathematics 2 (Solution methods and applications for eigenvalue problems, linear programming, initial value problems for ordinary differential equations, boundary value problems)         Stochastics 1 (Combinatorics, Laplace models, selected discrete distributions, elementary measure and integration theory, continuous distributions: normal distribution, random variable, distribution function, product measures and stochastic independence, elementary conditional probability, characteristics of distributions: expected value and variance, limit theorems: law of large numbers, central limit theorem)         Stochastics 2 (Elements of data analysis, statistics of data in normal and other distributions, elements of multivariate statistics)         Intended learning outcomes         The student knows and masters the fundamental methods and notions of some field in applied mathematics. He/She is acquainted with the central concepts and algorithms in this field, can apply them independently and knows about the possibilities and limitations of their applicability.         Courses (type, number of weekly contact hours, language — if other than German)					
		rmation on SWS (weekly o			
		sessment (type, scope, la ion on whether module ca			tion offered — if not every seme-
dealt w candid Langua	vith in n ate age of a	nodule 10-M-ANW-G as w ssessment: German, Eng	ell as an additional s		nave reference to the sub-field nathematics as selected by the
Allocat	tion of <sub>l</sub>	places			
Additio	onal inf	ormation			
Worklo	oad				
Teachi	ng cycl	e			
	-				
Referre	ed to in	LPOI (examination regu	lations for teaching-	degree programmes)	
Module	e appea	ars in			
Bachel	or' deg	ree (1 major) Mathematic	s (2014)		

Module					Abbreviation
Reason	ing an	d Writing in Mathematics	5		10-M-ASM-131-m01
Module	coord	inator		Module offered by	<u> </u>
Dean of	f Studi	es Mathematik (Mathema	atics)	Institute of Mathem	natics
ECTS		od of grading	Only after succ. con	pl. of module(s)	
2	(not)	successfully completed			
Duratio	n	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	ts				
	ical wr				in mathematics as well as ma- approach to axiomatic and de-
Intende	ed lear	ning outcomes			
	isy ma				nematics. He/She is able to per- y and reasonably in written and
Course	<b>s</b> (type	, number of weekly conta	ct hours, language –	· if other than Germa	ın)
V + Ü (r	no info	rmation on SWS (weekly o	contact hours) and co	ourse language avail	able)
		s <b>essment</b> (type, scope, la ion on whether module ca			tion offered — if not every seme-
		iment (approx. 60 to 120 issessment: German, Eng			
Allocat	ion of	places			
Additio	nal inf	ormation			
Worklo	ad				
Teachir	ıg cvcl	e			
	<u> </u>				
Referre	d to in	LPOI (examination regu	lations for teaching-	legree programmes)	
		examination regu			
Module	anne	ars in			
		ree (1 major) Mathematic	s (2014)		
	-	ree (1 major) Mathematic		14)	
				יד <sup>-</sup>	

Modul	e title				Abbreviation
Thesis	Mathe	matics (Bachelor Thesis	)		10-M-BAM-122-m01
Modul	e coord	inator		Module offered by	<u> </u>
Dean o	of Studi	es Mathematik (Mathem	atics)	Institute of Mathen	natics
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
11	nume	rical grade	Where applicable, s supervisor.	pecific modules/mc	odule components as specified by
Durati	on	Module level	Other prerequisites		
1 seme	ester	undergraduate			
Conter	nts				
Indepe	endentl	y researching and writing	g on a topic in mathen	natics selected in co	onsultation with the supervisor.
		ning outcomes			
tained		his/her studies in the ba			pply the skills and methods ob- wn the result of his/her work in a
Course	<b>es</b> (type	, number of weekly cont	act hours, language –	- if other than Germa	an)
no cou	irses as	signed			
		sessment (type, scope, l ion on whether module o			ation offered — if not every seme-
	n thesis age of a	ssessment: German, Eng	glish if agreed upon w	ith the examiner	
Alloca	tion of	places			
Additi	onal inf	ormation			
Worklo	oad				
Teachi	ing cycl	e			
	_ /				
Referr	ed to in	LPOI (examination reg	ulations for teaching-o	degree programmes	)
Modul	e appea	ars in			
		ree (1 major) Mathemati	cs (2014)		
	-	ree (1 major) Mathemati			
Bache	lor' deg	ree (1 major) Mathemati	cs (2013)		

Module	e title				Abbreviation
Computational Mathematics 10-M-COM-131-mo1					10-M-COM-131-m01
Module	e coord	inator		Module offered by	
		es Mathematik (Mathema	atics)	Institute of Mathem	atics
ECTS		od of grading	Only after succ. con		
4		successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	ts				
merica and 10 rential	l comp -M-LNA and int	utation (e. g. Matlab) to s -G). Computer-based solu regral calculus; visualisat	upplement the basic ution of problems in	modules in analysis	Mathematica or Maple) and nu- s and linear algebra (10-M-ANA-G etry, analysis, in particular diffe-
		ning outcomes			
		earns the use of advanced cation to solve mathemat		cal software package	es, and is able to assess their
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	- if other than Germa	in)
V + Ü (ı	no info	rmation on SWS (weekly o	contact hours) and co	ourse language avail	able)
		sessment (type, scope, la ion on whether module ca			tion offered — if not every seme-
		form of programming exe ssessment: German, Eng		120 minutes)	
Allocat	ion of <sub>l</sub>	olaces			
Additio	onal inf	ormation			
Worklo	ad				
Teachi	ng cycl	e			
			-		
Referre	ed to in	LPOI (examination regu	lations for teaching-o	degree programmes)	
				<u> </u>	
Module	e appea	ars in			
Bachel	or' deg	ree (1 major) Mathematic ree (1 major) Computatio		14)	

Module	e title				Abbreviation
Introdu	uction t	o Stochastics Financial N	<b>Nathematics</b>		10-M-EFM-131-m01
Module	e coord	inator		Module offered by	
Dean o	f Studi	es Mathematik (Mathema	atics)	Institute of Mathem	atics
ECTS	Meth	od of grading	Only after succ. com	pl. of module(s)	
9	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	Its				
term st of asse stocha	ructure et pricin stic mu	es and yield curves, forwa og in the stochastic one-p Ilti-period models, valuat	rds, payout profiles o eriod model, risk neu	of options and other atral price measures,	n flows, actuarial present value, derivates, fundamental theorem , replication and completeness, nodel, Black-Scholes formula.
Intend	ed lear	ning outcomes			
		acquainted with the fun practical problems and k			nastic financial mathematics, can
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)
V + Ü (ı	no info	rmation on SWS (weekly o	contact hours) and co	ourse language avail	able)
		<b>sessment</b> (type, scope, la ion on whether module ca			tion offered — if not every seme-
written oral ex	exami aminat		y an oral examination 2, approx. 30 minutes	of one candidate ea	t the beginning of the course, the ach (approx. 20 minutes) or an
Allocat	ion of <b>j</b>	places			
Additio	onal inf	ormation			
Worklo	ad				
			· · · · · · · · · · · · · · · · · · ·		
Teachi	ng cycl	e			
Referre	ed to in	LPOI (examination regu	lations for teaching-o	legree programmes)	
				,	
Module	e appea	ars in			

Module	e title				Abbreviation
Selecte	ed Topi	cs from Mathematics			10-M-ERG-131-m01
Module	e coord	inator		Module offered by	<u> </u>
Dean o	f Studi	es Mathematik (Mathema	atics)	Institute of Mathem	natics
ECTS		od of grading	Only after succ. com		lates
10		rical grade			
	I	r	04h		
Duratio		Module level	Other prerequisites		
1 seme		undergraduate			
Conten	ts				
ons an tegratic Numeri itial val Stocha tion the sures a ted val Stocha variate Introdu Introdu tion, su metries Ordina itial val higher Introdu tegrals theorem Resthi Introdu tegrals theorem Sargue	d syste on) ical Ma lue pro stics 1 eory, co ue and stics 2 statist uction t uction t uction t and Ca m and a eorem uction t s, fund	ms of equations, interpo thematics 2 (Solution me blems for ordinary differe (Combinatorics, Laplace ontinuous distributions: r chastic independence, el variance, limit theorems (Elements of data analys ics) o Algebra (Fundamental o Differential Geometry ( folds in Euclidean space theorem on local surface strential Equations (Exister ystems of linear different o Complex Analysis (Con auchy integral theorems, applications, Weierstraß alysis (Fundamentals in a and applications in vecto o Projective Geometry (F amental theorems for pro-	lation with polynomia ethods and application ential equations, bour models, selected dis- normal distribution, ra- lementary conditiona : law of large number sis, statistics of data i algebraic structures: (Curves in Euclidean s s, hypersurfaces in page theory, special class ial equations, matrix isolated singularities product theorem and analysis on manifolds or analysis and topolo Projective spaces, duali	als, splines and trigo ons for eigenvalue p ndary value problem crete distributions, andom variable, disi l probability, charac s, central limit theor in normal and other groups, rings, fields spaces, curvature, Fr articular, curvature of ses of surfaces) theorem; continuou exponential series, l and Cauchy-Riemar , meromorphic func- theorem of Mittag-L s, submanifolds, cal ogy) olanes, projective an ties and polarities o	elementary measure and integra- tribution function, product mea- teristics of distributions: expec- rem) distributions, elements of multi- s; Galois theory) renet equations, local classifica- of hypersurfaces, geodesics, iso- tes dependence of solutions on in- linear differential equations of nn differential equations, path in tions and Laurent series, residue leffler, conformal maps) culus of differential forms, Sto- ed affine spaces, theorem of De- of projective spaces)
equation ry value <b>Introdu</b>	ons of f e probl <b>iction t</b>	irst order, existence and ems, maximum principle	uniqueness theorem and Dirichlet probler (Techniques from cor	s, basic equations o n.) nbinatorics, introdu	quations and partial differential f mathematical physics, bounda ction to graph theory including
Introdu tional a	uction t analysi	o Functional Analysis (Bas)	anach spaces and Hil	bert spaces, bounde	ed operators, principles of func-
graph t Introdu sation,	heoret: I <b>ction t</b> modul	ic problems) <b>o Number Theory</b> (Eleme	ntary properties of di ts and methods for fa	visibility, prime num ctorisation, structur	integral linear programming, nbers and prime number factori- re of the residue class rings, theo phanting aquations)
		· · · · · · · · · · · · · · · · · · ·	inis, uiopitantine app		
		ning outcomes			
these f	undam		epts and methods he	e/she is able to pers	r applied mathematics. Based o ue further studies and interrelat dge.

Bachelor's with 1 major Mathematics (2014)

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

V +  $\ddot{U}$  (no information on SWS (weekly contact hours) and course language available)

**Method of assessment** (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

oral examination of one candidate each (approx. 30 minutes)

Language of assessment: German, English

## **Allocation of places**

Additional information

--

Workload

--

Teaching cycle

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

--

## Module appears in

Bachelor' degree (1 major) Mathematics (2014)

Bachelor's with 1 major Mathematics (2014)	JMU Würzburg • generated 26-Aug-2024 • exam. reg.	page 108 / 163
	data record Bachelor (180 ECTS) Mathematik - 2014	

Module title Abbreviation					Abbreviation	
Basic Notations and Methods of Mathematical Reasoning10-M-GBM-131-m01					10-M-GBM-131-m01	
Module	e coord	inator		Module offered by		
Dean o	of Studi	es Mathematik (Mathema	atics)	Institute of Mathem	natics	
ECTS	Meth	od of grading	Only after succ. con	pl. of module(s)		
2	(not)	successfully completed				
Duratio	on	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
Introdu	uction t	o the basic notions and p	proof techniques in m	athematics: approa	ch to sets, formal logic and maps.	
Intend	ed lear	ning outcomes				
		ets acquainted with the b s degree study programm		ues which are prere	quisites for the further courses in	
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	- if other than Germa	in)	
V + Ü (I	no info	rmation on SWS (weekly	contact hours) and co	ourse language avail	able)	
		<b>sessment</b> (type, scope, la ion on whether module ca			tion offered — if not every seme-	
		ment (approx. 60 to 120 ssessment: German, Eng				
Allocat	ion of	places				
Additio	onal inf	ormation				
Worklo	ad					
Teachi	ng cycl	e				
Referre	ed to in	LPOI (examination regu	lations for teaching-o	degree programmes)		
Module	Module appears in					
	Bachelor' degree (1 major) Mathematics (2014)					
Bachel	or' deg	ree (1 major) Computatio	nal Mathematics (20 <sup>-</sup>	14)		

Module title			Abbreviation		
Selecte	ed Topi	cs from the History of Ma	thematics		10-M-GES-131-m01
Module coordinator Module of				Module offered by	<u> </u>
Dean o	f Studi	es Mathematik (Mathema	atics)	Institute of Mathem	natics
ECTS		od of grading	Only after succ. con	pl. of module(s)	
4	(not) s	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	ts				
the fun	damen		articular in its relatio		more in-depth discussion of and humanities as well as to the
Intend	ed lear	ning outcomes			
	eories				and cultural genesis of mathema- l ideas and concepts to a general
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	- if other than Germa	n)
V + Ü (ı	no infoi	mation on SWS (weekly o	contact hours) and co	ourse language avail	able)
		<b>sessment</b> (type, scope, la ion on whether module ca			tion offered — if not every seme-
Assess	ment o	ment (approx. 60 to 120 ffered: in the semester in ssessment: German, Eng	which the course is	offered and in the su	ubsequent semester
Allocat					
Additio	onal inf	ormation			
Worklo	ad				
Teachi	ng cvcl	e			
	-3 -) -(	-			
Referre	d to in	LPO I (examination regu	lations for teaching.	legree programmes)	
Module	annes	ars in			
			s (2014)		
	Bachelor' degree (1 major) Mathematics (2014) Bachelor' degree (1 major) Computational Mathematics (2014)				
				И	

Module title					Abbreviation	
Fundar	nentals	s Linear Algebra			10-M-LNA-G-131-m01	
Module	e coord	inator		Module offered by	<u> </u>	
Dean o	f Studi	es Mathematik (Mathema	atics)	Institute of Mathem	natics	
ECTS	<u>.</u>	od of grading	Only after succ. con	npl. of module(s)		
8	(not)	successfully completed				
Duratio	on	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	Its					
Basic r termina		and structures; vector sp	oaces, linear maps, sy	stems of linear equ	ations; theory of matrices and de-	
Intend	ed lear	ning outcomes				
ted wit	h the c	entral proof methods in li	inear algebra and car	n apply them to solve	ear algebra. He/She is acquain- e easy problems. He/She is able m adequately in written form.	
Course	<b>s</b> (type	, number of weekly conta	ct hours, language –	- if other than Germa	ın)	
V + Ü (ı	no info	rmation on SWS (weekly	contact hours) and co	ourse language avail	able)	
		sessment (type, scope, la ion on whether module ca			tion offered — if not every seme-	
		nation (approx. 90 to 180 ssessment: German, Eng		x. 12 exercise sheets	s with approx. 4 exercises each	
Allocat	ion of	places				
Additio	onal inf	ormation				
Worklo	ad					
Teachi	ng cycl	e				
	- /					
Referre	ed to in	LPOI (examination regu	lations for teaching-o	degree programmes)		
				<u> </u>		
Module	e appea	ars in				
Bachelor' degree (1 major) Mathematics (2014)						
	Bachelor' degree (1 major) Computational Mathematics (2014)					

Overvi	Module title				Abbreviation
Overview Linear Algebra					10-M-LNA-Ü-131-m01
Modul	e coord	inator		Module offered by	<u> </u>
Dean o	of Studi	es Mathematik (Mathema	atics)	Institute of Mathem	natics
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
12	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ester	undergraduate			
Conter	nts				
determ		eigenvalue theory; bilin			equations; theory of matrices and oaces; diagonalisability and Jor-
Intend	ed lear	ning outcomes			
ply the knows them a	em inde about f adequat	pendently. He/She has a their algebraic and geom tely in written and oral fo	n overview over the f etric background, is a rm.	undamental notions able to relate them to	linear algebra and is able to ap- and methods of linear algebra, o each other and can present
Course	<b>es</b> (type	, number of weekly conta	ict hours, language –	- if other than Germa	ın)
V + Ü (	no info	rmation on SWS (weekly	contact hours) and co	ourse language avail	able)
					tion offered — if not every seme-
ster, information on whether module can be chosen to earn a bonus) oral examination of one candidate each (approx. 30 minutes); assessment will have reference to the contents of modules 10-M-ANA-G and 10-M-ANA-Ü.					
	age of a	ssessment: German, Eng			
Langua	age of a <b>tion of</b> J	ssessment: German, Eng <b>blaces</b>			
Langua		-			
Langua Allocat	tion of <sub>l</sub>	-			
Langua Allocat	tion of <sub>l</sub>	olaces			
Langua Allocat	tion of ponal inf	olaces			
Langua Allocat  Additio	tion of ponal inf	olaces			
Langua Allocat  Additic  Worklo	tion of ponal inf	ormation			
Langua Allocat  Additic  Worklo	tion of ponal inf	ormation			
Langua Allocat  Additio  Worklo  Teachi 	tion of p onal inf oad	ormation	;lish	degree programmes)	
Langua Allocat  Additio  Worklo  Teachi 	tion of p onal inf oad	ormation e	;lish	degree programmes)	
Langua Allocat  Additio  Worklo  Teachi  Referre	tion of p onal inf oad ing cycl	ormation e LPOI (examination regu	;lish	degree programmes)	
Langua Allocat Additic  Worklo  Teachi  Referre  Modulo	tion of p onal inf oad ing cycl ed to in e appea	ormation e LPOI (examination regu	lish	degree programmes)	

Module title					Abbreviation
Mathematical Writing				10-M-MSC-131-m01	
Modul	Module coordinator			Module offered by	
Dean c	of Studi	es Mathematik (Mathema	atics)	Institute of Mathem	atics
ECTS	Meth	od of grading	Only after succ. com	pl. of module(s)	
4	(not)	successfully completed			
Durati	on	Module level	Other prerequisites		
1 seme	ester	undergraduate			
Conter	nts				
vers th compr rigour	e whol ehensiv and eff	e range of mathematical t ve works such as Bachelo iciency but also didactic	exts from short proof or's or Master's these	s and the formulation	case examples. The course co- on of theorems and definitions to include not only mathematical
Intend	ed lear	ning outcomes			
		s able to formulate mathe actures and conventions of			prehensibly. He/She knows ments of scientific work.
Course	<b>es</b> (type	, number of weekly conta	ct hours, language —	· if other than Germa	n)
V + Ü (	no info	rmation on SWS (weekly	contact hours) and co	ourse language avail	able)
		<b>sessment</b> (type, scope, la ion on whether module c			tion offered — if not every seme-
Assess	sment c	nment (approx. 60 to 120 offered: in the semester ir ussessment: German, Eng	which the course is	offered and in the su	ıbsequent semester
Allocat	tion of	places			
Additio	onal inf	ormation			
Worklo	oad				
 Teachi	ing cycl	e			
 Teachi 	ing cycl	e			
		e LPO I (examination regu	lations for teaching-o	legree programmes)	
			lations for teaching-o	legree programmes)	
 Referro		LPOI (examination regu	lations for teaching-c	legree programmes)	
 Referre  Modul	ed to in e appea	LPOI (examination regu		legree programmes)	

Module	e title				Abbreviation	
Programming course for students of Mathematics and other subjects					10-M-PRG-131-m01	
Module	e coord	inator		Module offered by		
Dean o	f Studi	es Mathematik (Mathema	atics)	Institute of Mathem	natics	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
3	(not) s	successfully completed				
Duratio	on	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	lts					
Basics	of a mo	odern programming langı	uage (e.g.C).			
Intende	ed lear	ning outcomes				
The stu in math		-	ntly on small program	nming exercises and	standard programming problems	
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	- if other than Germa	in)	
P (no ir	nformat	tion on SWS (weekly cont	act hours) and cours	e language available	e)	
		sessment (type, scope, la ion on whether module ca			tion offered — if not every seme-	
		form of programming exe ssessment: German, Eng		120 minutes)		
Allocat	ion of <sub>l</sub>	olaces				
Additio	onal inf	ormation				
Worklo	ad					
Teachi	ng cycl	e				
Referre	ed to in	LPOI (examination regu	lations for teaching-o	legree programmes)		
Module	Module appears in					
Bachelor' degree (1 major) Mathematics (2014) Bachelor' degree (1 major) Computational Mathematics (2014)						

Module title					Abbreviation		
		athematics			10-M-PRO-131-m01		
Module	coord	inator		Module offered by			
Dean o	f Studie	es Mathematik (Mathema	atics)	Institute of Mathem	atics		
ECTS		od of grading	Only after succ. com	pl. of module(s)			
4	(not) s	successfully completed					
Duratio	n	Module level	Other prerequisites				
1 seme	ster	undergraduate					
Conten	ts						
Selecte	d basi	topics in mathematics.					
Intende	ed learr	ning outcomes					
of a giv	en topi	•	•	-	sters elaboration and structuring /She is able to participate active-		
Course	<b>s</b> (type,	, number of weekly conta	ct hours, language —	if other than Germa	n)		
S (no in	Iformat	ion on SWS (weekly cont	act hours) and cours	e language available	2)		
		e <b>ssment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-		
Assess	ment o	o to 120 minutes) ffered: in the semester in ssessment: German, Eng		offered and in the su	ıbsequent semester		
Allocat	ion of p	olaces					
Additio	nal info	ormation					
Worklo	ad						
Teachir	ng cycl	e					
Referre	<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)						
Module	Module appears in						
		ree (1 major) Mathematic	s (2014)				
Bachel	Bachelor' degree (1 major) Computational Mathematics (2014)						

Module title			Abbreviation			
Fundamentals Pure Mathematics			10-M-REI-G-131-mo	1		
Module coordinator		Module offered by				
Dean of Studies Mathematik (Mathem	Institute of Mathem	atics				
ECTS         Method of grading         Only after succ. compl. of module(s)						
8 (not) successfully completed						
Duration Module level	Other prerequisites					
1 semester undergraduate						
Contents						
One of the following topics in pure ma			Calaia theory)			
Introduction to Algebra (Fundamenta Introduction to Differential Geometry				al classifica-		
tion, submanifolds in Euclidean space						
metries, main theorem on local surface	ce theory, special class	ses of surfaces)				
Ordinary Differential Equations (Exist						
itial values, systems of linear differen higher order)	tial equations, matrix	exponential series, l	inear differential eq	uations of		
Introduction to Complex Analysis (Co	mplex differentiability	and Cauchy-Rieman	in differential equati	ons, path in-		
tegrals and Cauchy integral theorems						
theorem and applications, Weierstraf	•					
<b>Geometric Analysis</b> (Fundamentals in			culus of differential	forms, Sto-		
ke's theorem and applications in vect			d affine spaces, the	orem of De-		
sargues, fundamental theorems for p						
Intended learning outcomes						
The student knows and masters the e	ssential methods and	basic notions in one	branch of pure mat	hematics.		
He/She is acquainted with the centra						
independently.						
Courses (type, number of weekly cont						
V + Ü (no information on SWS (weekly						
<b>Method of assessment</b> (type, scope, ster, information on whether module			tion offered — if not	every seme-		
written examination (approx. 90 to 18						
written examination can be replaced			ach (approx. 20 mini	utes) or an		
oral examination in groups (groups of Language of assessment: German, En		5)				
Allocation of places	8000					
Additional information						
Workload	_					
Teaching cycle						
Referred to in LPO I (examination reg	ulations for teaching-	degree programmes)				
Module appears in						
Bachelor' degree (1 major) Mathemati	ics (2014)					
Bachelor's with 1 major Mathematics (2014)		• generated 26-Aug-2024 • e achelor (180 ECTS) Mathema		page 116 / 163		

Module title	Abbreviation				
Overview Pure Mathematics	10-M-REI-Ü-131-mo	1			
Module coordinator		Module offered by			
Dean of Studies Mathematik (Mathematics) Institute of Mathematics					
ECTS Method of grading	Only after succ. con	npl. of module(s)			
12 numerical grade					
Duration Module level	Other prerequisites				
1 semester undergraduate					
Contents					
Two of the following topics in pure mat Introduction to Algebra (Fundamental		groups rings fields	Calais theory)		
Introduction to Differential Geometry (				al classifica-	
tion, submanifolds in Euclidean space					
metries, main theorem on local surface					
Ordinary Differential Equations (Existe					
itial values, systems of linear differenti higher order)	al equations, matrix	exponential series, l	inear differential eq	uations of	
Introduction to Complex Analysis (Con	nplex differentiability	and Cauchy-Rieman	n differential equati	ons. path in-	
tegrals and Cauchy integral theorems,	isolated singularities	, meromorphic funct	ions and Laurent se	ries, residue	
theorem and applications, Weierstraß					
<b>Geometric Analysis</b> (Fundamentals in a			culus of differential	forms, Sto-	
ke's theorem and applications in vector Introduction to Projective Geometry (P			d affine snaces the	orem of De-	
sargues, fundamental theorems for pro					
Intended learning outcomes	<u>,                                     </u>	·			
The student knows and masters the es	sential methods and	hasic notions in two	branches of pure m	athematics	
He/She has an overivew over the centr interrelations and mathematical backg	al concepts and proo	f methods in these f	ields, and is able to		
Courses (type, number of weekly conta		- if other than Germa	n)		
V + Ü (no information on SWS (weekly					
<b>Method of assessment</b> (type, scope, la ster, information on whether module ca			tion offered — if not	every seme-	
oral examination of one candidate eac	h (approx. 30 minute	s); assessment will ł	nave reference to the	e sub-field	
dealt with in module 10-M-REI-G as we	ll as an additional su	b-field of pure mathe	ematics as selected	by the candi-	
date Language of assessment: German, Eng	lish				
Allocation of places					
Additional information					
Workland					
Workload					
Teaching cycle					
Referred to in LPO I (examination regu	lations for teaching-o	degree programmes)			
Module appears in					
Bachelor' degree (1 major) Mathematic	s (2014)				
Bachelor's with 1 major Mathematics (2014)		• generated 26-Aug-2024 • e	exam. reg.	page 117 / 163	
		achelor (180 ECTS) Mathemat			

Module	e title				Abbreviation
School	Mathe	matics from a Higher Per	spective		10-M-SCH-131-m01
Modul	e coord	inator		Module offered by	<u> </u>
Dean o	of Studi	es Mathematik (Mathema	atics)	Institute of Mathem	natics
ECTS	Metho	od of grading	Only after succ. con	pl. of module(s)	
4	(not) s	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ester	undergraduate			
Conten	nts				
		selected topics in school implementation at both s			ation into wider theories and
Intend	ed lear	ning outcomes			
and ad		mathematical theories.			between school mathematics athematical, didactical and me-
Course	<b>s</b> (type	, number of weekly conta	ct hours, language –	· if other than Germa	an)
V + Ü (I	no infoi	rmation on SWS (weekly o	contact hours) and co	ourse language avail	able)
		sessment (type, scope, la ion on whether module ca			tion offered — if not every seme-
Assess	ment o	ment (approx. 60 to 120 ffered: in the semester in ssessment: German, Eng	which the course is	offered and in the su	ubsequent semester
Allocat	tion of <b>j</b>	olaces			
Additio	onal inf	ormation			
Worklo	ad				
Teachi	ng cycl	e			
Referre	ed to in	LPOI (examination regu	lations for teaching-	legree programmes)	
				- 0·	
Modul	e annes	ars in			
<b>Module appears in</b> Bachelor' degree (1 major) Mathematics (2014) Bachelor' degree (1 major) Computational Mathematics (2014)					

Module title					Abbreviation
Additio	onal Se	minar in Mathematics			10-M-SE2-131-m01
Module	e coord	inator		Module offered by	
		es Mathematik (Mathema	atics)	Institute of Mathem	natics
ECTS	1	od of grading	Only after succ. com	npl. of module(s)	
5	(not) s	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	Its				
A selec	ted top	ic in mathematics.			
Intend	ed lear	ning outcomes	,		
of a giv	/en topi				sters elaboration and structuring /She is able to participate active-
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	- if other than Germa	in)
S (no ir	nformat	ion on SWS (weekly cont	act hours) and cours	e language available	e)
		s <b>essment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-
	•	60 to 120 minutes) ssessment: German, Eng	lish		
Allocat	ion of p	olaces			
Additio	onal inf	ormation			
Worklo	ad				
Teachi	ng cycl	e			
Referre	ed to in	LPOI (examination regu	lations for teaching-o	degree programmes)	
Module	e appea	irs in			
Bachelor' degree (1 major) Mathematics (2014) Bachelor' degree (1 major) Computational Mathematics (2014)					

Module title				Abbreviation			
Seminar Mathematics					10-M-SEM-131-m01		
Modul	e coord	inator		Module offered by			
Dean c	of Studio	es Mathematik (Mathema	atics)	Institute of Mathem	atics		
ECTS		od of grading	Only after succ. com	pl. of module(s)			
5	(not) s	successfully completed					
Duratio		Module level	Other prerequisites				
1 seme	ester	undergraduate					
Conter	its						
A selec	ted top	ic in mathematics.					
Intend	ed learı	ning outcomes					
of a giv	/en topi				sters elaboration and structuring /She is able to participate active-		
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)		
S (no i	nformat	ion on SWS (weekly cont	act hours) and cours	e language available	2)		
		s <b>essment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-		
talk (a	pprox. 6	60 to 120 minutes)					
Allocat	tion of p	olaces					
Additio	onal inf	ormation					
Worklo	ad						
Teachi	ng cycl	e					
Referre	<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)						
Modul	Module appears in						
		ree (1 major) Mathematic					
Bachel	Bachelor' degree (1 major) Computational Mathematics (2014)						

Module	title				Abbreviation	
Fundam	entals	Advanced Mathematics			10-M-SPZ-G-131-m01	
		•				
Module				Module offered by		
Dean of	Studi	es Mathematik (Mathema	atics)	Institute of Mathem	natics	
				npl. of module(s)		
8	(not) s	successfully completed				
Duratio	n	Module level	Other prerequisites			
1 semes	ster	undergraduate				
Content	ts					
One of t	he foll	owing tonics in nure or a	nnlied mathematics	which has not been	chosen as subject of assessment	
		M-ANW-Ü or 10-M-REI-Ü:	pprice mathematics	which has not been	enosen as subject of assessment	
			systems of linear equ	ations and curve fit	ting problems, nonlinear equati-	
					pnometric functions, numerical in	
tegratio						
Numeri	cal Ma	thematics 2 (Solution me	ethods and application	ons for eigenvalue p	roblems, linear programming, in-	
	•	blems for ordinary differe	•	, ,		
					elementary measure and integra-	
	•				tribution function, product mea-	
					teristics of distributions: expec-	
		variance, limit theorems				
		-	sis, statistics of data i	in normal and other	distributions, elements of multi-	
variate :		•	algabraic structuras.	groups rings fields	· Calais theory	
		o Algebra (Fundamental			renet equations, local classifica-	
					of hypersurfaces, geodesics, iso-	
		theorem on local surface			nippersunaces, geodesics, iso-	
					s dependence of solutions on in-	
					linear differential equations of	
higher o	-					
		o Complex Analysis (Con	nplex differentiability	and Cauchy-Riemar	nn differential equations, path in	
					tions and Laurent series, residue	
		applications, Weierstraß				
Geomet	ric Ana	<b>alysis</b> (Fundamentals in a	analysis on manifolds	s, submanifolds, cal	culus of differential forms, Sto-	
ke's the	eorema	and applications in vecto	r analysis and topolo	ogy)		
					d affine spaces, theorem of De-	
		amental theorems for pro				
					quations and partial differential	
•			•	•	f mathematical physics, bounda	
		ems, maximum principle				
					ction to graph theory including	
		cryptographic methods, e			ad aparatars principles of fun-	
		•	anach spaces and hit	ben spaces, bound	ed operators, principles of func-	
tional a			ning duality theony t	ransport problems	integral linear programming	
<b>Operations Research</b> (Linear programming, duality theory, transport problems, integral linear programming, graph theoretic problems)						
		•	ntary properties of di	visibility, prime num	bers and prime number factori-	
<b>Introduction to Number Theory</b> (Elementary properties of divisibility, prime numbers and prime number factori- sation, modular arithmetics, prime tests and methods for factorisation, structure of the residue class rings, theo-						
ry of quadratic remainder, quadratic forms, diophantine approximation and diophantine equations).						
		ning outcomes				
			sential methods and	basic notions in one	e branch of pure or applied ma-	
					able to apply the fundamental	
		s independently.	ane central concepts	in and neta, and 15 a	iste to apply the fundamental	
P100111	ethou:	s macpenaentiy.				

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

V + Ü (no information on SWS (weekly contact hours) and course language available)

Method of assessment (type, scope, language - if other than German, examination offered - if not every semester, information on whether module can be chosen to earn a bonus)

written examination (approx. 90 to 180 minutes); if announced by the lecturer at the beginning of the course, the written examination can be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups (groups of 2, approx. 30 minutes) Language of assessment: German, English

**Allocation of places** 

**Additional information** 

Workload

**Teaching cycle** 

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

Module appears in

Bachelor' degree (1 major) Mathematics (2014)

Bachelor's with 1 major Mathematics (2014)	JMU Würzburg • generated 26-Aug-2024 • exam. reg.	page 122 / 163
	data record Bachelor (180 ECTS) Mathematik - 2014	

Bachelor's with 1 major Mathematics (2014)

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

V +  $\ddot{U}$  (no information on SWS (weekly contact hours) and course language available)

**Method of assessment** (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

oral examination of one candidate each (approx. 30 minutes); assessment will have reference to the sub-field dealt with in module 10-M-SPZ-G as well as an additional sub-field of the specialisation mathematics as selected by the candidate

Language of assessment: German, English

Allocation of places

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Additional information

--

Workload

Teaching cycle

--

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

--

Module appears in

Bachelor' degree (1 major) Mathematics (2014)

Bachelor's with 1 major Mathematics (2014)	JMU Würzburg • generated 26-Aug-2024 • exam. reg.	page 124 / 163
	data record Bachelor (180 ECTS) Mathematik - 2014	

Module title					Abbreviation
Advanc	Advanced Analysis				10-M-VAN-131-m01
Module coordinator				Module offered by	
Dean o	f Studi	es Mathematik (Mathema	atics)	Institute of Mathem	atics
ECTS		od of grading	Only after succ. com	pl. of module(s)	
9	nume	rical grade			
Duratio		Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	ts				
Continu	uation	of analysis in several vari	ables, integration the	eorems.	
Intende	ed lear	ning outcomes			
		acquainted with advanc understand the construct			of the Lesbegue integral, he or
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)
V + Ü (r	no infoi	mation on SWS (weekly o	contact hours) and co	urse language avail	able)
ster, in written written	formati examii examii	on on whether module ca nation (approx. 90 to 180	an be chosen to earn minutes); if annound an oral examination	a bonus) ced by the lecturer at of one candidate ea	tion offered — if not every seme- t the beginning of the course, the ach (approx. 20 minutes) or an
		ssessment: German, Eng		-	
Allocat	ion of p	olaces			
Additio	nal inf	ormation			
Worklo	ad				
Teaching cycle					
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)					
Module appears in					
Bachel	or' deg	ree (1 major) Mathematic	s (2014)		
Bachelor' degree (1 major) Computational Mathematics (2014)					

Module title Abbreviation					
Theore	tical El	ectrodynamics			11-ED-141-m01
Module	Module coordinator			Module offered by	ļ
Managing Director of the Institute of Theoretical Physics and Astrophysics			eoretical Physics	Faculty of Physics a	and Astronomy
ECTS	Methe	od of grading	Only after succ. cor	npl. of module(s)	
8	nume	rical grade			
Duratio	on	Module level	Other prerequisites	5	
1 seme	ster	undergraduate			
Conten	ts				
Princip matter	les of e	electrostatics, magnetost	atics, Maxwell equat	ions, covariant form	ulation, electrodynamics and
Intende	ed lear	ning outcomes			
The stu thods.	dents	have knowledge of the pr	inciples of classical	electrodynamics and	I the required calculation me-
Course	<b>s</b> (type	, number of weekly conta	ct hours, language –	– if other than Germa	an)
v + Ü (r	no info	rmation on SWS (weekly	contact hours) and c	ourse language avail	able)
		sessment (type, scope, la ion on whether module ca			ition offered — if not every seme-
written	exami	nation (approx. 120 minu	tes)		
Allocat	ion of	places			
Additio	nal inf	ormation			
Worklo	ad				
Teachi	ng cycl	e			
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)					
Module appears in					
Bachel	or' deg	ree (1 major) Mathematic	· · ·	、 、	
Bachel	or' deg	ree (1 major) Computatio	nal Mathematics (20	14)	

Module	e title					Abbreviation	
Introdu	uction to Pl	nysics for Students	of Non-phys	ics-related	d Minor Subjects	11-EFNF-072-m01	
	Module coordinator M					,	
		· · · · · · · · · · · · · · · · · · ·			Module offered by		
		r of the Institute of	<u> </u>		Faculty of Physics a	and Astronomy	
ECTS	Method o		Only after	r succ. con	pl. of module(s)		
7	numerica	-					
Duratio		dule level	Other pre	requisites			
2 seme	2 semester undergraduate						
Conten	nts						
Mecha	nics, vibrat	tion theory, thermo	dynamics, op	otics, scien	ice of electricity, Ato	mic and Nuclear Ph	iysics.
Intende	ed learning	goutcomes	·				
The stu	idents have	e knowledge of the	principles of	Physics.			
		-	· · ·		- if other than Germa	an)	
-		-			ourse language avail	-	
		on whether module			an German, examina a bonus)	ation offered — if no	t every seme-
written	examinati	on (approx. 120 mi	nutes)				
Allocat	tion of plac	es					
Only as	s part of po	ol of general key sl	kills (ASQ): 10	places. P	laces will be allocat	ed by lot.	
Additio	onal inform	ation					
Worklo	ad						
Teachi	ng cycle						
reaction	ing cycle						
Referre	ed to in LPC	<b>DI</b> (examination re	gulations for	teaching-o	degree programmes)	)	
Module	e appears i	n					
Bachel	or' degree	(1 major) Biochemi	stry (2011)				
	-	(1 major) Biochemi	• -				
	-	(1 major) Biochemi					
	-	(1 major) Biology (2					
	-	(1 major) Biology (2	•				
	-	(1 major) Biology (2					
	-	(1 major) Chemistry	-				
	-	(1 major) Chemistry					
	-	(1 major) Chemistry					
	-	(1 major) Chemistry	-				
	Bachelor' degree (1 major) Geography (2007)						
Bachelor' degree (1 major) Geography (2008)							
Bachelor' degree (1 major) Geography (2010)							
Bachelor' degree (1 major) Computer Science (2007)							
	Bachelor' degree (1 major) Computer Science (2014)						
Bachelor' degree (1 major) Computer Science (2010)							
	Bachelor' degree (1 major) Food Chemistry (2009)						
	-	(1 major) Mathema					
	-	(1 major) Mathema					
Bachelor's	with 1 major M	athematics (2014)			• generated 26-Aug-2024 • achelor (180 ECTS) Mathema		page 127 / 163
				υαια τετοία Β	achelor (100 ECTS) Mathema	uik - 2014	

## Julius-Maximilians-UNIVERSITÄT WÜRZBURG

Bachelor' degree (1 major) Mathematics (2012) Bachelor' degree (1 major) Mathematics (2013) Bachelor' degree (1 major) Mathematics (2007) Bachelor' degree (1 major) Biomedicine (2009) Bachelor' degree (1 major) Computational Mathematics (2009) Bachelor' degree (1 major) Computational Mathematics (2014) Bachelor' degree (1 major) Computational Mathematics (2012) Bachelor' degree (1 major) Computational Mathematics (2013) Bachelor' degree (1 major) Computational Mathematics (2013) Bachelor' degree (1 major) Computational Mathematics (2013) Bachelor' degree (1 major) FOKUS Chemistry (2011)

Module title				Abbreviation			
Introduction t	o Physics Part 1 for stude	11-ENNF1-062-m01					
Module coord	instar	Modulo offered by					
			Module offered by				
	ector of the Institute of Ap		Faculty of Physics a	nd Astronomy			
	od of grading	Only after succ. com	ipl. of module(s)				
<u> </u>	rical grade						
Duration	Module level	Other prerequisites					
1 semester	undergraduate						
Contents							
Mechanics, vi	bration theory, thermody	namics.					
Intended lear	ning outcomes						
The students l	have basic knowledge of	physics for engineeri	ng students.				
Courses (type	, number of weekly conta	ct hours, language —	if other than Germa	n)			
	mation on SWS (weekly						
		-		tion offered — if not every seme-			
	on on whether module c						
written exami	nation (approx. 120 minu	tes)					
Allocation of p							
	f pool of general key skill	$s(\Delta SO) \cdot 20$ places P	laces will be allocat	ed by lot			
Additional inf		3 (A3Q). 20 places. 1					
Additional Init	ormation						
Workload							
Teaching cycl	e						
Referred to in	LPOI (examination regu	lations for teaching-c	legree programmes)				
Module appea	ars in						
	ree (1 major) Mathematic	s (2008)					
-	ree (1 major) Mathematic						
-	ree (1 major) Mathematic						
-	ree (1 major) Mathematic						
Bachelor' deg	ree (1 major) Mathematic	s (2007)					
-	ree (1 major) Technology		ls (2009)				
-	ree (1 major) Technology						
	ree (1 major) Computatio						
-	Bachelor' degree (1 major) Computational Mathematics (2014)						
-	Bachelor' degree (1 major) Computational Mathematics (2012)						
•	Bachelor' degree (1 major) Computational Mathematics (2013)						
-	Bachelor' degree (1 major) Aerospace Computer Science (2009)						
Bachelor' degree (1 major) Aerospace Computer Science (2014)							
-	ree (1 major) Aerospace (	•	•				
-	ree (1 major) Functional N	•					
-			ls (2006)				
Bachelor' degree (1 major) Technology of Functional Materials (2006)							

Module title				Abbreviation			
Introduction t	o Physics Part 2 for stud	11-ENNF2-062-m01					
Module coord	inator						
		uliad Dhuaina	Module offered by				
	ector of the Institute of Ap	· · · · ·	Faculty of Physics a	ind Astronomy			
1	od of grading	Only after succ. com	ipl. of module(s)				
· · ·	rical grade						
Duration	Module level	Other prerequisites					
1 semester							
Contents							
Science of ele	ctricity, magnetism, opti	cs, Atomic Physics.					
Intended learn	ning outcomes						
The students l	have basic knowledge of	physics for engineeri	ng students.				
Courses (type	, number of weekly conta	ct hours, language –	- if other than Germa	in)			
V + Ü (no infor	mation on SWS (weekly	contact hours) and co	ourse language avail	able)			
				tion offered — if not every seme-			
	on on whether module c						
written exami	nation (approx. 120 minu	tes)					
Allocation of p	olaces	, <b>·</b>					
	f pool of general key skill	s (ASO): 20 places. P	laces will be allocat	ed by lot			
Additional inf	· · · ·	5 (10 Q). 20 places. 1					
Additionat mit							
Workload							
Teaching cycl	e						
Referred to in	LPOI (examination regu	lations for teaching-o	degree programmes)				
Module appea	urs in						
Bachelor' deg	ree (1 major) Mathematic	s (2008)					
•	ree (1 major) Mathematic						
-	ree (1 major) Mathematic						
-	ree (1 major) Mathematic						
Bachelor' deg	ree (1 major) Mathematic	s (2007)					
-	ree (1 major) Technology		als (2009)				
-	ree (1 major) Technology		-				
	ree (1 major) Computatio						
-	Bachelor' degree (1 major) Computational Mathematics (2009) Bachelor' degree (1 major) Computational Mathematics (2014)						
Bachelor' degree (1 major) Computational Mathematics (2012)							
Bachelor' degree (1 major) Computational Mathematics (2012)							
-	Bachelor' degree (1 major) Aerospace Computer Science (2009)						
Bachelor' degree (1 major) Aerospace Computer Science (2009) Bachelor' degree (1 major) Aerospace Computer Science (2014)							
	ree (1 major) Aerospace ( ree (1 major) Aerospace (						
-	ree (1 major) Functional N	•	···)				
-	ree (1 major) Functional r		uls (2006)				
Ducheith ueg	ice (I major) recimology	or runctional materia					

Module	Module title Abbreviation					
Solid S	itate Ph	iysics 1			11-FKP-141-m01	
Module	Module coordinator			Module offered by	<u> </u>	
Manag	ing Dire	ector of the Institute of A	pplied Physics	Faculty of Physics a	and Astronomy	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
8	nume	rical grade				
Duratio	on	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	Its		_			
		of solids: Bonding and s lectron gas)	structure, lattice dyna	mics, thermal prope	rties, principles of electronic pro-	
Intend	ed lear	ning outcomes				
		understand the basic co erties, principles of elect			nd structure, lattice dynamics,	
Course	<b>s</b> (type	, number of weekly cont	act hours, language –	- if other than Germa	ın)	
V + Ü (I	no infoi	rmation on SWS (weekly	contact hours) and co	ourse language avail	able)	
		<b>sessment</b> (type, scope, l ion on whether module o			tion offered — if not every seme-	
written	exami	nation (approx. 120 min	utes)			
Allocat	ion of <b>j</b>	olaces				
Additio	onal inf	ormation				
Worklo	ad					
Teaching cycle						
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)						
Module appears in						
		ree (1 major) Mathemati	cs (2014)			
Bachel	or' deg	ree (1 major) Computatio	onal Mathematics (20	14)		

Basic Pra	actica		Module title				
Module		l Course B (Minor Studie	s)		11-P-NFB-122-m01		
	coordi	nator		Module offered by			
Managin	g Dire	ctor of the Institute of Ap	oplied Physics	Faculty of Physics a	nd Astronomy		
	-	d of grading	Only after succ. com		,		
4 (not) successfully completed 11-P-PA							
Duration		Module level	Other prerequisites				
1 semest	er	undergraduate					
Contents	5						
Physical	laws	of optics, vibrations and	waves, science of ele	ectricity and circuits	with electric components.		
Intended	l learn	ing outcomes					
measurir principle	ng pro		valuate the measurin sent and discuss the	g results on the basi conclusions.	d to document the results in a s of error propagation and of the 		
		ion on SWS (weekly cont					
a) Prepar if a Testa (with dis the mode	ring, p it (exa cussio ule co	m) is passed. Experimer on; approx. 30 minutes)	g (lab report) the exp its that were not succ to test the candidate' e not successfully co	eriments will be con essfully completed of s understanding of t	sidered successfully completed can be repeated once. And b) talk the physics-related contents of pated once. Both components of		
Allocatio			<u>/</u>				
Addition	al info	ormation					
Addition	al info	ormation on module dura	tion: 1 to 2 semester	S.			
Workloa							
Teaching	g cycle	)					
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)							
Module appears in							
Bachelor	Bachelor' degree (1 major) Mathematics (2014) Bachelor' degree (1 major) Mathematics (2012) Bachelor' degree (1 major) Mathematics (2013) Bachelor' degree (1 major) Computational Mathematics (2014) Bachelor' degree (1 major) Computational Mathematics (2012) Bachelor' degree (1 major) Computational Mathematics (2013)						

Module	Module title Abbreviation						
Physics	s Labor	atory Course for student	s of Physics Related	Minor Subjects	11-PNNF-062-m01		
Module	coord	inator		Module offered by			
Managi	ng Dire	ector of the Institute of Ap	oplied Physics	Faculty of Physics a	and Astronomy		
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)			
3	(not) s	successfully completed					
Duratio	n	Module level	Other prerequisites				
1 seme	ster	undergraduate					
Conten	ts						
Mechar Physics		bration theory, thermody	namics, optics, X-ray	s, nuclear magnetic	resonance, Atomic and Nuclear		
Intende	ed learı	ning outcomes					
The stu	dents l	know the principles of Ph	ysics.				
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	· if other than Germa	an)		
P (no in	format	ion on SWS (weekly cont	act hours) and cours	e language available	e)		
		e <b>ssment</b> (type, scope, la on on whether module ca			ation offered — if not every seme-		
					mination (approx. 90 minutes)		
Allocat		• • • •		5			
		f pool of general key skill	s (ASO): 15 places. Pl	laces will be allocate	ed by lot.		
		ormation			,		
Worklo	ad						
Teachir	ng cycl	e					
Referre	d to in	LPOI (examination regu	lations for teaching-c	legree programmes)			
Module	appea	irs in					
Bachel	or' deg	ree (1 major) Mathematic	s (2008)				
Bachel	or' deg	ree (1 major) Mathematic	s (2014)				
Bachel	or' deg	ree (1 major) Mathematic	s (2012)				
Bachel	or' deg	ree (1 major) Mathematic	s (2013)				
Bachel	or' deg	ree (1 major) Mathematic	s (2007)				
	-	ree (1 major) Technology					
Bachelor' degree (1 major) Technology of Functional Materials (2010)							
Bachel	Bachelor' degree (1 major) Computational Mathematics (2009)						
Bachel	Bachelor' degree (1 major) Computational Mathematics (2014)						
Bachel	Bachelor' degree (1 major) Computational Mathematics (2012)						
	-	ree (1 major) Computatio		13)			
	-	ree (1 major) Functional N					
Bachel	or' deg	ree (1 major) Technology	of Functional Materia	IIS (2006)			

Module title			_	Abbreviation	
Practical Co	urse A			11-P-PA-092-m01	
Module coo	rdinator		Module offered by		
Managing D	irector of the Institute of	Applied Physics	Faculty of Physics a	nd Astronomy	
	hod of grading	Only after succ. con	npl. of module(s)		
· · · · ·	) successfully completed	-			
Duration	Module level	Other prerequisites			
1 semester	undergraduate				
Contents					
pagation, gr	s of mechanics, thermoc aphs, linear regression, a g of lab reports and publi	verage values and sta			
Intended lea	arning outcomes				
le to indepe measuring p principles o	s know and have mastere ndently plan and conduc protocol. They are able to f statistics and to draw, p	t experiments, to coop evaluate the measurin resent and discuss the	erate with others, an g results on the basi conclusions.	d to document the r s of error propagatic	esults in a
	e, number of weekly con				
Ü (1 weekly Beispiele at	von Messungen und Feh contact hour), once a yea is Mechanik, Wärmelehre veekly contact hours)	r (winter semester)			
	<b>ssessment</b> (type, scope, ation on whether module			tion offered — if not	every seme-
1. Topics co 2. Lab cours ted if a Te lated con	has the following assessivered in lectures and exe e: a) Preparing, performing stat (exam) is passed. b) tents of the course (appro- completion of approx. 50	rcises: written examinant og and evaluating the e Talk (with discussion) ox. 30 minutes).	experiments will be c to test the students'	onsidered successfu understanding of th	ne physics-re-
portunity to Students m Students m re attending	essment component 2, si retake element a) and/o ust register for assessme ust attend Auswertung vo Beispiele aus Mechanik	element b). nt components 1 and 2 n Messungen und Feh	online (details to be lerrechnung (Measur	e announced). ements and Data Ar	alysis) befo-
Electricity). To pass this	module, students must	bass both assessment	component 1 and as	sessment compone	nt 2.
Allocation o	f places				
Additional i	nformation				
Workload					
Teaching cy	cle				
Referred to	in LPO I (examination reg	gulations for teaching-	degree programmes)		
	Physik Mechanik, Wärm			len Relativitätstheor	rie
	najor Mathematics (2014)		• generated 26-Aug-2024 • 6		page 134 / 163
			achelor (180 ECTS) Mathema		

## § 53 (1) 1. c) Physik physikalische Grundpraktika § 77 (1) 1. d) Physik "physikalische Praktika"

## Module appears in

Bachelor' degree (1 major) Mathematics (2014) Bachelor' degree (1 major) Physics (2010) Bachelor' degree (1 major) Nanostructure Technology (2010) Bachelor' degree (1 major) Mathematical Physics (2009) Bachelor' degree (1 major) Computational Mathematics (2014) Bachelor' degree (1 major) Aerospace Computer Science (2009) Bachelor' degree (1 major) Aerospace Computer Science (2014) Bachelor' degree (1 major) Aerospace Computer Science (2014) Bachelor' degree (1 major) Aerospace Computer Science (2014) Bachelor' degree (1 major, 1 minor) Physics (Minor, 2010) No final examination Special study offering (2010)

Bachelor's with 1 major Mathematics (2014)	JMU Würzburg • generated 26-Aug-2024 • exam. reg.	page 135 / 163
	data record Bachelor (180 ECTS) Mathematik - 2014	

Module	e title				Abbreviation
Quanta	a, Atom	s, Molecules			11-QAM-141-m01
Module	e coord	inator		Module offered by	
Manag	ing Dire	ector of the Institute of Ap	oplied Physics	Faculty of Physics a	nd Astronomy
ECTS		od of grading	Only after succ. com	pl. of module(s)	
8	nume	rical grade			
Duratio		Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	ts				
Physica	al laws	of Atomic, Quantum and	Molecular Physics.		
Intend	ed lear	ning outcomes			
Quantu	ım mec	hanical atom model, one	/multi-electron atom	s, electronic dipole	d Molecular Physics (atoms: transitions, atoms in B field as tions, electronic excitations)
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)
V + Ü (I	no infoi	mation on SWS (weekly o	contact hours) and co	ourse language avail	able)
		s <b>essment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-
written	exami	nation (approx. 120 minu	tes)		
Allocat	ion of p	olaces			
Additio	onal inf	ormation			
Worklo	ad				
Teachi	ng cycl	6			
Referre	ed to in	LPOI (examination regu	lations for teaching-o	legree programmes)	
		<b>```</b>		<u> </u>	
Module	e appea	irs in			
Bachel	or' deg	ree (1 major) Mathematic	s (2014)		
Bachel	or' deg	ree (1 major) Computatio	nal Mathematics (20:	14)	

Module	e title	·			Abbreviation
Quantu	ım Med	hanics			11-QM-141-m01
Module	e coord	inator		Module offered by	
Manag and As		ector of the Institute of Th sics	eoretical Physics	Faculty of Physics a	nd Astronomy
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
8	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	ts				
		sical physics, Schrödinge gular momentum and spir			quantum mechanics, harmonic
Intende	ed lear	ning outcomes			
The stu	dents	have knowledge of the pr	inciples of quantum	mechanics and the r	equired calculation methods.
Course	<b>s</b> (type	, number of weekly conta	ct hours, language –	- if other than Germa	n)
V + Ü (r	no info	rmation on SWS (weekly o	contact hours) and co	ourse language avail	able)
		<b>sessment</b> (type, scope, la ion on whether module ca			tion offered — if not every seme-
written	exami	nation (approx. 120 minu	tes)		
Allocat	ion of <sub>l</sub>	places			
Additio	nal inf	ormation			
Worklo	ad				
Teachi	ng cycl	e			
Referre	d to in	LPO I (examination regu	lations for teaching-	degree programmes)	
Module	e appea	ars in			
Bachel	or' deg	ree (1 major) Mathematic ree (1 major) Computatio		14)	

Module	e title				Abbreviation
Statist	ical Me	chanics and Thermodyna	amics		11-ST-141-m01
Module	e coord	inator		Module offered by	<u> </u>
Manag and As		ector of the Institute of Th sics	eoretical Physics	Faculty of Physics a	ind Astronomy
ECTS	Metho	od of grading	Only after succ. cor	npl. of module(s)	
8	nume	rical grade			
Duratio	on	Module level	Other prerequisites	;	
1 seme	ster	undergraduate			
Conten	ts				
Princip chanics		hermodynamics, fundam	ental theorems, ther	modynamic potentia	ls, principles of statistical me-
Intende	ed lear	ning outcomes			
		have knowledge of the pr ethods.	inciples of thermody	namics and statistic	al mechanics and the required
Course	<b>s</b> (type	, number of weekly conta	ct hours, language –	- if other than Germa	ın)
V + Ü (r	no infoi	rmation on SWS (weekly o	contact hours) and co	ourse language avail	able)
		sessment (type, scope, la ion on whether module ca			tion offered — if not every seme-
written	exami	nation (approx. 120 minu	tes)		
Allocat	ion of <b>j</b>	olaces			
Additio	nal inf	ormation			
Worklo	ad				
Teachi	ng cvcl	e			
Referre	d to in	LPOI (examination regu	lations for teaching-	degree programmes)	
		<b>```</b>			
Module	e appea	ars in			
Bachel	or' deg	ree (1 major) Mathematic	· · ·		
Bachel	or' deg	ree (1 major) Computatio	nai Mathematics (20	14)	

Module	e title				Abbreviation
Theore	tical M	echanics			11-TM-141-m01
Module	e coord	linator		Module offered by	<u> </u>
Manag and As		ector of the Institute of Th sics	eoretical Physics	Faculty of Physics a	ind Astronomy
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
8	nume	rical grade			
Duratio	n	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	ts				
Newtor	nian me	echanics, Lagrangian and	Hamiltonian formali	sm, conservation lav	vs, limits of classical physics.
Intende	ed lear	ning outcomes			
The stu method		have knowledge of the pr	inciples of classical	theoretical mechanic	cs and the required calculation
Course	<b>s</b> (type	, number of weekly conta	ct hours, language –	- if other than Germa	in)
V + Ü (r	no info	rmation on SWS (weekly o	contact hours) and co	ourse language avail	able)
		<b>sessment</b> (type, scope, la ion on whether module ca			tion offered — if not every seme-
written	exami	nation (approx. 120 minu	tes)		
Allocat	ion of	places			
	-				
Additio	nal inf	ormation			
Worklo	ad				
Teachi	ng cycl	e			
Referre	ed to in	LPOI (examination regu	lations for teaching-	degree programmes)	
Module	e appea	ars in			
	-	ree (1 major) Mathematic ree (1 major) Computatio		14)	

	e title				Abbreviation	
Supply	r, Produ	uction and Operations N	lanagement. An Introc	luction	12-BPL-G-132-m01	
Modul	e coord	inator		Module offered by		
		Chair of Business Manag	rement and Industrial	•	Management and F	conomics
Manag				raculty of Busiliess		cononnes
ECTS		od of grading	Only after succ. con	npl. of module(s)		
5	nume	rical grade				
Duratio	on	Module level	Other prerequisites			
1 seme	ester	undergraduate				
Conten	nts					
		ill provide students with e related corporate func				
Intend	ed lear	ning outcomes				
rate pro develo	ocurem ping ar	will be able to describe eent, production and log ad applying basic planni	istics as well as their i ng models in these fie	nterdependencies. I Ids.	Furthermore, they are	
		, number of weekly cont				
		rmation on SWS (weekly				
		sessment (type, scope, l ion on whether module			ation offered — if not	every seme-
written	exami	nation (approx. 60 minu	tes)			
A11.	· ·					
Numbe sensch	er of pla naft (Bu	places aces: 620. No restriction siness Management and pnomics) (BSc with 180 B	d Economics) (BSc wit	h 180 ECTS credits),	Wirtschaftsmathema	atik (Mathe-
Numbe sensch matics with 18 gemen Should dised p (50% o cants v numbe mester succes deratio	er of pla naft (Bu for Ecc 30 ECTS t and E t and E t the nu procedu of place with the er of sul rs, place sfully con. Plac	aces: 620. No restriction siness Management and onomics) (BSc with 180 B credits) as well as Back conomics) (60 ECTS crea umber of applications ex ure among all applicants s): total number of ECTS e same number of ECTS e same number of ECTS opject semesters of the re es will be allocated by lo completed at least one n es on all courses of the	d Economics) (BSc with ECTS credits), Wirtscha helor's students with th dits). The remaining pl ceed the number of av is irrespective of their s credits already achieved redits achieved, place espective applicant; ar ot. Quota 3 (25% of pla hodule component of the module component with	h 180 ECTS credits), aftsinformatik (Busir he minor Wirtschafts laces will be allocate vailable places, plac ubjects according to ved in the respective es will be allocated l mong applicants wit aces): allocation by l the respective modu ith a restricted numl	Wirtschaftsmathema ness Information Sys swissenschaft (Busin ed to students of oth es will be allocated the following quota e degree subject; am by lot. Quota 2 (25% h the same number ot. Applicants who a le will be given prefe per of places will be	atik (Mathe- tems) (BSc ness Mana- er subjects. in a standar- as: Quota 1 nong appli- of places): of subject se- already have erential consi allocated in
Numbe sensch matics with 18 gemen Should dised p (50% o cants v numbe mester succes deratic the sar	er of pla haft (Bu for Ecc Bo ECTS t and E t the nu brocedu of place with the er of sul rs, place rs, place rs, place me proc	aces: 620. No restriction siness Management and onomics) (BSc with 180 B credits) as well as Back conomics) (60 ECTS crea umber of applications ex- ure among all applicants s): total number of ECTS e same number of ECTS e same number of ECTS oject semesters of the re- es will be allocated by lo completed at least one n es on all courses of the cedure. A waiting list will	d Economics) (BSc with ECTS credits), Wirtscha helor's students with th dits). The remaining pl ceed the number of av is irrespective of their s credits already achieved redits achieved, place espective applicant; ar ot. Quota 3 (25% of pla hodule component of the module component with	h 180 ECTS credits), aftsinformatik (Busir he minor Wirtschafts laces will be allocate vailable places, plac ubjects according to ved in the respective es will be allocated l mong applicants wit aces): allocation by l the respective modu ith a restricted numl	Wirtschaftsmathema ness Information Sys swissenschaft (Busin ed to students of oth es will be allocated the following quota e degree subject; am by lot. Quota 2 (25% h the same number ot. Applicants who a le will be given prefe per of places will be	atik (Mathe- tems) (BSc ness Mana- er subjects. in a standar- as: Quota 1 nong appli- of places): of subject se- already have erential consi allocated in
Numbe sensch matics with 18 gemen Should dised p (50% o cants v numbe mester succes deratic the sar	er of pla haft (Bu for Ecc Bo ECTS t and E t the nu brocedu of place with the er of sul rs, place rs, place rs, place me proc	aces: 620. No restriction siness Management and onomics) (BSc with 180 B credits) as well as Back conomics) (60 ECTS crea umber of applications ex ure among all applicants s): total number of ECTS e same number of ECTS e same number of ECTS opject semesters of the re es will be allocated by lo completed at least one n es on all courses of the	d Economics) (BSc with ECTS credits), Wirtscha helor's students with th dits). The remaining pl ceed the number of av is irrespective of their s credits already achieved redits achieved, place espective applicant; ar ot. Quota 3 (25% of pla hodule component of the module component with	h 180 ECTS credits), aftsinformatik (Busir he minor Wirtschafts laces will be allocate vailable places, plac ubjects according to ved in the respective es will be allocated l mong applicants wit aces): allocation by l the respective modu ith a restricted numl	Wirtschaftsmathema ness Information Sys swissenschaft (Busin ed to students of oth es will be allocated the following quota e degree subject; am by lot. Quota 2 (25% h the same number ot. Applicants who a le will be given prefe per of places will be	atik (Mathe- tems) (BSc ness Mana- er subjects. in a standar- as: Quota 1 nong appli- of places): of subject se- already have erential consi allocated in
Numbe sensch matics with 18 gemen Should dised p (50% o cants v numbe mester succes deratio the sar Additic	er of pla naft (Bu for Eco Bo ECTS t and E t the nu procedu of place with the er of sul rs, plac sfully co on. Plac me proc	aces: 620. No restriction siness Management and onomics) (BSc with 180 B credits) as well as Back conomics) (60 ECTS crea umber of applications ex- ure among all applicants s): total number of ECTS e same number of ECTS e same number of ECTS oject semesters of the re- es will be allocated by lo completed at least one n es on all courses of the cedure. A waiting list will	d Economics) (BSc with ECTS credits), Wirtscha helor's students with th dits). The remaining pl ceed the number of av is irrespective of their s credits already achieved redits achieved, place espective applicant; ar ot. Quota 3 (25% of pla hodule component of the module component with	h 180 ECTS credits), aftsinformatik (Busir he minor Wirtschafts laces will be allocate vailable places, plac ubjects according to ved in the respective es will be allocated l mong applicants wit aces): allocation by l the respective modu ith a restricted numl	Wirtschaftsmathema ness Information Sys swissenschaft (Busin ed to students of oth es will be allocated the following quota e degree subject; am by lot. Quota 2 (25% h the same number ot. Applicants who a le will be given prefe per of places will be	atik (Mathe- tems) (BSc ness Mana- er subjects. in a standar- as: Quota 1 nong appli- of places): of subject se- already have erential consi allocated in
Numbe sensch matics with 18 gemen Should dised p (50% o cants v numbe mester succes deratio the sar Additic	er of pla naft (Bu for Eco Bo ECTS t and E t the nu procedu of place with the er of sul rs, plac sfully co on. Plac me proc	aces: 620. No restriction siness Management and onomics) (BSc with 180 B credits) as well as Back conomics) (60 ECTS crea umber of applications ex- ure among all applicants s): total number of ECTS e same number of ECTS e same number of ECTS oject semesters of the re- es will be allocated by lo completed at least one n es on all courses of the cedure. A waiting list will	d Economics) (BSc with ECTS credits), Wirtscha helor's students with th dits). The remaining pl ceed the number of av is irrespective of their s credits already achieved redits achieved, place espective applicant; ar ot. Quota 3 (25% of pla hodule component of the module component with	h 180 ECTS credits), aftsinformatik (Busir he minor Wirtschafts laces will be allocate vailable places, plac ubjects according to ved in the respective es will be allocated l mong applicants wit aces): allocation by l the respective modu ith a restricted numl	Wirtschaftsmathema ness Information Sys swissenschaft (Busin ed to students of oth es will be allocated the following quota e degree subject; am by lot. Quota 2 (25% h the same number ot. Applicants who a le will be given prefe per of places will be	atik (Mathe- tems) (BSc ness Mana- er subjects. in a standar- as: Quota 1 nong appli- of places): of subject se- already have erential consi allocated in
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Numbe sensch matics with 18 gemen Should dised p (50% o cants v numbe mester succes deratio the sar Additic  Workld 	er of pla naft (Bu for Eco 30 ECTS t and E t the nu procedu of place with the er of sul rs, place sofully c on. Plac me proc <b>onal inf</b>	aces: 620. No restriction siness Management and onomics) (BSc with 180 B credits) as well as Back conomics) (60 ECTS crea umber of applications ex ure among all applicants s): total number of ECTS e same number of ECTS e same number of ECTS opect semesters of the re es will be allocated by lo completed at least one n es on all courses of the cedure. A waiting list will formation	d Economics) (BSc with ECTS credits), Wirtscha helor's students with th dits). The remaining pl ceed the number of av is irrespective of their s credits already achieved, place espective applicant; ar bt. Quota 3 (25% of pla hodule component of the module component with be maintained and p	h 180 ECTS credits), aftsinformatik (Busir he minor Wirtschafts laces will be allocate vailable places, plac ubjects according to ved in the respective es will be allocated h nong applicants wit aces): allocation by l the respective modu ith a restricted numl laces re-allocated as	Wirtschaftsmathema ness Information Sys swissenschaft (Busin ed to students of oth es will be allocated to the following quota e degree subject; am by lot. Quota 2 (25% h the same number of ot. Applicants who a le will be given prefe per of places will be s they become availa	atik (Mathe- tems) (BSc ness Mana- er subjects. in a standar- as: Quota 1 nong appli- of places): of subject se already have erential cons allocated in
Numbe sensch matics with 18 gemen Should dised p (50% o cants v numbe mester succes deratio the sar Additic  Worklo  Referre 	er of pla haft (Bu for Eco Bo ECTS t and E l the nu procedu of place with the er of sul rs, plac ms plac ms plac non. Plac monal inf pad	aces: 620. No restriction siness Management and promics) (BSc with 180 B credits) as well as Back conomics) (60 ECTS crea umber of applications ex ure among all applicants s): total number of ECTS e same number of ECTS of pject semesters of the re- es will be allocated by lo completed at least one n es on all courses of the cedure. A waiting list will formation	d Economics) (BSc with ECTS credits), Wirtscha helor's students with th dits). The remaining pl ceed the number of av is irrespective of their s credits already achieved, place espective applicant; ar bt. Quota 3 (25% of pla hodule component of the module component with be maintained and p	h 180 ECTS credits), aftsinformatik (Busir he minor Wirtschafts laces will be allocate vailable places, plac ubjects according to ved in the respective es will be allocated h nong applicants wit aces): allocation by l the respective modu ith a restricted numl laces re-allocated as	Wirtschaftsmathema ness Information Sys swissenschaft (Busin ed to students of oth es will be allocated to the following quota e degree subject; am by lot. Quota 2 (25% h the same number of ot. Applicants who a le will be given prefe per of places will be s they become availa	atik (Mathe- tems) (BSc ness Mana- er subjects. in a standar- as: Quota 1 nong appli- of places): of subject se already have erential cons allocated in
Numbe sensch matics with 18 gemen Should dised p (50% o cants v numbe mester succes deratio the sar Additio  Worklo  Teachi  Referre	er of pla aaft (Bu for Eco Bo ECTS It and E I the nu procedu of place with the er of sult rs, place rs, pl	aces: 620. No restriction siness Management and onomics) (BSc with 180 f credits) as well as Back conomics) (60 ECTS crea- imber of applications ex- ure among all applicants s): total number of ECTS e same number of ECTS e same number of ECTS of oject semesters of the re- es will be allocated by lo completed at least one n es on all courses of the cedure. A waiting list will formation	d Economics) (BSc with CTS credits), Wirtscha helor's students with th dits). The remaining pl ceed the number of av- s irrespective of their s credits already achieved, place espective applicant; ar ot. Quota 3 (25% of pla nodule component of the module component with be maintained and p	h 180 ECTS credits), aftsinformatik (Busir he minor Wirtschafts laces will be allocate vailable places, plac ubjects according to ved in the respective es will be allocated h nong applicants wit aces): allocation by l the respective modu ith a restricted numl laces re-allocated as	Wirtschaftsmathema ness Information Sys swissenschaft (Busin ed to students of oth es will be allocated to the following quota e degree subject; am by lot. Quota 2 (25% h the same number of ot. Applicants who a le will be given prefe per of places will be s they become availa	atik (Mathe- tems) (BSc ness Mana- er subjects. in a standar- as: Quota 1 nong appli- of places): of subject se already have erential cons allocated in
Numbe sensch matics with 18 gemen Should dised p (50% o cants v numbe mester succes deratio the sar Additic  Worklo  Teachi  Referre Bachel	er of pla aaft (Bu for Ecc Bo ECTS It and E I the nu procedu of place with the er of sult rs, place sfully c on. Place on. Place onal inf onal inf onal inf ed to in e appea	aces: 620. No restriction siness Management and promics) (BSc with 180 B credits) as well as Back conomics) (60 ECTS crea umber of applications ex ure among all applicants s): total number of ECTS e same number of ECTS of pject semesters of the re- es will be allocated by lo completed at least one n es on all courses of the cedure. A waiting list will formation	d Economics) (BSc with CTS credits), Wirtscha helor's students with th dits). The remaining pl ceed the number of ave is irrespective of their s credits already achieved, place espective applicant; ar bt. Quota 3 (25% of pla hodule component of the module component will be maintained and p l be maintained and p ulations for teaching-of Science (2014)	h 180 ECTS credits), aftsinformatik (Busir he minor Wirtschafts laces will be allocate vailable places, plac ubjects according to ved in the respective es will be allocated h nong applicants wit aces): allocation by l the respective modu ith a restricted numl laces re-allocated as	Wirtschaftsmathema ness Information Sys swissenschaft (Busin ed to students of oth es will be allocated to the following quota e degree subject; am by lot. Quota 2 (25% h the same number of ot. Applicants who a le will be given prefe per of places will be s they become availa	atik (Mathe- tems) (BSc ness Mana- er subjects. in a standar- as: Quota 1 nong appli- of places): of subject se already have erential consi allocated in



Bachelor' degree (1 major) Business Management and Economics (2013) Bachelor' degree (1 major) Business Information Systems (2014) Bachelor' degree (1 major) Business Information Systems (2013)

Bachelor's with 1 major Mathematics (2014)	JMU Würzburg • generated 26-Aug-2024 • exam. reg.	page 141 / 163
	data record Bachelor (180 ECTS) Mathematik - 2014	

Module title				Abbreviation
Introduction	to Business Administration	on		12-EBWL-G-132-m01
Module coord	linator		Module offered by	<u> </u>
	Chair for Human Resourc	e Management and		Management and Economics
	od of grading	Only after succ. cor	npl. of module(s)	
5 nume	erical grade			
Duration	Module level	Other prerequisites	6	
1 semester	undergraduate			
Contents				
overview of the enterprise may ve and in what on-making be	ne different perspectives ay take place. The course at form they are organised	and main points of vi will focus on what co I. For this purpose, a	ew from which a the mpanies or other or	istration. Students will acquire an oretical examination of business ganisations are, how they beha- of the economic subject's decisi-
	ming outcomes			
The aim of the		the students with th	e basic problem issu	ues and perspectives within the
Courses (type	e, number of weekly conta	act hours, language –	– if other than Germa	in)
V + Ü (no info	rmation on SWS (weekly	contact hours) and c	ourse language avail	able)
	<b>sessment</b> (type, scope, la ion on whether module c			tion offered — if not every seme-
	nation (approx. 60 minut	es)		
Allocation of	places	-		
senschaft (Bu matics for Ecc with 180 ECTS gement and E Should the nu dised proced (50% of place cants with the number of su mesters, plac successfully deration. Place the same pro	isiness Management and conomics) (BSc with 180 E S credits) as well as Bach conomics) (60 ECTS cred umber of applications exc ure among all applicants es): total number of ECTS e same number of ECTS c bject semesters of the re- tes will be allocated by lo completed at least one m ces on all courses of the re- cedure. A waiting list will	Economics) (BSc wit CTS credits), Wirtscha elor's students with t its). The remaining p ceed the number of a irrespective of their s credits already achie redits achieved, plac spective applicant; a t. Quota 3 (25% of pla odule component of nodule component w	th 180 ECTS credits), aftsinformatik (Busin the minor Wirtschafts laces will be allocate vailable places, plac subjects according to ved in the respective es will be allocated b mong applicants with aces): allocation by l the respective modu with a restricted numb	elor's students of Wirtschaftswis- Wirtschaftsmathematik (Mathe- iess Information Systems) (BSc swissenschaft (Business Mana- ed to students of other subjects. es will be allocated in a standar- o the following quotas: Quota 1 e degree subject; among appli- oy lot. Quota 2 (25% of places): h the same number of subject se- ot. Applicants who already have le will be given preferential consi- per of places will be allocated in s they become available.
Additional in	formation			
Workload				
Teaching cyc	le			
Referred to in	LPOI (examination regu	llations for teaching-	degree programmes)	
Module appe	ars in			

Bachelor's with 1 major Mathematics (2014)

Bachelor' degree (1 major) Mathematics (2014) Bachelor' degree (1 major) Business Management and Economics (2013) Bachelor' degree (1 major) Business Information Systems (2014) Bachelor' degree (1 major) Business Information Systems (2013)

Bachelor's with 1 major Mathematics (2014)	JMU Würzburg • generated 26-Aug-2024 • exam. reg.	page 143 / 163
	data record Bachelor (180 ECTS) Mathematik - 2014	

Module title	e			Abbreviation
Introductio	n to Economics			12-EVWL-G-132-m01
Module coo	ordinator		Module offered by	
			-	
Economics	e Chair of Monetary Policy a	and International	Faculty of Business	Management and Economics
ECTS Met	thod of grading	Only after succ. con	npl. of module(s)	
	nerical grade			
Duration	Module level	Other prerequisites		
1 semester	undergraduate			
Contents	1 -			
The course	deals with the following top	nics		
	cs shows how markets func			
	ion of labour is the basis of			
3. The mark				
	ies and cartels endanger m			
	ur market and the role of un			
	rnment's role in a social ma ental redistribution guarant		co in a market econe	mu
	iental policy and the govern			iny
	es and agents in the macro of			
	iggregate supply and demai		rium?	
11.The role o	of fiscal policy			
12How does	s a central bank stabilise ag	gregate demand by	setting interest rates	?
Intended le	arning outcomes			
	ing this course, students re- peconomic as well as macro			onomics. Students are able to n theoretical models.
Courses (ty	pe, number of weekly conta	ct hours, language –	- if other than Germa	n)
V + Ü (no in	formation on SWS (weekly o	contact hours) and co	ourse language avail	able)
	<b>assessment</b> (type, scope, la ation on whether module ca			tion offered — if not every seme-
written exar	mination (approx. 60 minut	es)		
Allocation of	of places			
senschaft (i matics for E with 180 EC gement and Should the dised proce (50% of pla cants with t number of s mesters, pla successfully deration. Pl	Business Management and conomics) (BSc with 180 EC TS credits) as well as Bache d Economics) (60 ECTS cred number of applications exc edure among all applicants ces): total number of ECTS cr be same number of ECTS cr subject semesters of the res aces will be allocated by lot y completed at least one mo laces on all courses of the n rocedure. A waiting list will	Economics) (BSc wit CTS credits), Wirtscha elor's students with t its). The remaining pl eed the number of av irrespective of their s credits already achie redits achieved, place spective applicant; and c. Quota 3 (25% of place odule component of the nodule component w	h 180 ECTS credits), aftsinformatik (Busin he minor Wirtschafts laces will be allocate vailable places, place ubjects according to ved in the respective es will be allocated b mong applicants with aces): allocation by lo the respective modul ith a restricted numb	lor's students of Wirtschaftswis- Wirtschaftsmathematik (Mathe- ess Information Systems) (BSc wissenschaft (Business Mana- d to students of other subjects. es will be allocated in a standar- the following quotas: Quota 1 degree subject; among appli- y lot. Quota 2 (25% of places): in the same number of subject se- bt. Applicants who already have le will be given preferential consi- per of places will be allocated in they become available.
Additional	ΠΙΟΓΠΙαLIOΠ			
Workload				

Bachelor's with 1 major Mathematics (2014)
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# Teaching cycle

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

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## Module appears in

Bachelor' degree (1 major) Mathematics (2014)

Bachelor' degree (1 major) Business Management and Economics (2013)

Bachelor' degree (1 major) Business Information Systems (2014)

Bachelor's with 1 major Mathematics (2014)	JMU Würzburg • generated 26-Aug-2024 • exam. reg.	page 145 / 163
	data record Bachelor (180 ECTS) Mathematik - 2014	

Module title         Abbreviation					
Financial Accounting     12-ExtUR-G-132-mg			12-ExtUR-G-132-mo1		
Module coordinator Module offered by					
	the Chair of Business Man	agement and Business	· · ·	Management and Ec	onomics
Taxation					
	ethod of grading	Only after succ. con	npl. of module(s)		
5 ni	umerical grade				
Duration	Module level	Other prerequisites			
1 semeste	er undergraduate				
Contents					
ble-entry l	se offers an introduction to book-keeping as well as th quity according to German	e fundamentals of reco			
Intended	learning outcomes				
	acquire a basic unterstand and apply this knowledge,				arrange, re-
Courses (t	type, number of weekly co	ntact hours, language –	- if other than Germa	n)	
V + Ü (no	information on SWS (week	ly contact hours) and co	ourse language avail	able)	
	<b>f assessment</b> (type, scope mation on whether module			tion offered — if not	every seme-
written ex	amination (approx. 60 mir	utes)			
Allocation	n of places				
gement ar Should th dised proo (50% of p cants with number of mesters, p successfu deration.	ECTS credits) as well as Band Economics) (60 ECTS cr e number of applications e cedure among all applican laces): total number of ECTS in the same number of ECTS f subject semesters of the places will be allocated by illy completed at least one Places on all courses of the	edits). The remaining plexceed the number of average the number of average ts irrespective of their section of their section of the section o	laces will be allocate vailable places, place ubjects according to ved in the respective es will be allocated b mong applicants with aces): allocation by le the respective modul ith a restricted numb	d to students of other es will be allocated in the following quotas degree subject; and y lot. Quota 2 (25% of the same number of the same number of the same number of the same number	er subjects. n a standar- s: Quota 1 ong appli- of places): f subject se- ready have rential consi- llocated in
	procedure. A waiting list w l information		laces re-allocaled as	s they become available	ole.
 Workload					
worktoad					
Toaching	cycle				
Teaching	Lycle				
Poforrad +	o in I PO L (avamination to	gulations for teaching	dograa programmee)		
	to in LPO I (examination re	gulations for teaching-(	regree programmes)		
 Module aj	nnears in				
	degree (1 major) Compute	r Science (2014)			
Bachelor'	degree (1 major) Compute degree (1 major) Mathema degree (1 major) Business	tics (2014)	omics (2013)		
	1 major Mathematics (2014)	JMU Würzburg			



Bachelor' degree (1 major) Business Information Systems (2014) Bachelor' degree (1 major) Business Information Systems (2013)

Bachelor's with 1 major Mathematics (2014)	JMU Würzburg • generated 26-Aug-2024 • exam. reg.	page 147 / 163
	data record Bachelor (180 ECTS) Mathematik - 2014	

Module					Abbreviation
Investment and Finance. An Introduction			on		12-I&F-G-132-m01
Module coordinator Module offered by					
		Chair of Business Manage	ement. Banking and	•	Management and Economics
Finance				·	
ECTS	1	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				
Conten					
			inciples of financial r	nathematics, severa	l methods of capital budgeting
and pri	nciples	s of financial economics.			
Outline	e of svll	abus:			
		f financial mathematics			
		al concepts			
		f investment and finance f investment and finance			<b>t</b> v
		f investment and finance			
		ket and corporate financ			
Intende	ed lear	ning outcomes			
After co	ompleti	ng the course "Principles	of Investments and	Finance", the studen	nts will be able
					problems, e.g. via the PV ap-
proach					
		the central problems in i			apital market scenarios; estment approaches under the
					scenario, especially the influence
of taxes				ľ	
Course	<b>s</b> (type	, number of weekly conta	ict hours, language —	· if other than Germa	n)
V + Ü (r	no infoi	rmation on SWS (weekly	contact hours) and co	ourse language avail	able)
		<b>sessment</b> (type, scope, la ion on whether module c			tion offered — if not every seme-
written	exami	nation (approx. 60 minut	es)		
Allocat	ion of <sub>l</sub>	olaces			
Numbe	er of pla	ices: 620. No restrictions	with regard to availa	ble places for Bache	elor's students of Wirtschaftswis-
	-	-			Wirtschaftsmathematik (Mathe-
					ess Information Systems) (BSc
					wissenschaft (Business Mana- ed to students of other subjects.
					es will be allocated in a standar-
					the following quotas: Quota 1
					e degree subject; among appli-
					by lot. Quota 2 (25% of places):
					h the same number of subject se ot. Applicants who already have
					le will be given preferential consi
					per of places will be allocated in
		edure. A waiting list will			
Additio	onal inf	ormation			

Bachelor's with 1 major Mathematics (2014)

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## Workload

Teaching cycle

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

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# Module appears in

Bachelor' degree (1 major) Computer Science (2014)

Bachelor' degree (1 major) Mathematics (2014)

Bachelor' degree (1 major) Business Management and Economics (2013)

Bachelor' degree (1 major) Business Information Systems (2014)

Bachelor's with 1 major Mathematics (2014)	JMU Würzburg • generated 26-Aug-2024 • exam. reg.	page 149 / 163
	data record Bachelor (180 ECTS) Mathematik - 2014	

Module	e title				Abbreviation
	Managerial Accounting 12-IntUR-G-132-mo1				
Module	e coord	inator		Module offered by	
holder ting	of the (	Chair of Business Manage	ement and Accoun-	Faculty of Business	Management and Economics
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
5	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	ts				
Conten This co Outline	urse of	fers an introduction to ai abus:	ms and methods of n	nanagerial accountir	ng (cost accounting).
		accounting and financial	accounting		
	0	accounting: basic terms			
		pes of costs accounting based on tot	al costs		
		based on total costs			
		accounting and job cost		variable costs	
		nd cost-variance analysi e-profit analysis	S		
		ation and operating deci	sions		
,		Jan and a second second			
Friedl/H	nberg/F Hofmar	üscher/Günther: Kostenro In/Pedell: Kostenrechnur Iditions)			ung.
Intende	ed learı	ning outcomes			
(i) set c (ii) defi the terr (iii) app	out the ne the ms; oly the	basic methods of interna	mpany's internal acc nal enterprise compu l corporate accountir	ounting and control; ting restriction and c ng and control on a f	
<b>Courses</b> (type, number of weekly contact hours, language — if other than German)					
	V + Ü (no information on SWS (weekly contact hours) and course language available)				
<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)					
written	written examination (approx. 60 minutes)				
Allocation of places					
Numbe sensch matics with 18 gement Should dised p (50% o	r of pla aft (Bu for Eco o ECTS t and E the nu procedu f place	ces: 840. No restrictions siness Management and nomics) (BSc with 180 EC credits) as well as Bache conomics) (60 ECTS cred mber of applications exc ire among all applicants s): total number of ECTS	Economics) (BSc wit CTS credits), Wirtscha elor's students with t its). The remaining pl eed the number of av irrespective of their s credits already achier	h 180 ECTS credits), aftsinformatik (Busin he minor Wirtschafts laces will be allocate vailable places, plac subjects according to ved in the respective	elor's students of Wirtschaftswis- Wirtschaftsmathematik (Mathe- ess Information Systems) (BSc swissenschaft (Business Mana- ed to students of other subjects. es will be allocated in a standar- the following quotas: Quota 1 e degree subject; among appli- by lot. Quota 2 (25% of places):

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number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. Applicants who already have successfully completed at least one module component of the respective module will be given preferential consideration. Places on all courses of the module component with a restricted number of places will be allocated in the same procedure. A waiting list will be maintained and places re-allocated as they become available.

## Additional information

Workload

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## Teaching cycle

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

## Module appears in

Bachelor' degree (1 major) Computer Science (2014)

Bachelor' degree (1 major) Mathematics (2014)

Bachelor' degree (1 major) Business Management and Economics (2013)

Bachelor' degree (1 major) Business Information Systems (2014)

Bachelor's with 1 major Mathematics (2014)	JMU Würzburg • generated 26-Aug-2024 • exam. reg.	page 151 / 163
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Module title					Abbreviation	
Macroe	econom	lics 1			12-Mak1-G-132-m01	
Module coordinator				Module offered by		
holder	of the (	Chair of International Eco	nomics	Faculty of Business	Management and Economics	
ECTS	Metho	od of grading	Only after succ. con		U	
5	nume	rical grade				
Duratio	on	Module level	Other prerequisites			
1 seme	ester	undergraduate				
Conten	Contents					
current wages concep change balanc sis). Outline 1. Macr - Issues - The m 2. Long - The cl - Mone - The cl - Mone - The cl - Mone - The cl - Mone - The cl - Shor - Fluctu - The IS - Aggre - Concl Readin	odule c t and ca and pri ots whice e risk, p e of syll roeconc s of ma heasure g-term r lassic lo ployme rt and n uations S-LM mo S-LM mo S-LM mo sgate su lusion a	apital account, nominal a ces) and in the short term thare of central importan urchasing power parity). e global economy; quest abus: omic issues and characte croeconomics ment of economic activit elationships ong-term model of the clo offlation ong-term model of a smal ent nedium-term relationship of economic activity: an i odel of a closed economy odel of an open economy upply and Phillips curve and outlook	nd real exchange rate n (with fixed wages a lice in a globalised en The explanations wil ions related to the Eu ristics y osed economy Il open economy s introduction	e, prices and inflation nd prices). The cours wironment (e.g. inte l be applied to curre	loyment, production, interest, n - in the long run (with flexible se will familiarise students with rest rate arbitrage, foreign ex- nt issues (e. g. current account nion and the global financial cri-	
N. Greg also re Olivier by Oliv Michae	The latest editions of the following textbooks: N. Gregory Mankiw: Macroeconomics [students are recommended to read the original English edition; they may also read the German translation] Olivier Blanchard and David H. Johnson, Macroeconomics Prentice Hall; [a German-language edition of the book by Oliver Blanchard and Gerhard Illing is available from Pearson Studium]. Michael Burda and Charles Wyplosz: Macroeconomics. A European text.					
To illustrate the lecture, case studies in particular will be developed in which more current sources are used. Intended learning outcomes						
This ex actions to inter	This expertise enables the students to penetrate economically-intuitively and analytically macroeconomic inter- actions and problems in the course of advancing globalization and to deal with these arguments. Students learn to interpret on a scientific basis the impact of macroeconomic developments in individual economic actors (busi- nesses, households, the state).					
Course	<b>es</b> (type	, number of weekly conta	ct hours, language –	- if other than Germa	n)	
V + Ü (I	no infoi	mation on SWS (weekly o	contact hours) and co	ourse language avail	able)	

**Method of assessment** (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

written examination (approx. 60 minutes)

## Allocation of places

Number of places: 840. No restrictions with regard to available places for Bachelor's students of Wirtschaftswissenschaft (Business Management and Economics) (BSc with 180 ECTS credits), Wirtschaftsmathematik (Mathematics for Economics) (BSc with 180 ECTS credits), Wirtschaftsinformatik (Business Information Systems) (BSc with 180 ECTS credits) as well as Bachelor's students with the minor Wirtschaftswissenschaft (Business Management and Economics) (60 ECTS credits). The remaining places will be allocated to students of other subjects. Should the number of applications exceed the number of available places, places will be allocated in a standar-dised procedure among all applicants irrespective of their subjects according to the following quotas: Quota 1 (50% of places): total number of ECTS credits already achieved in the respective degree subject; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. Applicants who already have successfully completed at least one module component of the respective module will be given preferential consideration. Places on all courses of the module component with a restricted number of places will be allocated in the same procedure. A waiting list will be maintained and places re-allocated as they become available.

#### Additional information

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#### Workload

Teaching cycle

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

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### Module appears in

Bachelor' degree (1 major) Mathematics (2014)

Bachelor' degree (1 major) Business Management and Economics (2013) Bachelor' degree (1 major) Business Information Systems (2014) Bachelor' degree (1 major) Business Information Systems (2013)

Bachelor's with 1 major Mathematics (2014)

Module	title				Abbreviation
Macroeconomics 2					12-Mak2-G-132-m01
Module	coord	inator		Module offered by	
		Chair of Public Finance			Management and Economics
ECTS		od of grading	Only after succ. com	,	management and Leonomies
5		rical grade		,	
Duratio	n	Module level	Other prerequisites		
1 semes	ster	undergraduate			
Conten	ts				
Description: The lecture provides an introduction to long run or dynamic issues of macroeconomic theory and policy. Contents: 1. Phillips curve and dynamic model 2. Growth theory and policy 3. Microeconomic foundations of macroeconomics 4. Macroeconomic policy					nomic theory and policy.
		to be provided by Chair.			
		ning outcomes			
After completing the course "Makroökonomie 2" students are familiar with the most important concepts of grow- th theory, they know the microeconomic foundations of modern macroeconomic theory and understand the in- tertemporal budget constraint of the government. Therefore they are able to discuss the growth and distributio- nal consequences of policy reforms by applying simple economic models.					
<b>Courses</b> (type, number of weekly contact hours, language — if other than German)					
V + Ü (no information on SWS (weekly contact hours) and course language available)					
	<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)				
written	examir	nation (approx. 60 minut	es)		
Allocati	ion of p	olaces			
					lor's students of Wirtschaftswis- Wirtschaftsmathematik (Mathe-

senschaft (Business Management and Economics) (BSc with 180 ECTS credits), Wirtschaftsmathematik (Mathematics for Economics) (BSc with 180 ECTS credits), Wirtschaftsinformatik (Business Information Systems) (BSc with 180 ECTS credits) as well as Bachelor's students with the minor Wirtschaftswissenschaft (Business Management and Economics) (60 ECTS credits). The remaining places will be allocated to students of other subjects. Should the number of applications exceed the number of available places, places will be allocated in a standardised procedure among all applicants irrespective of their subjects according to the following quotas: Quota 1 (50% of places): total number of ECTS credits already achieved in the respective degree subject; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. Applicants who already have successfully completed at least one module component of the respective module will be given preferential consideration. Places on all courses of the module component with a restricted number of places will be allocated in the same procedure. A waiting list will be maintained and places re-allocated as they become available.

## Additional information

Workload

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# Teaching cycle

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

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## Module appears in

Bachelor' degree (1 major) Mathematics (2014)

Bachelor' degree (1 major) Business Management and Economics (2013)

Bachelor' degree (1 major) Business Information Systems (2014)

Bachelor's with 1 major Mathematics (2014)	JMU Würzburg • generated 26-Aug-2024 • exam. reg.	page 155 / 163
	data record Bachelor (180 ECTS) Mathematik - 2014	

Module	e title				Abbreviation
Introduction to Market-Oriented Management			agement		12-Mark-G-132-m01
Module coordinator				Module offered by	
		Chair of Business Admin	istration and Marke-		Management and Economics
ting	ortific		istration and marke		
ECTS	Methe	od of grading	Only after succ. con	npl. of module(s)	
5	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	ts				
Conten With th plainec ling. Th al purc sed on Outline 1. Mark 2. Expla 3. Fund 4. Strat 5. Corp Readin Foscht, Wiesba Hombu Untern Hombu	module t: e stake d and e e cours hasing a conje e of syll etting, anatior lament tegic m orate s g: , T. / Sv aden 20 urg, Ch. ehmen urg, Ch.	xemplified in the 5 class se will focus not only on behaviour. A case study oint analysis will provide abus: entrepreneurship and but is of consumer behaviou als of market research arketing; marketing tool ocial responsibility version voboda, B.: Käuferverhal off. : Grundlagen des Market sführung, 4th revised an : Grundlagen des Market	arting point, the basic ical steps: situation a the behavioural appro- introducing students students with deepe usiness management ar s us creating shared val lten: Grundlagen Pe tingmanagements: Ein id exp. ed., Wiesbade tingmanagements: Ein	c design of market-o nalysis, objectives, oaches of consumer to the fundamental r insights into the to lue rspektiven Anwen nführung in Strategio n 2012.	riented management will be ex- strategies, tools and control- behaviour but also on industri- principles of market research ba-
Kroebe Meffert zepte - Meffert 4th ed.	r-Riel, \ 2, H. / B - Instru 2, H. / B , Stuttg	mente Praxisbeispiele Jurman, Ch / Becker, Ch. gart 2010.	mentenverhalten, 9th M.: Marketing Grun , 11th revised and exp : Internationales Mark	dlagen marktorienti . ed., Wiesbaden 20 keting-Management	Ein markenorientierter Ansatz,
Wiesba Porter, New Yo	aden 19 M. E.: V ork 201 H. / Fa	95. Wettbewerbsvorteile S 4. (Original: Porter, M.: C	pitzenleistungen erre ompetitive Advantage	ichen und behaupte e, New York 1985.)	ischen Markt und Unternehmung n, 8th ed., Campus Frankfurt / ng Umsetzung, 3rd ed., Wies-
Intend	ed lear	ning outcomes			
			ling of business mana	-	e to classify the knowledge syste
	•	agement.	-	solve and identify t	he conventional problem fields o
busine	ss man	-	e acquired knowledge		

**Method of assessment** (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

written examination (approx. 60 minutes)

## Allocation of places

Number of places: 620. No restrictions with regard to available places for Bachelor's students of Wirtschaftswissenschaft (Business Management and Economics) (BSc with 180 ECTS credits), Wirtschaftsmathematik (Mathematics for Economics) (BSc with 180 ECTS credits), Wirtschaftsinformatik (Business Information Systems) (BSc with 180 ECTS credits) as well as Bachelor's students with the minor Wirtschaftswissenschaft (Business Management and Economics) (60 ECTS credits). The remaining places will be allocated to students of other subjects. Should the number of applications exceed the number of available places, places will be allocated in a standar-dised procedure among all applicants irrespective of their subjects according to the following quotas: Quota 1 (50% of places): total number of ECTS credits already achieved in the respective degree subject; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. Applicants who already have successfully completed at least one module component of the respective module will be given preferential consideration. Places on all courses of the module component with a restricted number of places will be allocated in the same procedure. A waiting list will be maintained and places re-allocated as they become available.

#### Additional information

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#### Workload

Teaching cycle

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

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### Module appears in

Bachelor' degree (1 major) Mathematics (2014)

Bachelor' degree (1 major) Business Management and Economics (2013) Bachelor' degree (1 major) Business Information Systems (2014) Bachelor' degree (1 major) Business Information Systems (2013)

Bachelor's with 1 major Mathematics (2014)

Module	e title				Abbreviation
Microe	conom	ics 1			12-Mik1-G-132-m01
Module coordinator				Module offered by	^
holder of the Chair for Economics, Cont formation Economics		ntract Theory and In-	Faculty of Business Management and Economics		
ECTS	Metho	od of grading	Only after succ. compl. of module(s)		
5	nume	rical grade			
Duratio	Duration Module level		Other prerequisites		
1 seme	ster	undergraduate			
Contents					

The lecture covers the following topics

Theory of the household:

- 1. Utility maximisation under constraints
- 2. Comparative statics
- 3. Income and substitution effects
- 4. Labour supply
- 5. Intertemporal consumption / savings decisions

Theory of the firm:

- 6. Production functions (technology)
- 7. Profit maximisation
- 8. Long run versus short run cost minimisation

9. Supply of goods

### Intended learning outcomes

Students are systematically trained in microeconomic methods relevant in household and firm theory. Accordingly, they will know how to solve optimization problems under constraints. These scientific methods will serve as useful in many fields of specialization in economics and business administration. In particular, studends know analytically how to analyze the impact of changes in the economic environment, e.g., wages, interest rates, income on individual decision making.

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

V + Ü (no information on SWS (weekly contact hours) and course language available)

**Method of assessment** (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

written examination (approx. 60 minutes)

### Allocation of places

Number of places: 840. No restrictions with regard to available places for Bachelor's students of Wirtschaftswissenschaft (Business Management and Economics) (BSc with 180 ECTS credits), Wirtschaftsmathematik (Mathematics for Economics) (BSc with 180 ECTS credits), Wirtschaftsinformatik (Business Information Systems) (BSc with 180 ECTS credits) as well as Bachelor's students with the minor Wirtschaftswissenschaft (Business Management and Economics) (60 ECTS credits). The remaining places will be allocated to students of other subjects. Should the number of applications exceed the number of available places, places will be allocated in a standardised procedure among all applicants irrespective of their subjects according to the following quotas: Quota 1 (50% of places): total number of ECTS credits already achieved in the respective degree subject; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. Applicants who already have

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successfully completed at least one module component of the respective module will be given preferential consideration. Places on all courses of the module component with a restricted number of places will be allocated in the same procedure. A waiting list will be maintained and places re-allocated as they become available.

# Additional information

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## Workload

Teaching cycle

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

## -- - - -

Module appears in

Bachelor' degree (1 major) Mathematics (2014)

Bachelor' degree (1 major) Business Management and Economics (2013)

Bachelor' degree (1 major) Business Information Systems (2014)

Bachelor's with 1 major Mathematics (2014)	JMU Würzburg • generated 26-Aug-2024 • exam. reg.	page 159 / 163
	data record Bachelor (180 ECTS) Mathematik - 2014	

Module title					Abbreviation
Microeconomics 2					12-Mik2-G-132-m01
Module coordinator				Module offered by	
holder	of the Q	Chair of Industrial Econor	nics	Faculty of Business	Management and Economics
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)	
5	nume	rical grade			
Duration Module level		Other prerequisites			
1 semester undergraduate					
Conten	ts				
<ol> <li>3. Short</li> <li>4. Long</li> <li>5. Gove</li> <li>6. Mono</li> <li>7. Pricir</li> <li>8. Intro</li> </ol>	minimi t maxin t-run m -run ma rnmen opoly ng strat ductior				
-		ning outcomes			
ferent n the so-o of view terventi to them nomic a	narket called c is desi ions. Th a. In aln actors r	structures; namely perfeo oligopoly markets. Ultima rable. Using our models, ne knowledge that studen nost all business and ecc	ctly competitive mark ately, we are intereste we will also try to an nts gain in this cours pnomics lectures mar dents will thus learn	ets, monopoly mark ed in whether the ma alyze the consequer e will be in their futu kets play a role. It al the important buildi	the behavior of a company in dif- tets and all forms in between, arket results from a social point inces of different government in- tre course of studies of benefits lso discussed in detail how eco- ing blocks of economic thought. es.
Course	<b>s</b> (type,	, number of weekly conta	ct hours, language —	if other than Germa	in)
V + Ü (n	no infor	mation on SWS (weekly o	contact hours) and co	ourse language avail	able)
		e <b>ssment</b> (type, scope, la on on whether module ca			ation offered — if not every seme-
		nation (approx. 60 minut ssessment: German, Eng			
Allocat	ion of p	olaces			
sensch matics with 18 gement Should dised p (50% of cants w number mesters	aft (Bus for Eco o ECTS and Ec the nu rocedu f places vith the r of sub s, place	siness Management and nomics) (BSc with 180 EC credits) as well as Bache conomics) (60 ECTS credi mber of applications exc ire among all applicants i s): total number of ECTS or same number of ECTS cr oject semesters of the res	Economics) (BSc with CTS credits), Wirtscha elor's students with th its). The remaining pl eed the number of av irrespective of their s credits already achieve redits achieved, place spective applicant; ar c. Quota 3 (25% of pla	h 180 ECTS credits), iftsinformatik (Busin he minor Wirtschafts aces will be allocate vailable places, plac ubjects according to ved in the respective es will be allocated b nong applicants with aces): allocation by b	elor's students of Wirtschaftswis- Wirtschaftsmathematik (Mathe- ness Information Systems) (BSc swissenschaft (Business Mana- ed to students of other subjects. es will be allocated in a standar- o the following quotas: Quota 1 e degree subject; among appli- by lot. Quota 2 (25% of places): h the same number of subject se- ot. Applicants who already have le will be given preferential consi-

the same procedure. A waiting list will be maintained and places re-allocated as they become available.

deration. Places on all courses of the module component with a restricted number of places will be allocated in

## Additional information

Workload

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Teaching cycle

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

# Module appears in

Bachelor' degree (1 major) Mathematics (2014) Bachelor' degree (1 major) Business Management and Economics (2013) Bachelor' degree (1 major) Business Information Systems (2014) Bachelor' degree (1 major) Business Information Systems (2013)

Bachelor's with 1 major Mathematics (2014)	JMU Würzburg • generated 26-Aug-2024 • exam. reg.	page 161 / 163
	data record Bachelor (180 ECTS) Mathematik - 2014	

Module title		Abbreviation				
Principles of Economic Policy 12-WiPo-G-132-mo1		12-WiPo-G-132-m01				
Modul	Module coordinator Module offered by		_			
holder of the Chair of Economic Order and Soc			· · ·			
				· · · ·	Management and Economics	
ECTS		od of grading	Only after succ. con	ter succ. compl. of module(s)		
5	nume	rical grade				
Duratio	on	Module level	Other prerequisites			
1 seme	ester	undergraduate				
Conter	its					
	Description: The course consists of six chapters. The first chapter illustrates what economists have in mind when referring					
					ons. The following chapters deal	
					bilität und des Wachstums der	
					Each chapter uses current ma-	
					lieved, discusses the reasons of	
		lems and demonstrates a				
P						
Outline	e of syll	abus:				
	ductior					
		nomic Policy"?				
		feconomic policy				
		of economic policy				
		of economic policy				
	employ					
		e status quo of the labour	r market			
- Reasons for unemployment						
	- Cure for labour market problems 3. Price level stability					
		lation, deflation or price s	stability?			
		nflation and deflation	stability:			
		e instability				
	•	cting relationship betwee	en full employment a	nd stable prices		
		cles and economic growt				
		rent situation of the worl		term ecnomoic grow	rth	
		cyclical fluctuations and				
- Cure	for mac	roeconomic instabilities	and means to facilita	te economic growth		
		oreign trade				
	- Empirics: balances of payments of Germany, Europe and the World					
		nacroeconomic imbaland	ces			
		abilities in foreign trade				
		ribution	and the bistoriant day			
		e distribution of incomes		elopment		
		an increase in income ine uality and redistribution	quality			
		ning outcomes				
	-	=	-		international economies. Based	
			-	-	rket equilibria, Solow model, Be-	
-		-	-		and global economies. Students	
				_	d under which circumstances go- urse, students are able to analy-	
		•		-	dition, students have learned to	
					and to explain the particular pro-	
		on different models.	sasis or empirical in		and to explain the particular pio-	
		or Mathematics (2014)	JMU Würzburg	• generated 26-Aug-2024 • e	exam. reg. page 162 / 163	
				achelor (180 ECTS) Mathemat		

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

V +  $\ddot{U}$  (no information on SWS (weekly contact hours) and course language available)

**Method of assessment** (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)

written examination (approx. 60 minutes)

## Allocation of places

Number of places: 620. No restrictions with regard to available places for Bachelor's students of Wirtschaftswissenschaft (Business Management and Economics) (BSc with 180 ECTS credits), Wirtschaftsmathematik (Mathematics for Economics) (BSc with 180 ECTS credits), Wirtschaftsinformatik (Business Information Systems) (BSc with 180 ECTS credits) as well as Bachelor's students with the minor Wirtschaftswissenschaft (Business Management and Economics) (60 ECTS credits). The remaining places will be allocated to students of other subjects. Should the number of applications exceed the number of available places, places will be allocated in a standardised procedure among all applicants irrespective of their subjects according to the following quotas: Quota 1 (50% of places): total number of ECTS credits already achieved in the respective degree subject; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. Applicants who already have successfully completed at least one module component of the respective module will be given preferential consideration. Places on all courses of the module component with a restricted number of places will be allocated in the same procedure. A waiting list will be maintained and places re-allocated as they become available.

# Additional information

Workload

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Teaching cycle

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

### Module appears in

Bachelor' degree (1 major) Mathematics (2014) Bachelor' degree (1 major) Business Management and Economics (2013) Bachelor' degree (1 major) Business Information Systems (2014) Bachelor' degree (1 major) Business Information Systems (2013)

Bachelor's with 1 major Mathematics (2014)	
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