

## Subdivided Module Catalogue for the Subject

# Biology

as a Master's with 1 major with the degree "Master of Science" (120 ECTS credits)

> Examination regulations version: 2011 Responsible: Faculty of Biology

JMU Würzburg • generated 26-Aug-2024 • exam. reg. data record 88|026|-|-|H|2011



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

The study program requires the intensive theoretical and practical training in scientific topics in Biology and Life Sciences. The graduate is able to use appropriate methods to answer scientific questions and to conduct research projects.

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## 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)):

#### 21-Sep-2011 (2011-81)

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.

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## The subject is divided into

Abbreviation	Module title	ECTS credits	Method of grading	page
Thesis (30 ECTS credits)				
07-MT-102-m01	Final Examination in Biology	30	NUM	135
Compulsory Electives (90 EC	TS credits)			
Compulsory Electives 1 (75	ECTS credits)			
Focus 1				
Neurosciences (30 ECTS	credits)			
07-MS1-102-m01	Neurobiology, Behavior and Animal Ecology (Lecture)	10	NUM	54
07-MS1N-102-m01	Molecular and Clinical Neurobiology (Lecture and Seminar)	10	NUM	59
07-MS1NF1-102-m01	Neurobiology (Practical Course and Seminar 1)	10	NUM	62
07-MS1NF2-102-m01	Neurobiology (Practical Course and Seminar 2)	15	B/NB	63
07-MS1NB-112-m01	Neurogenetics of Behavior	10	NUM	60
07-MS1NEC-112-m01	Developmental Neurobiology and Chronobiology	10	NUM	61
07-MS1CB-141-m01	Endogenous Clocks	10	NUM	56
07-MS1NMND-141-m01	Neuromodulation and Neuronal Development	10	NUM	64
Animal Ecology and Tro	pical Biology (30 ECTS credits)			
07-MS1TÖ2-111-m01	Animal Ecology and Tropical Biology 2	10	NUM	66
07-MS1-102-m01	Neurobiology, Behavior and Animal Ecology (Lecture)	10	NUM	54
07-MS1TÖ-102-m01	Animal Ecology and Tropical Biology (Lecture and Seminar)	10	NUM	65
07-MS1TÖF1-102-m01	Animal Ecology F1 (Practical Course and Seminar 1)	10	NUM	67
	Animal Ecology and Tropical Biology F2 (Practical Course and		- ///-	
07-MS1TÖF2-102-m01	Seminar 2)	15	B/NB	69
Behavioral Physiology a	nd Sociobiology (30 ECTS credits)			
07-MS1ES-111-m01	Experimental Sociobiology	10	NUM	57
07-MS1-102-m01	Neurobiology, Behavior and Animal Ecology (Lecture)	10	NUM	54
07-MS1K-102-m01	Communication Biology (Lecture)	10	NUM	58
07-MS1VF1-102-m01	Behavioral Biology (Practical Course and Seminar 1)	10	NUM	70
07-MS1VF2-102-m01	Behavioral Biology (Practical Course and Seminar 2)	15	B/NB	71
07-MS1NB-112-m01	Neurogenetics of Behavior	10	NUM	60
Focus 2				
Molecular Cell- and Dev	elopmental Biology (30 ECTS credits)			
07-MS2-102-m01	Molecular Biology (Lecture)	10	NUM	72
	Cell- and Developmental Biology Master 1 (Lecture and Semi-			
07-MS2ZE1-102-m01	nar 1)	10	NUM	98
MC-75-	Cell- and Developmental Biology Master 2 (Lecture and Semi-			
07-MS2ZE2-102-m01	nar 2)	10	NUM	99
	Cell- and Developmental Biology Practical Course and Seminar			
07-MS2ZEF1-102-m01	1	10	NUM	100
07-MS27EE2 402 mod	Cell- and Developmental Biology Practical Course and Seminar	15	B /ND	101
07-MS2ZEF2-102-m01	2	15	B/NB	101
Microbiology (30 ECTS o	credits)			
07-MS2-102-m01	Molecular Biology (Lecture)	10	NUM	72
07-MS2MF1-102-m01	Microbiology (Practical Course and Seminar 1)	10	NUM	91

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07-MS2MF2-102-m01	Microbiology (Practical Course and Seminar 2)	15	B/NB	92
07-MS2M1-112-m01	Microbiology 1 (Lecture and Seminar)	10	NUM	89
07-MS2M2-112-m01	Microbiology 2 (Lecture and Seminar)	10	NUM	90
	Biotechnology (30 ECTS credits)	10		
07-MS2-102-m01	Molecular Biology (Lecture)	10	NUM	72
	Biophysics and Molecular Biotechnology (Lecture and Semi-			<u>                                     </u>
07-MS2BT-102-m01	nar)	10	NUM	79
07-MS2BTF1-102-m01	Biophysics and Molecular Biotechnology (Practical Course and Seminar 1)	10	NUM	80
07-MS2BTF2-102-m01	Biophysics and Molecular Biotechnology (Practical Course and Seminar 2)	15	B/NB	8
07-MS2BI-102-m01	Bioinformatics (Lecture and Seminar)	10	NUM	76
07-MS3BB-102-m01	Biophysics and Biochemistry	10	NUM	10
Bioinformatics (30 ECTS	credits)			
07-MS1-102-m01	Neurobiology, Behavior and Animal Ecology (Lecture)	10	NUM	54
07-MS1N-102-m01	Molecular and Clinical Neurobiology (Lecture and Seminar)	10	NUM	59
07-MS1TÖ-102-m01	Animal Ecology and Tropical Biology (Lecture and Seminar)	10	NUM	6
07-MS1K-102-m01	Communication Biology (Lecture)	10	NUM	5
07-MS2-102-m01	Molecular Biology (Lecture)	10	NUM	7
07-MS2ZE1-102-m01	Cell- and Developmental Biology Master 1 (Lecture and Semi- nar 1)	10	NUM	9
07-MS2ZE2-102-m01	Cell- and Developmental Biology Master 2 (Lecture and Semi- nar 2)	10	NUM	9
07-MS2BI-102-m01	Bioinformatics (Lecture and Seminar)	10	NUM	7
07-MS2IM1-102-m01	Immunology 1 (Lecture and Seminar)	10	NUM	8
07-MS2IM2-102-m01	Immunology 2 (Lecture and Seminar)	10	NUM	8
07-MS2V1-102-m01	Virology 1 (Lecture and Seminar)	10	NUM	9
07-MS2V2-102-m01	Virology 2 (Lecture and Seminar)	10	NUM	9
07-MS2HG-102-m01	Human Genetics (Lecture and Seminar)	10	NUM	8
07-MS3PA-102-m01	Developmental Physiology and Adaption of Plants (Lecture and Seminar)	10	NUM	11
07-MS3BB-102-m01	Biophysics and Biochemistry	10	NUM	10
07-MS3BA-102-m01	Response towards Biotic and Abiotic Factors	10	NUM	10
07-MS3S-102-m01	System Biology (Lecture and Seminar)	10	NUM	12
	Bioinformatics (Practical Course and Seminar 1)	10	NUM	7
07-MS2BIF2-102-m01	Bioinformatics (Practical Course and Seminar 2)	15	B/NB	7
07-MS2M1-112-m01	Microbiology 1 (Lecture and Seminar)	10	, NUM	8
07-MS3-112-m01	Current Methods in Plant Biology (Lecture)	10	NUM	10
07-MS2M2-112-m01	Microbiology 2 (Lecture and Seminar)	10	NUM	9
Immunology (30 ECTS c			I	
07-MS2IM1-102-m01	Immunology 1 (Lecture and Seminar)	10	NUM	8
07-MS2IM2-102-m01	Immunology 2 (Lecture and Seminar)	10	NUM	8
-	Immunology (Practical Course and Seminar 1)	10	NUM	8
•	Immunology (Practical Course and Seminar 2)	15	B/NB	8
Virology (30 ECTS credit		-,		
	Virology 1 (Lecture and Seminar)	10	NUM	9
07-MS2V1-102-m01		10		

07-MS2V2-102-m01	Virology 2 (Lecture and Seminar)	10	NUM	95
07-MS2VF1-102-m01	Virology (Practical Course and Seminar 1)	10	NUM	96
07-MS2VF2-102-m01	Virology (Practical Course and Seminar 2)	15	B/NB	97
Human Genetics (30 EC	S credits)			
07-MS2-102-m01	Molecular Biology (Lecture)	10	NUM	72
07-MS2ZE1-102-m01	Cell- and Developmental Biology Master 1 (Lecture and Semi- nar 1)	10	NUM	98
07-MS2ZE2-102-m01	Cell- and Developmental Biology Master 2 (Lecture and Semi- nar 2)	10	NUM	99
07-MS2IM1-102-m01	Immunology 1 (Lecture and Seminar)	10	NUM	8
07-MS2IM2-102-m01	Immunology 2 (Lecture and Seminar)	10	NUM	8
07-MS2V1-102-m01	Virology 1 (Lecture and Seminar)	10	NUM	9
07-MS2V2-102-m01	Virology 2 (Lecture and Seminar)	10	NUM	9
07-MS2HG-102-m01	Human Genetics (Lecture and Seminar)	10	NUM	8
07-MS2HGF1-102-m01	Human Genetics (Practical Course and Seminar 1)	10	NUM	8
07-MS2HGF2-102-m01	Human Genetics (Practical Course and Seminar 2)	15	B/NB	8
07-MS2M1-112-m01	Microbiology 1 (Lecture and Seminar)	10	NUM	8
07-MS2M2-112-m01	Microbiology 2 (Lecture and Seminar)	10	NUM	9
Physiological Chemistry				
07-MS2-102-m01	Molecular Biology (Lecture)	10	NUM	7
07-MS2ZE1-102-m01	Cell- and Developmental Biology Master 1 (Lecture and Semi- nar 1)	10	NUM	9
07-MS2ZE2-102-m01	Cell- and Developmental Biology Master 2 (Lecture and Semi- nar 2)	10	NUM	9
07-MS2ZEF1-102-m01	Cell- and Developmental Biology Practical Course and Seminar	10	NUM	10
07-MS2PHF2-102-m01	Physiological Chemistry (Practical Course and Seminar 2)	15	B/NB	9
07-MSL2-102-m01	Laboratory practical course 2	10	B/NB	13
Cellular Tumorbiology (			-7	
	Molecular Biology (Lecture)	10	NUM	7
07-MS2ZE1-102-m01	Cell- and Developmental Biology Master 1 (Lecture and Semi- nar 1)	10	NUM	9
07-MS2ZE2-102-m01	Cell- and Developmental Biology Master 2 (Lecture and Semi- nar 2)	10	NUM	9
07-MS2IM1-102-m01	Immunology 1 (Lecture and Seminar)	10	NUM	8
07-MS2IM2-102-m01	Immunology 2 (Lecture and Seminar)	10	NUM	8
07-MS2V1-102-m01	Virology 1 (Lecture and Seminar)	10	NUM	9
07-MS2V2-102-m01	Virology 2 (Lecture and Seminar)	10	NUM	9
07-MS2HG-102-m01	Human Genetics (Lecture and Seminar)	10	NUM	8
07-MSL2-102-m01	Laboratory practical course 2		B/NB	
07-MS22-102-1101	Microbiology 1 (Lecture and Seminar)	10	NUM	1 <u>3</u> 8
07-MS2M1-112-m01	Microbiology 2 (Lecture and Seminar) Microbiology 2 (Lecture and Seminar)	10		
07-101321012-112-11101		10	NUM	9
07-MS2ZTF1-112-m01	Cellular Tumorbiology Master 1 (Practical Course and Seminar 1)	10	NUM	10
07-MS2ZTF2-112-m01	Cellular Tumorbiology Master 2 (Practical Course and Seminar 2)	15	B/NB	10

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Molecular Cell- and Dev	elopmental Biology of Plants (30 ECTS credits)			
	Developmental Physiology and Adaption of Plants (Lecture and Seminar)	10	NUM	1
07-MS3BB-102-m01	Biophysics and Biochemistry	10	NUM	1
07-MS3BA-102-m01	Response towards Biotic and Abiotic Factors	10	NUM	1
07-MS3MF1-102-m01	Molecular Biology of Plants (Practical Course and Seminar 1)	10	NUM	1
07-MS3ZE-102-m01	Specific Molecular-, Cell- and Developmental Biology of Plants (Practical Course and Seminar 1)	15	B/NB	1
07-MS3-112-m01	Current Methods in Plant Biology (Lecture)	10	NUM	1
	cural Biology (30 ECTS credits)	10	Nom	
-	Developmental Physiology and Adaption of Plants (Lecture and Seminar)	10	NUM	1
07-MS3BB-102-m01	Biophysics and Biochemistry	10	NUM	1
07-MS3BB-102-m01	Response towards Biotic and Abiotic Factors	10	NUM	
	Biochemistry and Structural Biology (Practical Course and Se- minar 1)	10	NUM	
07-MS3BSF2-102-m01	Biochemistry and Structural Biology (Practical Course and Se- minar 2)	15	B/NB	1
07-MS3-112-m01	Current Methods in Plant Biology (Lecture)	10	NUM	1
Biophysics (30 ECTS cre	dits)			
07-MS3PA-102-m01	Developmental Physiology and Adaption of Plants (Lecture and Seminar)	10	NUM	1
07-MS3BB-102-m01	Biophysics and Biochemistry	10	NUM	1
07-MS3BA-102-m01	Response towards Biotic and Abiotic Factors	10	NUM	1
07-MS3ZE-102-m01	Specific Molecular-, Cell- and Developmental Biology of Plants (Practical Course and Seminar 1)	15	B/NB	1
07-MS3BPF1-102-m01	Biophysics of Membraneproteins of Plants (Practical Course	10	NUM	1
07-MS3-112-m01	Current Methods in Plant Biology (Lecture)	10	NUM	1
Pharmaceutical Biology		10		1 -
	Developmental Physiology and Adaption of Plants (Lecture and Seminar)	10	NUM	1
07-MS3BB-102-m01	Biophysics and Biochemistry	10	NUM	1
07-MS3BA-102-m01	Response towards Biotic and Abiotic Factors	10	NUM	1
	Pharmaceutical Biology (Practical Course and Seminar 1)	10	NUM	
	Pharmaceutical Biology (Practical Course and Seminar 2)	15	B/NB	1
	Current Methods in Plant Biology (Lecture)	10	NUM	1
	ogy of Plants (30 ECTS credits)	10		
	Developmental Physiology and Adaption of Plants (Lecture and Seminar)	10	NUM	1
07-MS3BB-102-m01	Biophysics and Biochemistry	10	NUM	1
07-MS3BA-102-m01	Response towards Biotic and Abiotic Factors	10	NUM	1
07-MS3PÖF1-102-m01	Specific Ecology and Ecophysiology of Plants (Practical Course and Seminar 1)	10	NUM	1

07-MS3PÖF2-102-m01	Specific Ecology and Ecophysiology of Plants (Practical Course and Seminar 2)	15	B/NB	12
07-MS3-112-m01	Current Methods in Plant Biology (Lecture)	10	NUM	10
	Ecology (30 ECTS credits)			
	Developmental Physiology and Adaption of Plants (Lecture and			
07-MS3PA-102-m01	Seminar)	10	NUM	11
07-MS3BB-102-m01	Biophysics and Biochemistry	10	NUM	10
07-MS3BA-102-m01	Response towards Biotic and Abiotic Factors	10	NUM	10
07-MS3MCÖ-	Microbial and Chemical Ecology (Practical Course and Seminar	10	NUM	1:
F1-102-m01	1)	10		
07-MS3MCÖ-	Microbial and Chemical Ecology (Practical Course and Seminar	15	B/NB	11
F2-102-m01	2)	- 5		
07-MS3-112-m01	Current Methods in Plant Biology (Lecture)	10	NUM	10
System Biology (30 ECT				
07-MS1-102-m01	Neurobiology, Behavior and Animal Ecology (Lecture)	10	NUM	5
07-MS1N-102-m01	Molecular and Clinical Neurobiology (Lecture and Seminar)	10	NUM	5
07-MS1TÖ-102-m01	Animal Ecology and Tropical Biology (Lecture and Seminar)	10	NUM	6
07-MS1K-102-m01	Communication Biology (Lecture)	10	NUM	5
07-MS2-102-m01	Molecular Biology (Lecture)	10	NUM	7
07-MS2ZE1-102-m01	Cell- and Developmental Biology Master 1 (Lecture and Semi-	10	NUM	9
	nar 1)			_
07-MS2ZE2-102-m01	Cell- and Developmental Biology Master 2 (Lecture and Semi- nar 2)	10	NUM	9
07-MS2BI-102-m01	Bioinformatics (Lecture and Seminar)	10	NUM	7
07-MS2IM1-102-m01	Immunology 1 (Lecture and Seminar)	10	NUM	8
07-MS2IM2-102-m01	Immunology 2 (Lecture and Seminar)	10	NUM	8
07-MS2V1-102-m01	Virology 1 (Lecture and Seminar)	10	NUM	9
07-MS2V2-102-m01	Virology 2 (Lecture and Seminar)	10	NUM	9
07-MS2HG-102-m01	Human Genetics (Lecture and Seminar)	10	NUM	8
07-MS3PA-102-m01	Developmental Physiology and Adaption of Plants (Lecture and Seminar)	10	NUM	1:
07-MS3BB-102-m01	Biophysics and Biochemistry	10	NUM	10
07-MS3BA-102-m01	Response towards Biotic and Abiotic Factors	10	NUM	10
07-MS3S-102-m01	System Biology (Lecture and Seminar)	10	NUM	12
07-MS3SYF1-102-m01	System Biology (Practical Course and Seminar 1)	10	NUM	12
07-MS3SYF2-102-m01	System Biology (Practical Course and Seminar 2)	15	B/NB	12
07-MS2M1-112-m01	Microbiology 1 (Lecture and Seminar)	10	NUM	8
07-MS3-112-m01	Current Methods in Plant Biology (Lecture)	10	NUM	10
07-MS2M2-112-m01	Microbiology 2 (Lecture and Seminar)	10	NUM	9
Non-focus Lab Course	l l			
07-MSL2-102-m01	Laboratory practical course 2	10	B/NB	1
07-MSL3-102-m01	Laboratory practical course 3	15	B/NB	13
07-MSA2-102-m01	Practical Course as exchange student 2	10	B/NB	12
07-MSA3-102-m01	Practical Course as exchange student 3	15	B/NB	12
Compulsory Electives 2 (15	ECTS credits)			
07-MBI-B-121-m01	Bioinformatics B	5	B/NB	2

07-ML51-122-m01         Methods in Life Sciences         10         NUM         43           07-ML52-122-m01         Topics and Concepts in Life Sciences         10         NUM         45           07-ML52-122-m01         Biochemistry, Physiology and Genetics of Mammalian Cell Culture         5         B/NB         15           07-ML52-122-m01         Unux and Perl         5         B/NB         16           07-ML52-122-m01         Dirux and Perl         5         B/NB         16           07-MB2B-121-m01         Developmental Physiology and Adaption of Plants B         7         B/NB         5           07-MB2B-121-m01         Response towards Biotic and Abiotic Factors B         7         B/NB         55           07-MB2B-121-m01         Neurobiology, Behaviour and Animal Ecology B         7         B/NB         51           07-MCB-121-m01         Animal Ecology and Tropical Biology         5         B/NB         51           07-MCB-121-m01         Animal Ecology and Tropical Biology 2         7         B/NB         30           07-MCB-121-m01         Animal Ecology 1B         7         B/NB         31           07-MCB-121-m01         Animal Ecology 3B         7         B/NB         31           07-MCB-121-m01         Animal Ecology 3B	07-MS-B-121-m01	Systems Biology B	5	B/NB	129
op-ML52-122-mo1         Topics and Concepts in Life Sciences         10         NUM         45           op-ML52-122-mo1         Biochemistry, Physiology and Genetics of Mammalian Cell Cul- ture         5         B/NB         130           og-MSMT-111-mo1         Molecular Techniques         3         B/NB         15           op-ML52-122-mo1         Linux and Perl         5         B/NB         42           op-ML52-122-mo1         Linux and Perl         5         B/NB         42           op-MABA-122-mo1         Developmental Physiology and Adaption of Plants B         7         B/NB         52           op-MBAB-122-mo1         Biophysics and Biochemistry B         7         B/NB         56         B/NB         57           op-MBB-122-mo1         Neurobiology, Behaviour and Animal Ecology B         7         B/NB         51         0         7MNB 55         0         NB         59         B/NB         51         0         7MNB 5121-mo1         Animal Ecology and Tropical Biology 2 B         7         B/NB         40         7         B/NB         40         7         B/NB         40         7         B/NB         44         40         40         40         40         40         44         44         44         44         44 <td></td> <td></td> <td>-</td> <td></td> <td>-</td>			-		-
or-MSCC:11:moi         ture         5         B/NB         130           03-MSCC:11:moi         Mulecular Techniques         3         B/NB         15           07-ML3:2:moi         Linux and Perl         5         B/NB         142           07-MS3B-12:moi         Current Methods in Plant Biology B         7         B/NB         166           07-MBAB-12:moi         Developmental Physiology and Adaption of Plants B         7         B/NB         52           07-MBAB-12:moi         Response towards Biotic and Abiotic Factors B         7         B/NB         52           07-MBAB-12:moi         Neurobiology, Behaviour and Animal Ecology B         7         B/NB         55           07-MBE-12:moi         Animal Ecology and Tropical Biology         5         B/NB         130           07-MTO2B-12:moi         Animal Ecology and Tropical Biology 2         5         B/NB         133           07-MTSB-12:moi         Communication Biology B         7         B/NB         133           07-MTSB-12:moi         Molecular Biology B         7         B/NB         133           07-MTSB-12:moi         Molecular Biology B         7         B/NB         133           07-MTSB-12:moi         Microbiology 1         B         7         B/NB		Topics and Concepts in Life Sciences	10	NUM	
07-ML-122-mo1         Linux and Perl         5         B/NB         42           07-MS3B-121-mo1         Current Methods in Plant Biology B         7         B/NB         52           07-MBAB-121-mo1         Developmental Physiology and Adaption of Plants B         7         B/NB         52           07-MBAB-121-mo1         Biophysics and Biochemistry B         5         B/NB         27           07-MSBB-121-mo1         Neurobiology, Behaviour and Animal Ecology B         7         B/NB         51           07-MBB-121-mo1         Neurobiology and Tropical Biology 2 B         5         B/NB         51           07-MTCB-121-mo1         Animal Ecology and Tropical Biology 2 B         7         B/NB         40           07-MTCB-121-mo1         Animal Ecology and Tropical Biology 2 B         7         B/NB         40           07-MTSB-121-mo1         Animal Ecology and Tropical Biology 2 B         7         B/NB         40           07-MTSB-121-mo1         Animal Ecology B         7         B/NB         40           07-MTSB-121-mo1         Microbiology 1 B         5         B/NB         47           07-MTSB-121-mo1         Microbiology 2 B         7         B/NB         48           07-MZE-131-mo1         Microbiology 1 B         5         <	07-MSCC-111-m01		5	B/NB	130
07-MS3B-121-m01         Current Methods in Plant Biology B         7         B/NB         106           07-MPAB-121-m01         Developmental Physiology and Adaption of Plants B         7         B/NB         26           07-MBAB-121-m01         Response towards Biotic and Abiotic Factors B         7         B/NB         26           07-MBS-121-m01         Neurobiology, Behaviour and Animal Ecology B         7         B/NB         25           07-MNBE-121-m01         Neurobiology and Tropical Biology         5         B/NB         29           07-MCB-121-m01         Endogenous Clocks         5         B/NB         137           07-MCB-121-m01         Animal Ecology and Tropical Biology 2         5         B/NB         137           07-MCB-121-m01         Animal Ecology and Tropical Biology 2         7         B/NB         136           07-MCB-121-m01         Kereimental Sociobiology B         7         B/NB         137           07-MCB-121-m01         Kereimental Sociobiology B         7         B/NB         140           07-MM2-9-121-m01         Kircobiology 1 B         7         B/NB         14           07-MM2-9-121-m01         Microbiology 2 B         5         B/NB         153           07-MM2-9-121-m01         Microbiology 1 B	03-MSMT-111-m01	Molecular Techniques	3	B/NB	15
07.MS3B-121-m01         Current Methods in Plant Biology B         7         B/NB         106           07.MPAB-121-m01         Developmental Physiology and Adaption of Plants B         7         B/NB         52           07.MBAB-121-m01         Response towards Biotic and Abiotic Factors B         7         B/NB         26           07.MBS1-121-m01         Neurobiology, Behaviour and Animal Ecology B         7         B/NB         55           07.MNSB-121-m01         Neurogenetics of Behaviour B         5         B/NB         51           07.MCB-121-m01         Endogenous Clocks         5         B/NB         138           07.MCB-121-m01         Animal Ecology and Tropical Biology 2         5         B/NB         137           07.MCB-121-m01         Animal Ecology and Tropical Biology 2         7         B/NB         43           07.MCB-121-m01         Communication Biology B         7         B/NB         43           07.MCB-121-m01         Experimental Sociobiology Aster 18         3         B/NB         44           07.MCB-121-m01         Microbiology 1 B         5         B/NB         43           07.MCE-121-m01         Microbiology 2 B         7         B/NB         133           07.MM2-B-121-m01         Immunology 2 B         7	07-ML-122-m01	Linux and Perl	5	B/NB	42
07-MPAB-121-mo1         Developmental Physiology and Adaption of Plants B         7         B/NB         52           07-MBAB-121-mo1         Response towards Biotic and Abiotic Factors B         7         B/NB         26           07-MBBB-121-mo1         Biophysics and Biochemistry B         5         B/NB         27           07-MSB1-121-mo1         Neurobiology, Behaviour and Animal Ecology B         7         B/NB         55           07-MNBB-121-mo1         Neurobiology, Behaviour and Animal Ecology B         5         B/NB         138           07-MCB-121-mo1         Animal Ecology and Tropical Biology 2 B         5         B/NB         138           07-MCB-121-mo1         Communication Biology B         7         B/NB         40           07-MCB-121-mo1         Experimental Sociobiology B         7         B/NB         40           07-MCB-121-mo1         Microbiology 1 B         5         B/NB         40           07-MCB-121-mo1         Microbiology 2 B         7         B/NB         11           07-MCB-121-mo1         Microbiology 1 B         5         B/NB         152           07-MZE-N-121-mo1         Microbiology 1 B         7         B/NB         151           03-MIMI-B-121-mo1         Immunology 1 B         7         B/	07-MS3B-121-m01	Current Methods in Plant Biology B	7	B/NB	106
07-MBBB-121-m01         Biophysics and Biochemistry B         5         B/NB         27           07-MS1B-121-m01         Neurobiology, Behaviour and Animal Ecology B         7         B/NB         55           07-MNB1-121-m01         Neurogenetics of Behaviour B         5         B/NB         59           07-MCE-121-m01         Animal Ecology and Tropical Biology D         5         B/NB         138           07-MCB-121-m01         Animal Ecology and Tropical Biology B         7         B/NB         139           07-MKE-121-m01         Animal Ecology and Tropical Biology B         7         B/NB         139           07-MKE-121-m01         Communication Biology B         7         B/NB         130           07-MKE-121-m01         Molecular Biology B         7         B/NB         137           07-MKE-121-m01         Microbiology 1B         5         B/NB         14           07-MK2-B-121-m01         Microbiology 1B         5         B/NB         152           07-MK2-B-121-m01         Immunology 1B         7         B/NB         13           07-MK2-B-121-m01         Immunology 1B         7         B/NB         14           03-MM1-B-121-m01         Immunology 1B         7         B/NB         14	07-MPAB-121-m01	Developmental Physiology and Adaption of Plants B	7	B/NB	52
o7-MS1B-121-mo1         Neurobiology, Behaviour and Animal Ecology B         7         B/NB         55           o7-MNBB-121-mo1         Neurogenetics of Behaviour B         5         B/NB         51           o7-MCB1-121-mo1         Endogenous Clocks         5         B/NB         138           o7-MT0B-121-mo1         Animal Ecology and Tropical Biology 2         5         B/NB         138           o7-MT0B-121-mo1         Animal Ecology and Tropical Biology 2         5         B/NB         138           o7-MTSB-121-mo1         Experimental Sociobiology B         7         B/NB         40           o7-MTSB-121-mo1         Kircobiology 1B         5         B/NB         74           o7-MT2B-121-mo1         Molecular Biology 1B         5         B/NB         74           o7-MT2B-121-mo1         Microbiology 1B         5         B/NB         152           o7-MT2B-121-mo1         Microbiology 2B         5         B/NB         153           o7-MT2B-121-mo1         Immunology 1B         7         B/NB         11           o3-MIM1-B-121-mo1         Immunology 2 B         7         B/NB         12           o7-MT2B-121-mo1         Immunology 1 B         7         B/NB         16           o3-MIM2-B-121-mo1	07-MBAB-121-m01	Response towards Biotic and Abiotic Factors B	7	B/NB	26
o7-MS1B-121-mo1         Neurobiology, Behaviour and Animal Ecology B         7         B/NB         55           o7-MMBB-121-mo1         Neurogenetics of Behaviour B         5         B/NB         51           o7-MCB121-mo1         Endogenous Clocks         5         B/NB         138           o7-MT0B-121-mo1         Animal Ecology and Tropical Biology 2         5         B/NB         138           o7-MT0B-121-mo1         Animal Ecology and Tropical Biology 2         7         B/NB         40           o7-MT0B-121-mo1         Experimental Sociobiology B         7         B/NB         40           o7-MTSD-121-mo1         Experimental Sociobiology B         7         B/NB         40           o7-MTSD-121-mo1         Molecular Biology B         7         B/NB         40           o7-MT2B-121-mo1         Microbiology 1 B         5         B/NB         48           o7-MZE-B-121-mo1         Microbiology 2 B         5         B/NB         152           o7-MZE2-B-121-mo1         Immunology 1 B         7         B/NB         13           o3-MIM2-B-121-mo1         Immunology 2 B         7         B/NB         14           o3-MIM2-B-121-mo1         Immunology 1 B         7         B/NB         16           o3	07-MBBB-121-m01	Biophysics and Biochemistry B	5	B/NB	27
o7-MNBB-121-mo1         Neurogenetics of Behaviour B         5         B/NB         51           o7-MECB-121-mo1         Endogenous Clocks         5         B/NB         29           o7-MTÖB-121-mo1         Animal Ecology and Tropical Biology         5         B/NB         138           o7-MTÖB-121-mo1         Animal Ecology and Tropical Biology 2         5         B/NB         137           o7-MEE-121-mo1         Communication Biology B         7         B/NB         33           o7-MS2B-121-mo1         Experimental Sociobiology B         7         B/NB         43           o7-MS2B-121-mo1         Microbiology 1         5         B/NB         44           o7-MM2-B-121-mo1         Microbiology 2         5         B/NB         47           o7-MZE-B-121-mo1         Microbiology 2         5         B/NB         48           o7-MZE-B-121-mo1         Munology 1         8         7         B/NB         18           o7-MZE-B-121-mo1         Immunology 1         8         7         B/NB         11           o3-MIM2-B-121-mo1         Immunology 2         8         5         B/NB         12           o3-MIM2-B-121-mo1         Immunology 1         8         7         B/NB         12	07-MS1B-121-m01	Neurobiology, Behaviour and Animal Ecology B		B/NB	55
07-MECB-121-m01         Endogenous Clocks         5         B/NB         29           07-MTÖB-121-m01         Animal Ecology and Tropical Biology 2 B         5         B/NB         138           07-MTÖ2B-121-m01         Animal Ecology and Tropical Biology 2 B         5         B/NB         140           07-MKB-121-m01         Communication Biology B         7         B/NB         40           07-MS2B-121-m01         Experimental Sociobiology B         7         B/NB         74           07-MMS2B-121-m01         Microbiology 1 B         5         B/NB         47           07-MM2-B-121-m01         Microbiology 2 B         5         B/NB         48           07-MZE1-B-121-m01         Cell- and Development-Biology Master 1 B         3         B/NB         152           07-MZE1-B-121-m01         Immunology 1 B         7         B/NB         11           03-MIM1-B-121-m01         Immunology 2 B         5         B/NB         13           03-MIM2-B-121-m01         Immunology 2 B         5         B/NB         14           03-MIM2-B-121-m01         Immunology 2 B         7         B/NB         16           03-MIM2-B-121-m01         Immunology 2 B         7         B/NB         17           07-MGRSD-121-m01	07-MNBB-121-m01	Neurogenetics of Behaviour B		B/NB	
o7-MTÖB-121-mo1Animal Ecology and Tropical Biology5B/NB138o7-MTÖ2B-121-mo1Animal Ecology and Tropical Biology 25B/NB137o7-MKB-121-mo1Communication Biology B7B/NB40o7-MS2B-121-mo1Experimental Sociobiology B7B/NB74o7-MS2B-121-mo1Molecular Biology J5B/NB47o7-MS2B-121-mo1Microbiology 15B/NB47o7-MZ2B-121-mo1Microbiology 285B/NB48o7-MZE1-B-121-mo1Cell- and Development-Biology Master 13B/NB152o7-MZE2-B-121-mo1Cell- and Development-Biology Master 23B/NB153o3-MIM1-B-121-mo1Immunology 1B7B/NB11o3-MIM2-B-121-mo1Immunology 2S5B/NB14o3-MIM2-B-121-mo1Immunology 2B7B/NB16o3-MIM2-B-121-mo1Immunology 2B7B/NB16o3-MIM2-B-121-mo1Immunology 2B7B/NB17o3-MIM2-B-121-mo1Immunology 1B7B/NB17o7-MGR5D-121-mo1Gene Regulation and Signal Transduction3B/NB37o7-MGR5D-121-mo1Kirobig y all Axonomy of Insects3NUM39o7-MICK1-121-mo1Microbial Ecology2NUM35o7-MIRDP-121-mo1Agroecology2NUM35o7-MIRDP-121-mo1Agroecology2NUM39	07-MECB-121-m01	Endogenous Clocks		B/NB	29
or-MTÖ2B-121-mo1         Animal Ecology and Tropical Biology 2 B         5         B/NB         137           or-MKB-121-mo1         Communication Biology B         7         B/NB         40           or-MESB-121-mo1         Experimental Sociobiology B         7         B/NB         33           or-MS2B-121-mo1         Molecular Biology B         7         B/NB         74           or-MM1B-121-mo1         Microbiology 1 B         5         B/NB         47           or-MZE1B-121-mo1         Microbiology 2 B         5         B/NB         48           or-MZE2-B-121-mo1         Cell- and Development-Biology Master 1 B         3         B/NB         153           or-MZE2-B-121-mo1         Immunology 1 B         7         B/NB         11           or-MZE2-B-121-mo1         Immunology 2 B         5         B/NB         12           or-MIM2-B-121-mo1         Immunology 2 B         5         B/NB         12           or-MIM2-B-121-mo1         Immunology 2 B         7         B/NB         14           or-MM2-B-121-mo1         Immunology 2 B         7         B/NB         17           or-MMIM2-B-121-mo1         Immunology 2 B         7         B/NB         17           or-MKRSD-121-mo1         Gene	07-MTÖB-121-m01			B/NB	138
o7-MKB-121-m01         Communication Biology B         7         B/NB         40           o7-MESB-121-m01         Experimental Sociobiology B         7         B/NB         33           o7-MS2B-121-m01         Microbiology 1B         5         B/NB         47           o7-MM1-B-121-m01         Microbiology 2 B         5         B/NB         47           o7-MZ2E-B-121-m01         Cell- and Development-Biology Aster 1 B         3         B/NB         152           o7-MZE2-B-121-m01         Cell- and Development-Biology Master 2 B         3         B/NB         153           o7-MZE2-B-121-m01         Immunology 1 B         7         B/NB         11           o3-MIM1-B-121-m01         Immunology 2 B         7         B/NB         11           o3-MIM2-B-121-m01         Immunology 1 B         7         B/NB         12           o3-MIM2-B-121-m01         Immunology 2 B         5         B/NB         14           o3-MV2-B-121-m01         Virology 1 B         7         B/NB         16           o3-MV2-B-121-m01         Virology 1 B         7         B/NB         17           o7-MGRSD-121-m01         Gene Regulation and Signal Transduction         3         B/NB         37           o7-MGRSD-121-m01	07-MTÖ2B-121-m01			B/NB	137
o7-MESB-121-m01         Experimental Sociobiology B         7         B/NB         33           o7-MS2B-121-m01         Molecular Biology B         7         B/NB         74           o7-MM1-B-121-m01         Microbiology 1 B         5         B/NB         47           o7-MM2-B-121-m01         Microbiology 2 B         5         B/NB         48           o7-MZE1-B-121-m01         Cell- and Development-Biology Master 1 B         3         B/NB         153           o3-MIM1-B-121-m01         Immunology 1 B         7         B/NB         11           o3-MIM1-B-121-m01         Immunology 2 B         7         B/NB         13           o3-MIM1-B-121-m01         Immunology 2 B         5         B/NB         12           o3-MIM2-B-121-m01         Immunology 2 BS         5         B/NB         14           o3-MIM2-B-121-m01         Virology 1 B         7         B/NB         17           o7-MGRSD-121-m01         Gene Regulation and Signal Transduction         3         B/NB         37           o7-MRCP-121-m01         Kirology 2 B         3         NUM         39           o7-MRCP-121-m01         Kirology 2 B         3         NUM         37           o7-MRGSD-121-m01         Gene Regulation and Si	07-MKB-121-m01			B/NB	
o7-MS2B-121-m01         Molecular Biology B         7         B/NB         74           07-MM1-B-121-m01         Microbiology 1 B         5         B/NB         47           07-MM2-B-121-m01         Microbiology 2 B         5         B/NB         48           07-MZE1-B-121-m01         Cell- and Development-Biology Master 1 B         3         B/NB         152           07-MZE2-B-121-m01         Cell- and Development-Biology Master 2 B         3         B/NB         153           03-MIM1-B-121-m01         Immunology 1 B         7         B/NB         11           03-MIM2-B-121-m01         Immunology 2 B         5         B/NB         12           03-MIM2-B-121-m01         Immunology 1 B         7         B/NB         16           03-MIM2-B-121-m01         Virology 1 B         7         B/NB         16           03-MV1-B-121-m01         Virology 2 B         7         B/NB         17           07-MGRSD-121-m01         Microbial Ecology         3         B/NB         37           07-MHWE-121-m01         Kirology of Honey Bees and Wild Bees         3         NUM         34           07-MMICK-121-m01         Kirology and Taxonomy of Insects         3         NUM         49           07-MSET-121-m01		+			
O7-MM1-B-121-mo1         Microbiology 1 B         5         B/NB         47           O7-MM2-B-121-mo1         Microbiology 2 B         5         B/NB         48           O7-MZE1-B-121-mo1         Cell- and Development-Biology Master 1 B         3         B/NB         152           O7-MZE2-B-121-mo1         Cell- and Development-Biology Master 2 B         3         B/NB         153           O3-MIM1-B-121-mo1         Immunology 1 B         7         B/NB         11           O3-MIM2-B-121-mo1         Immunology 2 B         7         B/NB         12           O3-MIM2-B5-121-mo1         Immunology 2 BS         5         B/NB         14           O3-MIV2-B-121-mo1         Virology 1 B         7         B/NB         16           O3-MV2-B-121-mo1         Virology 2 B         7         B/NB         17           O7-MGRSD-121-mo1         Gene Regulation and Signal Transduction         3         B/NB         37           O7-MMIČK-121-mo1         Gene Regulation and Signal Transduction         3         B/NB         50           O7-MIČK-121-mo1         Microbial Ecology         3         NUM         39         9         7-MIČK-121-mo1         Modelling in Ecology         2         NUM         39         9         9	•				
o7-MM2-B-121-mo1         Microbiology 2 B         5         B/NB         48           o7-MZE1-B-121-mo1         Cell- and Development-Biology Master 1 B         3         B/NB         152           o7-MZE2-B-121-mo1         Cell- and Development-Biology Master 2 B         3         B/NB         153           o3-MIM1-B-121-mo1         Immunology 1 B         7         B/NB         11           o3-MIM2-B-121-mo1         Immunology 2 B         7         B/NB         12           o3-MIM2-B-121-mo1         Immunology 2 BS         5         B/NB         14           o3-MIM2-BS-121-mo1         Immunology 2 B         7         B/NB         16           o3-MV1-B-121-mo1         Virology 1 B         7         B/NB         16           o3-MV1-B-121-mo1         Virology 2 B         7         B/NB         17           o7-MGRSD-121-mo1         Gene Regulation and Signal Transduction         3         B/NB         37           o7-MMIÖ-K-121-mo1         Ecology of Honey Bees and Wild Bees         3         NUM         39           o7-MTRDP-121-mo1         Ecology and Taxonomy of Insects         3         NUM         49           o7-MAGRE-121-mo1         Modelling in Ecology         2         NUM         35 <t< td=""><td>•</td><td></td><td></td><td></td><td></td></t<>	•				
O7-MZE1-B-121-m01         Cell- and Development-Biology Master 1 B         3         B/NB         152           O7-MZE2-B-121-m01         Cell- and Development-Biology Master 2 B         3         B/NB         153           O3-MIM1-B-121-m01         Immunology 1 B         7         B/NB         11           O3-MIM2-B-121-m01         Immunology 2 B         7         B/NB         13           O3-MIM2-B-121-m01         Immunology 2 BS         5         B/NB         14           O3-MIM2-B-121-m01         Immunology 2 B         7         B/NB         14           O3-MIM2-B-121-m01         Immunology 2 B         5         B/NB         14           O3-MIM2-B-121-m01         Virology 1 B         7         B/NB         16           O3-MV2-B-121-m01         Virology 2 B         7         B/NB         17           O7-MGRSD-121-m01         Gene Regulation and Signal Transduction         3         B/NB         37           O7-MMIÖK-121-m01         Ecology of Honey Bees and Wild Bees         3         NUM         34           O7-MKWB-121-m01         Ecology and Taxonomy of Insects         3         NUM         25           O7-MKEC-121-m01         Agroecology         2         NUM         35           O7-MSET-121					
O7-MZE2-B-121-m01         Cell- and Development-Biology Master 2 B         3         B/NB         153           03-MIM1-B-121-m01         Immunology 1 B         7         B/NB         11           03-MIM2-B-121-m01         Immunology 2 B         7         B/NB         13           03-MIM2-B-121-m01         Immunology 1 BS         5         B/NB         12           03-MIM2-B-121-m01         Immunology 2 BS         5         B/NB         14           03-MV1-B-121-m01         Virology 1 B         7         B/NB         16           03-MV2-B-121-m01         Virology 2 B         7         B/NB         17           07-MGRSD-121-m01         Gene Regulation and Signal Transduction         3         B/NB         37           07-MMIÖK-121-m01         Ecology of Honey Bees and Wild Bees         3         NUM         34           07-MHWB-121-m01         Ecology and Taxonomy of Insects         3         NUM         49           07-MAGRE-121-m01         Agroecology         2         NUM         35           07-MFEC-121-m01         Forest Ecology         2         NUM         35           07-MSRE-121-m01         Agroecology         2         NUM         35           07-MSCT-121-m01         Agroecology </td <td></td> <td></td> <td></td> <td></td> <td></td>					
o3-MIM1-B-121-mo1         Immunology 1 B         7         B/NB         11           o3-MIM2-B-121-mo1         Immunology 2 B         7         B/NB         13           o3-MIM1-BS-121-mo1         Immunology 1 BS         5         B/NB         12           o3-MIM2-BS-121-mo1         Immunology 2 BS         5         B/NB         14           o3-MV1-B-121-mo1         Virology 1 B         7         B/NB         16           o3-MV2-B-121-mo1         Virology 2 B         7         B/NB         17           o7-MGRSD-121-mo1         Gene Regulation and Signal Transduction         3         B/NB         37           o7-MMIÖK-121-mo1         Microbial Ecology         3         B/NB         39           o7-MHWB-121-mo1         Ecology of Honey Bees and Wild Bees         3         NUM         34           o7-MMET-121-mo1         Ecology and Taxonomy of Insects         3         NUM         34           o7-MAGRE-121-mo1         Modelling in Ecology         2         NUM         35           o7-MTFCP-121-mo1         Forest Ecology         2         NUM         35           o7-MSL1-102-mo1         Iaboratory practical course 1         5         B/NB         132           o7-MSL1-102-mo1         Laborat		· · · · · · · · · · · · · · · · · · ·			
o3-MIM2-B-121-m01         Immunology 2 B         7         B/NB         13           o3-MIM1-BS-121-m01         Immunology 1 BS         5         B/NB         12           o3-MIM2-B5-121-m01         Immunology 2 BS         5         B/NB         14           o3-MW1-B-121-m01         Virology 1 B         7         B/NB         16           o3-MV2-B-121-m01         Virology 2 B         7         B/NB         17           o7-MGRSD-121-m01         Gene Regulation and Signal Transduction         3         B/NB         37           o7-MMIŇK-121-m01         Kicrobial Ecology         3         B/NB         37           o7-MHWB-121-m01         Ecology of Honey Bees and Wild Bees         3         NUM         39           o7-MMIČK-121-m01         Ecology and Taxonomy of Insects         3         NUM         34           o7-MME1-121-m01         Kodelling in Ecology         2         NUM         35           o7-MFCC-121-m01         Forest Ecology         2         NUM         35           o7-MSL1-102-m01         Iropical Ecology         5         NUM         139           o7-MSL1-102-m01         Isoratory practical course 1         5         B/NB         132           o7-MSL1-102-m01         Laborator	•		-		
o3-MIM1-B5-121-mo1         Immunology 1 BS         5         B/NB         12           o3-MIM2-B5-121-mo1         Immunology 2 BS         5         B/NB         14           o3-MIV1-B-121-mo1         Virology 1 B         7         B/NB         16           o3-MV2-B-121-mo1         Virology 2 B         7         B/NB         17           o7-MGRSD-121-mo1         Gene Regulation and Signal Transduction         3         B/NB         37           o7-MMIŇK-121-mo1         Ecology of Honey Bees and Wild Bees         3         NUM         39           o7-METI-121-mo1         Ecology and Taxonomy of Insects         3         NUM         34           o7-MMIE-121-mo1         Ecology and Taxonomy of Insects         3         NUM         34           o7-MMEE-121-mo1         Modelling in Ecology         2         NUM         35           o7-MFEC-121-mo1         Agroecology         2         NUM         35           o7-MFCP-121-mo1         Forest Ecology         2         NUM         39           o7-MSL1-102-mo1         Laboratory practical course 1         5         B/NB         131           o7-MSL1-102-mo1         Laboratory practical course 1         5         B/NB         142           o7-MUDB-102-mo1	-				
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07-MTROP-121-m01Tropical Ecology5NUM13907-MSET-121-m01Seminar Experimental Animal Ecology2B/NB13107-MSL1-102-m01Laboratory practical course 15B/NB13207-MSA1-102-m01Practical Course as exchange student 15B/NB12607-MUDB-102-m01Entrepreneurial Spirit in Biosciences5B/NB14007-MVMINT1-102-m01Specific Curricular Activities in Biological Sciences 12B/NB14607-MVMINT2-102-m01Specific Curricular Activities in Biological Sciences 23NUM14707-MVMINT3-102-m01Specific Curricular Activities in Biological Sciences 34B/NB14807-MVMINT3-102-m01Specific Curricular Activities in Biological Sciences 45NUM14907-MVMINT4-102-m01Extracurricular Activities outside of Natural Sciences 12B/NB142Master's with 1 major Biology (201)JMU Würzburg • generated 26-Aug-2024 • exam.page 9 / 153					
07-MSET-121-m01Seminar Experimental Animal Ecology2B/NB13107-MSL1-102-m01Laboratory practical course 15B/NB13207-MSA1-102-m01Practical Course as exchange student 15B/NB12607-MUDB-102-m01Entrepreneurial Spirit in Biosciences5B/NB14007-MVMINT1-102-m01Specific Curricular Activities in Biological Sciences 12B/NB14607-MVMINT2-102-m01Specific Curricular Activities in Biological Sciences 23NUM14707-MVMINT3-102-m01Specific Curricular Activities in Biological Sciences 34B/NB14807-MVMINT4-102-m01Specific Curricular Activities in Biological Sciences 45NUM14907-MVVINT4-102-m01Extracurricular Activities Outside of Natural Sciences 12B/NB142Master's with 1 major Biology (2011)JMU Würzburg • generated 26-Aug-2024 • exam.page 9 / 153					
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o7-MVMINT3-102-m01       Specific Curricular Activities in Biological Sciences 3       4       B/NB       148         o7-MVMINT4-102-m01       Specific Curricular Activities in Biological Sciences 4       5       NUM       149         o7-MV1-102-m01       Extracurricular Activities Outside of Natural Sciences 1       2       B/NB       142         Master's with 1 major Biology (2011)       JMU Würzburg • generated 26-Aug-2024 • exam.       page 9 / 153					
07-MVMINT4-102-m01Specific Curricular Activities in Biological Sciences 45NUM14907-MV1-102-m01Extracurricular Activities Outside of Natural Sciences 12B/NB142Master's with 1 major Biology (2011)JMU Würzburg • generated 26-Aug-2024 • exam.page 9 / 153					
o7-MV1-102-m01     Extracurricular Activities Outside of Natural Sciences 1     2     B/NB     142       Master's with 1 major Biology (2011)     JMU Würzburg • generated 26-Aug-2024 • exam.     page 9 / 153					· ·
Master's with 1 major Biology (2011)     JMU Würzburg • generated 26-Aug-2024 • exam.     page 9 / 153					
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	master S with 1 major Biology (2011)	JMU Wurzburg • generated 26-Aug-2024 • exar reg. data record Master (120 ECTS) Biologie - 20		page	9 / 153

07-MV2-102-m01	Extracurricular Activities Outside of Natural Sciences 2	3	NUM	143
07-MV3-102-m01	Extracurricular Activities Outside of Natural Sciences 3	4	B/NB	144
07-MV4-102-m01	Extracurricular Activities Outside of Natural Sciences 4	5	NUM	145
07-DR1-102-m01	Scientific Teaching 1	2	B/NB	18
07-DR2-102-m01	Scientific Teaching 2	3	B/NB	19
07-DR3-102-m01	Scientific Teaching 3	4	B/NB	20
07-DR4-102-m01	Scientific Teaching 4	5	B/NB	21
07-FT1-102-m01	Supervising Tutorial Master 1	3	B/NB	22
07-FT2-102-m01	Supervising Tutorial Master 2	4	B/NB	23
07-FT3-102-m01	Supervising Tutorial Master 3	5	B/NB	24
07-MENMNDB-141-m01	Neuromodulation and Neuronal Development B	5	B/NB	32
07-MPWD-112-m01	Presentation of Scientific Data	5	B/NB	53
07-MGLN-112-m01	Quality Management, Good Practice, Biosafety	5	NUM	36
07-MGUG-112-m01	Brain and mind	3	B/NB	38
07-MWIG-112-m01	Epistemology and History of Science	3	B/NB	151
07-MEMB-112-m01	Entrepreneurial Management in Biosciences	10	B/NB	30
07-MVMINT5-112-m01	Specific Curricular Activities in Biological Sciences 5	6	B/NB	150
07-MLS1B-141-m01	Methods in Life Sciences	7	B/NB	44
07-MLS2B-141-m01	Topics and Concepts in Life Sciences	7	NUM	46
07-MKE-WO-121-m01	Nucleus Workshop	7	B/NB	41

Master's with 1 major Biology (2011)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 10 / 153
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Module title			Abbreviation		
Immunology 1 B				03-MIM1-B-121-m01	
Module co	ordinator		Module offered by		
holder of t	he Professorship of Immuno	genetics	Faculty of Medicine		
	ethod of grading	Only after succ. com	pl. of module(s)		
7 (n	ot) successfully completed				
Duration	Module level	Other prerequisites			
1 semester	r graduate				
Contents					
mune-mec		This incorporates co	nmon literature read	ow a deeper understanding of im- lings, presentations and tests on guage.	
Intended l	earning outcomes				
	will gain a knowledge of fund e able to present and discuss		d methods in molec	ular and cellular immunology	
Courses (t	ype, number of weekly conta	ct hours, language —	if other than Germa	n)	
V + S (no i	nformation on SWS (weekly c	ontact hours) and co	urse language availa	able)	
	<b>assessment</b> (type, scope, la mation on whether module ca			tion offered — if not every seme-	
or c) oral e		each (approx. 30 to	60 minutes) or d) or	stions) or b) log (10 to 30 pages) al examination in groups of up to nutes)	
Allocation	of places				
Additional	linformation				
Workload					
Teaching o	cycle				
Referred to	<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)				
Module an	Module appears in				
	legree (1 major) Biology (2011	.)			
	Master's degree (1 major) Biology (2014)				
	legree (1 major) Biomedicine				
Master's d	Master's degree (1 major) Biomedicine (2012)				

Master's with 1 major Biology (2011)	JMU Würzburg • generated 26-Aug-2024 • exam. reg. data record Master (120 ECTS) Biologie - 2011	page 11 / 153
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Module title			Abbreviation		
Immunology 1 BS					03-MIM1-BS-121-m01
Module	coord	inator		Module offered by	
holder	of the F	Professorship of Immuno	genetics	Faculty of Medicine	
ECTS		od of grading	Only after succ. com	pl. of module(s)	
5	(not) s	successfully completed			
Duratio	n	Module level	Other prerequisites		
1 semes	ster	graduate			
Conten	ts				
mune-n	nediate		This incorporates con	nmon literature read	ow a deeper understanding of im- lings, presentations and tests on guage.
Intende	ed learr	ning outcomes			
		gain a knowledge of fund le to present and discuss		d methods in molec	ular and cellular immunology
Courses	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)
S (no in	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-
or c) ora	al exan		e each (approx. 30 to	60 minutes) or d) or	stions) or b) log (10 to 30 pages) al examination in groups of up to nutes)
Allocati	ion of p	olaces			
Additio	nal inf	ormation			
Worklo	ad				
Teachir	ng cycl	e			
Referre	<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)				
Module appears in					
Master'	s degre	ee (1 major) Biology (2011	l)		
	Master's degree (1 major) Biology (2014)				
	-	ee (1 major) Biomedicine			
Master'	Master's degree (1 major) Biomedicine (2012)				

Master's with 1 major Biology (2011)	JMU Würzburg • generated 26-Aug-2024 • exam. reg. data record Master (120 ECTS) Biologie - 2011	page 12 / 153
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Module title Abbreviation				Abbreviation	
Immunology 2 B					03-MIM2-B-121-m01
Module	coord	inator		Module offered by	
holder	of the F	Professorship of Immuno	genetics	Faculty of Medicine	
ECTS		od of grading	Only after succ. com	pl. of module(s)	
7	(not) s	uccessfully completed			
Duratio		Module level	Other prerequisites		
1 semes	ster	graduate			
Conten	ts				
such as on, infe	autoir ction i	nmunity and immune mo	dulation, developme	nt of the immune sy mon literature readi	ected immunology chapters , stem, immunogenetics, evoluti- ngs, presentations and tests on
Intende	ed learn	ning outcomes			
Studen	ts are a	ble to understand currer	nt problems in immur	ology and to discus	s these in detail.
Courses	<b>s</b> (type	number of weekly conta	ct hours, language —	if other than Germa	n)
S + V (n	o infor	mation on SWS (weekly o	contact hours) and co	urse language availa	able)
ster, inf a) writte or c) ora	<sup>f</sup> ormati en exar al exar	on on whether module ca nination (approx. 30 to 6	an be chosen to earn o minutes, including e each (approx. 30 to	a bonus) multiple choice que 60 minutes) or d) or	tion offered — if not every seme- stions) or b) log (10 to 30 pages) al examination in groups of up to
Allocati			s) of c) presentation (		
Additio	nal inf	ormation			
Worklo	ad		-		
Teachir	ng cycl	9			
Referre	<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)				
Module appears in					
Master' Master'	Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2014) Master's degree (1 major) Biomedicine (2013) Master's degree (1 major) Biomedicine (2012)				

Master's with 1 major Biology (2011)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 13 / 153
	reg. data record Master (120 ECTS) Biologie - 2011	

Module title				Abbreviation	
Immunology 2 BS					03-MIM2-BS-121-m01
Module	coord	inator		Module offered by	
holder	of the F	Professorship of Immuno	genetics	Faculty of Medicine	
ECTS		od of grading	Only after succ. com	pl. of module(s)	
5	(not) s	successfully completed			
Duratio	n	Module level	Other prerequisites		
1 semes	ster	graduate			
Conten	ts				
such as on, infe	autoir ction i	nmunity and immune mo	dulation, developme his incorporates com	nt of the immune sy mon literature reading	ected immunology chapters , stem, immunogenetics, evoluti- ngs, presentations and tests on
Intende	d lear	ning outcomes			
Studen	ts are a	ble to understand currer	it problems in immun	ology and to discus	s these in detail.
Courses	<b>s</b> (type,	, number of weekly conta	ct hours, language —	if other than Germa	n)
S (no in	format	ion on SWS (weekly cont	act hours) and cours	e language available	2)
ster, inf a) writte	<sup>f</sup> ormati en exar	on on whether module ca nination (approx. 30 to 6	an be chosen to earn o minutes, including	a bonus) multiple choice que	tion offered — if not every seme- stions) or b) log (10 to 30 pages) al examination in groups of up to
		approx. 30 to 60 minutes	5) or e) presentation (	approx. 20 to 45 mir	nutes)
Allocati	ion of p	DIaces			
Additio	nal inf	ormation			
Worklo	ad				
Teachir	ig cycl	9			
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)					
Module appears in					
Master' Master'	Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2014) Master's degree (1 major) Biomedicine (2013) Master's degree (1 major) Biomedicine (2012)				

Module title			Abbreviation		
Molecu	lar Tec	hniques			03-MSMT-111-m01
Module	e coord	inator		Module offered by	
Dean o	f the Fa	culty of Biology		Faculty of Medicine	
ECTS		od of grading	Only after succ. com	pl. of module(s)	
3	<u> </u>	successfully completed			
Duratio		Module level	Other prerequisites		
1 seme	ster	graduate			
Conten	ts				
Introdu	ction to	o new and cutting-edge n	nolecular techniques.	Methods for scienti	fic investigation.
Intende	ed learı	ning outcomes			
		amiliar with cutting-edge set ups to answer scienti		ques and can impro	ve experimental strategies and
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	· if other than Germa	n)
S (no in	nformat	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-
10 to 30 groups	o pages of up t	s) or c) oral examination (	of one candidate eacl	h (usually 30 to 60 m	stions) or b) log (usually approx. ninutes) or d) oral examination in on (usually 20 to 45 minutes)
Allocat	ion of p	olaces			
Additio	nal inf	ormation			
Worklo	ad				
Teachir	Teaching cycle				
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)					
Module	e appea	irs in			
Master	Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2014) Master's degree (1 major) FOKUS Life Sciences (2012)				

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Modul	Module title Abbreviation				
Virolo	Virology 1 B				03-MV1-B-121-m01
Modul	Module coordinator			Module offered by	<u> </u>
holder	ofthe	Chair of Virology		Faculty of Medicine	
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
7	(not)	successfully completed			
Durati	on	Module level	Other prerequisites		
1 seme	ester	graduate			
Conte	nts				
This m	odule v	vill discuss contemporary	topics in virology.		
Intend	ed lear	ning outcomes			
Stude	nts are a	able to understand currer	nt problems in virolog	gy and to discuss the	ese in detail.
Course	es (type	, number of weekly conta	ct hours, language –	- if other than Germa	ın)
	_	tion on SWS (weekly cont			
		ion on whether module ca			ition offered — if not every seme-
Alloca	tion of	places			
Additi	onal inf	ormation			
Workle	oad				
Teachi	ing cycl	e			
Referr	ed to in	LPOI (examination regu	lations for teaching-	degree programmes)	
Modul	e appea	ars in			
Master's degree (1 major) Biology (2011)					
	Master's degree (1 major) Biology (2014)				
	0	ee (1 major) Biomedicine			
Maste	r's degr	ee (1 major) Biomedicine	(2012)		

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Modul	Module title Abbreviation				
Virolog	Virology 2 B				03-MV2-B-121-m01
Modul	Module coordinator			Module offered by	<u> </u>
holder	ofthe	Chair of Virology		Faculty of Medicine	
ECTS		od of grading	Only after succ. con	npl. of module(s)	
7	(not)	successfully completed			
Durati	on	Module level	Other prerequisites		
1 seme	ester	graduate			
Conter	nts				
This m	odule v	vill discuss contemporary	topics in virology.		
Intend	ed lear	ning outcomes			
Studer	nts are	able to understand currer	nt problems in virolog	gy and to discuss the	ese in detail.
Course	es (type	, number of weekly conta	ct hours, language –	- if other than Germa	in)
		tion on SWS (weekly cont			
		ion on whether module ca			ition offered — if not every seme-
Alloca	tion of	places			
Additi	onal inf	ormation			
Worklo	oad				
Teachi	ing cycl	e			
Referre	ed to in	LPO I (examination regu	lations for teaching-o	degree programmes)	
Module appears in					
Master's degree (1 major) Biology (2011)					
Master's degree (1 major) Biology (2014)					
	Master's degree (1 major) Biomedicine (2013)				
Maste	r's degr	ee (1 major) Biomedicine	(2012)		

Master's with 1 major Biology (2011)	JMU Würzburg ● generated 26-Aug-2024 ● exam.	page 17 / 153
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Module	e title				Abbreviation
Scienti	fic Tea	ching 1			07-DR1-102-m01
Module	e coord	inator		Module offered by	
degree	degree programme coordinator Biologie (Biology)		e (Biology)	Faculty of Biology	
ECTS					
2	(not) s	successfully completed			
Duratio	on	Module level	Other prerequisites	iisites	
1 seme	ster	graduate	Please consult with course advisory service.		vice.
Conten	Its				
ganisir course	ng cours will co	ses will receive advice on mprise 0.5 weekly contac	contents and organi		udents or pupils. Students or- ee programme coordinator. The
Intend	ed lear	ning outcomes			
Ability	to inde	pendently organise, plan	and deliver courses.		
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	- if other than Germa	in)
V (no ir	nformat	tion on SWS (weekly cont	act hours) and cours	e language available	e)
		<b>essment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-
succes	sful co	mpletion as certified by t	he lecturer		
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	ars in			
Master	's degr	ee (1 major) Biology (201	1)		
	•	ee (1 major) Biology (2010	•		
Master	's degr	ee (1 major) Biology (201	4)		

Module	e title				Abbreviation
Scienti	fic Tea	ching 2			07-DR2-102-m01
Module	e coord	inator		Module offered by	
		mme coordinator Biologi	e (Biology)	Faculty of Biology	
ECTS	CTS Method of grading Only after succ. compl. of module(s)				
3	(not) s	successfully completed			
Duratio	on	Module level	Other prerequisites	equisites	
1 seme	ster	graduate	Please consult with	course advisory serv	vice.
Conten	Its				
Studen	its orga		e advice on contents		Bachelor's students or pupils. om the degree programme coor-
Intend	ed lear	ning outcomes			
Ability	to inde	pendently organise, plan	and deliver courses.		
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	in)
V (no ir	nformat	tion on SWS (weekly cont	act hours) and cours	e language available	e)
		<b>essment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-
succes	sful co	mpletion as certified by t	he lecturer		
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	legree programmes)	
Module	e appea	ars in			
Master	's degr	ee (1 major) Biology (201	1)		
	-	ee (1 major) Biology (201	-		
Master	's degr	ee (1 major) Biology (201	4)		

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Modul	e title				Abbreviation
Scienti	ific Tea	ching 3			07-DR3-102-m01
Modul	e coord	inator		Module offered by	<u> </u>
degree	degree programme coordinator Biologie (Biology)		e (Biology)	Faculty of Biology	
ECTS	ECTS Method of grading Only after succ. compl. of module(s)				
4	(not) s	successfully completed			
Duratio	on	Module level	Other prerequisites	equisites	
1 seme			vice.		
Conter	nts				
ganisir course	ng cours will co	ses will receive advice on mprise 1.5 weekly contac	contents and organi		udents or pupils. Students or- ree programme coordinator. The
		ning outcomes			
Ability	to inde	pendently organise, plan	and deliver courses.		
Course	<b>s</b> (type	, number of weekly conta	ct hours, language –	- if other than Germa	in)
V (no i	nformat	ion on SWS (weekly cont	act hours) and cours	e language available	2)
		<b>sessment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-
succes	sful co	mpletion as certified by t	he lecturer		
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			
	-	ee (1 major) Biology (201			
	-	ee (1 major) Biology (201			
Master	's degr	ee (1 major) Biology (201	4)		

Modul	e title				Abbreviation
Scient	ific Tea	ching 4			07-DR4-102-m01
Modul	e coord	inator		Module offered by	<u> </u>
degree	degree programme coordinator Biologie (Biology)		e (Biology)	Faculty of Biology	
ECTS					
5	(not) s	successfully completed			
Duratio	on	Module level	Other prerequisites	requisites	
1 seme	emester graduate Please consult with course advisory service.		vice.		
Conter	nts				
ganisir course	ng cours will co	ses will receive advice on mprise 2 weekly contact	contents and organi		udents or pupils. Students or- ee programme coordinator. The
Intend	ed lear	ning outcomes			
Ability	to inde	pendently organise, plan	and deliver courses.		
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	- if other than Germa	in)
V (no i	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-
succes	sful co	mpletion as certified by t	he lecturer		
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-o	legree programmes)	
Modul	e appea	ars in			
Master	's degr	ee (1 major) Biology (201	1)		
	-	ee (1 major) Biology (201	•		
Master	's degr	ee (1 major) Biology (201	4)		

mouut	e title				Abbreviation
Superv	vising T	utorial Master 1			07-FT1-102-m01
Modul	e coord	linator		Module offered by	
degree	e progra	mme coordinator Biolog	ie (Biology)	e (Biology) Faculty of Biology	
ECTS		od of grading	Only after succ. con	npl. of module(s)	
3	(not)	successfully completed			
Durati	on	Module level	Other prerequisites		
1 seme	ester	graduate	Please consult with	course advisory ser	vice.
Conter	nts				
		tors, students will mento es, in particular exercises		ng courses in particu	ılar and will help organise and
Intend	ed lear	ning outcomes			
ve lear the stu	med to udents t		ements of their own u	iniversity education	topics. In addition, the tutors ha- and the university education of an)
		tion on SWS (weekly cont			
		sessment (type, scope, la ion on whether module c			tion offered — if not every seme-
5101, 11		ion on whether module e	an be chosen to earn	a bonus)	
-		mpletion as certified by t		a bonus)	
succes		mpletion as certified by t		a bonus)	
succes Allocat	sful co tion of	mpletion as certified by t <b>places</b>		a bonus)	
succes Allocat	sful co tion of	mpletion as certified by t		a bonus)	
succes Allocat	sful co tion of	mpletion as certified by t <b>places</b>		a bonus)	
succes Allocat	ssful co tion of <sub>l</sub> onal inf	mpletion as certified by t <b>places</b>		a bonus)	
succes Allocat  Additio	ssful co tion of <sub>l</sub> onal inf	mpletion as certified by t <b>places</b>		a bonus)	
succes Allocat  Additio  Worklo	ssful co tion of <sub>l</sub> onal inf	mpletion as certified by t places formation		a bonus)	
succes Allocat  Additio  Worklo	ssful co tion of p onal inf pad	mpletion as certified by t places formation		a bonus)	
succes Allocat Additio Additio Worklo Teachi	ssful co tion of p onal inf oad	mpletion as certified by t places formation	he lecturer		
succes Allocat Additio Additio Worklo Teachi	ssful co tion of p onal inf oad	mpletion as certified by t places formation	he lecturer		
succes Allocat Additio Additio Vorklo Teachi Referre	ssful co tion of p onal inf oad	mpletion as certified by t places formation e LPO I (examination regu	he lecturer		
succes Allocat Allocat Additio Worklo Teachi Referro Modul	ed to in	mpletion as certified by t places formation e LPO I (examination regu	he lecturer		
succes Allocat Allocat Additio Additio Additio Teachi Referre Additio Master	ed to in eappear r's degr	mpletion as certified by t places formation e LPOI (examination regu	he lecturer		

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	e title				Abbreviation
Superv	vising T	utorial Master 2			07-FT2-102-m01
Module	e coord	inator		Module offered by	
degree	progra	mme coordinator Biolog	ie (Biology)	Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
4	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites	i	
1 seme	ster	graduate	Please consult with	course advisory serv	vice.
Conten	Its				
		tors, students will mento s, in particular exercises		ng courses in particu	ılar and will help organise and
Intende	ed lear	ning outcomes			
interpe ve lear the stu	ersonal ned to dents t	skills and know how to s	hare their expertise i ements of their own u	n exploring complex iniversity education	s have thus enhanced their own topics. In addition, the tutors ha- and the university education of
		ion on SWS (weekly cont			•
		· ·			tion offered — if not every seme-
				an Gennan, examina	liton onered — It not every seme-
,		ion on whether module c	an be chosen to earn	a bonus)	
				a bonus)	
	sful co	mpletion as certified by t		a bonus)	
succes	sful co	mpletion as certified by t		a bonus)	
succes Allocat	sful co t <b>ion of</b> J	mpletion as certified by t		a bonus)	
succes Allocat	sful co t <b>ion of</b> J	mpletion as certified by t places		a bonus)	
succes Allocat	sful co ion of <sub>l</sub>	mpletion as certified by t places		a bonus)	
succes Allocat  Additio	sful co ion of <sub>l</sub>	mpletion as certified by t places		a bonus)	
succes Allocat  Additio	sful co ion of p onal inf	mpletion as certified by t places ormation		a bonus)	
succes Allocat Additio Worklo	sful co ion of p onal inf	mpletion as certified by t places ormation		a bonus)	
succes Allocat  Additio  Worklo  Teachin 	sful co tion of p onal inf pad	mpletion as certified by t places ormation	he lecturer		
succes Allocat  Additio  Worklo  Teachin 	sful co tion of p onal inf pad	mpletion as certified by t places ormation e	he lecturer		
succes Allocat  Additio  Worklo  Teachin 	sful co ion of p onal inf oad ng cycl	mpletion as certified by t places ormation e LPOI (examination regu	he lecturer		
succes Allocat Allocat Additio Worklo Teachin Referre Module	sful co tion of p onal inf pad ng cycl ed to in	mpletion as certified by t places ormation e LPOI (examination regu	he lecturer		
succes Allocat Additio  Worklo  Teachin  Referre  Module Master	sful co ion of p pnal inf pad ng cycl ed to in e appea	mpletion as certified by t places formation e LPO I (examination regu	he lecturer ulations for teaching-o		

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Module	e title				Abbreviation
Superv	ising T	utorial Master 3			07-FT3-102-m01
Module	e coord	inator		Module offered by	<u> </u>
degree	progra	mme coordinator Biologi	e (Biology)	Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
5	(not) s	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate	Please consult with	course advisory serv	vice.
Conten	lts				
Tutors	will sup	oport other students on t	heir way towards aca	demic success.	
Intend	ed lear	ning outcomes			
ve lear the stu	ned to dents t	plan and organise key ele hey mentor.	ements of their own u	niversity education	topics. In addition, the tutors ha- and the university education of
Course	<b>s</b> (type	, number of weekly conta	ct hours, language –	- if other than Germa	ın)
T (no ir	format	ion on SWS (weekly cont	act hours) and cours	e language available	2)
		<b>sessment</b> (type, scope, la ion on whether module c			tion offered — if not every seme-
succes	sful co	mpletion as certified by t	he lecturer		
Allocat	ion of <sub>l</sub>	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	e appea	ars in			
Master	's degr	ee (1 major) Biology (201	1)		
	-	ee (1 major) Biology (201			
Master	's degr	ee (1 major) Biology (201	4)		

Master's with 1 major Biology (2011)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 24 / 153
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Module	title				Abbreviation
Agroecology					07-MAGRE-121-m01
Module coordinator				Module offered by	
holder	of the Q	Chair of Animal Ecology a	nd Tropical Biology	Faculty of Biology	
		od of grading	Only after succ. com	pl. of module(s)	
2	nume	rical grade			
Duratio		Module level	Other prerequisites		
1 semes	ster	graduate			
Content	ts				
benefic vention	ial orga ally far	anisms-interactions, and med agricultural land (pl	biological pest contr ant diversity, herbive	ol. Experiment in cor ore, predator, pollina	unities in different crops, pest- nparison of organically and con- tor diversity). Field trip to nature of agri-environmental measures.
Intende	d learn	ning outcomes			
munitie perform	s in ag statis	ricultural ecosystems. Th tical analyses, and to inte	ey will be able to per erpret the results. The	form scientific work ey will be familiar wit	unctional role of arthropod com- in agricultural ecosystems, to th problems and possible soluti- and ecosystem services.
Courses	<b>s</b> (type,	, number of weekly conta	ct hours, language —	· if other than Germa	n)
Ü (no in	format	ion on SWS (weekly cont	act hours) and cours	e language available	)
		e <b>essment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-
or c) ora	al exan		each (approx. 30 to	60 minutes) or d) or	stions) or b) log (10 to 30 pages) al examination in groups of up to nutes)
Allocati	on of p	olaces			
Additio	nal info	ormation			
Workloa	ad				
Teachin	ig cycl	9			
	<u> </u>				
Referre	d to in	LPOI (examination regu	lations for teaching-c	legree programmes)	
Module	appea	irs in			
Master'	s degre	ee (1 major) Biology (2011	.)		
Master'	s degre	ee (1 major) Biology (2014	t)		

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Module	e title				Abbreviation
Respor	ise tow	vards Biotic and Abiotic F	actors B		07-MBAB-121-m01
Module coordinator				Module offered by	
holder	ofthe	Chair of Pharmaceutical E	Biology	Faculty of Biology	
ECTS		od of grading	Only after succ. con	pl. of module(s)	
7	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate			
Conten	ts				
Plant re zymes lerance	espons and the e. The le uction.	es to these external facto e levels of a variety of me ecture will not only discus	rs lead to changes in tabolites. Some of th ss these plant respor	the regulation of ge ese responses lead uses and the mechar	and abiotic (stress) factors. one expression, the activity of en- to increased stress resistance/to- nisms of perception and signal res for using plants as a source of
Intende	ed lear	ning outcomes			
		able to understand the in ppic in the context of the s			ment on a molecular level and to
Course	<b>s</b> (type	, number of weekly conta	ct hours, language –	- if other than Germa	n)
V + S (r	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-
	each (a				or b) oral examination of one can- 3 candidates (approx. 30 to 60
Allocat	ion of	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			
Master	's degr	ee (1 major) Biology (201			
Master	's degr	ee (1 major) Biology (201	4)		

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Module	e title				Abbreviation
Biophy	vsics ar	nd Biochemistry B			07-MBBB-121-m01
Modul	e coord	inator		Module offered by	
holder	ofthe	Chair of Plant Physiology	and Biophysics	Faculty of Biology	
ECTS	<u>.</u>	od of grading	Only after succ. con	pl. of module(s)	
5	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate			
Conten	Its				
of parti opport	icipants unity to		tical demonstrations	of methods that are	rch. Depending on the number e currently used give students an research.
sics, st	ructura				roteins in the fields of biophy- l to discuss the results within the
Course	<b>s</b> (type	, number of weekly conta	ct hours, language –	- if other than Germa	in)
V (no ii	nforma	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-
	each (a				or b) oral examination of one can- 3 candidates (approx. 30 to 60
Allocat	ion of	places			
Additic	onal inf	ormation			
Worklo	ad				
Teachi	ng cycl	e			
Referre	ed to in	LPO I (examination regu	lations for teaching-	legree programmes)	
			U		
Module	e appea	ars in			
		ee (1 major) Biology (201	1)		
	-	ee (1 major) Biology (201			

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Module	e title				Abbreviation
Bioinformatics B 07-MBI-B-121-m01			07-MBI-B-121-m01		
Module	e coord	inator		Module offered by	
holder	of the (	Chair of Bioinformatics		Faculty of Biology	
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	graduate			
Conten	ts				
and see	quence		ns and protein familie	es, large-scale data a	s includes results from genome analysis (e. g. net generation se- IncRNAs).
Intende	ed lear	ning outcomes			
		ecent results in bioinform al technologies and resea			advanced (Master) level know-
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)
V (no ir	format	tion on SWS (weekly cont	act hours) and cours	e language available	2)
		<b>sessment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-
examin	ation (		ng multiple choice qu	uestions) or b) oral e	nt prior to the course. a) written xamination of one candidate 30 to 60 minutes)
Allocat	ion of <b>p</b>	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	urs in			
Master	's degr	ee (1 major) Biology (201:	1)		
	-	ee (1 major) Biology (2014	•		
	-	ee (1 major) Mathematics			
	-	ee (1 major) Biomedicine			
	-	ee (1 major) Biomedicine			
master	s aegr	ee (1 major) Computation	at mathematics (2012	2)	

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Module	title				Abbreviation
Endoge	enous C	locks			07-MECB-121-m01
Module	coord	inator		Module offered by	
holder	of the C	Chair of Neurobiology and	d Genetics	Faculty of Biology	
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	graduate			
Conten	ts				
neuron clocks a be expl	al orga and the ained ł	nisation of the clock in the underlying mechanisms	ne brain of mammals s will be discussed on	and insects. The bio the molecular, cellu	animals, with a focus on the logical functions of endogenous ılar and organismic levels. It will d aspects regarding e.g. shift
Intende	ed learr	ning outcomes			
		earn fundamental princip search in the field.	oles underlying chron	obiology/endogeno	us clocks and obtain an insight
Course	<b>s</b> (type,	, number of weekly conta	ct hours, language —	if other than Germa	n)
V (no in	ıformat	ion on SWS (weekly cont	act hours) and course	e language available	)
		e <b>ssment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-
	each (a				or b) oral examination of one can- 3 candidates (approx. 30 to 60
Allocat	ion of p	olaces			
Additio	nal info	ormation			
			-		
Worklo	ad				
Teachir	ng cycl	9			
	0 . 7	-			
Referre	d to in	LPOI (examination regu	lations for teaching-c	legree programmes)	
		<b></b>			
Module	appea	irs in			
		ee (1 major) Biology (2013	1)		
	-	ee (1 major) Biology (201			

Master's with 1 major Biology (2011)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 29 / 153
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Module	title				Abbreviation
			07-MEMB-112-m01		
Module	e coord	inator		Module offered by	
Coordir	nator B	ioCareers	,	Faculty of Biology	
ECTS	Metho	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	graduate			
Conten	ts				
and tec stries, l hed cor	hnolog egal fra npanie rk in in	gies, recent development amework, financing and l es, criteria of project-base	s and trends in estab business models, bes ed work, characteristi	lished as well as up t practice examples cs and elements of p	opment, fundamental methods and-coming high-tech indu- of start-ups as well as establis- project work, case studies, pro- ectures giving the course practi-
		ning outcomes			
Studen ar with start-up sed wo what ap	ts have the cha comp rk and oproac	e acquired an insight into aracteristics of industries anies and up-and-coming have gained experience hes or methods from indi	and established bus g technologies. Stude working in interdiscip ividual disciplines are	inesses as well as wents are also familian linary teams. They a most suitable for so	ral sciences. They are famili- vith specific characteristics of with the criteria of project-ba- re better qualified to evaluate olving a particular problem. The em enhance their entrepreneurial
Course	<b>s</b> (type	, number of weekly conta	ict hours, language —	if other than Germa	n)
compor • 0	nent. 7-MEM	omprises 2 module comp B-1-102: S (no informatio B-2-112: S (no informatio	on on SWS (weekly co	ntact hours) and cou	
		<b>sessment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-
	less st	ated otherwise, successf			e components as specified be- successful completion of all indi-
<ul> <li>5</li> <li>6</li> <li>7</li> <li>6</li> <li>7</li> <li>7</li> <li>8</li> <li>8</li> <li>9</li> <li>10</li> <li>10</li></ul>	ECTS, tudent ne of tl hoice o o 60 m resenta ment in ECTS, tudent hoice o o 60 m	ne following options will l questions) or b) log (app inutes) or d) oral examin ation (20 to 45 minutes) <b>n module component 07-</b> Method of grading: (not) s will be informed about ne following options will l questions) or b) log (app	successfully complet t the length and scop be chosen: a) written rox. 10 to 30 pages) lation in groups of up <b>MEMB-2-112:</b> Project successfully complet t the length and scop be chosen: a) written rox. 10 to 30 pages)	ed ee of the assessmen examination (30 to 6 or c) oral examinati to 3 candidates (ap Management ed ee of the assessmen examination (30 to 6 or c) oral examinati	of Natural Sciences It prior to the course. Usually, So minutes, including multiple on of one candidate each (30 oprox. 30 to 60 minutes) or e) It prior to the course. Usually, So minutes, including multiple on of one candidate each (30 oprox. 30 to 60 minutes) or e)

#### Allocation of places

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#### Additional information

Workload

#### Teaching cycle

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

#### Module appears in

Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2014)

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Module	title			Abbreviation
Neurom	odulation and Neuronal Devel	opment B		07-MENMNDB-141-m01
Module coordinator		Module offered by	<u> </u>	
		Faculty of Biology		
ECTS	Method of grading	Only after succ. con	npl. of module(s)	
5	(not) successfully completed			
Duration		Other prerequisites		
1 semes	ter graduate			
Content	s			
stems u biology.	sed to study modulation of ne	uronal circuits. Funda t of the neuroectoderr	mental principles of n, pattern generatio	of neuromodulation, model sy- molecular developmental neuro- n and regional specification, neu- g, neuronal connectivity.
Intende	d learning outcomes			
	lents learn fundamental princi ht into current research in the		omodulation and net	uronal development and obtain
Courses	(type, number of weekly conta	act hours, language —	- if other than Germa	in)
V (no inf	formation on SWS (weekly con	tact hours) and cours	e language available	<u>a)</u>
	of assessment (type, scope, la prmation on whether module of			tion offered — if not every seme-
				or b) oral examination of one can- dates (approx. 30 to 60 minutes)
Allocati	on of places			
Additior	nal information			
Workloa	ıd			
Teachin	g cycle			
Referred	to in LPO I (examination reg	ulations for teaching-o	degree programmes)	
Module	appears in			
	s degree (1 major) Biology (201	.1)		

Modul	e title				Abbreviation
Experimental Sociobiology B					07-MESB-121-m01
Module coordinator				Module offered by	
holder logy	ofthe	Chair of Behavioral Physic	ology and Sociobio-	Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. com	pl. of module(s)	
7	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate			
Conter	ts				
neurob nar ses	oiologic	al and behavioural mech tudents will deepen their	anisms underlying th	e organisation of so	so focus on the physiological, cial groups. In a follow-up semi- g current papers related to the to-
Intend	ed lear	ning outcomes			
ral biol They a	ogy. St	udents are able to recogr to formulate scientific qu	nise and interpret rela	ationships between v	blex correlations in behaviou- various aspects of sociobiology. d are able to discuss cutting edge
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)
S + V (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)					
or c) or	a) written examination (30 to 60 minutes, including multiple choice questions) or b) log (approx. 10 to 30 pages) or c) oral examination of one candidate each (approx. 30 to 60 minutes) or d) oral examination in groups of up to 3 candidates (approx. 30 to 60 minutes) or e) presentation (approx. 20 to 45 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)	
Modul	e appea	ars in			
Master	's degr	ee (1 major) Biology (2013	1)		
Master	's degr	ee (1 major) Biology (2014	4)		

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Module	e title				Abbreviation
Ecolog	y and T	axonomy of Insects			07-METI-121-m01
Module coordinator				Module offered by	
holder	of the (	Chair of Animal Ecology a	nd Tropical Biology	Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	pl. of module(s)	
3	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate			
Conten	ts				
ledge o and fie dition,	of speci ld work compil	al form is provided. Obse on ecological or behavio	ervation and recordin our biological charact and niche differentia	g of arthropods in ha eristics of the respe- ation. The aim is to li	ropods, especially insects. Know- abitat. Experimental laboratory ctive groups of arthropods. In ad- nk the phylogenetic and morpho-
Intende	ed lear	ning outcomes			
to appl	y speci		well as to record and	evaluate special bel	or insect orders. They will be able naviours. They will be able to de- udies.
Course	<b>s</b> (type	, number of weekly conta	ict hours, language –	· if other than Germa	n)
Ü (no information on SWS (weekly contact hours) and course language available)					
		<b>sessment</b> (type, scope, la on on whether module c			tion offered — if not every seme-
a) writt or c) or	en exai al exan	mination (approx. 30 to 6	o minutes, including e each (approx. 30 to	multiple choice que 60 minutes) or d) or	estions) or b) log (10 to 30 pages) al examination in groups of up to nutes)
Allocat			· · · ·		
Additio	nal inf	ormation			
Worklo	ad				
			,		
Teachi	ng cvcl	e			
	0 , , ,				
Referre	d to in	LPOI (examination regu	lations for teaching-o	legree programmes)	
Module	e appea	urs in			
		ee (1 major) Biology (201	1)		
	-	ee (1 major) Biology (201			

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		1

Module	e title				Abbreviation
Forest Ecology 07-MFEC-121-r			07-MFEC-121-m01		
Module coordinator				Module offered by	
holder	of the (	Chair of Animal Ecology a	nd Tropical Biology	Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)	
2	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate			
Conten	ts				
terns a	nd fund				of management on diversity pat- ems and work of determination as
Intend	ed lear	ning outcomes			
nities i	n fores	s. On the basis of compl	ex data sets, they wil	l learn to analyse an	tional role of arthropod commu- d discuss the structuring pat- nservation-related aspects.
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	· if other than Germa	n)
Ü (no i	nforma	tion 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-
or c) or	al exan		e each (approx. 30 to	60 minutes) or d) or	estions) or b) log (10 to 30 pages) ral examination in groups of up to nutes)
Allocat	ion of <b>j</b>	olaces	·		
Additio	onal inf	ormation			
Worklo	ad				
Teachi	ng cycl	6			
	0.9				
Referre	ed to in	LPO I (examination regu	lations for teaching-o	legree programmes)	
Module	e appea	irs in			
		ee (1 major) Biology (2013	L)		
	-	ee (1 major) Biology (201			

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Module title			Abbreviation		
Quality	Quality Management, Good Practice, Biosafety 07-MGLN-112-m01				
Module coordinator				Module offered by	
Coordinator BioCareers			Faculty of Biology		
ECTS			Only after succ. con	npl. of module(s)	
5	nume	rical grade			
Durati		Module level	Other prerequisites		
1 seme	ester	graduate			
Conter	its				
ty) as v These studer Good µ menta	well as c topics a its beco practice l princip	corporate social responsi re critically analysed with me familiar with strategi in the biosciences, quali	bility in the private en regard to sustainables to prevent biodive ty assurance approa- ent approaches, DIN B	conomy, sponsoring pility, credibility and rsity loss and active ches and quality cul EN ISO 9001, regulat	, German strategy on biodiversi- and marketing are discussed. effectiveness. In addition, the ly contribute to these activities. ture. Structure, idea and funda- ory documents and framework in it.
Intend	ed learr	ning outcomes			
sity. The ty. The among tal prir of qua sues a ve dev cio-eth ficer an ween e <b>Course</b> V + S ( <b>Metho</b> ster, ir writter	ney have y are aw y compa nciples o lity man nd know eloped nical issi nd are q environr es (type, no infor d of assi formati n examir	e become familiar with the vare of corporate response nies and organisations of "good practice" in rese agement circles. They have v how to properly handle a sensitivity towards the uses in the bioscience are ualified for working in CS nental organisations, gove number of weekly contae mation on SWS (weekly contae mation on SWS (weekly contae nation (approx. 30 to 60 response)	e regulatory and poli sibilities in this regard n environmental pro- arch and developme ve developed a disti biological agents an complex interdepend a. Students possess FR or environmental r vernments and the pr ct hours, language — contact hours) and co nguage — if other that an be chosen to earn	tical framework for t d and know how to s tection. The students nt, and have unders nct sensitivity toward d organisms, includi dencies in nature and the knowledge and management at major rivate sector. - if other than German ourse language avail an German, examina a bonus)	able) tion offered — if not every seme-
Alloca	tion of p	olaces			
Additio	onal info	ormation			
 Workle					
••••••••••	Jau				
Teachi	ng cycl	9			
		-			
Referr	ed to in	LPOI (examination regu	lations for teaching-o	degree programmes)	
Modul	e appea	rs in			
Maste	r's degre	ee (1 major) Biology (2011	l)		
Maste	Master's degree (1 major) Biology (2014)				

Master's with 1 major Biology (2	011	)
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Module title			Abbreviation		
Gene R	egulat	ion and Signal Transduct	ion		07-MGRSD-121-m01
Module	e coord	inator		Module offered by	<u>,                                     </u>
Dean o	f Studi	es Biologie (Biology)		Faculty of Biology	
ECTS		od of grading	Only after succ. con	pl. of module(s)	
3	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate			
Conten	ts				
discuss Whene	sed. Th ver app	e lecture will discuss reg	ulatory mechanisms	on the transcriptiona	bacteria will be described and al and post transcriptional level. na in pathogenic bacteria.
Studen	its have	-	urrent technologies a	nd are able to choos	se the appropriate technology to
Course	s (type	, number of weekly conta	ct hours, language –	- if other than Germa	ın)
V (no ir	nforma	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-
	ndidate	e each (approx. 30 to 60 r			estions) or b) oral examination of of up to 3 candidates (approx. 30
Allocat	ion of	places			
Additio	onal inf	ormation			
Worklo	ad				
Teachi	ng cvcl	e			
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)					
Module		ars in			
Master's degree (1 major) Biology (2011)					
	Master's degree (1 major) Biology (2014)				

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					Abbreviation	
Brain and mind					07-MGUG-112-m01	
Module	coord	inator		Module offered by		
Coordir	nator Bi	oCareers		Faculty of Biology		
ECTS		od of grading	Only after succ. com	pl. of module(s)		
3	<u> </u>	successfully completed				
Duratio		Module level	Other prerequisites			
1 seme	I	graduate				
Conten						
sion ma	aking a				human memory, intentional deci- Fundamental terms and princip-	
Intende	ed learr	ning outcomes				
awaren	ess of l		terms and definitions		hey have developed an increased and concerns arising with know-	
Course	<b>s</b> (type,	number of weekly conta	ct hours, language —	if other than Germa	n)	
S (no in	ıformat	ion on SWS (weekly cont	act hours) and course	e language available	2)	
		<b>essment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-	
followir or b) log	ng optio g (appr	ons will be chosen: a) wr ox. 10 to 30 pages) or c)	tten examination (30 oral examination of o	to 60 minutes, inclu ne candidate each (	o the course. Usually, one of the uding multiple choice questions) 30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)	
Allocat	ion of p	olaces				
Additio	nal info	ormation				
Worklo	ad					
Teachir	Teaching cycle					
	-					
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)						
Module	Module appears in					
ļ	Master's degree (1 major) Biology (2011)					
		ee (1 major) Biology (201				

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Module title					Abbreviation
Ecology of Honey Bees and Wild Bees				07-MHWB-121-m01	
Module coordinator				Module offered by	
holder	of the (	Chair of Animal Ecology a	nd Tropical Biology	Faculty of Biology	
ECTS		od of grading	Only after succ. com	pl. of module(s)	
3	nume	rical grade			
Duratio	n	Module level	Other prerequisites		
1 seme	ster	graduate			
Conten	ts				
ment, b sis, fora	oreedin aging b	g, diseases); resource us	e of honeybees and v axonomy of wild bees	wild bees (bee dance , opponents of bees	of beekeeping (colony manage- es, flower visiting, pollen analy- , wild bees in different habitats
		ning outcomes			
The stu ween b	dents v ees an	will expand their knowlec d plants, and on aspects	of nature conservatio	on. They will be profi	d honeybees, on interactions bet- cient in experimental methods of determination of wild bees.
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)
Ü (no ir	nformat	tion on SWS (weekly cont	act hours) and cours	e language available	
		<b>sessment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-
or c) or	al exan		e each (approx. 30 to	60 minutes) or d) or	stions) or b) log (10 to 30 pages) al examination in groups of up to nutes)
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)					
<b>Reference to in LFOT</b> (examination regulations for leaching-degree programmes)					
 Madula anneara in					
Module appears in Master's degree (1 major) Biology (2011)					
	Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2014)				
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Module title				Abbreviation		
Comm	unicatio	on Biology B			07-MKB-121-m01	
Modul	Module coordinator			Module offered by		
holder logy	of the (	Chair of Behavioral Physic	ology and Sociobio-	Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. com	npl. of module(s)		
7	(not) s	successfully completed				
Duratio	on	Module level	Other prerequisites			
1 seme	ster	graduate				
Conter	ts					
		eal with physiological an als, but also highlight ada			ent communication channels <sup>-</sup> animal signalling.	
Intend	ed learı	ning outcomes				
learneo logical	d to con conditi	nect findings from differ	ent research areas, si ore complete picture	uch as physiology, n of a topic. In additio	blex issues in biology. They have eurobiology, behaviour and eco- n, students have learned to pre- nework.	
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	- if other than Germa	n)	
V + S (I	10 infor	mation on SWS (weekly o	contact hours) and co	ourse language availa	able)	
		e <b>ssment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-	
or c) or	al exan		e each (approx. 30 to	60 minutes) or d) or	or b) log (approx. 10 to 30 pages) al examination in groups of up to nutes)	
Allocat	ion of p	olaces	· · · · ·			
Additio	onal info	ormation				
Worklo	ad					
Teaching cycle						
Referre	<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)					
		(				
Modul	Module appears in					
Master	's degr	ee (1 major) Biology (201	1)			
Master	Master's degree (1 major) Biology (2014)					

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Module title				Abbreviation		
Nucleus Workshop					07-MKE-WO-121-m01	
Module coordinator				Module offered by		
degree	progra	mme coordinator Biologi	e (Biology)	Faculty of Biology		
ECTS		od of grading	Only after succ. com	pl. of module(s)		
7	(not) s	successfully completed				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	graduate				
Conten	ts					
ture (su pe, nuc	ubject t :lear la	o change): - nuclear enve	lope, nuclear pores a omatin organisation	and nuclear-cytoplas and genetic disease	Topics to be covered in the lec- mic transport nuclear envelo- s DNA, chromatin and chromo-	
Intende	ed lear	ning outcomes				
Studen	ts are a	able to perform practical	experiments, applyin	g their theoretical kr	nowledge.	
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	· if other than Germa	n)	
Ü + V (r	no infor	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-	
one of t questic	the foll ons) or	owing options will be cho	osen: a) written exam e candidate each (3c	ination (30 to 60 min	nt prior to the course. Usually, nutes, including multiple choice ) oral examination in groups of	
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 appears in						
	Master's degree (1 major) Biology (2011)					
Master	's degr	ee (1 major) Biology (2014	4)			
	-	ee (1 major) Biomedicine				
Master	Master's degree (1 major) Biomedicine (2012)					

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Modul	Module title Abbreviation					
Linux	and Per	l			07-ML-122-m01	
Modul	e coord	inator		Module offered by	<u> </u>	
holder	of the (	Chair of Bioinformatics		Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. con	,		
5	(not)	successfully completed				
Durati	on	Module level	Other prerequisites			
1 seme	ester	graduate				
Conter	nts					
		o the Linux operating sys ormatic questions.	tem, writing compute	er programs using the	e programming language Perl to	
Intend	ed lear	ning outcomes				
Studer	nts are a	able to use Linux as user	and to write simple F	Perl scripts to answe	r bioinformatic questions.	
Course	<b>es</b> (type	, number of weekly conta	ct hours, language –	- if other than Germa	ın)	
S (no i	nforma	ion on SWS (weekly cont	act hours) and cours	e language available	2)	
ster, ir a) writ or c) o	nformat ten exa ral exar	on on whether module comination (30 to 60 minut	an be chosen to earn es, including multiple e each (approx. 30 to	a bonus) e choice questions) (	ation offered — if not every seme- or b) log (approx. 10 to 30 pages) ral examination in groups of up to	
-	tion of <sub>l</sub>	•• •	, <b>-</b>			
Additi	onal inf	ormation				
Workle	oad					
Teaching cycle						
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)						
Module appears in						
	Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2014)					

Module title					Abbreviation
Methoo	Methods in Life Sciences				07-MLS1-122-m01
Module	coord	inator		Module offered by	
Dean o	f Studie	es Biologie (Biology)		Faculty of Biology	
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	graduate			
Conten	ts				
models	and ge		s, protein and molecu	ılar biology techniqı	, immunohistochemistry, mouse ues, PCR, advanced protein bio-
Intende	ed leari	ning outcomes			
		able to review and expand and techniques to design e	-		techniques and are able to choo-
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)
V (no ir	format	ion on SWS (weekly cont	act hours) and cours	e language available	.)
ster, in	formati	on on whether module ca	an be chosen to earn	a bonus)	tion offered — if not every seme-
one car prox. 30	ndidate o to 60				stions) or b) oral examination of of up to 3 candidates (usually ap-
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 appears in					
		ee (1 major) Biology (201:	l)		
	-	ee (1 major) Biology (201	-		
Master	Master's degree (1 major) FOKUS Life Sciences (2012)				

Master's with 1 major Biology (2011)	JMU Würzburg • generated 26-Aug-2024 • exam. reg. data record Master (120 ECTS) Biologie - 2011	page 43 / 153
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Module					Abbreviation	
		e Sciences			07-MLS1B-141-m01	
Module	coordi	nator		Module offered by		
degree	degree programme coordinator Biologie (Biology)Faculty of Biology			· · · · ·		
ECTS		d of grading	Only after succ. con	npl. of module(s)		
7	- r	uccessfully completed				
Duratio		Module level	Other prerequisites			
1 semes	I	graduate	-			
models	ed mol and ge	ecular techniques, lipi ene-knockout approach thods in bioinformatics	es, protein and molec	ular biology techniqu		
Intende	ed learr	ing outcomes				
		ble to review and expand techniques to design	-		techniques and are a	able to choo-
Courses	<b>s</b> (type,	number of weekly con	tact hours, language –	- if other than Germa	n)	
• 0	7-MLS1	as 2 components; info B-1-141: V (no informat B-1-141: V (no informat	ion on language and n	umber of weekly con	tact hours available	
		<b>essment</b> (type, scope, on on whether module			tion offered — if not	every seme-
one of t Assessi 7 a) 0 ca th La Assessi 7 w La Allocati 	the two ment co ECTS c ) writte r c) ora andida andida to ora andida ment co ECTS c rritten e anguag ion of p	as the following 2 asse assessment compone redits, method of gradi n examination (30-60 l examination of on car tes (approx. 30-60 min nod, length and scope ge of assessment: Engli omponent to module co redits, method of gradi examination or oral exa ge of assessment: Engli blaces	nts. <b>Omponent 07-MLS1B-1</b> ng: (not) successfully minutes, including mu ididate each (30-60 mi utes) or e) presentation of the assessment prices sh <b>Omponent 04-MLS1B-1</b> ng: (not) successfully mination of an candid	-141: Methoden in de completed ltiple choice questio nutes) or d) oral exa n (20-45 minutes). St r to the course. -141: Methoden in de completed	en Lebenswissensch ns) or b) log (ca.1o- mination in groups u udents will be inforr en Lebenswissensch	aften 30 pages) up to three med about naften
Additio	nal info	ormation				
 Workloa						
Teachin	ng cycle	9				
Referred to in LPO I (examination regulations for teaching-degree programmes)						
Module	appea	rs in				
	-	ee (1 major) Biology (20 ee (1 major) Biology (20				
Master's wit	th 1 major	Biology (2011)		rrg • generated 26-Aug-2024 ord Master (120 ECTS) Biologi		page 44 / 153

Module	e title				Abbreviation
Topics	and Co	ncepts in Life Sciences			07-MLS2-122-m01
Module	e coord	inator		Module offered by	
Dean o	fStudie	es Biologie (Biology)		Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)	
10	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate			
Conten	ts				
gy, and	l biome				and immunity, integrative biolo- , Drosophila, computational bio-
Intende	ed learı	ning outcomes			
		an overview of the curre ignificance and scientific		the Graduate Schoo	l of Life Sciences and are able to
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	in)
V (no ir	nformat	ion on SWS (weekly cont	act hours) and cours	e language available	2)
ster, in	formati	on on whether module ca	an be chosen to earn	a bonus)	tion offered — if not every seme-
one cai prox. 3	ndidate o to 6o				stions) or b) oral examination of of up to 3 candidates (usually ap-
Allocat					
Additio	onal info	ormation			
Worklo	ad				
Teachi	ng cycl	e			
Referre	ed to in	LPOI (examination regu	lations for teaching-c	legree programmes)	
Module	e appea	irs in			
		ee (1 major) Biology (201	1)		
Master	's degr	ee (1 major) Biology (201	4)		
Master	's degr	ee (1 major) FOKUS Life S	ciences (2012)		

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Module	e title				Abbreviation
Topics	and Co	oncepts in Life Sciences			07-MLS2B-141-m01
Module	e coord	inator		Module offered by	
degree	progra	mme coordinator Biologi	e (Biology)	Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
7	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate			
Conten	ts				
gy, and	lbiome				and immunity, integrative biolo , Drosophila, computational bio
Intende	ed lear	ning outcomes			
		e an overview of the curre significance and scientific		the Graduate Schoo	l of Life Sciences and are able to
Course	<b>s</b> (type	, number of weekly conta	ct hours, language –	- if other than Germa	n)
V (no ir	nforma	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		nation or oral examinatio ssessment: English	n of one candidate e	ach or oral examinat	ion in groups of up to 3 candida
Allocat		·			
Additio	nal inf	ormation	·		
Worklo	ad				
	au				
Teachi		0			
	is cycl	C			
Poforro	d to in	IPOL (ovamination regu	lations for toaching	logroo programmac)	
Reieffe		LPO I (examination regu	iations for leaching-0	regree programmes)	
		· · · · •			
Module			>		
	-	ee (1 major) Biology (2013			
master	s uegr	ee (1 major) Biology (201	4)		

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Modul	e title				Abbreviation
Microb	oiology	1 B			07-MM1-B-121-m01
Modul	e coord	inator		Module offered by	<u> </u>
holder	ofthe	Chair of Microbiology		Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. com	npl. of module(s)	
5	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ester	graduate			
Conter	nts				
al path	ogenic				adherence and invasion, bacter nd pathogen interference, currer
Intend	ed lear	ning outcomes			
		are able to understand fu infectious diseases.	ndamental theories o	of molecular microbi	ology and infection biology,
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	- if other than Germa	in)
V (no i	nformat	tion on SWS (weekly cont	act hours) and cours	e language available	e)
a) writt	en exa each (a		es, including multiple	e choice questions)	or b) oral examination of one ca 3 candidates (approx. 30 to 60
Allocat	tion of	olaces			
Additio	onal inf	ormation			
Worklo	ad				
Teachi	ng cycl	e			
	0.99				
Referre	ed to in	LPOI (examination regu	lations for teaching-o	legree programmes)	
Modul	e appea	ars in			
	's aegr	ee (1 major) Biology (201	1)		
Master		ee (1 major) Biology (201 ee (1 major) Biology (201			
Master Master Master	's degr 's degr		4) (2013)		

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	reg. data record Master (120 ECTS) Biologie - 2011	

Module					Abbreviation
Microb	oiology	2 B			07-MM2-B-121-m01
Modul	e coord	inator		Module offered by	<u> </u>
holder of the Chair of Microbiology			Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
5	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate			
Conten	Its				
ted pro	okaryoti				will be presented using selec- rent research methods in infection
Intend	ed lear	ning outcomes			
		e gained fundamental kn infectious diseases.	owledge in infection	biology and pathoge	nicity research and the mecha-
Course	<b>s</b> (type	, number of weekly conta	act hours, language —	- if other than Germa	an)
V (no iı	nforma	tion on SWS (weekly cont	tact hours) and cours	e language available	e)
	each (a				or b) oral examination of one ca 93 candidates (approx. 30 to 60
Allocat	ion of <sub>l</sub>	places			
Additio	onal inf	ormation			
Worklo	ad				
Teachi	ng cvcl	e			
	0.99				
Referre	ed to in	LPOI (examination regu	lations for teaching-	legree programmes	
Module	e appea	ars in			
		ee (1 major) Biology (201	1)		
master		ee (1 major) Biology (201	4)		
Master	-	ee (1 major) Biology (201 ee (1 major) Biomedicine ee (1 major) Biomedicine	(2013)		

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	reg. data record Master (120 ECTS) Biologie - 2011	

Module	e title				Abbreviation
Modell	ling in I	Ecology			07-MMIE-121-m01
Module	e coord	inator		Module offered by	<u> </u>
holder	of the (	Chair of Animal Ecology a	nd Tropical Biology	Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)	
3	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate			
Conten	Its				
technic		hey will also develop thei			y of simulation and modelling olems in the fields of demogra-
Intend	ed lear	ning outcomes			
modell	ing tec				with a variety of simulation and n of problems in the field of de-
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)
Ü (no i	nforma	tion on SWS (weekly cont	act hours) and cours	e language available	<u>e)</u>
		<b>sessment</b> (type, scope, la ion on whether module ca			tion offered — if not every seme-
or c) or	al exan		e each (approx. 30 to	60 minutes) or d) or	estions) or b) log (10 to 30 pages) al examination in groups of up to nutes)
Allocat	ion of <b>j</b>	olaces	·	<u> </u>	
Additio	onal inf	ormation			
Worklo	ad				
Teachi	ng cycl	e			
	- /				
Referre	ed to in	LPOI (examination regu	lations for teaching-c	legree programmes)	
			5	,	
Module	e appea	ars in			
		ee (1 major) Biology (201:	L)		
	-	ee (1 major) Biology (201			

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Module title				Abbreviation	
Microbial Ecology					07-MMIÖK-121-m01
Module coordinator				Module offered by	
Dean of Studies Biologie (Biology)		Faculty of Biology			
ECTS		od of grading	Only after succ. com	pl. of module(s)	
3		successfully completed			
Duratio		Module level	Other prerequisites		
	1 semester graduate				
Conten					
phasis and ver ture cor kulare I man pa	is laid tebrate mplem Mikrob thoger	on the interaction of mut es and, where appropriat ents the focus Infektions iologie / Infektionsbiolog	ualistic bacteria with e, the comparison wit biologie (Infection Big ie (Cellular and Mole on mechanisms are p	other organisms inc th commensal and p ology) of the degree cular Biology / Infec oresented. Thus, the	their environment. A major em- luding bacteria, invertebrates athogenic interactions. The lec- programme Zelluläre und Mole- tion Biology) in which mainly hu- lecture intends to identify and organisms.
		ning outcomes			
Studen	ts have		urrent technologies a	nd are able to choos	se the appropriate technology to
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	2)
		e <b>ssment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-
	ndidate	e each (approx. 30 to 60 r			stions) or b) oral examination of of up to 3 candidates (approx. 30
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)				
Module	e appea	irs in			
	-	ee (1 major) Biology (201			
Master'	's degr	ee (1 major) Biology (201	4)		

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	reg. data record Master (120 ECTS) Biologie - 2011	

Module title					Abbreviation	
Neurogenetics of Behaviour B					07-MNBB-121-m01	
Module	coordi	nator		Module offered by		
holder of the Chair of Neurobiology and Genetics			d Genetics	Faculty of Biology		
		od of grading	Only after succ. com	pl. of module(s)		
5 (not) successfully completed						
Duration		Module level	Other prerequisites			
1 semes	ter	graduate				
Content	S					
To understand how the brain controls behaviour is at the heart of neuroscience. Both brain and behaviour can be overwhelmingly complex and plastic, yet neurogenetic methods are powerful tools to dissect the principles of how the brain controls behaviour. The lecture and seminar will give a state-of-the art view on current and import- ant topics of behavioural neurobiology (incl. e. g. sleep, control of appetite and feeding, social behaviour, ma- ting, mirror neurons, molecular mechanisms of auditory-guided behaviour, neurogenetic techniques) focusing on genetic model systems such as the fruit fly Drosophila, the mouse, and the nematode C. elegans.						
Intendeo	d learr	ing outcomes				
		students acquire theoret neral and the neurogenet		ical insights into cur	rent topics in the field of neuro-	
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 cours	e language available	)	
		<b>essment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-	
	ach (a				or b) oral examination of one can- 3 candidates (approx. 30 to 60	
Allocatio	on of p	laces				
Addition	nal info	ormation				
Workloa	d					
Teaching cycle						
Referred	l to in	LPOI (examination regu	lations for teaching-c	legree programmes)		
Module	appea	rs in				
		ee (1 major) Biology (2011				
Master's	s degre	ee (1 major) Biology (2014	4)			

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Module title					Abbreviation	
Developmental Physiology and Adaption of Plants B					07-MPAB-121-m01	
Module coordinator				Module offered by		
holder of the Chair of Plant Physiology and Biophysic			and Biophysics	Faculty of Biology		
ECTS		od of grading	Only after succ. com	pl. of module(s)		
7	(not) s	successfully completed				
Duratio	on	Module level	Other prerequisites			
1 semester graduate						
Conten	ts					
ny as w the mo regulat Section grow ar mental and org Based o more d	Section Developmental Physiology: The lecture will discuss the physiological processes occurring during ontoge- ny as well as the reaction of plants to various environmental parameters. It will focus on introducing students to the molecular components (ABA, auxin, ethylene etc.) of signalling networks and explaining their biosynthesis, regulation and functioning. Current journal articles on the topics will be presented and discussed in the seminar. Section Adaptation: The lecture will deal with the ecological and environmental constraints under which plants grow and develop (biogeography, biodiversity) and with the interactions of plants with abiotic and biotic environ- mental factors (e. g. plant-insect, plant-fungus interactions). The evolutionary adaptations on the physiological and organismic level will be emphasised in particular (stress and defence reactions, carnivory, plant protection). Based on selected examples from current research, the seminar will address the topics covered in the lecture in more detail. It will be complemented by topic-related guided tours in the Botanical Garden of the University of					
Würzbu		ning outcomes				
			logical and physiolog	gical relations and a	re able to interpret and discuss	
		s in the context of the cu				
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)	
V + S (r	no infor	mation on SWS (weekly o	contact hours) and co	urse language avail	able)	
		s <b>essment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-	
	each (a				or b) oral examination of one can- 3 candidates (approx. 30 to 60	
Allocat	ion of p	olaces				
Additio	nal inf	ormation				
Worklo	ad					
Teachi	ng cvcl	e				
	Teaching cycle					
Referre	d to in	LPOI (examination regu	lations for teaching-d	legree programmes)		
Module	e appea	urs in				
		ee (1 major) Biology (201:	1)			
		ee (1 major) Biology (201				

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Module title	Abbreviation					
Presentation of Scientific Data 07-MPWD-112-m01						
Module coordinator		Module offered by				
Coordinator BioCareers		Faculty of Biology				
ECTS Method of grading	Only after succ. con	pl. of module(s)				
5 (not) successfully completed						
Duration Module level	Other prerequisites					
1 semester graduate						
Contents						
Principles for the preparation of scientific manuscripts, citations and the presentation of scientific data. Stu- dents will write a scientific mini review and present this in a talk (15 minutes). Content, structure, coherence and the logical chain of arguments will be discussed. Students will write and publish (where possible) a scientific pa- per or review on a selected topic in a scientific journal. The students' work will be based on original papers as well as on reviews and will follow the instructions of a scientific journal of the students' choice. These instructi- ons can be found on the website of the respective journal under "Instructions to Authors" or similar. Both length of chapters and structure of the article should be based on the style of the journal selected. Attendance of no less than 20 scientific talks (e. g. defences of doctoral theses, presentations of research projects, retreats) inclu- ding presentations by guest speakers. Students are to obtain proof of attendance from the organisers or spea- kers. Intended learning outcomes The students are familiar with the details of publishing scientific data in written and oral form. They have become familiar with the methodology of scientific publishing in oral or written fashion. In addition, they have enhanced their English reading, speaking and writing skills.						
Courses (type, number of weekly conta	act hours, language –	- if other than Germa	n)			
S (no information on SWS (weekly con	tact hours) and cours	e language available	2)			
<b>Method of assessment</b> (type, scope, la ster, information on whether module of			tion offered — if not every seme-			
Students will be informed about the le following options will be chosen: a) we or b) log (approx. 10 to 30 pages) or c) amination in groups of up to 3 candida	itten examination (30 oral examination of c	o to 60 minutes, inclu one candidate each (	uding multiple choice questions) 30 to 60 minutes) or d) oral ex-			
Allocation of places						
Biology Master's: no restrictions. Bioc	hemistry Master's: 10	places. Places will b	e allocated by lot.			
Additional information						
Workload						
Teaching cycle						
Referred to in LPO I (examination regu	llations for teaching-	degree programmes)				
3		<u> </u>				
Module appears in						
Master's degree (1 major) Biochemistr	y (2012)					
Master's degree (1 major) Biology (201						
Master's degree (1 major) Biology (2014)						

Modul	e title				Abbreviation	
Neurol	biology	, Behavior and Animal E	cology (Lecture)		07-MS1-102-m01	
Modul	e coord	inator		Module offered by	1	
holder of the Chair of Neurobiology and Genetics			nd Genetics	Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. con	after succ. compl. of module(s)		
10	nume	rical grade				
Durati	on	Module level Other prerequisites				
1 seme	ester	graduate				
Conter	nts					
It will p	provide	students with insights i	nto these fields, helpi	ng them select their	Physiology and Animal Ecology. F1 and F2 practical courses and anced modules of this focus.	
Intend	led lear	ning outcomes				
		to know the advantages relate and integrate diffe			g complex biological systems.	
Course	<b>es</b> (type	, number of weekly cont	act hours, language –	- if other than Germa	an)	
V (no i	nforma	tion on SWS (weekly cor	ntact hours) and cours	e language availabl	e)	
		sessment (type, scope, ion on whether module			ation offered — if not every seme-	
one of questi	the foll ons) or	owing options will be cl	nosen: a) written exam ne candidate each (30	ination (30 to 60 m	ent prior to the course. Usually, inutes, including multiple choice c) oral examination in groups of	
	tion of					
Additi	onal inf	ormation				
			_			
 Workle	oad		_			
 Worklo	oad					
	oad ing cycl					
 Teachi 	ing cycl	e	ulations for teaching-	degree programmes	)	
 Teachi 	ing cycl		ulations for teaching-	degree programmes	)	
 Teachi  Referro	ing cycl ed to in	e LPOI (examination reg	ulations for teaching-	degree programmes	)	
 Teachi  Referro  Modul	ing cycl ed to in le appea	e LPOI (examination reg		degree programmes	)	
 Teachi  Referro  Modul Maste	ing cycl ed to in le appea r's degr	e LPOI (examination reg	11)	degree programmes	)	

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	e title			Abbreviation	
Neurobiology, Behaviour and Animal Ecology B         07-MS1B-121-m01					07-MS1B-121-m01
Modul	e coord	linator		Module offered by	<u> </u>
holder of the Chair of Neurobiology and Genetics			d Genetics	Faculty of Biology	
ECTS		od of grading	Only after succ. compl. of module(s)		
7	(not)	successfully completed			
		Other prerequisites			
1 seme	mester graduate				
Conter	its				
lt will p provid	provide	students with insights in m with the fundamental l	to these fields, helpi	ng them select their	Physiology and Animal Ecology. F1 and F2 practical courses and anced modules of this focus.
		ning outcomes			
		to know the advantages or relate and integrate diffe			g complex biological systems.
Course	<b>es</b> (type	, number of weekly conta	act hours, language –	- if other than Germa	ın)
V (no i	nforma	tion on SWS (weekly con	tact hours) and cours	e language available	e)
		<b>sessment</b> (type, scope, la ion on whether module c	0 0		tion offered — if not every seme-
	each (a				or b) oral examination of one can- 3 candidates (approx. 30 to 60
Alloca	tion of	places	-		
Additio	onal inf	ormation			
 Additio	onal inf	ormation			
 Additio  Worklo		ormation			
		ormation			
 Worklo	oad				
 Worklo					
 Worklo  Teachi 	oad ng cycl	e	lations for teaching-	degree programmes	
 Worklo  Teachi 	oad ng cycl		lations for teaching-o	degree programmes)	
 Worklo  Teachi  Referro	oad Ing cycl ed to in	e LPOI (examination regu	lations for teaching-	degree programmes)	
 Worklo  Teachi  Referro  Modul	oad ng cycl ed to in e appe	e LPOI (examination regu		degree programmes)	

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Module title					Abbreviation
Endogenous Clocks					07-MS1CB-141-m01
Module	coord	inator		Module offered by	
holder of the Chair of Neurobiology and Genetics			d Genetics	Faculty of Biology	
ECTS	ECTS Method of grading Only after succ. compl. of module(			pl. of module(s)	
10 numerical grade					
Duratio	Duration Module level Other prerequisites				
1 seme	1 semester graduate				
Conten	ts				
neuron clocks a be expl	al orga and the ained ł	nisation of the clock in the underlying mechanisms	ne brain of mammals s will be discussed on	and insects. The bio the molecular, cellu	animals, with a focus on the logical functions of endogenous ılar and organismic levels. It will d aspects regarding e.g. shift
Intende	ed learn	ning outcomes			
into cur	rent re				us clocks and obtain an insight a skills and the discussion of re-
Course	<b>s</b> (type,	, number of weekly conta	ct hours, language —	if other than Germa	n)
V + S (n	o infor	mation on SWS (weekly o	contact hours) and co	urse language availa	able)
		s <b>essment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-
written tes	examir	nation or oral examinatio	n of one candidate ea	ach or oral examinat	ion in groups of up to 3 candida-
Allocat	ion of p	olaces			
Additio	nal inf	ormation			
Workload					
Teaching cycle					
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)					
Module	appea	in a state of the			
		ee (1 major) Biology (201:			
Master's degree (1 major) Biology (2014)					

Master's with 1 major Biology (2011)	JMU Würzburg • generated 26-Aug-2024 • exam. reg. data record Master (120 ECTS) Biologie - 2011	page 56 / 153
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Module title Abbreviation					Abbreviation	
Experimental Sociobiology 07-MS1ES-111-m01					07-MS1ES-111-m01	
Module	e coordi	nator		Module offered by		
holder logy	holder of the Chair of Behavioral Physiology and Sociobio- logy					
ECTS	Metho	d of grading	Only after succ. com	pl. of module(s)		
10		rical grade				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	graduate				
Conten	ts					
and me current	chanis resear	ms of neurobiology that a	are the basis of the o e help of selected pu	rganisation of social	l as the behavioural physiology groups. A special focus is on nar will discuss and explore in	
Intende	ed learr	ning outcomes				
ral biol	ogy. Sti e able f	udents are able to recogr to formulate scientific qu	ise and interpret rela	tionships between v	blex correlations in behaviou- various aspects of sociobiology. d are able to discuss cutting edge	
Course	<b>s</b> (type,	number of weekly conta	ct hours, language —	if other than Germa	n)	
V + S (r	infor	mation on SWS (weekly o	contact hours) and co	urse language availa	able)	
		<b>essment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-	
10 to 30 groups	a) written examination (usually 30 to 60 minutes, including multiple choice questions) or b) log (usually approx. 10 to 30 pages) or c) oral examination of one candidate each (usually 30 to 60 minutes) or d) oral examination in groups of up to 3 candidates (usually approx. 30 to 60 minutes) or e) presentation (usually 20 to 45 minutes) Language of assessment: English					
Allocation of places						
Additio	nal info	ormation				
Workload						
Teaching cycle						
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)						
Module	e appea	rs in				
		ee (1 major) Biology (2011	l)			
	-	ee (1 major) Biology (2014	•			
Master	Master's degree (1 major) FOKUS Life Sciences (2012)					

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	reg. data record Master (120 ECTS) Biologie - 2011	

Module title				-	Abbreviation	
Comm	Communication Biology (Lecture)				07-MS1K-102-m01	
Modul	e coord	inator		Module offered by	1	
holder	of the (	hair of Behavioral Phy	siology and Sociobio-	Faculty of Biology		
logy						
ECTS		od of grading rical grade	Only after succ. con	npl. of module(s)		
10		Module level				
Duration 1 seme		graduate	Other prerequisites			
Conter		Sladdate				
used b semina	oy anima ar sessi	als, but also highlight a	adaptive values and eve	olutionary aspects o	ent communication channels f animal signalling. In a follow-u ussing current papers related to	
· · ·		ning outcomes				
learne logical sent ai	d to cor conditi nd discu	nect findings from diff ons, in order to gain a uss current scientific p	erent research areas, s more complete picture ublications within a bro	uch as physiology, r of a topic. In additio pader theoretical fran		
			itact hours, language –			
S + V (	no infor	mation on SWS (week	y contact hours) and co	ourse language avail	able)	
			language — if other the can be chosen to earn		ation offered — if not every seme	
followi or b) lo	ing opti og (appi	ons will be chosen: a) ox. 10 to 30 pages) or	written examination (30 c) oral examination of c	o to 60 minutes, incl one candidate each	o the course. Usually, one of the uding multiple choice questions (30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)	
Alloca	tion of p	olaces		· · · · ·		
Additio	onal inf	ormation				
Worklo	oad					
Teachi	ng cycl	9				
Referre	ed to in	LPOI (examination re	gulations for teaching-	degree programmes)	)	
	e appea	rs in				
Modul						
		ee (1 major) Biology (20	011)			
Mastei Mastei	r's degr r's degr		010)			

Master's with 1 major Biology (2011)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 58 / 153
	reg. data record Master (120 ECTS) Biologie - 2011	

Module title				Abbreviation	
Molecu	lar and	l Clinical Neurobiology (L	.ecture and Seminar)		07-MS1N-102-m01
Module		instar		Madula offered by	
				Module offered by	
Prof. Dr			0	Faculty of Biology	
ECTS 10		od of grading rical grade	Only after succ. com	ipi. of module(s)	
Duration     Module level     Other prerequisites					
1 semester graduate					
Conten		Sidduite	<u> </u>		
nervous thies - s the hur Parkins ry, ante vision, criptior lecture Fridays module Intende Ses.	s syste synaps nan mo con - me erograd diseas n of this Molecu 8-9 a. es sepa ed learn tical for	m, properties of neurons es, transmitter release, n otor system, spinal reflex uscles and muscle diseas e amnesia, visual agnosi es of the visual system; F s course is also available ular and Clinical Neurobio m.) together form one the rately and have them cre	and glial cells - ion c euromuscular end pl es, motor neuron disc ses - somatosensory a - cortex, Morbus Al Reading: Kandel, Prin at http://neurobiolo ology (incl. seminar) eoretical module (10 edited within the area nd clinical neurobiolo	hannels and excitab ate, Myasthenia gra- eases - cerebellum, a system and pain - hi zheimer - sleep, EEG ciples of Neural Scie gie.uk-wuerzburg.de and <i>Neuroentwicklur</i> ECTS). However, you of mandatory election ogy, developmental	mechanisms of neuronal disea-
		mation on SWS (weekly o			
Method	d of ass	•	nguage — if other tha	an German, examina	tion offered — if not every seme-
one of t questio	the foll ons) or	owing options will be cho	osen: a) written exam le candidate each (3c	ination (30 to 60 mi	nt prior to the course. Usually, nutes, including multiple choice ) oral examination in groups of
Allocat	ion of p	olaces			
Additio	nal inf	ormation			
Worklo	ad				
Teachir	ng cvcl	e			
	3 - 9 - 0	-			
Referre	d to in	LPOI (examination regu	lations for teaching.	legree programmec)	
Module	30000	are in			
		ee (1 major) Biology (201:	1)		
	-	ee (1 major) Biology (201) ee (1 major) Biology (201)			
	-	ee (1 major) Biology (201			
	- 0-	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	17		

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Module	Module title Abbreviation					
Neurogenetics of Behavior					07-MS1NB-112-m01	
Module	coord	inator		Module offered by		
holder	of the Q	Chair of Neurobiology and	Genetics	Faculty of Biology		
ECTS		od of grading	Only after succ. com	pl. of module(s)		
10	nume	rical grade				
Duratio		Module level	Other prerequisites			
1 semes	ster	graduate				
Conten	ts					
be over how the ant topi ting, mi	To understand how the brain controls behaviour is at the heart of neuroscience. Both brain and behaviour can be overwhelmingly complex and plastic, yet neurogenetic methods are powerful tools to dissect the principles of how the brain controls behaviour. The lecture and seminar will give a state-of-the art view on current and import- ant topics of behavioural neurobiology (incl. e. g. sleep, control of appetite and feeding, social behaviour, ma- ting, mirror neurons, molecular mechanisms of auditory-guided behaviour, neurogenetic techniques) focusing on genetic model systems such as the fruit fly Drosophila, the mouse, and the nematode C. elegans.					
Intende	d learı	ning outcomes				
In the lecture, students acquire theoretical and methodological insights into current topics in the field of neuro- genetics in general and the neurogenetics of behaviour. In the seminar, students practise presenting and discus- sing research findings in English.						
		, 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-	
					or b) oral examination of one can- dates (approx. 30 to 60 minutes)	
Allocation of places						
Additional information						
Worklo	ad					
Teaching cycle						
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)						
Module appears in						
	-	ee (1 major) Biology (2011	-			
	-	ee (1 major) Biology (2014				
Master'	Master's degree (1 major) FOKUS Life Sciences (2012)					

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	reg. data record Master (120 ECTS) Biologie - 2011	

Developmental Neurobiology and Chronobiology       07-MS1NEC-112-m01         Module correlinator       Module offered by         Faculty of Biology       ECIS       Method of grading       Only after succ. compl. of module(s)         ECIS       Method of grading       Only after succ. compl. of module(s)       Image: Compl. Succ. compl. of module(s)         Duration       Module level       Other prerequisites       Image: Compl. Succ. compl. of module(s)         I semester       graduate       -       Image: Compl. Succ. compl. of the module on succ. compl. of module(s)         Duration       Module level       Other prerequisites       Image: Compl. Succ. compl. of the module on succ. compl. of module(s)         Contents       Image: Compl. Succ. compl. of the molecular on succ. compl. of module(s)       Image: Compl. Succ. compl. of the molecular on the molecular on succ. compl. of the molecular on the molecular level. Succe. Compl. of the succes on the succe compl. of the molecular level. Succes on the molecu	Modul	e title				Abbreviation
holder of the Chair of Neurobiology and Genetics         Faculty of Biology           ECTS         Method of grading         Only after succ. compl. of module(s)           10         numerical grade            Duration         Module level         Other prerequisites           1 semester         graduate            Contents          Content           Lecture and seminar Endogenous Clocks: Students acquire an overview of endogenous clocks in unicellular origanisms, fungi, plants, and animals with a focus on the neuronal organisation of the endogenous clock, their function on a molecular, cellular, and organismic level, as well as their adaptation to 24 hour days with varying hours of daylight. Related aspects of jetlag and shift-work are discussed. Lecture Neuronal Development: Fundamentals of neuronal development on the molecular level. Main focus is the establishment of the neuroectoderm, pattern formation, regional subdivision, neuronal progenitor cells, cell growth, differentiation of neurons, axonal navig; tion, and neuronal circuitry.           Intended learning outcomes         Students acquire a fundamental knowledge and understanding of endogenous clocks and neuronal development and gain an insight into current research. Students also learn to independently work on reading assignment and gain an insight into current research. Students also learn to independently work on reading assignments and to research specific questions that arise in their reading. Results of the students' independent study are critically discussed in the seminar.           Courses (type, number of weekly contact hours, language — if other than German) <t< th=""><th>Develo</th><th>pment</th><th>al Neurobiology and</th><th>Chronobiology</th><th></th><th>07-MS1NEC-112-m01</th></t<>	Develo	pment	al Neurobiology and	Chronobiology		07-MS1NEC-112-m01
ECTS       Method of grading       Only after succ. compl. of module(s)         10       numerical grade          Duration       Module level       Other prerequisites         1 semester       graduate          Contents         Lecture and seminar <i>Endogenous Clocks</i> : Students acquire an overview of endogenous clocks in unicellular or- ganisms, fungi, plants, and animals with a focus on the neuronal organisation of the endogenous clock, their function on a molecular, cellular, and organismic level, as well as their adaptation to 2 <sub>A</sub> hour days with varying hours of daylight. Related aspects of jetlag and shift-work are discussed. Lecture Neuronal Development: Fundamentals of neuronal development on the molecular level. Main focus is the establishment of the neuroectoderm, patter formation, regional subdivision, neuronal progenitor cells, cell growth, differentiation of neurons, axonal navig; tion, and neuronal circuitry.         Intended learning outcomes         Students acquire a fundamental knowledge and understanding of endogenous clocks and neuronal develop- ment and gain an insight into current research. Students also learn to independently work on reading assign- ments and to research specific questions that arise in their reading. Results of the students' independent study are critically discussed in the seminar.         Courses (type, number of weekly contact hours, language — if other than German)         V * S (no information on SWS (weekly contact hours) and course language available)         Method of assessment (type, scope, language — if othe	Modul	e coord	inator		Module offered by	
10       numerical grade	holder	ofthe	Chair of Neurobiolog	gy and Genetics	Faculty of Biology	
Duration         Module level         Other prerequisites           1 semester         graduate            Contents	ECTS	Meth	od of grading	Only after succ. c	ompl. of module(s)	
1 semester       graduate          Contents	10	nume	rical grade			
Contents Lecture and seminar Endogenous Clocks: Students acquire an overview of endogenous clocks in unicellular or- ganisms, fungi, plants, and animals with a focus on the neuronal organisation of the endogenous clock, their function on a molecular, cellular, and organismic level, as well as their adaptation to 24 hour days with varying hours of daylight. Related aspects of jettag and shift-work are discussed. Lecture <i>Neuronal Development</i> . Fundamentals of neuronal development on the molecular level. Main focus is the establishment of the neuroectoderm, patter formation, regional subdivision, neuronal progenitor cells, cell growth, differentiation of neuronal development formation, regional subdivision, neuronal progenitor cells, cell growth, differentiation of neuronal develop- ment and gain an nisight into current research. Students also learn to independently work on reading assign- ments and to research specific questions that arise in their reading. Results of the students' independent study are critically discussed in the seminar. Courses (type, number of weekly contact hours, language — if other than German) V + 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 earn a bonus) Students will be informed about the method, length and scope of the assessment prior to the course. Usually, one of the following options will be chosen: a) written examination (30 to 60 minutes), including multiple choic questions) or b) oral examination of one candidate each (30 to 60 minutes) or c) oral examination in groups of up to 3 candidates (approx. 30 to 60 minutes) Allocation of places	Duratio	on	Module level	Other prerequisit	es	
Lecture and seminar <i>Endogenous Clocks</i> : Students acquire an overview of endogenous clocks in unicellular or- ganisms, fungi, plants, and animals with a focus on the neuronal organisation of the endogenous clock in the brain of mammals and insects. Students learn about the biological purpose of endogenous clocks, their functio on a molecular, cellular, and organismic level, as well as their adaptation to 24 hour days with varying hours of daylight. Related aspects of jetlag and shift-work are discussed. Lecture <i>Neuronal Development</i> : Fundamentals of neuronal development on the molecular level. Main focus is the establishment of the neuroectoderm, pattern formation, regional subdivision, neuronal progenitor cells, cell growth, differentiation of neurons, axonal navig- tion, and neuronal circuitry. <b>Intended learning outcomes</b> Students acquire a fundamental knowledge and understanding of endogenous clocks and neuronal develop- ment and gain an insight into current research. Students also learn to independently work on reading assign- ments and to research specific questions that arise in their reading. Results of the students' independent study are critically discussed in the seminar. <b>Courses</b> (type, number of weekly contact hours, language — if other than German) V + S (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) Students will be informed about the method, length and scope of the assessment prior to the course. Usually, one of the following options will be chosen: a) written examination (30 to 60 minutes, including multiple choicc up to 3 candidates (approx. 30 to 60 minutes) <b>Allocation of places</b>  <b>Educing cycle</b>  <b>Referred to in LPO 1</b> (examination regulations for teaching-degree programmes)  <b>Module appears in</b> <b>Master's degree</b> (1 major) Biology (2011) Master's degree (1 major) Biology (2014)	1 seme	ester	graduate			
ganisms, fungi, plants, and animals with a focus on the neuronal organisation of the endogenous clock in the brain of mammals and insects. Students learn about the biological purpose of endogenous clocks, their function on a molecular, cellular, and organismic level, as well as their adaptation to 24 hour days with varying hours of daylight. Related aspects of jetlag and shift-work are discussed. Lecture <i>Neuronal Development</i> : Fundamentals of neuronal development on the molecular level. Main focus is the establishment of the neuroectoderm, pattern formation, regional subdivision, neuronal progenitor cells, cell growth, differentiation of neurons, axonal navigition, and neuronal circuitry. Intended learning outcomes Students acquire a fundamental knowledge and understanding of endogenous clocks and neuronal development or the search. Students also learn to independently work on reading assignments and to research specific questions that arise in their reading. Results of the students' independent study are critically discussed in the seminar. Courses (type, number of weekly contact hours, language — if other than German) V + 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 earn a bonus) Students will be informed about the method, length and scope of the assessment prior to the course. Usually, one of the following options will be chosen: a) written examination (30 to 60 minutes, including multiple choice upuestion) of places	Conten	nts				
Courses (type, number of weekly contact hours, language — if other than German) V + 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 earn a bonus) Students will be informed about the method, length and scope of the assessment prior to the course. Usually, one of the following options will be chosen: a) written examination (30 to 60 minutes, including multiple choice questions) or b) oral examination of one candidate each (30 to 60 minutes) or c) oral examination in groups of up to 3 candidates (approx. 30 to 60 minutes) Allocation of places Additional information Workload Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2014)	ganism brain o on a m dayligh of neur formati tion, ar Intendo Studer ment a ments	ns, fung olecula nt. Rela ronal do ion, reg nd neur ed lear nts acqu nts acqu and gain and to	gi, plants, and anima mals and insects. St ar, cellular, and orga ted aspects of jetlag evelopment on the r gional subdivision, r ronal circuitry. ning outcomes uire a fundamental k man insight into curr research specific qu	als with a focus on the n udents learn about the nismic level, as well as and shift-work are disc nolecular level. Main for euronal progenitor cells mowledge and understa rent research. Students lestions that arise in the	euronal organisation of biological purpose of e their adaptation to 24 cussed. Lecture <i>Neuron</i> cus is the establishme s, cell growth, different anding of endogenous also learn to independ	of the endogenous clock in the endogenous clocks, their function hour days with varying hours of <i>nal Development</i> : Fundamentals nt of the neuroectoderm, pattern tiation of neurons, axonal naviga- clocks and neuronal develop- lently work on reading assign-
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) Students will be informed about the method, length and scope of the assessment prior to the course. Usually, one of the following options will be chosen: a) written examination (30 to 60 minutes, including multiple choicc questions) or b) oral examination of one candidate each (30 to 60 minutes) or c) oral examination in groups of up to 3 candidates (approx. 30 to 60 minutes) Allocation of places  Additional information  Workload  Teaching cycle  Referred to in LPO I (examination regulations for teaching-degree programmes)  Module appears in Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2014)	Course	<b>s</b> (type	, number of weekly	contact hours, language		
Students will be informed about the method, length and scope of the assessment prior to the course. Usually, one of the following options will be chosen: a) written examination (30 to 60 minutes, including multiple choice questions) or b) oral examination of one candidate each (30 to 60 minutes) or c) oral examination in groups of up to 3 candidates (approx. 30 to 60 minutes) Allocation of places  Additional information  Workload  Teaching cycle  Referred to in LPO I (examination regulations for teaching-degree programmes)  Module appears in Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2014)	Metho	d of as	sessment (type, sco	pe, language — if other	than German, examina	
Allocation of places Additional information Workload Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2014)	Studer one of questic	nts will the foll ons) or	be informed about t owing options will b b) oral examination	he method, length and be chosen: a) written exa of one candidate each	scope of the assessme amination (30 to 60 mi	nutes, including multiple choice
 Workload Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2014)				· _ ·		
 Workload Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2014)						
Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2014)	Additic	onal inf	ormation			
Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2014)						
Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2014)	Worklo	ad				
Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2014)						
Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2014)	Teachi	ng cvcl	e			
 <b>Module appears in</b> Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2014)		<u> </u>				
 <b>Module appears in</b> Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2014)	Referre	ed to in	LPOI (examination	regulations for teachin	g-degree programmes)	
Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2014)						
Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2014)	Module	e appea	ars in			
	Master	's degr	ee (1 major) Biology			
		-				

Module	e title				Abbreviation
Neurob	oiology	(Practical Course and Se	minar 1)		07-MS1NF1-102-m01
Module coordinator				Module offered by	
holder	of the (	Chair of Neurobiology and	d Genetics	Faculty of Biology	
ECTS		od of grading	Only after succ. com		
10 numerical grade					
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate			
Conten	ts				
special additio histoch stems a	isation n to a l nemistr are offe	s: molecular, clinical, cel iterature search, a variety y, molecular biological te	lular, developmental / of neurobiological n chniques, clinical an	or behavioural neur nethods (for exampl d neurogenetic tech	urse will be offered in different robiology or in neurogenetics. In e: electrophysiology, immuno- niques) and different model sy- in the form of a scientific talk, a
		ning outcomes			
knowle	dge an , gener	d skills (e. g. basic and a	dvanced knowledge,	special knowledge,	biology. They have acquired the advanced methodological back- cal experiments according to best
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)
S + P (n	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-
followiı or b) lo	ng opti g (appr	ons will be chosen: a) wr ox. 10 to 30 pages) or c)	itten examination (30 oral examination of o	to 60 minutes, inclune candidate each (	o the course. Usually, one of the uding multiple choice questions) 30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)
Allocat				·	
Additio	nal inf	ormation			
Worklo	ad				
Teachiı	ng cycl	9			
Referre	ed to in	LPOI (examination regu	lations for teaching-c	legree programmes)	
Module	e appea	irs in			
Master	's degr	ee (1 major) Biology (201	1)		
	-	ee (1 major) Biology (2010			
Master	's degr	ee (1 major) Biology (201	4)		

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Module title Abbreviation					
Neurobiology (Practical Course and Seminar 2)					07-MS1NF2-102-m01
Module	e coord	inator		Module offered by	<u> </u>
holder	of the (	Chair of Neurobiology and	d Genetics	Faculty of Biology	·
ECTS	1	od of grading	Only after succ. con	npl. of module(s)	
15	(not) successfully completed				
Duratio	on	Module level	Other prerequisites		
1 seme	ester	graduate			
Conten	nts				
biologi gress c	ical, gei of the ex	netic or molecular techni	ques will be tested an nt line of research wi	nd adapted accordin	of research at the Chair. Neuro- ig to the research aim. The pro- id presented in the form of a
Intend	ed lear	ning outcomes			
apt a re basic a fic met practic	esearch and adv hods) t e.	plan according to the ex anced knowledge, specia o independently carry ou	operimental progress al knowledge, advand t, document and inte	They have acquired and methodological prret neurobiologica	e field of neurobiology and to ad the knowledge and skills (e.g. background, general and speci- al experiments according to best
Course	<b>s</b> (type	, number of weekly conta	ect hours, language –	- if other than Germa	in)
S + P (r	no infor	mation on SWS (weekly o	contact hours) and co	ourse language avail	able)
		<b>essment</b> (type, scope, la on on whether module c			tion offered — if not every seme-
followi or b) lo	ng opti og (appi	ons will be chosen: a) wr ox. 10 to 30 pages) or c)	itten examination (30 oral examination of c	o to 60 minutes, incl one candidate each (	o the course. Usually, one of the uding multiple choice questions) 30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)
	tion of J			· · · ·	
Additio	onal inf	ormation			
Worklo	ad		-		
Teachi	ng cycl	e			
	0.9				
Referre	ed to in	LPOI (examination regu	lations for teaching-	degree programmes)	
Modul	e appea	urs in			
		ee (1 major) Biology (201	1)		
	-	ee (1 major) Biology (201			
			·		

Master's with 1 major Biology (2011)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 63 / 153
	reg. data record Master (120 ECTS) Biologie - 2011	

Modul	e title				Abbreviation
Neuror	modula	tion and Neuronal Develo	pment		07-MS1NMND-141-m01
Modul	e coord	inator		Module offered by	<u> </u>
holder	holder of the Chair of Neurobiology and Genetics		d Genetics	Faculty of Biology	
ECTS		od of grading	Only after succ. con	pl. of module(s)	
10	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ester	graduate			
Conter	nts				
stems biology ronal p	used to y. Focus precurso	study modulation of neu is on the establishment ors, neuronal growth, diffe	ironal circuits. Funda of the neuroectoderr	mental principles of n, pattern generatio	of neuromodulation, model sy- molecular developmental neuro- n and regional specification, neu- g, neuronal connectivity.
Intend	ed lear	ning outcomes			
		learn fundamental princip o current research in the f	, .	omodulation and ner	uronal development and obtain
Course	<b>es</b> (type	, number of weekly conta	ct hours, language –	- if other than Germa	in)
V + S (I	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 tes	ı exami	nation or oral examinatio	n of one candidate e	ach or oral examinat	ion in groups of up to 3 candida-
Allocat	tion of	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			
Master	r's degr	ee (1 major) Biology (201:	1)		
Master	r's degr	ee (1 major) Biology (2014	4)		

Master's with 1 major Biology (2011)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 64 / 153
	reg. data record Master (120 ECTS) Biologie - 2011	

Module	e title				Abbreviation
Animal	Ecolog	y and Tropical Biology (I	ecture and Seminar)		07-MS1TÖ-102-m01
Module	a coord	inator		Module offered by	
Module coordinator holder of the Chair of Animal Ecology and Tropical Biology			nd Tropical Piology	Faculty of Biology	
ECTS					
10		rical grade			
Duratio		Module level	Other prerequisites		
1 seme		graduate			
Conten	ts	-			
current tions a	issues nd food . In the	in animal ecology. Focus I nets, evolutionary ecolo	s will be on biodiversingy, chemical ecology	ity and ecosystem fι , tropical ecology, a	of the theoretical foundations and inctions, multi-trophic interac- gricultural ecology, and global ed above will be presented and
		ning outcomes			
The stu of anim	idents v nal ecol	will acquire an advanced	interpret scientific pu		rrent research issues in the field y the acquired knowledge to the
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	in)
S + V (r	no infor	mation on SWS (weekly o	contact hours) and co	urse language avail	able)
		s <b>essment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-
one of questic	the foll ons) or	owing options will be cho	osen: a) written exam e candidate each (3c	ination (30 to 60 mi	nt prior to the course. Usually, nutes, including multiple choice ) oral examination in groups of
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-c	legree programmes)	
Module	e appea	irs in			
Master	's degr	ee (1 major) Biology (201:	1)		
	-	ee (1 major) Biology (2010			
Master	's degr	ee (1 major) Biology (201	4)		

Master's with 1 major Biology (2011)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 65 / 153
	reg. data record Master (120 ECTS) Biologie - 2011	

Modul	e title				Abbreviation
Anima	l Ecolog	y and Tropical Biology 2			07-MS1TÖ2-111-m01
Modul	e coord	inator		Module offered by	
holder	ofthe	Chair of Animal Ecology a	nd Tropical Biology	Faculty of Biology	
ECTS		od of grading	Only after succ. com	pl. of module(s)	
10	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ester	graduate			
Conter	nts				
focus i	s on the		opical systems (ecos	ystem goods and ec	ropical communities. A special osystem services), but the biolo-
Intend	ed lear	ning outcomes			
animal	ecolog		be qualified to interp		research issues in the field of nd apply the knowledge they ha-
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)
V + S (I	no infor	mation on SWS (weekly o	contact hours) and co	urse language avail	able)
		sessment (type, scope, la ion on whether module ca			tion offered — if not every seme-
	each (a				or b) oral examination of one can- 3 candidates (approx. 30 to 60
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-c	legree programmes)	
Modul	e appea	ars in			
		ee (1 major) Biology (201:	ı)		
		ee (1 major) Biology (201			

Master's with 1 major Biology (2011)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 66 / 153
	reg. data record Master (120 ECTS) Biologie - 2011	

Animal	e title				Abbreviation	
, unind	l Ecolog	y F1 (Practical Course a	and Seminar 1)		07-MS1TÖF1-102-m01	
Modul	e coord	inator		Module offered by		
		Chair of Animal Ecology	and Tropical Biology	Faculty of Biology		
ECTS	1	od of grading	Only after succ. con			
10		rical grade				
Duratio	on	Module level	Other prerequisites	<b>i</b>		
1 seme	ester	graduate	Admission prerequi	isite to assessment: pletion of the respe	regular attendance of lab course ctive exercises as specified at th	
Conter	nts		•			
sity an cording logical studen ties in Forest manag nature cent so <b>Intend</b> Studer gy. The ar with their kn red the	d plant g in the l modell nts' own agroecc ecology gement conser cientific ed lear nts will b animal nowled	pollinator-interactions habitat, identification ing (block, 2 weeks): c modelling project on c osystems, biological per (block, 1 week): arthro on diversity patterns ar vation-related issues to publications on the to have expanded their kr e able to design, perfor ecological methods ar ge of the biology and e edge and skills necess	2. Ecology and taxono and characteristics of e urrent methods of ecologiest control in landscape pod communities in for d functional groups. 6 be implemented in a pics covered in the mo nowledge on ecologica rm, statistically analys and possible sources of cology of important fur	omy of insects (block different arthropod g logical processes mo gy. 4. Agroecology (b e context, evaluation prest ecosystems, mo 5. Tropical ecology (b tropical ecology (b tropical ecosystem i dules listed above w l theories and current e and interpret scient e error in data interpret actional taxa of arthr	our experiments, pollinator dive k, 2 weeks): observation and re- groups, field experiments. 3. Eco odelling, simulation models, the lock, 1 week): insect communi- n of agri-environment schemes. <u>p</u> ethods of detection, influence of lock): small projects ecological n East Africa. In the seminar, re- vill be presented and discussed. It research issues in animal ecol stific research. They will be famil etation. They will have deepened opods. Students will have acqui ntext of an F2 practical course or	
Course	<b>es</b> (type	, number of weekly con	tact hours, language –	– if other than Germa	an)	
S + P (I	no infor	mation on SWS (weekl	y contact hours) and co	ourse language avail		
		essment (type, scope,	Is a survey of the survey of t		able)	
Metho	nformati	on on whether module			able) ation offered — if not every seme	
Metho ster, in Studer followi or b) lo aminat	nts will ing opti- og (appi tion in g	on on whether module be informed about the ons will be chosen: a) v ox. 10 to 30 pages) or o groups of up to 3 candio	can be chosen to earn length and scope of th vritten examination (30 c) oral examination of c	a bonus) e assessment prior t o to 60 minutes, incl one candidate each (		
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## Module appears in

Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2010) Master's degree (1 major) Biology (2014)

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	reg. data record Master (120 ECTS) Biologie - 2011	

15       (not) successfully completed	Module	e title				Abbreviation	
holder of the Chair of Animal Ecology and Tropical Biology       Faculty of Biology         ECTS       Method of grading       Only after succ. compl. of module(s)         15       (not) successfully completed       -         15       (not) successfully completed       -         15       (not) successfully completed       -         15       module level       Other prerequisite to assessment: regular attendance of lab cours and successful completion of the respective exercises as specified at the beginning of the course.         Contents       In the F2 practical course, students will explore a scientific question as independently as possible. They will develop hypotheses, prepare a work schedule, collect data, perform experiments in the field, greenhouse or labo tory and will statistically analyse data. Students will document the results of their work in a log similar to a sho scientific paper, including an introduction, material and methods, findings and a discussion of these. Students will also be reguined to presearch project of the Institute or in cooperation with other institutions, For more detail information on the F2 practical courses any be completed in the colocy. The practical course any be completed in the context of an ongoing research project of the Chair or contact the research groups directly.         Intended tearing outcomes       Students have gained knowledge on experimental setups and methods used in the fields of animal ecology and tropical ecology. They are qualified to design scientific research and are able to collect data and interpret them statistically. They have developed knowledge and skills that allow them to set up a scientific project for their M ster's	Animal	l Ecolog	gy and Tropical Biology F	2 (Practical Course a	nd Seminar 2)	07-MS1TÖF2-102-m	101
ECTS       Method of grading       Only after succ. compl. of module(s)         15       (not) successfully completed	Module	e coord	inator		Module offered by	,	
15       (not) successfully completed	holder	of the (	Chair of Animal Ecology a	nd Tropical Biology	Faculty of Biology		
Duration         Module level         Other prerequisites           1 semester         graduate         Admission prerequisite to assessment: regular attendance of lab cours and successful completion of the respective exercises as specified at th beginning of the course.           Contents         In the F2 practical course, students will explore a scientific question as independently as possible. They will de velop hypotheses, prepare a work schedule, collect data, perform experiments in the field, greenhouse or labo tory and will statistically analyse data. Students will document the results of their work in a log similar to a sho scientific paper, including an introduction, material and methods, findings and a discussion of these. Students will also be required to present their findings during a warp-up seminar. The various research groups at the Ch of Animal Ecology and Tropical Biology offer a wide variety of opportunities for students to completed in th context of an ongoing research project of the Institute or in cooperation with other institutions, please refer WueCampus, check out the notice board of the Chair or contact the research groups directly.           Intended learning outcomes         Students have gained knowledge on experimental setups and methods used in the fields of animal ecology an topical ecology. They are qualified to design scientific research and are able to collect data and interpret them statistically. They have developed knowledge and skills that allow them to set up a scientific ropiect for their M ster's thesis.           Courses (type, number of weekly contact hours) and course language available)           Method of assessment (type, scope, language — if other than German)           S + (ton information on SWS (weekly contact hours) and course la	ECTS	1			pl. of module(s)		
a semester       graduate       Admission prerequisite to assessment: regular attendance of lab cours and successful completion of the respective exercises as specified at the beginning of the course.         Contents       In the F2 practical course, students will explore a scientific question as independently as possible. They will de velop hypotheses, prepare a work schedule, collect data, perform experiments in the field, greenhouse or labo scientific paper, including an introduction, material and methods, findings and a discussion of these. Students will also be required to present their findings during a wrap-up seminar. The various research groups at the Cha of Animal Ecology and Tropical Biology offer a wide variety of opportunities for students to complete an F2 prac- cal course in Germany, another country in Europe or in the tropics. F2 practical courses may be completed in the ucetampus, check out the notice board of the chair or contact the research groups at the Cha ornet of an ongoing research project of the Institute or in cooperation with other institutions. For more detaile information on the F2 practical course as well as current topics or appointments for consultations, please refer WueCampus, check out the notice board of the Chair or contact the research groups directly.         Intended learning outcomes       Students have gained knowledge on experimental setups and methods used in the fields of animal ecology an tropical ecology. They are qualified to design scientific research and are able to collect data and interpret them statistically. They have developed knowledge and skills that allow them to set up a scientific project for their M Ste <sup>*</sup> sthesis.         Courses (type, number of weekly contact hours, language — if other than German)       S         S + 0 (no information on SWS (weekly contact hours, lang	15	(not) s	successfully completed				
and successful completion of the respective exercises as specified at the beginning of the course.         Contents         In the 72 practical course, students will explore a scientific question as independently as possible. They will develop hypotheses, prepare a work schedule, collect data, perform experiments in the field, greenhouse or labor tory and will statistically analyse data. Students will document the results of their work in a log similar to a sho scientific appet, including an introduction, material and methods, findings and a discussion of these. Students will also be required to present their findings during a wrap-up seminar. The various research groups at the Ch of Animal Ecology and Tropical Biology offer a wide variety of opportunities for students to complete an F2 practical courses ans well as current topics or appointments for consultations, please refer WueCampus, check out the notice board of the Chair or contact the research groups directly.         Intended learning outcomes       Students have gained knowledge on experimental setups and methods used in the fields of animal ecology an tropical ecology. They are qualified to design scientific research and are able to collect data and interpret them statistically. They have developed knowledge and skills that allow them to set up a scientific project for their M ster's thesis.         Courses (type, number of weekly contact hours, language — if other than German)       S + P (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 semister, information on whether module can be chosen to eam a bonus)         Students will be informed about the length and scope of the assessment prior to the course. Usually,	Duratio	on	Module level	Other prerequisites			
In the F2 practical course, students will explore a scientific question as independently as possible. They will de velop hypotheses, prepare a work schedule, collect data, perform experiments in the field, greenhouse or labo tory and will statistically analyse data. Students will document the results of their work in a log similar to a sho collecting paper, including an introduction, material and methods, findings and a discussion of these. Students will also be required to present their findings during a wrap-up seminar. The various research groups at the Cha of Animal Ecology and Tropical Biology offer a wide variety of opportunities for students to complete an F2 prac- cal course in Germany, another country in Europe or in the tropics. F2 practical courses may be completed in th context of an ongoing research project of the Institute or in cooperation with other institutions. For more details information on the F2 practical courses as well as current topics or appointments for consultations, please refer WueCampus, check out the notice board of the Chair or contact the research groups directly. Intended learning outcomes Students have gained knowledge on experimental setups and methods used in the fields of animal ecology an tropical ecology. They are qualified to design scientific research and are able to collect data and interpret them statistically. They have developed knowledge and skills that allow them to set up a scientific project for their M ster's thesis. Courses (type, number of weekly contact hours, language — if other than German) S + 0 (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) Students will be informed about the length and scope of the assessment prior to the course. Usually, one of the following options will be chosen: a) written examination of one candidate each (so to 6 om inutes) or 4	1 seme	ester	graduate	and successful com	pletion of the respe	-	
velop hypotheses, prepare a work schedule, collect data, perform experiments in the field, greenhouse or labo tory and will statistically analyse data. Students will document the results of their work in a log similar to a sho scientific paper, including an introduction, material and methods, findings and a discussion of these. Students will also be required to present their findings during a wrap-up seminar. The various research groups at the Cha of Animal Ecology and Tropical Biology offer a wide variety of opportunities for students to complete an F2 practical courses well as current topics or appointments for consultations, please refer WueCampus, check out the notice board of the Chair or contact the research groups directly. Intended learning outcomes Students have gained knowledge on experimental setups and methods used in the fields of animal ecology and tropical ecology. They are qualified to design scientific research and are able to collect data and interpret them statistically. They have developed knowledge and skills that allow them to set up a scientific project for their M ster's thesis. Courses (type, number of weekly contact hours, language — if other than German) S + 0 (ni formation on SWS (weekly contact hours) and course language available) Method of assessment (type, scope, language — if other than German, examination offered — if not every sems ster, information on whether module can be cosen to earn a bonus) Students will be informed about the length and scope of the assessment prior to the course. Usually, one of the following opins will be informed to a jo a candidates (approx. 30 to 60 minutes) or d) oral examination in groups of up to 3 candidates (approx. 30 to 60 minutes) or e) presentation (20 to 45 minutes) Aldotation on places Mortload Mortload Mortload appers in Matter of nice of place (201) Master's degree (1 major) Biology (201) Master's degree (1 majo	Conten	nts		•			
Intended learning outcomes Students have gained knowledge on experimental setups and methods used in the fields of animal ecology an tropical ecology. They are qualified to design scientific research and are able to collect data and interpret them statistically. They have developed knowledge and skills that allow them to set up a scientific project for their M ster's thesis. Courses (type, number of weekly contact hours) language — if other than German) S + P (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) Students will be informed about the length and scope of the assessment prior to the course. Usually, one of the following options will be chosen: a) written examination (30 to 60 minutes, including multiple choice questions or b) log (approx. 10 to 30 pages) or c) oral examination of one candidate each (30 to 60 minutes) Allocation of places	scientii will als of Anin cal cou contex informa	fic pape so be re nal Eco urse in ( t of an e ation of	er, including an introduct quired to present their fin logy and Tropical Biology Germany, another country ongoing research project n the F2 practical course	tion, material and me ndings during a wrap- offer a wide variety of y in Europe or in the tr of the Institute or in o as well as current top	thods, findings and up seminar. The va of opportunities for ropics. F2 practical cooperation with ot ics or appointment	a discussion of thes rious research group students to complete courses may be com her institutions. For r s for consultations, p	se. Students os at the Chai e an F2 pract pleted in the more detailed
Students have gained knowledge on experimental setups and methods used in the fields of animal ecology antropical ecology. They are qualified to design scientific research and are able to collect data and interpret them statistically. They have developed knowledge and skills that allow them to set up a scientific project for their M ster's thesis. Courses (type, number of weekly contact hours, language — if other than German) S + P (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) Students will be informed about the length and scope of the assessment prior to the course. Usually, one of the following options will be chosen: a) written examination of one candidate each (30 to 60 minutes) or d) oral examination in groups of up to 3 candidates (approx. 30 to 60 minutes) or e) presentation (20 to 45 minutes) Aldication of places		-		rd of the chair of con	lact the research gr	oups directly.	
S + P (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)  Students will be informed about the length and scope of the assessment prior to the course. Usually, one of the following options will be chosen: a) written examination (30 to 60 minutes, including multiple choice questions or b) log (approx. 10 to 30 pages) or c) oral examination of one candidate each (30 to 60 minutes) or d) oral examination in groups of up to 3 candidates (approx. 30 to 60 minutes) or e) presentation (20 to 45 minutes)  Allocation of places	tropica statisti ster's t	al ecolo; ically. T hesis.	gy. They are qualified to o hey have developed know	design scientific resea wledge and skills tha	arch and are able to t allow them to set	o collect data and int up a scientific projec	erpret them
Method of assessment (type, scope, language — if other than German, examination offered — if not every send ster, information on whether module can be chosen to earn a bonus) Students will be informed about the length and scope of the assessment prior to the course. Usually, one of the following options will be chosen: a) written examination (30 to 60 minutes, including multiple choice questions or b) log (approx. 10 to 30 pages) or c) oral examination of one candidate each (30 to 60 minutes) or d) oral ex- amination in groups of up to 3 candidates (approx. 30 to 60 minutes) or e) presentation (20 to 45 minutes) Allocation of places 							
ster, information on whether module can be chosen to earn a bonus) Students will be informed about the length and scope of the assessment prior to the course. Usually, one of the following options will be chosen: a) written examination (30 to 60 minutes, including multiple choice questions or b) log (approx. 10 to 30 pages) or c) oral examination of one candidate each (30 to 60 minutes) or d) oral ex- amination in groups of up to 3 candidates (approx. 30 to 60 minutes) or e) presentation (20 to 45 minutes) Allocation of places Additional information Workload Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2014)	S + P (r	no infor	mation on SWS (weekly o	contact hours) and co	urse language avai	lable)	
following options will be chosen: a) written examination (30 to 60 minutes, including multiple choice questions or b) log (approx. 10 to 30 pages) or c) oral examination of one candidate each (30 to 60 minutes) or d) oral ex- amination in groups of up to 3 candidates (approx. 30 to 60 minutes) or e) presentation (20 to 45 minutes) Allocation of places 						ation offered — if not	t every seme
Additional information Workload Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2010) Master's degree (1 major) Biology (2014)	followi or b) lo	ng opti og (appi	ons will be chosen: a) wr rox. 10 to 30 pages) or c)	itten examination (30 oral examination of o	to 60 minutes, inc ne candidate each	luding multiple choid (30 to 60 minutes) o	ce questions r d) oral ex-
	Allocat	tion of <sub>l</sub>	olaces				
		-					
Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2010) Master's degree (1 major) Biology (2014)	Additio	onal inf	ormation				
Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2010) Master's degree (1 major) Biology (2014)							
Referred to in LPO I (examination regulations for teaching-degree programmes)            Module appears in         Master's degree (1 major) Biology (2011)         Master's degree (1 major) Biology (2010)         Master's degree (1 major) Biology (2014)	Worklo	bad					
Referred to in LPO I (examination regulations for teaching-degree programmes)            Module appears in         Master's degree (1 major) Biology (2011)         Master's degree (1 major) Biology (2010)         Master's degree (1 major) Biology (2014)							
Referred to in LPO I (examination regulations for teaching-degree programmes)            Module appears in         Master's degree (1 major) Biology (2011)         Master's degree (1 major) Biology (2010)         Master's degree (1 major) Biology (2014)	Teachi	ng cycl	e				
Module appears in Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2010) Master's degree (1 major) Biology (2014)							
Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2010) Master's degree (1 major) Biology (2014)	Referre	ed to in	LPOI (examination regu	lations for teaching-c	legree programmes	)	
Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2010) Master's degree (1 major) Biology (2014)	Module	e appez	ars in				
	Master Master	r's degr r's degr	ee (1 major) Biology (201 ee (1 major) Biology (201	o)			
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Modul	e title				Abbreviation
Behavi	oral Bi	ology (Practical Course a	and Seminar 1)		07-MS1VF1-102-m01
Modul	Module coordinator			Module offered by	
holder logy	of the (	Chair of Behavioral Phys	iology and Sociobio-	Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
10	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate			regular attendance of lab course respective exercises.
Conten	Its				
the cur physio ly anal Chair fo	rrent to logical, ysed, s or avail	pics in the field of behav neurobiological and be ummarised in a scientifi able topics and opportu	vioural physiology and havioural methods. Th c report and presented	sociobiology. They ne results obtained v	independently work on one of will gain an insight into the latest vill be graphically and statistical- ntact the research groups at the
Intend	ed lear	ning outcomes			
sociob		In addition, they are abl			ld of behavioural physiology and tained and to present them to a
Course	<b>s</b> (type	, number of weekly cont	act hours, language –	- if other than Germa	n)
S + P (r	no infor	mation on SWS (weekly	contact hours) and co	ourse language availa	able)
		<b>sessment</b> (type, scope, l ion on whether module o			tion offered — if not every seme-
followi or b) lo	ng opti og (appi	ons will be chosen: a) w rox. 10 to 30 pages) or c)	ritten examination (3c oral examination of c	to 60 minutes, inclu one candidate each (	o the course. Usually, one of the uding multiple choice questions) 30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)
Allocat	ion of <b>j</b>	olaces			
Additio	onal inf	ormation			
	_		_		
Worklo	ad				
Teachi	ng cycl	e			
 Referre	ed to in	<b>LPO I</b> (examination reg	lations for teaching.	legree programmes)	
Referred to in LPO I (examination regulations for teaching-degree programmes)					
Modula	e appea	ars in			
	- apper				
	's dear	ee (1 major) Biology (20	11)		
Master	-	ee (1 major) Biology (20: ee (1 major) Biology (20:			

Master's with 1 major Biology (2011)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 70 / 153
	reg. data record Master (120 ECTS) Biologie - 2011	

Module	e title		Abbreviation						
Behavi	oral Bio	ology (Practical Course a		07-MS1VF2-102-m01					
Module	e coord	inator		Module offered by					
holder logy	of the (	Chair of Behavioral Physic	ology and Sociobio-	Faculty of Biology					
ECTS	Metho	od of grading	Only after succ. com	npl. of module(s)					
15	(not) s	successfully completed		-					
Duratio	n	Module level	Other prerequisites						
1 semester		graduate	Admission prerequisite to assessment: regular attendance of lab course as well as successful completion of the respective exercises.						
Conten	ts								
Students will be integrated into one of the research groups at the Chair and will independently work on one of the current topics in the field of behavioural physiology and sociobiology. They will learn to plan experimental series and to apply the latest physiological, neurobiological and behavioural methods. The results obtained will be graphically and statistically analysed, summarised in a scientific report and presented in a talk. Please contact the research groups at the Chair for available topics and opportunities.									
Intende	ed lear	ning outcomes							
The students are able to independently perform scientific experiments in the field of behavioural physiology and sociobiology. In addition, they have learned to interpret the results obtained, taking into account current literature, and to place them in the context of other research in the field.									
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	· if other than Germa	n)				
S + P (n	no infor	mation on SWS (weekly o	contact hours) and co	urse language availa	able)				
		<b>essment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-				
Students will be informed about the length and scope of the assessment prior to the course. Usually, one of the following options will be chosen: a) written examination (30 to 60 minutes, including multiple choice questions) or b) log (approx. 10 to 30 pages) or c) oral examination of one candidate each (30 to 60 minutes) or d) oral examination in groups of up to 3 candidates (approx. 30 to 60 minutes) or e) presentation (20 to 45 minutes)									
Allocat	ion of p	olaces							
Additio	nal inf	ormation							
Worklo	ad								
Teachi	ng cycl	e							
	-3 -9-1	-							
Referre	d to in	IPOI (examination regu	lations for teaching.	legree programmes)					
	<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)								
Modulo appears in									
Module appears in									
	Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2010)								
	Master's degree (1 major) Biology (2010) Master's degree (1 major) Biology (2014)								
master	5 4051		יד						

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	reg. data record Master (120 ECTS) Biologie - 2011	

Module	e title		Abbreviation						
Molecu	ılar Bio	logy (Lecture)	07-MS2-102-m01						
Module	e coord	inator		Module offered by	Module offered by				
Bioinfo	rmatic	Chair of Microbiology, H 5, holder of the Chair o Biology, Prof. Dr. M. Sau	f Cell Biology and De-	Faculty of Biology					
ECTS				ompl. of module(s)					
10 numerical grade									
Duration		Module level	Other prerequisites						
		graduate							
Conten	ts								
Molecular biology of the eukaryotic and prokaryotic cell. The lecture is a joint activity of the Chairs of Cell- and Developmental Biology, Microbiology, Biophysics and Bioinformatics and deals with concepts of modern mole- cular biology from the point of view of these different disciplines. Participants are recommended to read the text- book "Essential Cell Biology". The section on cell biology (app. a quarter of the lecture) mainly discusses the eu- karyotic cell and intends to elucidate the vast diversity in structure and function of molecules, organelles and cells in addition to fundamental principles of modern molecular cell biology. The bioinformatics section (app. a quarter of the lecture) contains a large amount of examples for applications which allow the investigation of the molecular biology of a cell with bioinformatic tools. We closely adhere to the contents of the book "Essential Cell Biology" and present many clear and useful examples for the application of our tools when working on the topics of the other three Chairs. Our vision: bioinformatics essentially is molecular biology based on computing tech- nology (time consuming "wet" experiments can be planned more easily and thus bioinformatics saves precious time). The microbiological section (app. a quarter of the lecture) deals with fundamental molecular aspects of prokaryotic cells. Key aspects include the organisation of the bacterial genome, the transcription and translati- on machinery, mechanisms of regulation of gene expression, transport of small molecules and macromolecules, cell division and differentiation, bacterial motility and chemotaxis, signal transduction and bacterial communi- cation mechanisms. Recommended reading: (a) Allgemeine Mikrobiologie (Fuchs) and (b) Biology of Microorga-									
nisms ( Intende		ning outcomes							
Master	level k	nowledge about the m	olecular biology of the	eukaryotic and prok	aryotic cell.				
Course	<b>s</b> (type	, number of weekly cor	ntact hours, language –	– if other than Germa	an)				
V (no ir	format	ion on SWS (weekly co	ontact hours) and cours	e language available	e)				
<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)									
Students will be informed about the method, length and scope of the assessment prior to the course. Usually, one of the following options will be chosen: a) written examination (30 to 60 minutes, including multiple choice questions) or b) oral examination of one candidate each (30 to 60 minutes) or c) oral examination in groups of up to 3 candidates (approx. 30 to 60 minutes)									
Allocat	ion of <sub>l</sub>	olaces							
Additio	nal inf	ormation							
Worklo	ad								
Teaching cycle									
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)									
L									
Master's wi	ith 1 majo	r Biology (2011)		urg • generated 26-Aug-2024 cord Master (120 ECTS) Biolog		page 72 / 153			

## Module appears in

Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2010) Master's degree (1 major) Biology (2014)

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	reg. data record Master (120 ECTS) Biologie - 2011	

Module title					Abbreviation	
Molecu	Molecular Biology B 07-MS2B-121-m01					
Module coordinator			Module offered by			
Bioinfo	holder of the Chair of Microbiology, holder of the Chair of Bioinformatics, holder of the Chair of Cell Biology and De- velopmental Biology, Prof. Dr. M. Sauer					
ECTS		od of grading	Only after succ. con	npl. of module(s)		
7	(not) s	successfully completed				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	graduate				
Conten	ts					
book "E karyotid cells in quarter molecu Biology of the o nology time). T prokary on mac cell div cation r	cular biology from the point of view of these different disciplines. Participants are recommended to read the text- book "Essential Cell Biology". The section on cell biology (app. a quarter of the lecture) mainly discusses the eu- karyotic cell and intends to elucidate the vast diversity in structure and function of molecules, organelles and cells in addition to fundamental principles of modern molecular cell biology. The bioinformatics section (app. a quarter of the lecture) contains a large amount of examples for applications which allow the investigation of the molecular biology of a cell with bioinformatic tools. We closely adhere to the contents of the book "Essential Cell Biology" and present many clear and useful examples for the application of our tools when working on the topics of the other three Chairs. Our vision: bioinformatics essentially is molecular biology based on computing tech- nology (time consuming "wet" experiments can be planned more easily and thus bioinformatics saves precious time). The microbiological section (app. a quarter of the lecture) deals with fundamental molecular aspects of prokaryotic cells. Key aspects include the organisation of the bacterial genome, the transcription and translati- on machinery, mechanisms of regulation of gene expression, transport of small molecules and macromolecules, cell division and differentiation, bacterial motility and chemotaxis, signal transduction and bacterial communi- cation mechanisms. Recommended reading: (a) Allgemeine Mikrobiologie (Fuchs) and (b) Biology of Microorga-					
nisms ( Intende	· · · ·	ning outcomes				
		nowledge about the mo	olecular biology of the	eukaryotic and proka	aryotic cell.	
Course	<b>s</b> (type	, number of weekly con	tact hours, language –	- if other than Germa	n)	
V (no in	format	ion on SWS (weekly co	ntact hours) and cours	e language available	2)	
		essment (type, scope, on on whether module			tion offered — if not	every seme-
	each (a	nination (30 to 60 minu pprox. 30 to 60 minute		•	-	
Allocat	ion of p	olaces				
Additio	Additional information					
Workload						
Teaching cycle						
Referre	<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)					
Module	e appea	irs in				
Master's wi	th 1 major	Biology (2011)		rg • generated 26-Aug-2024 ord Master (120 ECTS) Biolog		page 74 / 153

Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2014)

Master's with 1 major Biology (2011)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 75 / 153
	reg. data record Master (120 ECTS) Biologie - 2011	

Module title Abbreviation					
Bioinformatics (Lecture and Seminar)				07-MS2BI-102-m01	
Module coordinator			Module offered by	·	
holder o	f the Chair of Bioinformatics		Faculty of Biology		
	Method of grading	Only after succ. com	pl. of module(s)		
10	numerical grade				
Duration	Module level	Other prerequisites			
1 semes	ter graduate				
Contents	5				
and seq		ns and protein familie	es, large-scale data a	is includes results from genome analysis (e. g. net generation se- IncRNAs).	
Intended	l learning outcomes				
	and recent results in bioinform typical technologies and resea		•	advanced (Master) level know-	
Courses	(type, number of weekly conta	ct hours, language —	if other than Germa	in)	
S + V (no	o information on SWS (weekly o	contact hours) and co	urse language avail	able)	
	<b>of assessment</b> (type, scope, la prmation on whether module ca			tion offered — if not every seme-	
one of th questior	ne following options will be cho	osen: a) written exam e candidate each (30	ination (30 to 60 mi	nt prior to the course. Usually, nutes, including multiple choice ) oral examination in groups of	
Allocatio	on of places				
Addition	al information				
Workloa	d				
Teaching	g cycle				
Referred	to in LPO I (examination regu	lations for teaching-d	legree programmes)		
Module appears in					
Master's degree (1 major) Biochemistry (2012) Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2010) Master's degree (1 major) Biology (2014) Master's degree (1 major) Mathematics (2012)					
Master's degree (1 major) Computational Mathematics (2012)					

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Module title Abbreviation					Abbreviation
Bioinformatics (Practical Course and Seminar 1)			eminar 1)		07-MS2BIF1-102-m01
Module coordinator				Module offered by	
		Chair of Bioinformatics		Faculty of Biology	
ECTS	<u> </u>	od of grading	Only after succ. com		
10	î	rical grade			
Duratio	· · · · ·	Module level	Other prerequisites		
1 seme		graduate			
Conten	ts				
mics (s proteor	equenc nics), t nalysis,	e-, domain analysis and opological and structural	annotation), omics d analysis of biologica	ata analysis (NGS, t al interactions incluc	d, fields covered include: geno- ranscriptomics, metabolomics, ding statistical methods, phyloge- f a presentation, a publication or
Intende	ed learr	ning outcomes			
	e to des	sign experiments, collect			the field of bioinformatics. They nering to the principles of good
Course	<b>s</b> (type,	number of weekly conta	ct hours, language —	if other than Germa	in)
S + P (r	no infor	mation on SWS (weekly o	ontact hours) and co	urse language avail	able)
		essment (type, scope, la on on whether module ca			tion offered — if not every seme-
followi or b) lo	ng optio g (appr	ons will be chosen: a) wr ox. 10 to 30 pages) or c)	tten examination (30 oral examination of o	to 60 minutes, incl ne candidate each (	o the course. Usually, one of the uding multiple choice questions) (30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)
Allocat					
Additio	nal info	ormation			
Worklo	ad				
Teachi	ng cvcl	2			
Teaching cycle					
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)					
Module appears in					
Moute appears in Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2010) Master's degree (1 major) Biology (2014) Master's degree (1 major) Mathematics (2012) Master's degree (1 major) Computational Mathematics (2012)					

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Module	e title				Abbreviation	
Bioinformatics (Practical Course and Seminar 2)				07-MS2BIF2-102-m01		
Module coordinator				Module offered by		
holder	ofthe	Chair of Bioinformatics		Faculty of Biology		
ECTS		od of grading	Only after succ. com	· · · · · · · · · · · · · · · · · · ·		
15		successfully completed				
Duratio		Module level	Other prerequisites			
1 seme		graduate		site to assessment:	regular attendance of lab course	
200110		3		pletion of the respec	ctive exercises as specified at the	
Conten	ts	<u> </u>				
mics (s proteor netic ar ned an	equen mics), t nalysis d are m	ce-, domain analysis and opological and structura , protein structure analys	annotation), omics d l analysis of biologica is. The techniques ap	lata analysis (NGS, t al interactions incluc oplied are evaluated	ted, fields covered include: geno ranscriptomics, metabolomics, ling statistical methods, phyloge on the basis of the results obtai a presentation, a publication or a	
term pa		ning outcomes				
se a sci	ientific		oinformatics and to do	ocument the results	dependently perform and organi- obtained. Students are able to for their thesis.	
Course	<b>s</b> (type	, number of weekly conta	act hours, language —	· if other than Germa	ın)	
S + P (n	no infor	mation on SWS (weekly	contact hours) and co	urse language avail	able)	
		sessment (type, scope, la ion on whether module c			tion offered — if not every seme-	
followiı or b) lo	ng opti g (appi	ons will be chosen: a) wr rox. 10 to 30 pages) or c)	itten examination (3c oral examination of o	to 60 minutes, incl ne candidate each (	o the course. Usually, one of the uding multiple choice questions) 30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)	
Allocat	ion of	olaces				
Additio	onal inf	ormation				
Worklo	ad					
Teachi	ng cvcl	e				
	Teaching cycle					
 Referred to in LPO I (examination regulations for teaching-degree programmes)						
		LEVI (examination regu		iegree programmes)		
		•				
Module			<u>`````````````````````````````````````</u>			
	-	ee (1 major) Biology (201				
	Master's degree (1 major) Biology (2010)					
	Master's degree (1 major) Biology (2014)					
	Aaster's degree (1 major) Mathematics (2012) Aaster's degree (1 major) Computational Mathematics (2012)					
master	s uegr	ee (1 major) computation	iai mathematics (201	<i>∠)</i>		

Master's with 1 major Biology (2011)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 78 / 153
	reg. data record Master (120 ECTS) Biologie - 2011	

Modul	e title				Abbreviation
Biophysics and Molecular Biotechnology (Lecture and Seminar)				inar)	07-MS2BT-102-m01
Module coordinator				Module offered by	
holder	of the (	Chair of Biotechnology an	d Biophysics	Faculty of Biology	
ECTS		od of grading	Only after succ. com	· · · · · · · · · · · · · · · · · · ·	
10	i	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate			
Conten	Its				
ture dis moves single physio	scusses on to d molecu	fundamental aspects of iscuss biophysical metho les. Focus is on electrom n channels, protein foldi	thermodynamics, kin ods that facilitate the anipulation and diele	netics and molecula investigation of ind ectric spectroscopy o	ications. The first part of the lec- r interactions. The course then lividual cells down to the level of of cells, biomembranes, electro- ls and high-resolution as well as
		ning outcomes			
Studer enable	its will I them t	nave acquired a knowled	elevant literature. In a	addition, they will ha	and their applications that will ave become acquainted with - or, hysical mechanisms.
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	in)
V + S (1	10 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-
one of questio	the foll ons) or	owing options will be cho	osen: a) written exam e candidate each (3c	ination (30 to 60 mi	ent prior to the course. Usually, nutes, including multiple choice ) oral examination in groups of
Allocat	ion of p	olaces			
		Master's: 4 places. Places	s will be allocated by	lot.	
	· · · ·	ormation			
Worklo	ad				
Teachi	ng cycl	e			
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)					
Module appears in					
Master's degree (1 major) Biochemistry (2012)					
Master's degree (1 major) Biology (2011)					
	Master's degree (1 major) Biology (2010)				
Master	's degr	ee (1 major) Biology (201	4)		

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	reg. data record Master (120 ECTS) Biologie - 2011	

Module	e title				Abbreviation	
Biophy	sics an	d Molecular Biotechnolo	and Seminar 1)	07-MS2BTF1-102-m01		
Module coordinator				Module offered by		
		hair of Biotechnology ar	d Biophysics	Faculty of Biology		
ECTS		od of grading	Only after succ. com	, .,		
10	·	rical grade				
Duratio	on	Module level	Other prerequisites			
1 seme	ster	graduate				
Conten	its					
method and mo	ds. Und plecula	er expert guidance, stud	ents will perform sele d microsystems biote	ected experiments of echnology, biomater	ogical and biophysical topics and n the following topics: cellular ials and biosensors, high-resolu- nanipulation of cells.	
Intend	ed learı	ning outcomes				
acquai chanis tools. I	nted wi ms. Stu n the se	th - or, where necessary, dents will have acquired	will be able to indep practical experience e acquired detailed t	endently acquaint th performing experim heoretical knowledg	n addition, they will have become hemselves with - biophysical me- nents, using a variety of scientific ge on these experiments and will y performed.	
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	· if other than Germa	an)	
S + P (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			ation offered — if not every seme-	
followi or b) lo	ng opti g (appr	ons will be chosen: a) wr ox. 10 to 30 pages) or c)	itten examination (3c oral examination of o	to 60 minutes, incl ne candidate each (	o the course. Usually, one of the uding multiple choice questions) (30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)	
Allocat	ion of p	olaces				
Additio	onal info	ormation				
Worklo	ad					
Teaching cycle						
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)						
Modul	e appea	irs in				
	Master's degree (1 major) Biology (2011)					
	Master's degree (1 major) Biology (2010)					
Master's degree (1 major) Biology (2014)						

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	reg. data record Master (120 ECTS) Biologie - 2011	

Diant	e title				Abbreviation	
Biophysics and Molecular Biotechnology (Practical Course			ogy (Practical Course	and Seminar 2)	07-MS2BTF2-102-m01	
Module coordinator				Module offered by		
holder	of the	Chair of Biotechnology a	nd Biophysics	Faculty of Biology		
ECTS		od of grading	Only after succ. cor			
15	(not)	successfully completed				
Duratio	on	Module level	Other prerequisites	5		
1 seme	ester	graduate		pletion of the respe	regular attendance of lab course active exercises as specified at th	
Conter	nts					
followi biosen tion of and ins dently	ing topi isors, h cells. F strumer on curr	cs: cellular and molecula igh-resolution fluorescer Performing experiments unterforming of the second nts. Over the duration of	ar biotechnology, nan nce microscopy, fluor under expert guidance the course, students k on current research	o and microsystem escence spectrosco e, students will becc will then be require	elected experiments on one of the s biotechnology, biomaterials an py, analysis and electromanipula ome acquainted with techniques d to work increasingly indepen- e students' interest in topics and	
		ning outcomes				
develo theore	p a qua tical kn	antitative understanding owledge on experiments	of biophysical mecha and will give short p	anisms. In the semir resentations on exp	· · ·	
		, number of weekly conta				
		mation on SWS (weekly				
		sessment (type, scope, la ion on whether module c			ation offered — if not every seme	
	ing opti	ons will be chosen: a) wi			to the course. Usually, one of the	
or b) lo			oral examination of o	one candidate each	luding multiple choice questions (30 to 60 minutes) or d) oral ex- sentation (20 to 45 minutes)	
or b) lo aminat		groups of up to 3 candida	oral examination of o	one candidate each	(30 to 60 minutes) or d) oral ex-	
or b) lo aminat	tion in g	groups of up to 3 candida	oral examination of o	one candidate each	(30 to 60 minutes) or d) oral ex-	
or b) lo aminat Allocat	tion in §	groups of up to 3 candida	oral examination of o	one candidate each	(30 to 60 minutes) or d) oral ex-	
or b) lo aminat Allocat	tion in §	groups of up to 3 candida places	oral examination of o	one candidate each	(30 to 60 minutes) or d) oral ex-	
or b) lo aminat Allocat  Additio	tion in s tion of p onal inf	groups of up to 3 candida places	oral examination of o	one candidate each	(30 to 60 minutes) or d) oral ex-	
or b) lo aminat Allocat  Additio	tion in s tion of p onal inf	groups of up to 3 candida places	oral examination of o	one candidate each	(30 to 60 minutes) or d) oral ex-	
or b) lo aminat Allocat  Additio  Worklo	tion in g tion of p onal inf	groups of up to 3 candida places formation	oral examination of o	one candidate each	(30 to 60 minutes) or d) oral ex-	
or b) lo aminat Allocat  Additio  Worklo	tion in s tion of p onal inf	groups of up to 3 candida places formation	oral examination of o	one candidate each	(30 to 60 minutes) or d) oral ex-	
or b) lc aminat Allocat  Additic  Worklc  Teachi 	tion in s tion of p onal inf oad	groups of up to 3 candida places formation	oral examination of c ates (approx. 30 to 60	one candidate each o minutes) or e) pres	(30 to 60 minutes) or d) oral ex- sentation (20 to 45 minutes)	
or b) lc aminat Allocat  Additic  Worklc  Teachi 	tion in s tion of p onal inf oad	groups of up to 3 candida places formation	oral examination of c ates (approx. 30 to 60	one candidate each o minutes) or e) pres	(30 to 60 minutes) or d) oral ex- sentation (20 to 45 minutes)	
or b) lo aminat Allocat  Additio  Worklo  Teachi  Referro	tion in s tion of p onal inf oad ing cycl ed to in	groups of up to 3 candida places formation e LPOI (examination regu	oral examination of c ates (approx. 30 to 60	one candidate each o minutes) or e) pres	(30 to 60 minutes) or d) oral ex- sentation (20 to 45 minutes)	
or b) lo aminat Allocat  Additio  Worklo  Teachi  Referro  Modul	tion in s tion of p onal inf oad ing cycl ed to in e appea	groups of up to 3 candida places formation e LPO I (examination regu	oral examination of o ates (approx. 30 to 60	one candidate each o minutes) or e) pres	(30 to 60 minutes) or d) oral ex- sentation (20 to 45 minutes)	
or b) lo aminat Allocat  Additio  Worklo  Teachi  Referro  Modulo	tion in s tion of p onal inf oad ing cycl ed to in e appea r's degr	groups of up to 3 candida places formation e LPOI (examination regu	oral examination of o ates (approx. 30 to 60 ulations for teaching-	one candidate each o minutes) or e) pres	(30 to 60 minutes) or d) oral ex- sentation (20 to 45 minutes)	

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Modul	e title			Abbreviation	
Humar	n Genet	ics (Lecture and Seminar	)		07-MS2HG-102-m01
Module coordinator Module offe				Module offered by	Į
Manag	ing Dir	ector of the Institute of Hu	uman Genetics	Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. com	pl. of module(s)	
10	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
2 seme	ester	graduate			
Conter	nts				
This m	odule v	vill discuss current topics	in human genetics.		
Intend	ed lear	ning outcomes			
Studer depth.		have gained the ability to	understand current	issues in human ger	netics and to discuss these in
Course	es (type	, number of weekly conta	ct hours, language –	- if other than Germa	an)
		rmation on SWS (weekly o			
		sessment (type, scope, la ion on whether module ca			tion offered — if not every seme-
one of questi	the foll ons) or	owing options will be cho	osen: a) written exam e candidate each (30	ination (30 to 60 mi	ent prior to the course. Usually, nutes, including multiple choice ) oral examination in groups of
Allocat	tion of	places			
Additio	onal inf	ormation			
Worklo	bad				
Teachi	ng cycl	e			
Referre	ed to in	LPO I (examination regu	lations for teaching-c	degree programmes)	
Modul	e appea	ars in			
Master	r's degr	ee (1 major) Biology (201:	1)		
Master	's degr		o)		

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Module title					Abbreviation	
Human	Genet	ics (Practical Course and	Seminar 1)		07-MS2HGF1-102-m01	
Module	e coord	inator		Module offered by		
Managi	ing Dire	ector of the Institute of Hu	uman Genetics	Faculty of Biology		
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	graduate				
Conten	ts					
tific lab learn to	o projec o apply	t and learn how to prese	nt their data. They least and methods of hur	arn to discuss their c nan genetics, to ind	ng on a small, well-defined scien- lata in a seminar. The students ependently address scientific	
Intende	ed lear	ning outcomes				
		able to independently inv results, adhering to the p			ll as to document, interpret and	
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	ın)	
S + P (n	no infor	mation on SWS (weekly o	contact hours) and co	urse language avail	able)	
		sessment (type, scope, la ion on whether module ca			ition offered — if not every seme-	
followii or b) lo	ng opti g (appi	ons will be chosen: a) wr rox. 10 to 30 pages) or c)	itten examination (3c oral examination of o	to 60 minutes, incl ne candidate each (	o the course. Usually, one of the uding multiple choice questions) (30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)	
Allocat	ion of <sub>l</sub>	olaces				
Additio	nal inf	ormation				
Worklo	ad					
Teachi	ng cvcl	e				
Referre	d to in	LPOI (examination regu	lations for teaching-c	legree programmes)		
Module	e appea	ars in				
Master	's degr	ee (1 major) Biology (201:	1)			
	-	ee (1 major) Biology (2010				
Master	's degr	ee (1 major) Biology (2014	4)			

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Module title					Abbreviation
Human Genetics (Practical Course and Seminar 2)				07-MS2HGF2-102-m01	
Module coordinator				Module offered by	
Manag	ing Dire	ector of the Institute of H	uman Genetics	Faculty of Biology	
ECTS	2	od of grading	Only after succ. com	pl. of module(s)	
15	(not) s	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate			regular attendance of lab course
				• •	tive exercises as specified at the
			beginning of the cou	irse.	
Conten	ts				
search vanced	papers techni	. The participants will be	involved in the deve	lopment of a researc	eading and presenting original re- h plan and will learn to apply ad- tical course will have a duration
Intend	ed lear	ning outcomes			
		able to independently inv results, adhering to the p	<b>e</b> .	-	ll as to document, interpret and
Course	<b>s</b> (type	, number of weekly conta	ict hours, language —	· if other than Germa	n)
S + P (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 c			tion offered — if not every seme-
followi or b) lo	ng opti g (appi	ons will be chosen: a) wr ox. 10 to 30 pages) or c)	itten examination (30 oral examination of o	to 60 minutes, inclune candidate each (	o the course. Usually, one of the uding multiple choice questions) 30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)
Allocat	ion of p	olaces			
Additio	nal inf	ormation			
Worklo	ad				
Teachi	ng cvcl	e			
	3 - 9 - 0	-			
Referre	d to in	LPOI (examination regu	lations for teaching-c	legree programmes)	
Module	e appea	ars in			
		ee (1 major) Biology (201	1)		
		ee (1 major) Biology (201			
Master	's degr	ee (1 major) Biology (201	4)		

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Module title				Abbreviation
Immunology	1 (Lecture and Semin	ar)		07-MS2IM1-102-m01
Module coordinator			Module offered by	
Managing Dir biology	ector of the Institute	of Virology and Immuno-	Faculty of Biology	
ECTS Meth	od of grading	Only after succ. con	npl. of module(s)	
	erical grade			
Duration	Module level	Other prerequisites		
1 semester	graduate			
Contents				
	e.uni-wuerzburg.de/l			ormation is available at http:// ka/immunologie/immunolo-
Intended lear	ning outcomes			
	gain knowledge abo ellular immunology.	ut, and will be able to pre	sent and discuss ba	sic concepts and methods in mo
Courses (type	e, number of weekly o	ontact hours, language –	- if other than Germa	an)
S + V (no info	rmation on SWS (wee	ekly contact hours) and co	ourse language avail	able)
		be, language — if other th ule can be chosen to earn		ation offered — if not every seme
following opt or b) log (app	ions will be chosen: a rox. 10 to 30 pages) (	a) written examination (30 or c) oral examination of c	o to 60 minutes, incl one candidate each (	o the course. Usually, one of the uding multiple choice questions (30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)
Allocation of	places			
Additional in	formation			
Workload				
-				
Teaching cyc	le			
Referred to in	IPOI (examination	regulations for teaching-	legree programmes	
			actice programmes,	
 Module appe	ars in			
	ree (1 major) Biology	(2011)		
	ree (1 major) Biology			
-	ree (1 major) Biology			
musici s učgi		(2014)		

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Modul	e title			Abbreviation	
Immur	Immunology 2 (Lecture and Seminar)				07-MS2IM2-102-m01
Modul	Module coordinator			Module offered by	
Manag biolog	-	ector of the Institute of Vi	rology and Immuno-	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		
1 seme	ester	graduate			
Conter	nts				
as aut	oimmur		ion, development of		ected immunology chapters, such immunogenetics, evolution of
Intend	ed lear	ning outcomes			
Studer	nts are a	able to understand currer	nt topics in immunolo	ogy and to discuss th	iese in detail.
Course	es (type	, number of weekly conta	act hours, language –	- if other than Germa	ın)
S + V (	no infoi	mation on SWS (weekly	contact hours) and co	ourse language avail	able)
ster, ir Studer followi	nformati nts will ing opti	ion on whether module c be informed about the le ons will be chosen: a) wr	an be chosen to earn ngth and scope of the itten examination (30	a bonus) e assessment prior to o to 60 minutes, inclu	tion offered — if not every seme- o the course. Usually, one of the uding multiple choice questions) (30 to 60 minutes) or d) oral ex-
					entation (20 to 45 minutes)
Alloca	tion of <sub>l</sub>	olaces			
Additi	onal inf	ormation			
Workle	bad				
Teachi	ng cycl	e			
Referr	ed to in	LPOI (examination regu	llations for teaching-	degree programmes)	
Modul	e appea	ars in			
Maste	r's degr	ee (1 major) Biology (201 ee (1 major) Biology (201 ee (1 major) Biology (201	o)		

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Module					Abbreviation
Immun	ology	Practical Course and Sen	ninar 1)		07-MS2IMF1-102-m01
Module	e coord	inator		Module offered by	<u> </u>
Manag	ing Dir	ector of the Institute of Vi	rology and Immuno-	Faculty of Biology	
biology	/				
ECTS	1	od of grading	Only after succ. con	pl. of module(s)	
10		rical grade			
Duration		Module level graduate	Other prerequisites		
		graduate			
Conten			·		unobiology during which they will
infectio course Intende	on imm and la <b>ed lear</b>	unology and others) and b project will be documer ning outcomes	will spend three wee nted in a log and will	ks working on a defi be presented at the	
scienti	fic que	stions and to appropriate	ly document their ex	perimental work.	ogy, to independently address
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	- if other than Germa	an)
S + P (r	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			ition offered — if not every seme-
followi or b) lo	ng opti og (app	ons will be chosen: a) wr rox. 10 to 30 pages) or c)	itten examination (3c oral examination of c	to 60 minutes, incl one candidate each (	o the course. Usually, one of the uding multiple choice questions) (30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)
Allocat	tion of	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			
	-	ee (1 major) Biology (201:			
	-	ee (1 major) Biology (201			
Master	's degr	ee (1 major) Biology (201	4)		

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Modul					Abbreviation
Immun	nology (	Practical Course and Sen	ninar 2)		07-MS2IMF2-102-m01
Modul	e coord	inator		Module offered by	
Manag	ging Dire	ector of the Institute of Vi	rology and Immuno-	Faculty of Biology	
biolog	<u>y</u>				
ECTS		od of grading	Only after succ. com	pl. of module(s)	
15	·	successfully completed			
Durati		Module level	Other prerequisites		
1 seme	ester	graduate		pletion of the respec	regular attendance of lab course ctive exercises as specified at the
Conter	nts				
investi indepe	igate cu endently	rrent problems in immun / apply advanced technic	ology. They will be in	volved in the develo	participants will independently pment of a research plan and wil plogy.
Intend	ed learı	ning outcomes			
nology	. This ir		ddress immunologica	Il problems on their	of cellular and molecular immu- own and to conduct, document
Course	es (type	, number of weekly conta	ct hours, language —	if other than Germa	ın)
S + P (	no infor	mation on SWS (weekly o	contact hours) and co	urse language avail	able)
		s <b>essment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-
followi or b) lo	ing optio og (appr	ons will be chosen: a) wr ox. 10 to 30 pages) or c)	itten examination (30 oral examination of o	to 60 minutes, incl ne candidate each (	o the course. Usually, one of the uding multiple choice questions) (30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)
	tion of p				
Additio	onal inf	ormation			
Worklo	oad				
Teachi	ing cycl	6			
Referre	ed to in	LPOI (examination regu	lations for teaching-c	legree programmes)	
Modul	e appea	urs in			
		ee (1 major) Biology (201:	1)		
	-	ee (1 major) Biology (201			
	-	ee (1 major) Biology (201			

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Module	e title				Abbreviation
Microb	iology	1 (Lecture and Seminar)			07-MS2M1-112-m01
Module	e coord	inator		Module offered by	<u> </u>
holder	of the (	Chair of Microbiology		Faculty of Biology	
ECTS		od of grading	Only after succ. con	npl. of module(s)	
10	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate			
Conten	ts				
al path	ogenic				adherence and invasion, bacteri- nd pathogen interference, current
Intend	ed lear	ning outcomes			
		are able to understand fu infectious diseases.	ndamental theories o	of molecular microbi	ology and infection biology,
Course	<b>s</b> (type	, number of weekly conta	ct hours, language –	- if other than Germa	in)
V + S (r	no infor	mation on SWS (weekly o	contact hours) and co	ourse language avail	able)
		<b>sessment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-
one of questic	the foll ons) or	owing options will be cho	osen: a) written exam e candidate each (30	ination (30 to 60 mi	nt prior to the course. Usually, nutes, including multiple choice ) oral examination in groups of
Allocat					
		r's: no restrictions. Bioch	emistry Master's: 15	places. Places will b	e allocated by lot.
		ormation	,	•	,
Worklo	ad				
Teachi	ng cvcl	<u>۹</u>			
		•			
Referre	ed to in	LPOI (examination regu	lations for teaching-	legree programmes)	
Module	e appea	urs in			
		ee (1 major) Biochemistry	(2012)		
	-	ee (1 major) Biology (201			
Master	's degr	ee (1 major) Biology (201	4)		

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Module	e title				Abbreviation
Microb	oiology	2 (Lecture and Seminar)			07-MS2M2-112-m01
Module	e coord	inator		Module offered by	
holder	of the (	Chair of Microbiology		Faculty of Biology	
ECTS		od of grading	Only after succ. com	npl. of module(s)	
10	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ester	graduate			
Conten	nts				
ted pro	okaryoti				will be presented using selec- ent research methods in infecti-
Intend	ed lear	ning outcomes			
		e gained fundamental kno infectious diseases.	owledge in infection l	piology and pathoge	nicity research and the mecha-
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	in)
V + S (1	no infor	mation on SWS (weekly o	contact hours) and co	ourse language avail	able)
		sessment (type, scope, la on on whether module ca			tion offered — if not every seme-
one of questio	the foll ons) or	owing options will be cho	osen: a) written exam e candidate each (3c	ination (30 to 60 mi	nt prior to the course. Usually, nutes, including multiple choice ) oral examination in groups of
	tion of <b>j</b>		,		
		r's: no restrictions. Bioch	emistry Master's: 15	places. Places will b	e allocated by lot.
		ormation			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Worklo	ad				
Teachi	ng cycl	e			
	ing cycl				
Referre	ad to in	LPOI (examination regu	lations for teaching	legree programmoc)	
Module	e appea	urs in			
Master	's degr	ee (1 major) Biochemistry			
	-	ee (1 major) Biology (201			
Master	's degr	ee (1 major) Biology (201	4)		

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Microbiology (Practical Course and Seminar 1)       07-MS2MF1-102-m01         Module coordinator       Module offered by         holder of the Chair of Microbiology       Faculty of Biology         ECTS       Method of grading       Only after succ. compl. of module(s)         10       numerical grade          Duration       Module level       Other prerequisites         1 semester       graduate          Under guidance, participants will work on a current research project dealing with microbial pathogens and thei interactions with the host. Participants will employ a variety of state-of-the-art methods within the fields of molecular biology, microbiology, cell biology, and immunology as well as data analysis and literature search techn ques. Results will be documented and discussed in a seminar paper or an oral presentation.         Intended learning outcomes       Participants will acquire the skills to experimentally address scientific questions in molecular biology and infer on biology, properly document experimental results and achere to the standards of good scientific practice.         Courses (type, number of weekly contact hours, language — if other than German)       S + P (no information on SWS (weekly contact hours) and course language available)         Method of assessment (type, scope, language — if other than German)       S to an index inclusing of the examination of so to 6 minutes) or c) oral examination in groups of up to 3 candidates (approx. 30 to 6 ominutes)         Students will be informed about the method, length and scope of the ass	Module	e title				Abbreviation
holder of the Chair of Microbiology       Faculty of Biology         ECTS       Method of grading       Only after succ. compl. of module(s)         10       numerical grade          Duration       Module level       Other prerequisites         1 semester       graduate          Contents         Under guidance, participants will work on a current research project dealing with microbial pathogens and their interactions with the host. Participants will employ a variety of state-of-the-art methods within the fields of molecular biology, microbiology, cell biology, and immunology as well as data analysis and literature search techniques. Results will be documented and discussed in a seminar paper or an oral presentation.         Intended learning outcomes       Participants will acquire the skills to experimentally address scientific questions in molecular biology and infection on biogy, properly document experimental results and adhere to the standards of good scientific practice.         Courses (type, number of weekly contact hours, language — if other than German, examination offered — if not every semster, 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 semster, information on whether module can be chosen to earn a bonus)         Students will be informed about the method, length and scope of the assessment prior to the course. Usually, up sciences (approx. 30 to 6 ominutes)         Additional information	Microb	iology	(Practical Course and Se	minar 1)		07-MS2MF1-102-m01
ECTS       Method of grading       Only after succ. compl. of module(s)         10       numerical grade          Duration       Module level       Other prerequisites         1 semester       graduate          Contents           Under guidance, participants will work on a current research project dealing with microbial pathogens and thei interactions with the host. Participants will employ a variety of state-of-the-art methods within the fields of molecular biology, microbiology, cell biology, and immunology as well as data analysis and literature search techn levels. Results will be documented and discussed in a seminar paper or an oral presentation.         Intended learning outcomes          Participants will acquire the skills to experimentally address scientific questions in molecular biology and infect on biology, properly document experimental results and adhere to the standards of good scientific practice.         Courses (type, number of weekly contact hours, language — if other than German, examination on SWS (weekly contact hours) and course language available)         Method of assessment (type, scope, language — if other than German, examination offered — if not every sems ster, information on whether module can be chosen to earn a bonus)         Students will be informed about the method, length and scope of the assessment prior to the course. Usually, questions) or b) oral examination of one candidate each (30 to 60 minutes) or c) oral examination in groups of up to 3 candidates (approx. 30 to 60 minutes)         Additional information       <	Module	e coord	inator		Module offered by	
10       numerial grade       -         Duration       Module level       Other prerequisites         1 semester       graduate       -         Conterts       -       -         Under guidarce, participants will evolvo on a current research project dealing with microbial pathogens and their interactions with the host. Participants will employ a variety of state-of-the-art methods within the fields of molecular biology, microbiology, cell biology, and immunology as well as data analysis and literature search techn ques. Results will be documented and discussed in a seminar paper or an oral presentation.         Intended levering outcomes       Participants will acquire the skills to experimentally address scientific questions in molecular biology and infere on biology, properly document experimental results and adhere to the standards of good scientific practice.         Courses (type, number of weekly contact hours) and course language available)       Method of assessment (type, scope, language — if other than German, examination offered — if not every semister, information on whether module can be chosen to earn a bonus)         S tude tis will be informed about the method, length and scope of the assessment prior to the course. Usually, one of the file/using options will be chosen: a) written examination (30 to 60 minutes) or c) oral examination of one candidate each (30 to 60 minutes) or c) oral examination in groups of up to 3 course language available)         Allocationers       -       -         Total assessment (prior to the course. Usually, one of the file/using options will be chosen: a) written examination (30 to 60 minutes) or c) or	holder	of the (	Chair of Microbiology		Faculty of Biology	
Duration       Module level       Other prerequisites         1 semester       graduate          Contents          Under guidance, participants will work on a current research project dealing with microbial pathogens and thei interactions with the host. Participants will employ a variety of state-of-the-art methods within the fields of moi lecular biology, microbiology, cell biology, and immunology as well as data analysis and literature search techt ques. Results will be documented and discussed in a seminar paper or an oral presentation.         Intended learning outcomes          Participants will acquire the skills to experimentally address scientific questions in molecular biology and infer on biology, properly document experimental results and adhere to the standards of good scientific practice.         Courses (type, number of weekly contact hours, language — if other than German)       S + P (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 semster, information on whether module can be chosen to earn a bonus)         Students will be informed about the method, length and scope of the assessment prior to the course. Usually, one of the following options will be chosen: a) written examination (30 to 60 minutes) including multiple choic questions) or b) oral examination of one candidate each (30 to 60 minutes) or c) oral examination in groups of up to 3 candidates (approx. 30 to 60 minutes)         Allocation of places              R	ECTS			Only after succ. com	pl. of module(s)	
1 semester       graduate          Contents         Under guidance, participants will work on a current research project dealing with microbial pathogens and thei interactions with the host. Participants will employ a variety of state-of-the-art methods within the fields of molecular biology, microbiology, cell biology, and immunology as well as data analysis and literature search techn ques. Results will be documented and discussed in a seminar paper or an oral presentation.         Intended learning outcomes         Participants will acquire the skills to experimentally address scientific questions in molecular biology and infect on biology, properly document experimental results and adhere to the standards of good scientific practice.         Courses (type, number of weekly contact hours, language — if other than German)         S + P (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)         Students will be informed about the method, length and scope of the assessment prior to the course. Usually, one of the following options will be chosen: a) written examination (30 to 60 minutes) including multiple choic questions) or b) oral examination of one candidate each (30 to 60 minutes) or c) oral examination in groups of up to 3 candidates (approx. 30 to 60 minutes)         Additional information	10	nume				
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interactions with the host. Participants will employ a variety of state-of-the-art methods within the fields of mo- lecular biology, microbiology, cell biology, and immunology as well as data analysis and literature search techn ques. Results will be documented and discussed in a seminar paper or an oral presentation. Intended learning outcomes Participants will acquire the skills to experimentally address scientific questions in molecular biology and infect on biology, properly document experimental results and adhere to the standards of good scientific practice. Courses (type, number of weekly contact hours, language — if other than German) S + P (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 semi ster, information on whether module can be chosen to earn a bonus) Students will be informed about the method, length and scope of the assessment prior to the course. Usually, one of the following options will be chosen: a) written examination (30 to 60 minutes, including multiple choic questions) or b) oral examination of one candidate each (30 to 60 minutes) or c) oral examination in groups of up to 3 candidates (approx. 30 to 60 minutes) Allocation of places  Morkload  Teaching cycle  Referred to in LPO I (examination regulations for teaching-degree programmes)  Module appears in Master's degree (1 major) Biology (2011)	Conten	ts				
Participants will acquire the skills to experimentally address scientific questions in molecular biology and infec on biology, properly document experimental results and adhere to the standards of good scientific practice. <b>Courses</b> (type, number of weekly contact hours, language — if other than German) S + P (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 sem- ster, information on whether module can be chosen to earn a bonus) Students will be informed about the method, length and scope of the assessment prior to the course. Usually, one of the following options will be chosen: a) written examination (30 to 60 minutes, including multiple choic questions) or b) oral examination of one candidate each (30 to 60 minutes) or c) oral examination in groups of up to 3 candidates (approx. 30 to 60 minutes) <b>Allocation of places</b>  <b>Modulional information</b>  <b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)  <b>Module appears in</b> Master's degree (1 major) Biology (2011)	interac lecular	tions w biolog	ith the host. Participants y, microbiology, cell biolo	will employ a variety ogy, and immunology	of state-of-the-art m as well as data anal	nethods within the fields of mo- lysis and literature search techni-
on biology, properly document experimental results and adhere to the standards of good scientific practice. Courses (type, number of weekly contact hours, language — if other than German) S + P (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 semi- ster, information on whether module can be chosen to earn a bonus) Students will be informed about the method, length and scope of the assessment prior to the course. Usually, one of the following options will be chosen: a) written examination (30 to 60 minutes, including multiple choic questions) or b) oral examination of one candidate each (30 to 60 minutes) or c) oral examination in groups of up to 3 candidates (approx. 30 to 60 minutes) Allocation of places Additional information Workload Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Master's degree (1 major) Biology (2011)	Intend	ed lear	ning outcomes			
S + P (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 semi- ster, information on whether module can be chosen to earn a bonus)  Students will be informed about the method, length and scope of the assessment prior to the course. Usually, one of the following options will be chosen: a) written examination (30 to 60 minutes, including multiple choic questions) or b) oral examination of one candidate each (30 to 60 minutes) or c) oral examination in groups of up to 3 candidates (approx. 30 to 60 minutes)  Allocation of places	Particip	oants w	ill acquire the skills to ex			
Method of assessment (type, scope, language — if other than German, examination offered — if not every semi- ster, information on whether module can be chosen to earn a bonus)         Students will be informed about the method, length and scope of the assessment prior to the course. Usually, one of the following options will be chosen: a) written examination (30 to 60 minutes, including multiple choic questions) or b) oral examination of one candidate each (30 to 60 minutes) or c) oral examination in groups of up to 3 candidates (approx. 30 to 60 minutes)         Allocation of places            Morkload            Teaching cycle            Referred to in LPO I (examination regulations for teaching-degree programmes)            Module appears in         Master's degree (1 major) Biology (2011)	Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	· if other than Germa	n)
ster, information on whether module can be chosen to earn a bonus) Students will be informed about the method, length and scope of the assessment prior to the course. Usually, one of the following options will be chosen: a) written examination (30 to 60 minutes, including multiple choic questions) or b) oral examination of one candidate each (30 to 60 minutes) or c) oral examination in groups of up to 3 candidates (approx. 30 to 60 minutes) Allocation of places Additional information Workload Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Master's degree (1 major) Biology (2011)	S + P (r	no infor	mation on SWS (weekly c	contact hours) and co	urse language availa	able)
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Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Master's degree (1 major) Biology (2011)						
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Module appears in Master's degree (1 major) Biology (2011)		<u> </u>				
Module appears in Master's degree (1 major) Biology (2011)	Referre	d to in	LPOI (examination regu	lations for teaching.	legree programmes)	
Master's degree (1 major) Biology (2011)						
Master's degree (1 major) Biology (2011)	Modula	appea	ars in			
				ı)		
		-				
Master's degree (1 major) Biology (2014)		-				

Master's with 1 major Biology (2011)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 91 / 153
	reg. data record Master (120 ECTS) Biologie - 2011	

	e title				Abbreviation	
Microb	oiology	(Practical Course and Se	minar 2)		07-MS2MF2-102-m01	
Modul	e coord	inator		Module offered by		
holder	of the (	Chair of Microbiology		Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
15	(not) s	successfully completed				
Duratio	on	Module level	Other prerequisites			
1 seme	ester	graduate	Admission prerequi	site to assessment:	regular attendance of lab course	
			and successful com	d successful completion of the respective exercises as specified at		
			beginning of the cou	urse.		
Conten	nts					
gy. The ding to	ey will a the pro	pply advanced experime	ntal techniques in mi	crobiology, cell biol	microbiology and infection biolo ogy and molecular biology accor ed in a seminar paper, a researcl	
	-	ning outcomes				
biology	, y accord	•			on microbiology and infection ocument, interpret and present	
Course	es (type	, number of weekly conta	ict hours, language –	- if other than Germa	an)	
		mation on SWS (weekly				
		<b>essment</b> (type, scope, la on on whether module c			tion offered — if not every seme	
followi	ng opti				o the course. Usually, one of the	
		rox. 10 to 30 pages) or c)	oral examination of c	one candidate each (	uding multiple choice questions) (30 to 60 minutes) or d) oral ex-	
aminat		rox. 10 to 30 pages) or c) groups of up to 3 candida	oral examination of c	one candidate each (	uding multiple choice questions	
aminat	tion in g	rox. 10 to 30 pages) or c) groups of up to 3 candida	oral examination of c	one candidate each (	uding multiple choice questions 30 to 60 minutes) or d) oral ex-	
aminat Allocat 	tion in ន្ t <b>ion of ្</b>	rox. 10 to 30 pages) or c) groups of up to 3 candida <b>blaces</b>	oral examination of c	one candidate each (	uding multiple choice questions 30 to 60 minutes) or d) oral ex-	
aminat Allocat 	tion in ន្ t <b>ion of ្</b>	rox. 10 to 30 pages) or c) groups of up to 3 candida	oral examination of c	one candidate each (	uding multiple choice questions) (30 to 60 minutes) or d) oral ex-	
aminat Allocat 	tion in g tion of j	rox. 10 to 30 pages) or c) groups of up to 3 candida <b>blaces</b>	oral examination of c	one candidate each (	uding multiple choice questions 30 to 60 minutes) or d) oral ex-	
aminat Allocat  Additic	tion in g tion of j	rox. 10 to 30 pages) or c) groups of up to 3 candida <b>blaces</b>	oral examination of c	one candidate each (	uding multiple choice questions 30 to 60 minutes) or d) oral ex-	
aminat Allocat  Additic  Worklo	tion in g tion of j onal inf	rox. 10 to 30 pages) or c) groups of up to 3 candida places ormation	oral examination of c	one candidate each (	uding multiple choice questions 30 to 60 minutes) or d) oral ex-	
aminat Allocat  Additic  Worklo	tion in g tion of g onal inf	rox. 10 to 30 pages) or c) groups of up to 3 candida places ormation	oral examination of c	one candidate each (	uding multiple choice questions 30 to 60 minutes) or d) oral ex-	
aminat Allocat  Additio  Worklo  Teachin 	tion in g tion of p onal inf oad	rox. 10 to 30 pages) or c) groups of up to 3 candida places ormation	oral examination of c tes (approx. 30 to 60	one candidate each ( o minutes) or e) pres	uding multiple choice questions (30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)	
aminat Allocat  Additio  Worklo  Teachin 	tion in g tion of p onal inf oad	rox. 10 to 30 pages) or c) groups of up to 3 candida places ormation	oral examination of c tes (approx. 30 to 60	one candidate each ( o minutes) or e) pres	uding multiple choice questions (30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)	
aminat Allocat  Additio  Worklo  Teachin  Referre	tion in g tion of p onal inf oad	rox. 10 to 30 pages) or c) groups of up to 3 candida places ormation e LPO I (examination regu	oral examination of c tes (approx. 30 to 60	one candidate each ( o minutes) or e) pres	uding multiple choice questions (30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)	
aminat Allocat  Additic  Worklo  Teachin  Referre  Modulo	tion in g tion of p onal inf oad ng cycl ed to in e appea	rox. 10 to 30 pages) or c) groups of up to 3 candida places ormation e LPO I (examination regu	oral examination of o tes (approx. 30 to 60	one candidate each ( o minutes) or e) pres	uding multiple choice questions (30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)	
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Module					Abbreviation
Physio	logical	Chemistry (Practical Cou	urse and Seminar 2)		07-MS2PHF2-102-m01
Module coordinator				Module offered by	
holder	of the (	Chair of Bioinformatics		Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)	
15	(not) s	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate	Admission prerequis	site to assessment:	regular attendance of lab course
			and successful com	pletion of the respec	ctive exercises as specified at th
			beginning of the cou	ırse.	
Conten	ts				
investi	gate cu	rrent problems in physio	logical chemistry. The	ey will be involved in	, participants will independently n the development of a research gy and/or developmental bioche
Intend	ed leari	ning outcomes			
	They a				logy and developmental bioche- ent, interpret and discuss their
Course	<b>s</b> (type	, number of weekly conta	ict hours, language —	if other than Germa	in)
S + P (r	no infor	mation on SWS (weekly o	contact hours) and co	urse language avail	able)
		<b>sessment</b> (type, scope, la on on whether module c			ition offered — if not every seme
followi or b) lo	ng opti g (appr	ons will be chosen: a) wr ox. 10 to 30 pages) or c)	itten examination (30 oral examination of o	to 60 minutes, incl ne candidate each (	o the course. Usually, one of the uding multiple choice questions (30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)
	ion of p			· · · ·	
Additio	nal inf	ormation			
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Workla	ad				
WUIKIU	au				
		_			
reachi	ng cycl	e			
Referre	ed to in	LPOI (examination regu	lations for teaching-o	legree programmes)	
Module	e appea	ars in			
Master's degree (1 major) Biology (2011)					
Master's degree (1 major) Biology (2010)					
Master's degree (1 major) Biology (2014)					

Master's with 1 major Biology (2011)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 93 / 153
	reg. data record Master (120 ECTS) Biologie - 2011	

Module title					Abbreviation	
Virology 1 (Lecture and Seminar)					07-MS2V1-102-m01	
Module	e coord	inator		Module offered by		
Managi biology		ector of the Institute of Vi	rology and Immuno-	Faculty of Biology		
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	graduate				
Conten	ts					
This co	urse of	fers an introduction to vi	rology and current res	search in the field of	virology.	
Intende	ed lear	ning outcomes				
Studen	ts will	nave gained the ability to	understand current i	issues in virology an	d to discuss these in depth.	
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)	
		mation on SWS (weekly o				
Method	d of ass	· ·	nguage — if other tha	an German, examina	tion offered — if not every seme-	
one of t questio	the foll ons) or	owing options will be cho	osen: a) written exam e candidate each (3c	ination (30 to 60 min	nt prior to the course. Usually, nutes, including multiple choice ) oral examination in groups of	
Allocat	ion of p	olaces				
Additio	nal inf	ormation				
Worklo	ad					
Teachir	ıg cycl	e				
Referre	<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)					
Module	Module appears in					
Master	Master's degree (1 major) Biology (2011)					
	-	ee (1 major) Biology (2010				
Master	Master's degree (1 major) Biology (2014)					

Master's with 1 major Biology (2011)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 94 / 153
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Module title					Abbreviation	
Virology 2 (Lecture and Seminar)					07-MS2V2-102-m01	
Module	e coord	inator		Module offered by		
Managi biology	-	ector of the Institute of Vi	rology and Immuno-	Faculty of Biology		
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	graduate				
Conten	ts					
This co	urse of	fers an introduction to vi	rology and current res	search in the field of	virology.	
Intende	ed learı	ning outcomes				
Studen	ts will I	nave gained the ability to	understand current i	issues in virology an	d to discuss these in depth.	
Course	s (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-	
one of t questio	the foll ons) or	owing options will be cho	osen: a) written exam e candidate each (3c	ination (30 to 60 min	nt prior to the course. Usually, nutes, including multiple choice ) oral examination in groups of	
Allocat	ion of p	olaces				
Additio	nal inf	ormation				
Worklo	ad					
Teachir	ıg cycl	e				
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)						
Module	Module appears in					
	Master's degree (1 major) Biology (2011)					
	-	ee (1 major) Biology (2010				
Master	Master's degree (1 major) Biology (2014)					

Master's with 1 major Biology (2011)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 95 / 153
	reg. data record Master (120 ECTS) Biologie - 2011	

Module title					Abbreviation	
Virology (Practical Course and Seminar 1)					07-MS2VF1-102-m01	
Module coordinator				Module offered by		
Manag	ging Dir	ector of the Institute of	Virology and Immuno-	Faculty of Biology		
biolog						
ECTS		od of grading	Only after succ. con	npl. of module(s)		
10	nume	rical grade				
Durati	on	Module level	Other prerequisites			
1 seme	ester	graduate				
Conte	nts					
Curren	it resea	rch topics in virology -	one topic will be discus	sed in depth.		
Intend	ed lear	ning outcomes				
Stude	nts are	able to perform small r	esearch projects in a vi	rology lab. They are	familiar with the rules of good	
scienti	ific prac	tice, work independer	ntly on a current case stu	udy and document th	heir results.	
Course	<b>es</b> (type	, number of weekly co	ntact hours, language –	- if other than Germa	an)	
S + P (	no info	rmation on SWS (week	ly contact hours) and co	ourse language avail	able)	
Metho	d of as	sessment (type, scope	, language — if other th	an German, examina	ation offered — if not every seme	
			e can be chosen to earn		,	
followi or b) lo	ing opti og (app	ons will be chosen: a) rox. 10 to 30 pages) or	written examination (30 c) oral examination of c	o to 60 minutes, incl one candidate each (	o the course. Usually, one of the uding multiple choice questions (30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)	
	tion of					
Additi	onal inf	ormation				
Workle	oad					
Teachi	ing cycl	۵				
reactin	ing cyci					
Dofer		IDOL (oversidenties	aulations for tooshing	dograa programmes		
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)						
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	Master's degree (1 major) Biology (2011)					
	Master's degree (1 major) Biology (2010) Master's degree (1 major) Biology (2014)					
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Module title					Abbreviation	
Virolo	Virology (Practical Course and Seminar 2)				07-MS2VF2-102-m01	
Modul	e coord	inator		Module offered by		
Manag biolog	Managing Director of the Institute of Virology and Immuno-			Faculty of Biology		
ECTS	ΎΓ	od of grading	Only after succ. con	pl. of module(s)		
15		successfully completed				
Durati	on	Module level	Other prerequisites			
1 seme	ester	graduate		pletion of the respec	regular attendance of lab course ctive exercises as specified at the	
Conte	nts					
Curren	it resea	rch topics in virology - on	e topic will be discus	sed in depth.		
Intend	led lear	ning outcomes				
scienti	ific prac	tice, work independently	on a current case stu	udy and document th		
Course	<b>es</b> (type	, number of weekly conta	ict hours, language –	- if other than Germa	in)	
S + P (	no infor	mation on SWS (weekly o	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-	
followi or b) lo	ing opti og (appi	ons will be chosen: a) wr rox. 10 to 30 pages) or c)	itten examination (3c oral examination of c	to 60 minutes, incluence of the minutes of the minu	o the course. Usually, one of the uding multiple choice questions) 30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)	
Alloca	tion of <sub>l</sub>	places				
Additi	onal inf	ormation				
Workle	oad					
Teachi	ing cycl	e				
Referr	ed to in	LPOI (examination regu	lations for teaching-	degree programmes)		
Modul	e appea	ars in				
	Master's degree (1 major) Biology (2011)					
	Master's degree (1 major) Biology (2010)					
Maste	Master's degree (1 major) Biology (2014)					

Master's with 1 major Biology (2011)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 97 / 153
	reg. data record Master (120 ECTS) Biologie - 2011	

Module	e title				Abbreviation	
Cell- aı	nd Dev	elopmental Biology Mast	er 1 (Lecture and Sen	ninar 1)	07-MS2ZE1-102-m01	
Module coordinator				Module offered by		
holder logy	ofthe	Chair of Cell Biology and	Developmental Bio-	Faculty of Biology		
ECTS		od of grading	Only after succ. con	pl. of module(s)		
10	nume	rical grade				
Duratio	on	Module level	Other prerequisites			
1 seme	ster	graduate				
Conten	Its					
cell and lic disc blicatio	d unrav orders a ons in t	els their biological cause	es and consequences or <i>Milestones and Per</i>	, such as infection, a spectives of Cell Biol	cribes pathological states of the apoptosis, senescence, metabo- <i>logy</i> , classic ground-breaking pu- <i>N</i> .	
Particip	oants p		ound knowledge on c	ytopathology and ar	e able to put this into the broader	
Course	<b>s</b> (type	, number of weekly conta	ict hours, language –	- if other than Germa	an)	
S + V (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 c			tion offered — if not every seme-	
one of questic	the fol ons) or	lowing options will be cho	osen: a) written exam ne candidate each (30	ination (30 to 60 mi	ent prior to the course. Usually, nutes, including multiple choice ) oral examination in groups of	
Allocat	ion of	places				
Additio	onal inf	ormation				
Worklo	ad					
Teachi	ng cvcl	e				
	0.576					
Referre	ed to in	LPOI (examination regu	lations for teaching-	degree programmes)		
Module	e appe	ars in				
Master Master	Module appears in Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2010) Master's degree (1 major) Biology (2014)					

Master's with 1 major Biology (2011)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 98 / 153
	reg. data record Master (120 ECTS) Biologie - 2011	

Module					Abbreviation
Cell- ar	nd Deve	elopmental Biology M	aster 2 (Lecture and Sei	minar 2)	07-MS2ZE2-102-m01
Module coordinator				Module offered by	/
holder logy	of the (	Chair of Cell Biology a	nd Developmental Bio-	Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
10		rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme		graduate			
Contents					
<ul> <li>&amp;&amp; The module comprises the lecture <i>Signale und Differenzierung (Signals and Differentiation)</i> and the seminar <i>Entwicklungsbiologie-Meilensteine und Perspektiven (Milestones and Perspectives of Developmental Biology)</i>. The lecture <i>Signale und Differenzierung (Signals and Differentiation)</i> is not designed to merely impart textbook knowledge to students. It will rather introduce students to particularly interesting and current topics in developmental biology. Topics covered in the lecture (subject to change): - Cooperation: Development and consequences of multicellularity Sex: More than just ? + ? = On the move: Morphogenetic migration All-rounders?: Opportunities and limitations of stem cell research Growing new hearts?: Animals and their ability to regenerate Disasters: What do we actually know about metamorphoses? - Always the same?: Plasticity and epigenetics Metaorganisms: We are never alone Development in changing environments: Ecology and polyphenism Developmental biology of behaviour: Everything is learned. Or isn't it? - Evo-devo: A fad? No, been around for ages. In the seminar <i>Entwicklungsbiologie-Meilensteine und Perspektiven (Developmental Biology - Milestonaes and Outlook</i>), classical ground-breaking scientific articles in the field of developmental biology will be discussed from an unusual point of view.</li> <li>Intended learning outcomes</li> <li>Participants possess a knowledge of the theoretical and molecular biological principles underlying developmental biology and are able to put this into the broader context of cell and developmental biology research.</li> <li>Courses (type, number of weekly contact hours) and course language available)</li> <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>Students will be informed about the method, length and scope of the assessment prior to the course. Usually, one of the following o</li></ul>					
Allocat	ion of p	olaces			
 Additio	nal inf	ormation			
Worklo	ad				
Teachi		<b>A</b>			
	Seyen	•			
Doforro	d to in	IDOL (ovamination "	egulations for teaching-	dagraa programma	c)
Referre				degree programme	5)
Module					
	-	ee (1 major) Biology (2 ee (1 major) Biology (2			
	-	ee (1 major) Biology (2 ee (1 major) Biology (2			
		Biology (2011)		Irg • generated 26-Aug-202	1 /
				$[0 \bullet 0eneraten 06-000-000]$	4 • exam. page 99 /

Modul				-	Abbreviation
Cell- aı	nd Deve	elopmental Biology	Practical Course and Sem	inar 1	07-MS2ZEF1-102-m01
Modul	e coord	inator		Module offered by	
	nolder of the Chair of Cell Biology and Developmental Bio-			Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
10	1	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate		pletion of the respe	regular attendance of lab course ective exercises as specified at th
Conten	Its				
pants a red tec develo se, stu	are enco hnolog pmenta dents a	ouraged to independ ical skills to analyse al biology for medicin cquire sustained ins	lently design and perform important basic biologica ne and the economy is hig	their own experime al processes. In ado ghlighted. During th h activities of the C	anisms is covered and the partici ents. Participants use their acqui- lition, the importance of cell and e fifth and final week of the cour- hair and, interacting with Master' search activities.
Intend	ed lear	ning outcomes			
logy ar to perfe code o	id to in orm and f scient	dependently implem d document cell and ific practice.	ent acquired methodolog developmental biology-re	ical tools to answer elated experiments,	s of cell and developmental bio- these questions. They are able adhering to a generally accepted
			contact hours, language –		
			ekly contact hours) and co		
			oe, language — if other tha ule can be chosen to earn		ation offered — if not every seme
followi or b) lo	ng opti g (appi	ons will be chosen: a rox. 10 to 30 pages)	a) written examination (3c or c) oral examination of c	o to 60 minutes, inc one candidate each	to the course. Usually, one of the luding multiple choice questions (30 to 60 minutes) or d) oral ex- sentation (20 to 45 minutes)
Allocat	ion of	places		·	
Additio	onal inf	ormation			
Worklo	ad				
Teachi	ng cvcl	e			
	. ,				
Referre	ed to in	LPOI (examination	regulations for teaching-o	degree programmes	)
				0	,
	annes				
Modula		ars in			
Module Master			(2011)		
Master	's degr	ee (1 major) Biology ee (1 major) Biology			

Master's with 1 major Biology (2011)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 100 / 153
	reg. data record Master (120 ECTS) Biologie - 2011	

Modul					Abbreviation
Cell- a	nd Deve	elopmental Biology Prac	tical Course and Semi	nar 2	07-MS2ZEF2-102-m01
Modul	e coord	inator		Module offered by	<u> </u>
		Chair of Cell Biology and	Developmental Bio-	Faculty of Biology	
logy					
ECTS		od of grading	Only after succ. com	pl. of module(s)	
15		successfully completed			
Duratio		Module level	Other prerequisites	•	
1 seme	ester	graduate			regular attendance of lab course ctive exercises as specified at the
			beginning of the cou	•	
Conter	nts				
text of luated	current on the	research projects in the basis of the results obta	field of cell and deve ined and modified wh	lopmental biology. T ere necessary. The	esigned experiments in the con- The techniques applied are eva- results of all experiments as well
		on the research project ning outcomes	are presented and dis	cusseu in a progres	s report seminar within the team
					o fields of coll and development
tal bio	logy an	d to modify them accord	ing to the outcome. Th	ney are able to indep	e fields of cell and developmen- pendently approach current scier cepted rules of scientific practice
		, number of weekly cont			· · ·
S + P (I	no infor	mation on SWS (weekly	contact hours) and co	urse language avail	able)
		sessment (type, scope, la ion on whether module o			ation offered — if not every seme-
followi or b) lo	ng opti og (appi	ons will be chosen: a) w rox. 10 to 30 pages) or c)	ritten examination (30 oral examination of o	to 60 minutes, incl ne candidate each	o the course. Usually, one of the uding multiple choice questions) (30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)
Allocat	tion of <sub>l</sub>	olaces			
Additio	onal inf	ormation			
Worklo	ad				
Teachi	ng cycl	e			
Referre	ed to in	LPO I (examination reg	ulations for teaching-c	legree programmes)	)
Modul	e appea	ars in			
Master	's degr	ee (1 major) Biology (201	11)		
	-	ee (1 major) Biology (201	lo)		
		ee (1 major) Biology (201			

Master's with 1 major Biology (2011)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 101 / 153
	reg. data record Master (120 ECTS) Biologie - 2011	

Module title				Abbreviation	
Cellula	r Tumo	rbiology Master 1 (Pract	ical Course and Semi	nar 1)	07-MS2ZTF1-112-m01
Module coordinator				Module offered by	
degree	progra	mme coordinator Biolog	ie (Biology)	Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. com	npl. of module(s)	
10	nume	rical grade			
Duratio	n	Module level	Other prerequisites		
1 seme	ster	graduate			regular attendance of lab course
					ctive exercises as specified at th
			beginning of the cou	urse.	
Conten	ts				
fields c employ in the f	of mole a broa orm of	cular biology, infection b ad range of methods in co a presentation, a publica	iology and cell biolog ell biology, infection b	y as well as literatu piology and immuno	variety of methods within the re search techniques. They will logy. Results will be documented
Intend	ed lear	ning outcomes			
				ecular biology and c	ell biology and to document thei
		g to the principles of goo	•		
Course	<b>s</b> (type	, number of weekly conta	act hours, language —	- if other than Germa	an)
P + S (r	o infor	mation on SWS (weekly	contact hours) and co	ourse language avai	able)
		<b>sessment</b> (type, scope, la ion on whether module c			ation offered — if not every seme
followi or b) lo	ng opti g (appi	ons will be chosen: a) wr rox. 10 to 30 pages) or c)	itten examination (3c oral examination of o	to 60 minutes, incl one candidate each	o the course. Usually, one of the uding multiple choice questions) (30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)
Allocat				· · · ·	
Additio	nal inf	ormation			
Worklo	ad				
Teachi	ng cycl	e			
Referre	d to in	LPOI (examination regu	llations for teaching-o	legree programmes	)
Module	e appea	ars in			
		ee (1 major) Biology (201	1)		
Master	's degr	ee (1 major) Biology (201	4)		

Modul					Abbreviation
Cellula	ar Tumo	rbiology Master 2 (Pract	ical Course and Semi	nar 2)	07-MS2ZTF2-112-m01
Module coordinator				Module offered by	Į
degree	e progra	mme coordinator Biologi	ie (Biology)	Faculty of Biology	
ECTS	<u> </u>	od of grading	Only after succ. com	pl. of module(s)	
15	(not) s	successfully completed		-	
Durati	on	Module level	Other prerequisites		
1 seme	ester	graduate		pletion of the respe	regular attendance of lab course ctive exercises as specified at th
Conte	nts				
be ind gy and modifi form o	epende I/or mol ed whe f a pres	ntly addressed by the stu ecular biology. The techr re necessary. Experiment entation, a publication o	udents. They will appl niques applied will be al results and progre	y experimental tech evaluated on the b	s of the scientific question will niques in cell biology, immunolo asis of the results obtained and roject will be documented in the
Intend	ed lear	ning outcomes			
are ab to the apply :	le to an principl specific	swer and discuss question	ons in the field of tum ctice and to documen answer scientific ques	our biology/oncolog t, interpret and disc stions.	n tumour biology/oncology. They gy. Students are able to adhere uss their results. They are able to
		mation on SWS (weekly o			
Metho	d of ass	· · · ·	anguage — if other tha	an German, examina	ition offered — if not every seme
followi or b) la	ing opti og (appi	ons will be chosen: a) wr rox. 10 to 30 pages) or c)	itten examination (3c oral examination of o	to 60 minutes, incl ne candidate each (	o the course. Usually, one of the uding multiple choice questions (30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)
	tion of p			· · · ·	
	onal inf	ormation			
	-ind inf				
Workle	bed				
WUIKU	Jau				
 Toreh	na avel		-		
Teaching cycle					
 Referr	ed to in	LPOI (examination regu	lations for teaching-o	legree programmes)	
			llations for teaching-o	legree programmes)	1
	ed to in e appea		llations for teaching-c	legree programmes)	
 <b>Modul</b> Maste	<b>e appea</b> r's degr		1)	degree programmes)	

Master's with 1 major Biology (2	2011)
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Module title				Abbreviation		
Current Methods in Plant Biology (Lecture) 07-MS3-112-m01						
Module	e coord	inator		Module offered by		
holder	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)		
10	nume	rical grade				
Duration Module level Other prerequisites						
1 semester graduate						
Conten	its					
mic de teraction tegies sion ar milariti actions of strat tes: Se and are as spec- import ve bee drugs v (evider discuss	This lecture addresses topics of pathogen recognition and signal transduction in plants, molecular and organis- mic defence and the pharmaceutical relevance of plant-derived bioactive compounds. Plant immunobiology: in- teractions between plants and pathogens comprise evolutionary dynamic and complex systems. Different stra- tegies of the pathogens - bacteria, fungi and viruses - as well as defence mechanisms of the host plants will be discussed. The molecular mechanisms of pathogen recognition, signal transduction, regulation of gene expres- sion and activation of local and systemic defence responses are in the focus of this lecture. Differences and si- milarities between plant and human immune systems will be pointed out. Understanding plant-pathogen-inter- actions and molecular mechanisms determining susceptibility and defence is fundamental for the development of strategies in plant protection. Evolution, function and pharmaceutical relevance of plant secondary metaboli- tes: Secondary metabolites are part of effective plant defence strategies against microorganisms and herbivores and are often essential for survival. The evolution of secondary metabolism will be discussed and general as well as specific defence strategies will be explained. Pharmacological mechanisms of action and molecular targets of important classes of plant bioactive compounds will be presented. A high proportion of currently used drugs ha- ve been developed from plant secondary metabolites that have been used as lead structures to generate potent drugs with improved pharmaceutical properties. Examples of therapies with very potent plant pharmaceuticals (evidence-based medicine) as well as possibilities and limitations of phytotherapy (traditional medicine) will be					
Intend	ed learı	ning outcomes				
the obt		are qualified to perform a esults. They are able to a 5.				
Course	<b>s</b> (type	, number of weekly conta	act hours, language –	- if other than Germa	ın)	
V (no ii	nformat	ion on SWS (weekly con	tact hours) and cours	e language available	2)	
		e <b>ssment</b> (type, scope, la on on whether module c			tion offered — if not ev	very seme-
one of questio	Students will be informed about the method, length and scope of the assessment prior to the course. Usually, one of the following options will be chosen: a) written examination (30 to 60 minutes, including multiple choice questions) or b) oral examination of one candidate each (30 to 60 minutes) or c) oral examination in groups of up to 3 candidates (approx. 30 to 60 minutes)					ple choice
Allocat	ion of p	olaces				
Additio	onal inf	ormation				
Workload						
Teachi	ng cycl	9				
Referre	ed to in	LPOI (examination regu	lations for teaching-	degree programmes)		
		(				
Master's w	ith 1 majoi	Biology (2011)		irg • generated 26-Aug-2024 ord Master (120 ECTS) Biolog		page 104 / 153

## Module appears in

Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2014) Master's degree (1 major) FOKUS Pharmacy (2012)

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	reg. data record Master (120 ECTS) Biologie - 2011	

Module title				Abbreviation		
Curren	t Metho	ods in Plant Biology B			07-MS3B-121-m01	
Modul	e coord	inator		Module offered by		
		Chair of Plant Physiology		Faculty of Biology		
ECTS		od of grading	Only after succ. con	pl. of module(s)		
7	· · · · · · · · · · · · · · · · · · ·	successfully completed				
Duratio		Module level	Other prerequisites			
1 seme		graduate				
Conter						
mic de teraction tegies discus sion ar milariti actions of strat tes: Se and ard as spe import ve bee drugs v (evider discus Intend	This lecture addresses topics of pathogen recognition and signal transduction in plants, molecular and organis- mic defence and the pharmaceutical relevance of plant-derived bioactive compounds. Plant immunobiology: in- teractions between plants and pathogens comprise evolutionary dynamic and complex systems. Different stra- tegies of the pathogens - bacteria, fungi and viruses - as well as defence mechanisms of the host plants will be discussed. The molecular mechanisms of pathogen recognition, signal transduction, regulation of gene expres- sion and activation of local and systemic defence responses are in the focus of this lecture. Differences and si- milarities between plant and human immune systems will be pointed out. Understanding plant-pathogen-inter- actions and molecular mechanisms determining susceptibility and defence is fundamental for the development of strategies in plant protection. Evolution, function and pharmaceutical relevance of plant secondary metaboli- tes: Secondary metabolites are part of effective plant defence strategies against microorganisms and herbivores and are often essential for survival. The evolution of secondary metabolism will be discussed and general as well as specific defence strategies will be explained. Pharmacological mechanisms of action and molecular targets of important classes of plant bioactive compounds will be presented. A high proportion of currently used drugs ha- ve been developed from plant secondary metabolites that have been used as lead structures to generate potent drugs with improved pharmaceutical properties. Examples of therapies with very potent plant pharmaceuticals (evidence-based medicine) as well as possibilities and limitations of phytotherapy (traditional medicine) will be discussed. <b>Intended learning outcomes</b>					
	ir thesis				d to work on a scientific question	
		, number of weekly conta				
		ion on SWS (weekly cont				
		s <b>essment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-	
	each (a			•	or b) oral examination of one can- 3 candidates (approx. 30 to 60	
Allocat	ion of p	olaces				
Additio	onal inf	ormation				
Worklo	ad					
Teachi	ng cycl	9				
Referre	ed to in	LPOI (examination regu	lations for teaching-o	degree programmes)		
Module appears in						

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Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2014)

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	reg. data record Master (120 ECTS) Biologie - 2011	

Module title			Abbreviation			
Response towards Biotic and Abiotic Factors			07-MS3BA-102-m01			
Module coordinator				Module offered by		
holder of the Chair of Pharmaceutical Biology		Faculty of Biology				
ECTS		od of grading	Only after succ. com			
10	nume	rical grade		E		
Duratio	on	Module level	Other prerequisites	S		
1 seme	ster	graduate				
Conten	ts					
zymes lerance and sig as a so	and the . The le nal tra urce of	e levels of a variety of me ecture and seminar will ne	tabolites. Some of th ot only discuss these	ese responses lead plant responses an	ne expression, the activity of en- to increased stress resistance/to- d the mechanisms of perception s and herbivores for using plants	
Studen	ts are a				ment on a molecular level and to	
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)	
S + V (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-	
one of questic	the foll ons) or	owing options will be cho	osen: a) written exam e candidate each (3c	ination (30 to 60 mi	nt prior to the course. Usually, nutes, including multiple choice ) oral examination in groups of	
Allocat	ion of p	olaces				
Additio	onal inf	ormation				
Worklo	ad					
Teachi	Teaching cycle					
	-					
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)					
Module	e appea	ars in				
	Master's degree (1 major) Biology (2011)					
	Master's degree (1 major) Biology (2010)					
Master	's degr	ee (1 major) Biology (2014	4)			

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	reg. data record Master (120 ECTS) Biologie - 2011	

Module	e title				Abbreviation
Biophy	Biophysics and Biochemistry				07-MS3BB-102-m01
Module	Module coordinator			Module offered by	
holder	of the (	Chair of Plant Physiology	and Biophysics	Faculty of Biology	
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	graduate			
Conten	ts				
and bic of parti	ochemi: cipants	stry which is illustrated w	ith specific examples tical demonstrations	s from current resear of methods that are	ane transport, structural biology rch. Depending on the number e currently used give students an research.
Intende	ed learı	ning outcomes			
sics, st	ructura				roteins in the fields of biophy- I to discuss the results within the
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	in)
S + V (r	10 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-
one of t questic	the foll ons) or	owing options will be cho	osen: a) written exam e candidate each (3c	ination (30 to 60 mi	nt prior to the course. Usually, nutes, including multiple choice ) oral examination in groups of
Allocat	ion of p	olaces			
Additio	nal inf	ormation			
Worklo	ad				
Teachi	ng cycl	9			
Referre	d to in	LPO I (examination regu	lations for teaching-c	legree programmes)	
Module	e appea	irs in			
Master	's degr	ee (1 major) Biology (201:	l)		
	-	ee (1 major) Biology (2010			
Master	's degr	ee (1 major) Biology (201	4)		

Master's with 1 major Biology (2011)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 109 / 153
	reg. data record Master (120 ECTS) Biologie - 2011	

Modul	le title				Abbreviation
Biophy	ysics of	Membraneproteins	of Plants (Practical Cours	se and Seminar 1)	07-MS3BPF1-102-m01
Modu	Module coordinator			Module offered by	
Prof. Dr. I. Marten, holder of the Chair of Plant Physiology and Biophysics			air of Plant Physiology	Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)	
10	nume	rical grade			
Durati	on	Module level	Other prerequisites	5	
1 seme	ester	graduate			
Conte	nts				
nal ch	aracteri		orane proteins. The stude		ds which are used for the functio- d into research projects on cur-
Intend	led lear	ning outcomes			
					ith a focus on plant membrane o document the results obtained.
Course	<b>es</b> (type	, number of weekly c	ontact hours, language -	– if other than Germa	an)
S + P (	no info	mation on SWS (wee	kly contact hours) and c	ourse language avai	lable)
			e, language — if other th Ile can be chosen to earr		ation offered — if not every seme-
follow or b) lo	ing opti og (app	ons will be chosen: a rox. 10 to 30 pages) c	) written examination (3 or c) oral examination of	o to 60 minutes, incl one candidate each	to the course. Usually, one of the luding multiple choice questions) (30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)
Alloca	tion of	olaces			
Additi	onal inf	ormation			
Workl	oad				
Teach	ing cycl	e			
Referr	ed to in	LPOI (examination	regulations for teaching-	degree programmes	)
Modu	le appea	ars in			
Maste	r's degr	ee (1 major) Biology (	(2011)		
	-	ee (1 major) Biology (			
Maste	r's degr	ee (1 major) Biology (	(2014)		

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	reg. data record Master (120 ECTS) Biologie - 2011	

Modul	e title				Abbreviation
Bioche	emistry	and Structural Biology (I	Practical Course and	Seminar 1)	07-MS3BSF1-102-m01
Modul	e coord	inator		Module offered b	y
holder	of the (	Chair of Plant Physiology	and Biophysics	Faculty of Biology	,
ECTS	-	od of grading	Only after succ. con	npl. of module(s)	
10	nume	rical grade			
Duratio		Module level	Other prerequisites		
1 seme	ester	graduate			
Conter	nts				
The mology.	odule p	rovides an in-depth insig	ht into strategies and	l methods of prote	in biochemistry and structural bio-
Intend	ed lear	ning outcomes			
logy wi	ith a foo		is. They are able to p		n biochemistry and structural bio- se their scientific laboratory work
Course	<b>es</b> (type	, number of weekly conta	ct hours, language –	- if other than Gern	nan)
S + P (I	no infor	mation on SWS (weekly o	contact hours) and co	ourse language ava	iilable)
		<b>essment</b> (type, scope, la on on whether module c			nation offered — if not every seme-
followi or b) lo	ing opti og (appi	ons will be chosen: a) wr ox. 10 to 30 pages) or c)	itten examination (30 oral examination of c	o to 60 minutes, in one candidate each	to the course. Usually, one of the cluding multiple choice questions) (30 to 60 minutes) or d) oral ex- esentation (20 to 45 minutes)
	tion of p			· · · ·	
Additio	onal inf	ormation	·		
Worklo	bad				
Teachi	ng cycl	e			
	- /				
Referre	ed to in	LPOI (examination regu	lations for teaching-	degree programme	s)
Modul	e appea	irs in			
		ee (1 major) Biology (201	1)		
	-	ee (1 major) Biology (201			
Master	r's degr	ee (1 major) Biology (201	4)		

Master's with 1 major Biology (2011)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 111 / 153
	reg. data record Master (120 ECTS) Biologie - 2011	

wodule	e title				Abbreviation
Biochemistry and Structural Biology (Practical Course and			Practical Course and	Seminar 2)	07-MS3BSF2-102-m01
Module coordinator				Module offered by	<u> </u>
		Chair of Plant Physiology	and Biophysics	Faculty of Biology	
ECTS		od of grading	Only after succ. com	, ,,	
15		successfully completed		.p	
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate			regular attendance of lab course
			and successful com	pletion of the respec	tive exercises as specified at the
			beginning of the cou	ırse.	
Conten	Its				
		perform their research we ogy in a largely independ			e topic of biochemistry and pal investigator.
Intend	ed lear	ning outcomes		· · ·	·
chemis	stry and	•	o document the result	ts obtained. They are	oratory work in the fields of bio- e able to design a research pro-
-		, number of weekly conta	· ·		n)
		mation on SWS (weekly			•
Metho	d of as	· · · · ·	inguage — if other tha	an German, examina	tion offered — if not every seme-
followi or b) lo	ng opti g (appi	ons will be chosen: a) wr rox. 10 to 30 pages) or c)	itten examination (3c oral examination of o	to 60 minutes, incl	o the course. Usually, one of the uding multiple choice questions)
Allocat	ion of			minutes) or e) prese	30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)
		places		minutes) or e) prese	
		places		minutes) or e) prese	
Additio	onal inf	ormation		minutes) or e) prese	
 Additio	onal inf			minutes) or e) prese	
 Additio  Worklo				minutes) or e) prese	
				minutes) or e) prese	
	ad	ormation		minutes) or e) prese	
 Worklo 	ad	ormation		minutes) or e) prese	
 Worklo  Teachin	oad ng cycl	ormation			
 Worklo  Teachin	oad ng cycl	ormation			
 Worklo  Teachin  Referre	ng cycl ed to in	ormation e LPOI (examination regu			
 Worklo  Teachin  Referre  Module	ad ng cycl ed to in e appea	ormation e LPOI (examination regu	lations for teaching-c		
 Worklo  Teachin  Referre  Module Master Master	ed to in e appea 's degr	ormation e LPOI (examination regu	lations for teaching-o		

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	reg. data record Master (120 ECTS) Biologie - 2011	

Module	e title				Abbreviation
Microb	ial and	Chemical Ecology (Pract	ical Course and Semi	inar 1)	07-MS3MCÖF1-102-m01
Module coordinator				Module offered by	
holder	of the (	Chair of Pharmaceutical E	liology	Faculty of Biology	
ECTS	1	od of grading	Only after succ. com	pl. of module(s)	
10	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate			
Conten	ts				
comme come f chemis	ensal or amiliar stry as v	pathogenic interactions with a variety of methods	between animal and s within the fields of r echniques. They will o	plant hosts and mic nolecular ecology, r	ical ecology, e.g. mutualistic, croorganisms. Students will be- nicrobial ecology and analytical uss the results of their work in a
Intend	ed lear	ning outcomes			
They ar	re able				the field of chemical ecology. statistically, adhering to the prin-
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	in)
S + P (r	no infor	mation on SWS (weekly o	contact hours) and co	urse language avail	able)
		<b>sessment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-
followi or b) lo	ng opti og (appi	ons will be chosen: a) wr ox. 10 to 30 pages) or c)	itten examination (30 oral examination of o	to 60 minutes, incl ne candidate each (	o the course. Usually, one of the uding multiple choice questions) 30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)
Allocat				· · · ·	
Additic	onal inf	ormation			
Worklo	ad				
Teachi	ng cvcl	e			
	<u> </u>	-			
Referre	ed to in	LPOI (examination regu	lations for teaching-c	legree programmes)	
Modula	e annes	urs in			
<b>Module</b> Master			1)		
Master	's degr	<b>irs in</b> ee (1 major) Biology (201) ee (1 major) Biology (201)			

Master's with 1 major Biology (2011)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 113 / 153
	reg. data record Master (120 ECTS) Biologie - 2011	

Module	e title				Abbreviation
Microb	ial and	Chemical Ecology (Pract	ical Course and Semi	inar 2)	07-MS3MCÖF2-102-m01
Module coordinator				Module offered by	
holder	of the (	Chair of Pharmaceutical E	Biology	Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)	
15	(not) s	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate	Admission prerequis	site to assessment:	regular attendance of lab course
			as well as successfu	Il completion of the	respective exercises.
Conten	ts				
topics	in conte		crobial and chemical		dently acquaint themselves with e involved in the development of
Intend	ed lear	ning outcomes			
questio ment, i	ons ask nterpre	ed in the field of chemica	al ecology. They are a	ble to work accordir	able to answer and to discuss ng to good practice and to docu- apply specific techniques requi-
Course	<b>s</b> (type	, number of weekly conta	ict hours, language —	if other than Germa	in)
S + P (r	no infor	mation on SWS (weekly o	contact hours) and co	urse language avail	able)
		<b>sessment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-
followi or b) lo	ng opti g (appi	ons will be chosen: a) wr ox. 10 to 30 pages) or c)	itten examination (30 oral examination of o	to 60 minutes, incl ne candidate each (	o the course. Usually, one of the uding multiple choice questions) (30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)
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	urs in			
		ee (1 major) Biology (201	1)		
Master	's degr	ee (1 major) Biology (201	o)		
Master	's degr	ee (1 major) Biology (201	4)		

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	reg. data record Master (120 ECTS) Biologie - 2011	

Modul	e title				Abbreviation	
Molec	ular Bio	logy of Plants (Practical	Course and Seminar	1)	07-MS3MF1-102-m01	
Modul	Module coordinator			Module offered by	<u> </u>	
holder	ofthe	Chair of Plant Physiology	and Biophysics	Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
10	nume	rical grade				
Durati	on	Module level	Other prerequisites			
1 seme	ester	graduate				
Conter	nts					
The mo		rovides an in-depth insig	ht into molecular bio	logical strategies an	d methods applied in plant phy-	
Intend	ed lear	ning outcomes				
siology		are able to perform and o			nethods focusing on plant phy- ndependently and document the	
Course	<b>es</b> (type	, number of weekly conta	ct hours, language –	- if other than Germa	an)	
S + P (	no infor	mation on SWS (weekly o	contact hours) and co	ourse language avail	able)	
		sessment (type, scope, la ion on whether module ca			ation offered — if not every seme-	
followi or b) lo	ing opti og (appi	ons will be chosen: a) wr rox. 10 to 30 pages) or c)	itten examination (3c oral examination of c	to 60 minutes, incl one candidate each	o the course. Usually, one of the uding multiple choice questions) (30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)	
Allocat	tion of <sub>l</sub>	olaces				
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				
		ee (1 major) Biology (201	1)			
	-	ee (1 major) Biology (201	-			
Master	r's degr	ee (1 major) Biology (201	4)			

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Module					Abbreviation	
Develo	pmenta	al Physiology and Ada	ption of Plants (Lecture	and Seminar)	07-MS3PA-102-m01	
Module coordinator				Module offered by	y	
holder	of the (	Chair of Pharmaceutica	al Biology	Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
10	nume	rical grade				
Duratio	on	Module level	Other prerequisites			
1 seme	ster	graduate				
Conten	ts					
the mo regulat Sectior grow an mental and org Based more d	lecular ion and n Adapt nd deve factors ganism on sele etail. It	components (ABA, au d functioning. Current ation: The lecture will elop (biogeography, bi s (e. g. plant-insect, pla ic level will be emphase cted examples from cu	xin, ethylene etc.) of sig journal articles on the to deal with the ecologica odiversity) and with the ant-fungus interactions) sised in particular (stres urrent research, the sem	nalling networks a opics will be presen l and environmenta interactions of pla . The evolutionary as and defence reactionary inar will address t	l focus on introducing students to and explaining their biosynthesis, need and discussed in the seminar al constraints under which plants ants with abiotic and biotic environ adaptations on the physiological ctions, carnivory, plant protection) he topics covered in the lecture in nical Garden of the University of	
Würzbı Intende		ning outcomes				
Studen	its are o	qualified to recognise	ecological and physiolo current state of knowle		are able to interpret and discuss	
Course	<b>s</b> (type	, number of weekly co	ntact hours, language –	- if other than Germ	nan)	
S + V (r	no infor	mation on SWS (week	ly contact hours) and co	ourse language ava	ilable)	
			, language — if other the e can be chosen to earn		nation offered — if not every seme-	
one of questic	the foll ons) or	owing options will be	chosen: a) written exam one candidate each (30	ination (30 to 60 n	nent prior to the course. Usually, ninutes, including multiple choice c) oral examination in groups of	
Allocat	ion of <b>j</b>	olaces				
Additio	onal inf	ormation				
Worklo	ad					
Teachi	ng cycl	e				
	_ /					
Referre	ed to in	LPOI (examination re	egulations for teaching-	degree programme	s)	
			<u> </u>	5 1 6		
Module	e appea	ars in				
		ee (1 major) Biology (2	011)			
	-	ee (1 major) Biology (2				
	Aaster's degree (1 major) Biology (2010)					

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Modul					ŀ	Abbreviation	
Pharm	aceutica	al Biology (Practica	ll Course and Seminar 1	)	0	07-MS3PBF1-102-1	m01
Modul	le coordi	nator		Module offered by			
holder of the Chair of Pharmaceutical Biology		Faculty of	Biology				
ECTS		d of grading	Only after succ. o				
10		ical grade		•			
Durati	on	Module level	Other prerequisit	es			
1 seme	ester	graduate					
Conter	nts		,				
physio stress scienti ques in ned to molect ge in n form th perime preser zentru Intend	ology or l respons ific ques n the fie use qua ular biol netaboli he basis ental des ntation o m.uni-w <b>led learr</b> nts will t	behaviour. At the C e analysis. Studen- tion addressed by ld of metabolomics antitative metabolit ogy techniques. De te analysis or mass to impart scientific sign, realisation an f the progress. Mor uerzburg.de/. ing outcomes	bolism is often correlate hair of Pharmaceutical B ts can choose a topic fro the research team at the s/bioanalytics and/or m te analysis methods (ch epending on the project, s spectrometry is not rec c concepts and to train s d critical evaluation of s re information is availab	Biology, we ap om the variety e Chair, the me olecular biolog romatography different mod juired. Current students in the scientific expen- ole on request	ply metabo of ongoing ethodologi gy. In this r , mass spe del organisi t scientific e laboratory riments as or can be f nd/or meta	blomics for gene f g projects. Depend cal approach invo module, students ctrometry) and ag ms are studied. P questions in the l y. The module inv well as the docur ound at http://we bolomics approa	unction- or ding on the olves techni- will be trai- oply advanced rior knowled- ife sciences olves the ex- nentation and ww.pbio.bio- ches to ad-
P + S ( <b>Metho</b>	no infor od of ass	mation on SWS (we essment (type, sco	contact hours, language ekly contact hours) and pe, language — if other	course langua than German,	age availat	ole)	ot every seme
ster, ir	nformati	on on whether mod	lule can be chosen to ea	arn a bonus)			
followi or b) lo	ing optic og (appr	ons will be chosen: ox. 10 to 30 pages)	the length and scope of a) written examination or c) oral examination c ndidates (approx. 30 to	(30 to 60 minu of one candida	utes, incluc ate each (30	ling multiple choi o to 60 minutes) (	ice questions or d) oral ex-
Alloca	tion of p	laces					
Additi	onal info	ormation					
Workle	oad						
Teachi	ing cycle	9					
	_ •						
Referre	ed to in	LPOI (examination	n regulations for teachin	g-degree prog	(rammes)		
				00	,		
Modul	le appea	rs in					
Maste Maste	r's degre r's degre	ee (1 major) Biology ee (1 major) Biology ee (1 major) Biology	r (2010)				
			N . N				
laster's u	with 1 major	Biology (2011)		zburg • generated 2	6-∆µσ-2024 • 6	avam	page 117 / 153



Master's degree (1 major) FOKUS Pharmacy (2012)

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Module title					Abbreviation
Pharm	aceutic	al Biology (Practical Cou	rse and Seminar 2)		07-MS3PBF2-102-m01
Modul	e coord	inator		Module offered by	<u> </u>
holder	of the (	Chair of Pharmaceutical I	Biology	Faculty of Biology	
ECTS	-	od of grading	Only after succ. con		
15	1	successfully completed		•	
Duratio	on	Module level	Other prerequisites	;	
1 seme	ester	graduate			regular attendance of lab course respective exercises.
Conter	nts				
actions Aspect and/or and pr	s toward s of the metab ogress minar.	ds biotic or abiotic stress scientific question will l olomic approaches will k in the understanding of k	s, functional and phe be independently add be optimised for and biological problems w	notypic analysis of n dressed by the stude adapted to the spec vill be documented i	ways (e.g. in the context of re- nutants, or drug metabolism). ents. Molecular biology methods ific problem. Experimental results n the form of a log and presented /www.pbio.biozentrum.uni-wu-
		ning outcomes			
terpret cific te	and do chniqu	ocument experiments, ad es required to answer sc	lhering to accepted ru ientific questions.	ules of scientific prac	eutical biology and to perform, in ctice. They are able to apply spe-
		, number of weekly conta			
S + P (I	no infor	mation on SWS (weekly	contact hours) and co	ourse language avail	able)
		<b>sessment</b> (type, scope, la ion on whether module c			ation offered — if not every seme-
followi or b) lo	ng opti og (appi	ons will be chosen: a) wr rox. 10 to 30 pages) or c)	itten examination (30 oral examination of o	o to 60 minutes, incl one candidate each	o the course. Usually, one of the uding multiple choice questions) (30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)
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-	degree programmes	
		0			
Modul	e appea	ars in			
		ee (1 major) Biology (201	1)		
Master	's degr	ee (1 major) Biology (201	.0)		
Master	's degr	ee (1 major) Biology (201	4)		

Master's with	1 major	Biology	(2011)
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Modul					Abbreviation	
Specif	ic Ecolo	gy and Ecophysiology of	Plants (Practical Co	urse and Seminar 1)	07-MS3PÖF1-102-m01	
Modul	e coord	inator		Module offered by		
holder gy	of the (	Chair of Ecophysiology ar	d Vegetation Ecolo-	Faculty of Biology		
ECTS	Metho	od of grading	Only after succ. con	pl. of module(s)		
10	nume	rical grade				
Duration Module level Other prerequisites						
1 seme	ester	graduate				
Conter	nts					
plant-f concer form o	ungus i ots and f preser	nteractions, biogeograph complex experiments wi ntations, publications or	ny, characterisation o Il be designed, and th logs. Students will be	f plant surfaces, cuti ne results will be doo e involved in ongoing	siology (e.g. plant-insect and icular barrier properties). Working cumented and presented in the gresearch and will consolidate chemistry or molecular biology.	
		ning outcomes				
They a	re able				the field of plant ecophysiology. statistically, adhering to the prin	
Course	<b>es</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)	
S + P (I	no infor	mation on SWS (weekly o	contact hours) and co	urse language availa	able)	
		e <b>ssment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-	
followi or b) lo	ing opti og (appi	ons will be chosen: a) wr ox. 10 to 30 pages) or c)	itten examination (3c oral examination of c	to 60 minutes, incluine candidate each (	o the course. Usually, one of the uding multiple choice questions) 30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)	
	tion of p					
Additio	onal inf	ormation				
Worklo	bad					
Teachi	ng cycl	9				
		LPOI (examination regu	lations for teaching-	legree programmes)		
Referre	ed to in			J		
Referro	ed to in					
 Modul	e appea	ars in				
 <b>Modul</b> Master	<b>e appea</b> r's degr		1)			

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Module					Abbreviation		
Specifi	Specific Ecology and Ecophysiology of Plants (Practical C			urse and Seminar 2)	07-MS3PÖF2-102-m01		
Module	e coord	linator		Module offered by			
holder gy	of the	Chair of Ecophysiology ar	nd Vegetation Ecolo-	Faculty of Biology			
ECTS	Meth	od of grading	Only after succ. com	pl. of module(s)			
15	(not)	successfully completed					
Duratio	on	Module level	Other prerequisites				
1 seme	ster	graduate		pletion of the respec	regular attendance of lab course tive exercises as specified at th		
Conten	lts						
They w logical, ration, assess	ill do tl , analy chrom ed and	nis work to a large extent tical, molecular biologica atography, mass spectro	on their own respons l and/or microbiologi metry, fluorescence n fied. Students will do	sibility. Based on the cal methods applied nicroscopy, PCR, clor cument and discuss	es, cuticular barrier properties). results obtained, the ecophysic l (e.g. measurement of transpi- ning strategies) will be critically the progress of their work and c er.		
Intend	ed lear	ning outcomes					
ment, i red to a	nterpre answer		sults. They have deve	loped the ability to a	g to good practice and to docu- pply specific techniques requi- n)		
S + P (r	no info	rmation on SWS (weekly o	contact hours) and co	ourse language availa	able)		
		<b>sessment</b> (type, scope, la ion on whether module c			tion offered — if not every seme		
followi or b) lo	ng opti g (app	ons will be chosen: a) wr rox. 10 to 30 pages) or c)	itten examination (3c oral examination of o	to 60 minutes, inclu one candidate each (	o the course. Usually, one of the uding multiple choice questions 30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)		
Allocat	ion of	places					
Additio	onal inf	ormation					
			<u>.</u>				
Worklo	ad	-					
Teachi	ng cycl	e					
	- /						
Referre	ed to in	LPOI (examination regu	lations for teaching-o	degree programmes)			
Module	e appe	ars in					
			1)				
	Aaster's degree (1 major) Biology (2011) Aaster's degree (1 major) Biology (2010)						
	's degr	ee (1 major) Biology (201					

Master's with 1 major Biology (2011)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 121 / 153
	reg. data record Master (120 ECTS) Biologie - 2011	

Modul	e title				Abbreviation	
System Biology (Lecture and Seminar)					07-MS3S-102-m01	
Modul	Module coordinator			Module offered by		
holder	of the (	Chair of Bioinformatics		Faculty of Biology		
ECTS	1	od of grading	Only after succ. com	pl. of module(s)		
10	nume	rical grade				
Duratio	on	Module level	Other prerequisites			
1 seme	ster	graduate				
Conter	ts					
sults fr	om fun				nd discussed, this includes re- and metabolic networks as well	
Intend	ed lear	ning outcomes				
		ecent results in systems b al technologies and resea			an advanced (Master) level know-	
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	an)	
S + V (I	no infor	mation on SWS (weekly o	contact hours) and co	urse language avail	able)	
		sessment (type, scope, la on on whether module ca			tion offered — if not every seme-	
one of questio	the foll ons) or	owing options will be cho	osen: a) written exam e candidate each (3c	ination (30 to 60 mi	ent prior to the course. Usually, nutes, including multiple choice ) oral examination in groups of	
	ion of <b>j</b>					
Additio	onal inf	ormation				
Worklo	ad					
Teachi	ng cycl	e				
Referre	ed to in	LPOI (examination regu	lations for teaching-c	legree programmes)		
Modul	e appea	ars in				
Master Master Master	Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2010) Master's degree (1 major) Biology (2014) Master's degree (1 major) Mathematics (2012) Master's degree (1 major) Computational Mathematics (2012)					
master	s uegr	ee (1 major) computation	at mathematics (201)	2)		

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	reg. data record Master (120 ECTS) Biologie - 2011	

Module	e title				Abbreviation	
System Biology (Practical Course and Seminar 1)			Seminar 1)		07-MS3SYF1-102-m01	
Module coordinator				Module offered by		
holder	of the (	Chair of Bioinformatics		Faculty of Biology		
ECTS	1	od of grading	Only after succ. com	pl. of module(s)		
10	nume	rical grade				
Duratio	on	Module level	Other prerequisites			
1 seme	ster	graduate				
Conten	ts					
ticular, protein	make : structi	students proficient in a d ure analysis and protein f	ynamical method in s olding, genome analy	systems biology (are ysis and evolution; o	systems biology and will, in par- as that may be selected include dynamic network analysis, the dy- metabolism, statistical model-	
Intend	ed lear	ning outcomes				
They ar	re able				the field of systems biology. statistically, adhering to the prin-	
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	in)	
P + S (r	no infor	mation on SWS (weekly o	ontact hours) and co	urse language avail	able)	
		s <b>essment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-	
followi or b) lo	ng opti g (appi	ons will be chosen: a) wr ox. 10 to 30 pages) or c)	tten examination (30 oral examination of o	to 60 minutes, incl ne candidate each (	o the course. Usually, one of the uding multiple choice questions) 30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)	
Allocat	ion of p	olaces				
Additio	onal inf	ormation				
Worklo	ad					
Teachi	ng cycl	2				
Teaching cycle						
 Poforra	d to in	IPOL (evamination room	lations for toaching d	lagrae programmac		
	ed to in	LPOI (examination regu	lations for teaching-d	legree programmes)		
Referre			lations for teaching-d	legree programmes)		
Referre  Module	e appea	ars in		legree programmes)		
Referre  Module Master	<b>e appea</b> 's degr	a <b>rs in</b> ee (1 major) Biology (201	i)	legree programmes)		
Referre  Module Master Master	<b>e appea</b> 's degra	a <b>rs in</b> ee (1 major) Biology (201 ee (1 major) Biology (201	l) b)	legree programmes)		
Referre  Module Master Master Master	<b>e appea</b> 's degru 's degru	a <b>rs in</b> ee (1 major) Biology (201	L) D) 4)	legree programmes)		

Master's with 1 major Biology (2011)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 123 / 153
	reg. data record Master (120 ECTS) Biologie - 2011	

Module	e title			· · · · · · · · · · · · · · · · · · ·	Abbreviation
System	System Biology (Practical Course and Seminar 2)				07-MS3SYF2-102-m01
Module coordinator				Module offered by	
holder	nolder of the Chair of Bioinformatics			Faculty of Biology	
ECTS		od of grading	Only after succ. com		
15		successfully completed			
Duratio		Module level	Other prerequisites		
1 seme		graduate	1		regular attendance of lab course
					ctive exercises as specified at the
			beginning of the cou		
Conten	ts	<u> </u>			
ticular, protein namics ling). Th	make struct of pro he tech	students proficient in a d ure analysis and protein tein-protein interactions,	lynamical method in s folding, genome anal modelling cellular re lated on the basis of	systems biology (are ysis and evolution; gulation; modelling the results obtained	systems biology and will, in par- eas that may be selected include dynamic network analysis, the dy metabolism, statistical model- and are modified where neces- erm paper.
		ning outcomes	,		····· p • p • · ·
Proficie nise a s	ency in scientif	one or more methods in	pioinformatics and to	document the result	ndependently perform and orga- ts obtained. Students are able to for their thesis.
Course	<b>s</b> (type	, number of weekly conta	act hours, language —	- if other than Germa	an)
P + S (n	no infor	mation on SWS (weekly	contact hours) and co	ourse language avail	able)
		sessment (type, scope, la ion on whether module c			ition offered — if not every seme-
followir or b) log	ng opti g (appi	ons will be chosen: a) wr rox. 10 to 30 pages) or c)	itten examination (3c oral examination of o	o to 60 minutes, incl one candidate each (	o the course. Usually, one of the uding multiple choice questions) 30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)
Allocat			· · · · ·	· · · · ·	
	nal inf	ormation	-		
Worklo	ad				
Teachir		P	-		
reacini	SUJU	-			
				1	
Referre	a to in	LPOI (examination regu	liations for teaching-c	uegree programmes)	
Module					
	-	ee (1 major) Biology (201			
		ee (1 major) Biology (201			
	-	ee (1 major) Biology (201	•		
	-	ee (1 major) Mathematics		、 、	
Master'	's degr	ee (1 major) Computatior	nal Mathematics (201	2)	

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Module	e title				Abbreviation
-		cular-, Cell- and Develop	mental Biology of Pla	ants (Practical Cour-	07-MS3ZE-102-m01
se and					
Module	e coord	inator		Module offered by	
holder	of the (	Chair of Plant Physiology	and Biophysics	Faculty of Biology	
ECTS	1	od of grading	Only after succ. con	npl. of module(s)	
15	(not) s	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate			regular attendance of lab course tive exercises as specified at the
			beginning of the cou	• •	·
Conten	Its	<u> </u>			
					h project on molecular plant and f a principal investigator.
Intend	ed lear	ning outcomes			
		able to work on a scientil sent their results.	fic question, to design	n an experimental se	tup as well as to interpret, docu-
Course	s (type	, number of weekly conta	act hours, language –	- if other than Germa	n)
		mation on SWS (weekly			
Metho	d of ass		anguage — if other th	an German, examina	tion offered — if not every seme-
followi or b) lo	ng opti og (appi	ons will be chosen: a) wi rox. 10 to 30 pages) or c)	itten examination (30 oral examination of c	o to 60 minutes, inclu one candidate each (	o the course. Usually, one of the uding multiple choice questions) 30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)
Allocat	_	<u> </u>		· · · ·	
Additio	onal inf	ormation			
Worklo	ad				
	-				
Teachi	ng cycl	e			
 Referre		LPOI (examination regu	llations for teaching-o	degree programmes)	
 Referre		LPOI (examination regu	llations for teaching-o	degree programmes)	
 Referre  Module	ed to in		ulations for teaching-o	degree programmes)	
 Module	ed to in e appea			degree programmes)	
 <b>Module</b> Master	ed to in e appea	ars in	1)	degree programmes)	

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	reg. data record Master (120 ECTS) Biologie - 2011	

Modul	e title				Abbreviation
Practical Course as exchange student 1			1		07-MSA1-102-m01
Module coordinator				Module offered by	<u> </u>
Coordi	nator B	ioCareers		Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. com	pl. of module(s)	
5	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate	Please consult with	course advisory serv	vice in advance.
Conter	ts				
Practic	al cour	se during stay abroad on	a selected topic in bi	ology (duration: 2-3	weeks).
Intend	ed lear	ning outcomes			
		selected methods and la hniques later on in a rese		lected fields of biolo	ogy. Ability to apply these me-
Course	e <b>s</b> (type	, number of weekly conta	ct hours, language –	· if other than Germa	ın)
		tion on SWS (weekly cont			
		sessment (type, scope, la ion on whether module ca			tion offered — if not every seme-
followi or b) lo	ng opti og (app	ons will be chosen: a) wr rox. 10 to 30 pages) or c)	itten examination (3c oral examination of o	to 60 minutes, inclu ne candidate each (	o the course. Usually, one of the uding multiple choice questions) 30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)
Allocat	ion of	places			
Additio	onal inf	ormation			
Worklo	ad				
Teachi	ng cycl	e			
Referre	ed to in	LPO I (examination regu	lations for teaching-o	legree programmes)	
Modul	e appea	ars in			
Master	s degr	ee (1 major) Biology (201	1)		
	-	ee (1 major) Biology (2013 ee (1 major) Biology (2010			

mouut	e title				Abbreviation
Practic	Practical Course as exchange student 2				07-MSA2-102-m01
Module coordinator				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	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ester	graduate	Please consult with	course advisory ser	vice in advance.
Conter	nts				
		ement on a biological top v to present their data.	ic. Students spend 4	6 weeks working on	a well-defined scientific project
Intend	ed lear	ning outcomes			
		selected methods and la hniques later on in a rese		elected fields of biol	ogy. Ability to apply these me-
Course	<b>es</b> (type	, number of weekly conta	act hours, language –	- if other than Germa	an)
	-	tion on SWS (weekly cont			
Metho	u ui as:				ition offered if not even come
ster, in Studer followi or b) lo	format nts will ng opti og (app	ion on whether module c be informed about the le ons will be chosen: a) wr rox. 10 to 30 pages) or c)	an be chosen to earn ngth and scope of the itten examination (30 oral examination of c	a bonus) e assessment prior t o to 60 minutes, incl one candidate each (	o the course. Usually, one of the uding multiple choice questions (30 to 60 minutes) or d) oral ex-
ster, in Studer followi or b) lo aminat	format nts will ng opti og (app tion in s	ion on whether module c be informed about the le ons will be chosen: a) wr rox. 10 to 30 pages) or c) groups of up to 3 candida	an be chosen to earn ngth and scope of the itten examination (30 oral examination of c	a bonus) e assessment prior t o to 60 minutes, incl one candidate each (	o the course. Usually, one of the uding multiple choice questions
ster, in Studer followi or b) lo aminat	format nts will ng opti og (app	ion on whether module c be informed about the le ons will be chosen: a) wr rox. 10 to 30 pages) or c) groups of up to 3 candida	an be chosen to earn ngth and scope of the itten examination (30 oral examination of c	a bonus) e assessment prior t o to 60 minutes, incl one candidate each (	o the course. Usually, one of the uding multiple choice questions (30 to 60 minutes) or d) oral ex-
ster, in Studer followi or b) lo aminat Allocat	format nts will ng opti og (app tion in s t <b>ion of</b> p	ion on whether module c be informed about the le ons will be chosen: a) wr rox. 10 to 30 pages) or c) groups of up to 3 candida	an be chosen to earn ngth and scope of the itten examination (30 oral examination of c	a bonus) e assessment prior t o to 60 minutes, incl one candidate each (	o the course. Usually, one of the uding multiple choice questions (30 to 60 minutes) or d) oral ex-
ster, in Studer followi or b) lo aminat Allocat	format nts will ng opti og (app tion in s t <b>ion of</b> p	ion on whether module c be informed about the le ons will be chosen: a) wr rox. 10 to 30 pages) or c) groups of up to 3 candida <b>places</b>	an be chosen to earn ngth and scope of the itten examination (30 oral examination of c	a bonus) e assessment prior t o to 60 minutes, incl one candidate each (	o the course. Usually, one of the uding multiple choice questions (30 to 60 minutes) or d) oral ex-
ster, in Studer followi or b) lo aminat Allocat	format nts will ng opti og (app tion in <u>s</u> tion of   onal inf	ion on whether module c be informed about the le ons will be chosen: a) wr rox. 10 to 30 pages) or c) groups of up to 3 candida <b>places</b>	an be chosen to earn ngth and scope of the itten examination (30 oral examination of c	a bonus) e assessment prior t o to 60 minutes, incl one candidate each (	o the course. Usually, one of the uding multiple choice questions (30 to 60 minutes) or d) oral ex-
ster, in Studer followi or b) lc aminat Allocat  Additic 	format nts will ng opti og (app tion in <u>s</u> tion of   onal inf	ion on whether module c be informed about the le ons will be chosen: a) wr rox. 10 to 30 pages) or c) groups of up to 3 candida <b>places</b>	an be chosen to earn ngth and scope of the itten examination (30 oral examination of c	a bonus) e assessment prior t o to 60 minutes, incl one candidate each (	o the course. Usually, one of the uding multiple choice questions (30 to 60 minutes) or d) oral ex-
ster, in Studer followi or b) lc aminat Allocat  Additio  Worklc 	format nts will ng opti og (app tion in § tion of p onal inf	ion on whether module c be informed about the le ons will be chosen: a) wr rox. 10 to 30 pages) or c) groups of up to 3 candida places	an be chosen to earn ngth and scope of the itten examination (30 oral examination of c	a bonus) e assessment prior t o to 60 minutes, incl one candidate each (	o the course. Usually, one of the uding multiple choice questions (30 to 60 minutes) or d) oral ex-
ster, in Studer followi or b) lc aminat Allocat  Additio  Worklc 	format nts will ng opti og (app tion in s tion of p	ion on whether module c be informed about the le ons will be chosen: a) wr rox. 10 to 30 pages) or c) groups of up to 3 candida places	an be chosen to earn ngth and scope of the itten examination (30 oral examination of c	a bonus) e assessment prior t o to 60 minutes, incl one candidate each (	o the course. Usually, one of the uding multiple choice questions (30 to 60 minutes) or d) oral ex-
ster, in Studer followi or b) lo aminat Allocat  Additio  Worklo  Teachi 	Iformat Ints will Ing opti og (app tion in § tion of p tion al inf onal inf	ion on whether module c be informed about the le ons will be chosen: a) wr rox. 10 to 30 pages) or c) groups of up to 3 candida places formation	an be chosen to earn ngth and scope of the itten examination (30 oral examination of c ites (approx. 30 to 60	a bonus) e assessment prior t o to 60 minutes, incl one candidate each ( o minutes) or e) pres	o the course. Usually, one of the uding multiple choice questions (30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)
ster, in Studer followi or b) lo aminat Allocat  Additio  Worklo  Teachi 	Iformat Ints will Ing opti og (app tion in § tion of p tion al inf onal inf	ion on whether module c be informed about the le ons will be chosen: a) wr rox. 10 to 30 pages) or c) groups of up to 3 candida places	an be chosen to earn ngth and scope of the itten examination (30 oral examination of c ites (approx. 30 to 60	a bonus) e assessment prior t o to 60 minutes, incl one candidate each ( o minutes) or e) pres	entation (20 to 45 minutes)
ster, in Studer followi or b) lo aminat Allocat  Additio  Worklo  Teachi  Referre	iformat nts will ng opti og (app tion in § tion of p onal inf oad ng cycl	ion on whether module c be informed about the le ons will be chosen: a) wr rox. 10 to 30 pages) or c) groups of up to 3 candida places formation	an be chosen to earn ngth and scope of the itten examination (30 oral examination of c ites (approx. 30 to 60	a bonus) e assessment prior t o to 60 minutes, incl one candidate each ( o minutes) or e) pres	o the course. Usually, one of the uding multiple choice questions (30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)
ster, in Studer followi or b) lc aminat Allocat  Additic  Worklc  Teachi  Referre  Modulo	iformat nts will ng opti og (app tion in g tion of p onal inf oad ng cycl ed to in e appea	ion on whether module c be informed about the le ons will be chosen: a) wr rox. 10 to 30 pages) or c) groups of up to 3 candida places formation e LPO I (examination regu	an be chosen to earn ngth and scope of the itten examination (30 oral examination of c ites (approx. 30 to 60 lations for teaching-o	a bonus) e assessment prior t o to 60 minutes, incl one candidate each ( o minutes) or e) pres	o the course. Usually, one of the uding multiple choice questions (30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)
ster, in Studer followi or b) lo aminat Allocat  Additio  Worklo  Teachi  Referre  Modulo	iformat nts will ng opti og (app tion in s tion of p onal inf onal inf oad ng cycl ed to in e appea	ion on whether module c be informed about the le ons will be chosen: a) wr rox. 10 to 30 pages) or c) groups of up to 3 candida places formation	an be chosen to earn ngth and scope of the itten examination (30 oral examination of c ites (approx. 30 to 60 lations for teaching-0	a bonus) e assessment prior t o to 60 minutes, incl one candidate each ( o minutes) or e) pres	o the course. Usually, one of the uding multiple choice questions (30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)

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	e title				Abbreviation
Practical Course as exchange student 3			3		07-MSA3-102-m01
Module coordinator				Module offered by	<u> </u>
Coordi	nator B	lioCareers		Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. con	· · · · · · · · · · · · · · · · · · ·	
15	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ester	graduate	Please consult with	course advisory serv	vice in advance.
Conter	nts				
		ement on a biological top how to present their data		-9 weeks working on	a well-defined scientific lab pro
Intend	ed lear	ning outcomes			
		selected methods and la hniques later on in a rese		elected fields of biol	ogy. Ability to apply these me-
		, number of weekly conta		if other than Garma	n)
		tion on SWS (weekly conta			
					•
		<b>sessment</b> (type, scope, la	anguage — if other th	an German examina	
Studer	nts will		an be chosen to earn ngth and scope of the	a bonus) e assessment prior t	o the course. Usually, one of the
Studer followi or b) lo	nts will ing opti og (app	be informed about the le ons will be chosen: a) wr rox. 10 to 30 pages) or c)	an be chosen to earn ngth and scope of the itten examination (30 oral examination of c	a bonus) e assessment prior t o to 60 minutes, incl one candidate each (	o the course. Usually, one of the
Studer followi or b) lo aminat	nts will ing opti og (app	be informed about the le ons will be chosen: a) wr rox. 10 to 30 pages) or c) groups of up to 3 candida	an be chosen to earn ngth and scope of the itten examination (30 oral examination of c	a bonus) e assessment prior t o to 60 minutes, incl one candidate each (	o the course. Usually, one of the uding multiple choice questions (30 to 60 minutes) or d) oral ex-
Studer followi or b) lo aminat	nts will ing opti og (app tion in g	be informed about the le ons will be chosen: a) wr rox. 10 to 30 pages) or c) groups of up to 3 candida	an be chosen to earn ngth and scope of the itten examination (30 oral examination of c	a bonus) e assessment prior t o to 60 minutes, incl one candidate each (	o the course. Usually, one of the uding multiple choice questions (30 to 60 minutes) or d) oral ex-
Studer followi or b) lo aminat Allocat	nts will ing opti og (app tion in s <b>tion of</b> [	be informed about the le ons will be chosen: a) wr rox. 10 to 30 pages) or c) groups of up to 3 candida	an be chosen to earn ngth and scope of the itten examination (30 oral examination of c	a bonus) e assessment prior t o to 60 minutes, incl one candidate each (	o the course. Usually, one of the uding multiple choice questions (30 to 60 minutes) or d) oral ex-
Studer followi or b) lo aminat Allocat	nts will ing opti og (app tion in s <b>tion of</b> [	be informed about the le ons will be chosen: a) wr rox. 10 to 30 pages) or c) groups of up to 3 candida <b>places</b>	an be chosen to earn ngth and scope of the itten examination (30 oral examination of c	a bonus) e assessment prior t o to 60 minutes, incl one candidate each (	o the course. Usually, one of the uding multiple choice questions (30 to 60 minutes) or d) oral ex-
Studer followi or b) lo aminat Allocat	nts will ing opti og (app tion in s tion of onal inf	be informed about the le ons will be chosen: a) wr rox. 10 to 30 pages) or c) groups of up to 3 candida <b>places</b>	an be chosen to earn ngth and scope of the itten examination (30 oral examination of c	a bonus) e assessment prior t o to 60 minutes, incl one candidate each (	o the course. Usually, one of the uding multiple choice questions (30 to 60 minutes) or d) oral ex-
Studer followi or b) lo aminat Allocat  Additio	nts will ing opti og (app tion in s tion of onal inf	be informed about the le ons will be chosen: a) wr rox. 10 to 30 pages) or c) groups of up to 3 candida <b>places</b>	an be chosen to earn ngth and scope of the itten examination (30 oral examination of c	a bonus) e assessment prior t o to 60 minutes, incl one candidate each (	o the course. Usually, one of the uding multiple choice questions (30 to 60 minutes) or d) oral ex-
Studer followi or b) lc aminat Allocat  Additio  Worklc	nts will ing opti og (app tion in s tion of onal inf	be informed about the le ons will be chosen: a) wr rox. 10 to 30 pages) or c) groups of up to 3 candida places	an be chosen to earn ngth and scope of the itten examination (30 oral examination of c	a bonus) e assessment prior t o to 60 minutes, incl one candidate each (	o the course. Usually, one of the uding multiple choice questions (30 to 60 minutes) or d) oral ex-
Studer followi or b) lc aminat Allocat  Additio  Worklc	nts will ing opti og (app tion in s tion of onal inf	be informed about the le ons will be chosen: a) wr rox. 10 to 30 pages) or c) groups of up to 3 candida places	an be chosen to earn ngth and scope of the itten examination (30 oral examination of c	a bonus) e assessment prior t o to 60 minutes, incl one candidate each (	o the course. Usually, one of the uding multiple choice questions (30 to 60 minutes) or d) oral ex-
Studer followi or b) lc aminat Allocat  Additio  Worklc  Teachi	nts will ing opti og (app tion in s tion of onal inf oad	be informed about the le ons will be chosen: a) wr rox. 10 to 30 pages) or c) groups of up to 3 candida places Formation	an be chosen to earn ngth and scope of the itten examination (30 oral examination of c ites (approx. 30 to 60	a bonus) e assessment prior t o to 60 minutes, incl one candidate each ( o minutes) or e) prese	o the course. Usually, one of the uding multiple choice questions (30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)
Studer followi or b) lc aminat Allocat  Additio  Worklc  Teachi	nts will ing opti og (app tion in s tion of onal inf oad	be informed about the le ons will be chosen: a) wr rox. 10 to 30 pages) or c) groups of up to 3 candida places	an be chosen to earn ngth and scope of the itten examination (30 oral examination of c ites (approx. 30 to 60	a bonus) e assessment prior t o to 60 minutes, incl one candidate each ( o minutes) or e) prese	o the course. Usually, one of the uding multiple choice questions (30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)
Studer followi or b) lc aminat Allocat  Additic  Worklc  Teachi  Referre	nts will ing opti og (app tion in s tion of onal inf oad	be informed about the le ons will be chosen: a) wr rox. 10 to 30 pages) or c) groups of up to 3 candida places formation	an be chosen to earn ngth and scope of the itten examination (30 oral examination of c ites (approx. 30 to 60	a bonus) e assessment prior t o to 60 minutes, incl one candidate each ( o minutes) or e) prese	o the course. Usually, one of the uding multiple choice questions (30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)
Studer followi or b) lc aminat Allocat  Additic  Worklc  Teachi  Referre  Module	nts will ing opti og (app tion in g tion of onal inf onal inf oad ed to in e appea	be informed about the le ons will be chosen: a) wr rox. 10 to 30 pages) or c) groups of up to 3 candida places formation	an be chosen to earn ngth and scope of the itten examination (30 oral examination of c ites (approx. 30 to 60 lates (approx ites) (approx ites	a bonus) e assessment prior t o to 60 minutes, incl one candidate each ( o minutes) or e) prese	o the course. Usually, one of the uding multiple choice questions (30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)
Studer followi or b) lo aminat Allocat  Additio  Worklo  Teachi  Referre  Modulo	nts will ing opti og (app tion in s tion of onal inf oad ing cycl ed to in e appea	be informed about the le ons will be chosen: a) wr rox. 10 to 30 pages) or c) groups of up to 3 candida places formation	an be chosen to earn ngth and scope of the itten examination (30 oral examination of c ites (approx. 30 to 60 lations for teaching-o	a bonus) e assessment prior t o to 60 minutes, incl one candidate each ( o minutes) or e) prese	o the course. Usually, one of the uding multiple choice questions (30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)

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Systems Biology B       07-MS-B-121-m01         Module coordinator       Module offered by         holder of the Chair of Bioinformatics       Faculty of Biology         ECTS       Method of grading       Only after succ. compl. of module(s)         5       (not) successfully completed	Module	title			Abbreviation
holder of the Chair of Bioinformatics       Faculty of Biology         ECTS       Method of grading       Only after succ. compl. of module(s)         5       [(not) successfully completed       -         Duration       Module level       Other prerequisites         1 semester       graduate       -         Contents       -       -         Advances and current results of computational systems biology are explained and discussed, this includes results from functional genomics, dynamics of the transcriptome, of metabolism and metabolic networks as well as regulatory networks.         Intended learning outcomes       Understand recent results in systems biology. Discuss their implications. Have an advanced (Master) level know ledge of typical technologies and research questions of systems biology.         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)       Students will be informed about the method, length and scope of the assessment prior to the course. a) written examination of places              Additonal information               Mokula <td>System</td> <td>s Biology B</td> <td></td> <td></td> <td>07-MS-B-121-m01</td>	System	s Biology B			07-MS-B-121-m01
ECTS       Method of grading       Only after succ. compl. of module(s)         5       (not) successfully completed	Module	coordinator		Module offered by	^ 
5       (not) successfully completed          Duration       Module level       Other prerequisites         1 semester       graduate          Contents           Advances and current results of computational systems biology are explained and discussed, this includes results for functional genomics, dynamics of the transcriptome, of metabolism and metabolic networks as well as regulatory networks.         Intendel learning outcomes          Understand recent results in systems biology. Discuss their implications. Have an advanced (Master) level know ledge of typical technologies and research questions of systems biology.         Courses (type, number of weekly contact hours, language — if other than German)       V         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)         Students will be informed about the method, length and scope of the assessment prior to the course, a) written examination (30 to 60 minutes, including multiple choice questions) or b) oral examination of one candidate each (30 to 60 minutes)         Allcation of places              Additional information              Additional information           <	holder o	of the Chair of Bioinformatics		Faculty of Biology	
Duration         Module level         Other prerequisites           1 semester         graduate            Contents             Advances and current results of computational systems biology are explained and discussed, this includes results for functional genomics, dynamics of the transcriptome, of metabolism and metabolic networks as well as regulatory networks.           Intended learning outcomes            Understand recent results in systems biology. Discuss their implications. Have an advanced (Master) level know ledge of typical technologies and research questions of systems biology.           V for information on SWS (weekly contact hours) and course language areailable)           Method of assessment (type, scope, language — if other than German)           V (no information on whether module can be chosen to earn a bonus)           Students will be informed about the method, length and scope of the assessment prior to the course, a) written examination of so teo minutes, including multiple choice questions) or b) oral examination of one candidate each (30 to 60 minutes) or c) oral examination in groups of up to 3 candidates (30 to 60 minutes)           Aldication of places                    Morkload                    Morkload			Only after succ. com	pl. of module(s)	
1 semester       graduate	5	(not) successfully completed			
Contents         Advances and current results of computational systems biology are explained and discussed, this includes results from functional genomics, dynamics of the transcriptome, of metabolism and metabolic networks as well as regulatory networks.         Intended learning outcomes         Understand recent results in systems biology. Discuss their implications. Have an advanced (Master) level know ledge of typical technologies and research questions of systems biology.         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 borus)         Students will be informed about the method, length and scope of the assessment prior to the course. a) written examination (so to 6 om inutes, including multiple choice questions) or b) oral examination of one candidate each (30 to 60 minutes) or c) oral examination in groups of up to 3 candidates (30 to 60 minutes)         Allocation of places              Morkload              Referred to in LPO I (examination regulations for teaching-degree programmes)              Module appears in       Master's degree (1 major) Biology (2014)         Master's degree (1 major) Biology (2014)         Master's deg	Duratio		Other prerequisites		
Advances and current results of computational systems biology are explained and discussed, this includes re- sults from functional genomics, dynamics of the transcriptome, of metabolism and metabolic networks as well as regulatory networks. Intended learning outcomes Understand recent results in systems biology. Discuss their implications. Have an advanced (Master) level know ledge of typical technologies and research questions of systems biology. 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) Students will be informed about the method, length and scope of the assessment prior to the course. a) written examination (30 to 6 om inutes, including multiple choice questions) or b) oral examination of one candidate each (30 to 6 om inutes, including multiple choice questions) or b) oral examination of one candidate each (30 to 6 om inutes) or c) oral examination in groups of up to 3 candidates (30 to 6 om inutes) Allocation of places 	1 semes	ter graduate			
sults from functional genomics, dynamics of the transcriptome, of metabolism and metabolic networks as well as regulatory networks. Intended learning outcomes Understand recent results in systems biology. Discuss their implications. Have an advanced (Master) level know ledge of typical technologies and research questions of systems biology. 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) Students will be informed about the method, length and scope of the assessment prior to the course. a) written examination (30 to 60 minutes, including multiple choice questions) or b) oral examination of one candidate each (30 to 60 minutes) or c) oral examination in groups of up to 3 candidates (30 to 60 minutes) Allocation of places  Additional information  Workload  Referred to in LPO 1 (examination regulations for teaching-degree programmes)  Module appears in Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2014) Master's degree (1 major) Biol	Content	S			
Understand recent results in systems biology. Discuss their implications. Have an advanced (Master) level know ledge of typical technologies and research questions of systems biology. <b>Courses</b> (type, number of weekly contact hours, language — if other than German) V (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) Students will be informed about the method, length and scope of the assessment prior to the course. a) written examination (30 to 60 minutes), including multiple choice questions) or b) oral examination of one candidate each (30 to 60 minutes) or c) oral examination in groups of up to 3 candidates (30 to 60 minutes) <b>Allocation of places</b>  <b>Additional information</b>  <b>Workload</b>  <b>Teaching cycle</b>  <b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)  <b>Module appears in</b> Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2012) Master's degree (1 major) Biology (2013) Master's degree (1 major) Biology (2013) Master's degree (1 major) Biology (2014) Master's degree (1 major) Biology (2012) Master's degree (1 major) Biology (2013) Master's degree (1 major) Biology (2014) Master's degree (1 major) Biology (2012) Master's degree (1 major) Biology (2013) Master's degree (1 major) Biology (2014) Master's degree (1 major) Biology (2015) Master's degree (1 major) Biomedicine (2012) Master's degree (1 major) Biomedicine (2013) Master's degree (1 major) Biomedicine (2013)	sults fro	m functional genomics, dynam			
ledge of typical technologies and research questions of systems biology. 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) Students will be informed about the method, length and scope of the assessment prior to the course. a) written examination (30 to 60 minutes, including multiple choice questions) or b) oral examination of one candidate each (30 to 60 minutes) or c) oral examination in groups of up to 3 candidates (30 to 60 minutes) Allocation of places	Intende	d learning outcomes			
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) Students will be informed about the method, length and scope of the assessment prior to the course. a) written examination (30 to 60 minutes, including multiple choice questions) or b) oral examination of one candidate each (30 to 60 minutes) or c) oral examination in groups of up to 3 candidates (30 to 60 minutes) Allocation of places Additional information Workload Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2012) Master's degree (1 major) Biomedicine (2012)					an advanced (Master) level know-
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)         Students will be informed about the method, length and scope of the assessment prior to the course. a) written examination (30 to 60 minutes, including multiple choice questions) or b) oral examination of one candidate each (30 to 60 minutes) or c) oral examination in groups of up to 3 candidates (30 to 60 minutes)         Allocation of places	Courses	(type, number of weekly conta	ct hours, language —	if other than Germa	an)
ster, information on whether module can be chosen to earn a bonus) Students will be informed about the method, length and scope of the assessment prior to the course. a) written examination (30 to 60 minutes, including multiple choice questions) or b) oral examination of one candidate each (30 to 60 minutes) or c) oral examination in groups of up to 3 candidates (30 to 60 minutes) Allocation of places Additional information Workload Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2014) Master's degree (1 major) Biology (2013) Master's degree (1 major) Biomedicine (2013) Master's degree (1 major) Biomedicine (2013)	V (no int	formation on SWS (weekly cont	act hours) and cours	e language available	e)
examination (30 to 60 minutes, including multiple choice questions) or b) oral examination of one candidate each (30 to 60 minutes) or c) oral examination in groups of up to 3 candidates (30 to 60 minutes) Allocation of places  Additional information  Workload  Teaching cycle  Referred to in LPO I (examination regulations for teaching-degree programmes)  Module appears in Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2014) Master's degree (1 major) Biology (2014) Master's degree (1 major) Biology (2013) Master's degree (1 major) Biology (2014) Master's degree (1 major) Biology (2014) Master's degree (1 major) Biology (2014) Master's degree (1 major) Biology (2013) Master's degree (1 major) Biomedicine (2013) Master's degree (1 major) Biomedicine (2013) Master's degree (1 major) Biomedicine (2012)					tion offered — if not every seme-
Allocation of places Additional information Workload Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2014) Master's degree (1 major) Biology (2012) Master's degree (1 major) Biology (2013) Master's degree (1 major) Biomedicine (2013) Master's degree (1 major) Biomedicine (2013) Master's degree (1 major) Biomedicine (2012)	examina	ation (30 to 60 minutes, includi	ing multiple choice qu	uestions) or b) oral e	examination of one candidate
Additional information Additional information Additional information Additional information Workload Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2014) Master's degree (1 major) Biology (2014) Master's degree (1 major) Mathematics (2012) Master's degree (1 major) Biomedicine (2013) Master's degree (1 major) Biomedicine (2012)					- · · ·
Workload Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2014) Master's degree (1 major) Biology (2012) Master's degree (1 major) Biology (2013) Master's degree (1 major) Biomedicine (2013) Master's degree (1 major) Biomedicine (2012)					
Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2014) Master's degree (1 major) Biology (2012) Master's degree (1 major) Mathematics (2012) Master's degree (1 major) Biomedicine (2013) Master's degree (1 major) Biomedicine (2012)	Addition	nal information			
Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2014) Master's degree (1 major) Biology (2012) Master's degree (1 major) Mathematics (2012) Master's degree (1 major) Biomedicine (2013) Master's degree (1 major) Biomedicine (2012)					
Teaching cycle Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2014) Master's degree (1 major) Biology (2012) Master's degree (1 major) Mathematics (2012) Master's degree (1 major) Biomedicine (2013) Master's degree (1 major) Biomedicine (2012)	Workloa	nd			
<ul> <li>Referred to in LPO I (examination regulations for teaching-degree programmes)</li> <li></li> <li>Module appears in</li> <li>Master's degree (1 major) Biology (2011)</li> <li>Master's degree (1 major) Biology (2014)</li> <li>Master's degree (1 major) Mathematics (2012)</li> <li>Master's degree (1 major) Biomedicine (2013)</li> <li>Master's degree (1 major) Biomedicine (2012)</li> </ul>					
<ul> <li>Referred to in LPO I (examination regulations for teaching-degree programmes)</li> <li></li> <li>Module appears in</li> <li>Master's degree (1 major) Biology (2011)</li> <li>Master's degree (1 major) Biology (2014)</li> <li>Master's degree (1 major) Mathematics (2012)</li> <li>Master's degree (1 major) Biomedicine (2013)</li> <li>Master's degree (1 major) Biomedicine (2012)</li> </ul>	Teachin	g cycle			
Module appears in Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2014) Master's degree (1 major) Mathematics (2012) Master's degree (1 major) Biomedicine (2013) Master's degree (1 major) Biomedicine (2012)		3 - , • . •			
Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2014) Master's degree (1 major) Mathematics (2012) Master's degree (1 major) Biomedicine (2013) Master's degree (1 major) Biomedicine (2012)	Referred	to in LPO I (examination regu	lations for teaching-c	legree programmes)	
Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2014) Master's degree (1 major) Mathematics (2012) Master's degree (1 major) Biomedicine (2013) Master's degree (1 major) Biomedicine (2012)					
Master's degree (1 major) Biology (2014) Master's degree (1 major) Mathematics (2012) Master's degree (1 major) Biomedicine (2013) Master's degree (1 major) Biomedicine (2012)	Module	appears in			
	Master's degree (1 major) Biology (2014) Master's degree (1 major) Mathematics (2012) Master's degree (1 major) Biomedicine (2013)				
				2)	

Master's with 1 major Biology (2011)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 129 / 153
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Module	e title				Abbreviation
Bioche	mistry,	Physiology and Genetic	s of Mammalian Cell	Culture	07-MSCC-111-m01
Module	e coord	inator		Module offered by	·
degree	progra	mme coordinator Biologi	e (Biology)	Faculty of Biology	
ECTS		od of grading	Only after succ. com	pl. of module(s)	
5	(not) s	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate			
Conten	Its				
	eneratio				d cell structures, cell prolifera- ts, fundamental cell analytical
Intend	ed lear	ning outcomes			
		able to understand the bi ese techniques.	ochemistry, physiolo	gy and genetics of m	nammalian cell culture, and are
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	ın)
S (no ir	nformat	tion on SWS (weekly cont	act hours) and cours	e language available	2)
ster, in	formati	ion on whether module c	an be chosen to earn	a bonus)	tion offered — if not every seme-
10 to 30 groups	o page: of up t	s) or c) oral examination	of one candidate eacl	h (usually 30 to 60 n	ninutes) or d) oral examination in on (usually 20 to 45 minutes)
Allocat	-				
Additic	nal inf	ormation			
Worklo	ad				
Teachi	ng cycl	e	·		
Referre	ed to in	LPOI (examination regu	lations for teaching-c	legree programmes)	
		, J			
 Module	e appea				
Master	's degr	ars in	1)		

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Module	e title				Abbreviation
Semina	Seminar Experimental Animal Ecology				07-MSET-121-m01
Module	e coord	inator		Module offered by	
holder	ofthe	Chair of Animal Ecology a	nd Tropical Biology	Faculty of Biology	
ECTS	Methe	od of grading	Only after succ. com	pl. of module(s)	
2	(not) s	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate			
Conten	ts				
Bees a METI), Waldök	nd Hon Modell cologie	eybees, 07-MHWB), Ökol	ogie und Taxonomie cological Modelling, o	der Insekten (Ecolog o7-MMIE), Agrarökol	nenökologie (Ecology of Wild gy and Taxonomy of Insects, 07- ogie (Agroecology, 07-MAGRE), ATROP).
		e acquired in-depth know ate and critically analyse i	-	•	ntal animal ecology and are able ions.
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	· if other than Germa	n)
S (no ir	nformat	tion on SWS (weekly cont	act hours) and cours	e language available	e)
		<b>sessment</b> (type, scope, la ion on whether module ca			tion offered — if not every seme-
or c) or	al exar		e each (approx. 30 to	60 minutes) or d) or	estions) or b) log (10 to 30 pages) al examination in groups of up to nutes)
Allocat	ion of <sub>l</sub>	places			
Additio	nal inf	ormation			
Worklo	ad				
Teachi	Teaching cycle				
	_ ,				
Referre	d to in	LPOI (examination regu	lations for teaching-o	legree programmes)	
			0		
Module	e appea	ars in			
		ee (1 major) Biology (201:	l)		
Master	's degr	ee (1 major) Biology (201	4)		

Modul					Abbreviation	
Labora	tory pr	actical course 1			07-MSL1-102-m01	
Module	e coord	inator		Module offered by	<u> </u>	
Coordi	nator B	ioCareers		Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. com	pl. of module(s)		
5	(not)	successfully completed				
Duratio	on	Module level	Other prerequisites			
1 seme	ester	graduate	Please consult with	course advisory serv	vice in advance.	
Conten	nts					
Practic	al cour	se, summer school or wo	rkshop on specific to	pics in biology (dura	ation: 2-3 weeks).	
Intend	ed lear	ning outcomes				
		specific methods and lat hniques later on in a rese		ected fields of biolo	gy. Ability to apply these me-	
Course	<b>es</b> (type	, number of weekly conta	ct hours, language –	if other than Germa	an)	
P (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-	
followi or b) lo	ng opti og (app	ons will be chosen: a) wr rox. 10 to 30 pages) or c)	itten examination (3c oral examination of o	to 60 minutes, incl ne candidate each (	o the course. Usually, one of the uding multiple choice questions) (30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)	
Allocat						
Additio	onal inf	ormation				
Worklo	ad					
Teachi	ng cycl	e				
Referre	ed to in	LPOI (examination regu	lations for teaching-c	legree programmes)		
Module	e appea	ars in				
Master	r's degr	ee (1 major) Biology (201	1)			
Master	Aaster's degree (1 major) Biology (2011)					
	-	ee (1 major) Biology (201) ee (1 major) Biology (201)				

Master's with 1 major Biology (2011)	JMU Würzburg • generated 26-Aug-2024 • exam.	
	reg. data record Master (120 ECTS) Biologie - 2011	

Modul	e title				Abbreviation
Labora	tory pr	actical course 2			07-MSL2-102-m01
Modul	e coord	linator		Module offered by	<u> </u>
Coordi	nator B	ioCareers		Faculty of Biology	
ECTS		od of grading	Only after succ. con	pl. of module(s)	
10	(not)	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate	Please consult with	course advisory serv	vice in advance.
Conter	nts				
Practic	al cour	se, summer school or wo	rkshop on specific to	pics in biology (dura	tion: 4-6 weeks).
Intend	ed lear	ning outcomes			
		specific methods and lat hniques later on in a rese		ected fields of biolo	gy. Ability to apply these me-
Course	e <b>s</b> (type	, number of weekly conta	ct hours, language –	- if other than Germa	in)
P (no ii	nforma	tion on SWS (weekly cont	act hours) and cours	e language available	<u>a)</u>
		<b>sessment</b> (type, scope, la ion on whether module ca			tion offered — if not every seme-
followi or b) lo	ng opti og (app	ons will be chosen: a) wr rox. 10 to 30 pages) or c)	itten examination (3c oral examination of c	to 60 minutes, incluence of the minutes of the minu	o the course. Usually, one of the uding multiple choice questions) 30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)
	tion of			· · · ·	
Additio	onal inf	ormation			
Worklo	ad				
Teachi	ng cycl	e			
Referre	ed to in	LPO I (examination regu	lations for teaching-o	degree programmes)	
Modul	e appea	ars in			
		ee (1 major) Biology (201:	1)		
	-	ee (1 major) Biology (201			
Master	's degr	ee (1 major) Biology (201	4)		

Modul	e title				Abbreviation		
Labora	tory pr	actical course 3			07-MSL3-102-m01		
Modul	e coord	inator		Module offered by			
Coordi	nator B	ioCareers		Faculty of Biology			
ECTS	Methe	od of grading	Only after succ. com	pl. of module(s)			
15	(not)	successfully completed					
Duratio	on	Module level	Other prerequisites				
1 seme	ester	graduate	Please consult with	course advisory serv	vice in advance.		
Conter	nts						
Practic	al cour	se, summer school or wo	rkshop on specific to	pics in biology (dura	tion: 6-9 weeks).		
Intend	ed lear	ning outcomes					
		specific methods and lat hniques later on in a rese		ected fields of biolo	gy. Ability to apply these me-		
Course	es (type	, number of weekly conta	ict hours, language —	if other than Germa	n)		
P (no ii	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-		
followi or b) lo	ng opti og (appi	ons will be chosen: a) wr rox. 10 to 30 pages) or c)	itten examination (30 oral examination of o	to 60 minutes, inclu ne candidate each (	o the course. Usually, one of the uding multiple choice questions) 30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)		
	tion of <sub>l</sub>						
Additio	onal inf	ormation					
Worklo	bad						
Teachi	ng cycl	e					
	- /						
Referre	ed to in	LPOI (examination regu	lations for teaching-o	legree programmes)			
Modul	e appea	ars in					
		ee (1 major) Biology (201:	1)				
	-		Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2010)				
	laster's degree (1 major) Biology (2010) laster's degree (1 major) Biology (2014)						

Modul	e title				Abbreviation	
Final E	xamina	tion in Biology		-	07-MT-102-m01	
Modul	Module coordinator			Module offered by		
chairpe	erson o	f examination committee	Biologie (Biology)	Faculty of Biology		
ECTS	1	od of grading	Only after succ. con			
30	nume	rical grade				
Duratio	on	Module level	Other prerequisites			
1 seme	ster	graduate	By way of exception assessments.	, additional prerequi	isites are listed in the section on	
Conter	Its					
ments and ap of good	to solve ply adv d scient	e problems or summarise vanced and novel techniq	and interpret existir ues in the context of are summarised in a	ig data. Students hav a given research pro	They plan and perform experi- ve to develop a research plan oject, adhering to the principles efended in a colloquium. The pro-	
Intend	ed lear	ning outcomes				
me. Th perime	ey are a nts, ad	able to independently ap	proach current scient of scientific practice.	ific topics and to pe Students are able to	ify them according to the outco- rform, interpret and document ex- o discuss and defend their work pics.	
Course	<b>s</b> (type	, number of weekly conta	ict hours, language –	- if other than Germa	in)	
compo • c • c	nent. 07-MT-1 07-MK-1	-102: no courses assigne -102: no courses assigne	d ed		sted separately for each module tion offered — if not every seme-	
ster, in	formati	ion on whether module c	an be chosen to earn	a bonus)		
low. Ur		ated otherwise, successf			e components as specified be- successful completion of all indi-	
• 2 • v • L • ( Assess • 5 • f	<ul> <li>Assessment in module component o7-MT-1-102: Thesis</li> <li>25 ECTS, Method of grading: numerical grade</li> <li>written thesis</li> <li>Language of assessment: German or English</li> <li>Other prerequisites: F2 lab course on topic of thesis</li> <li>Assessment in module component o7-MK-1-102: Final Colloquium Biology</li> <li>5 ECTS, Method of grading: numerical grade</li> <li>final colloquium (approx. 45 minutes)</li> <li>Only after successful completion of module components: o7-MT-1</li> </ul>					
Allocat	ion of <sub>l</sub>	olaces				
Additio	onal inf	ormation				
• 0	07-MT-1	ormation will be listed se -102: Additional informat -102:				
Worklo	ad					

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## Teaching cycle

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

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## Module appears in

Master's degree (1 major) Biology (2011)

Master's degree (1 major) Biology (2010)

Master's degree (1 major) Biology (2014)

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Modul	e title	_			Abbreviation
Animal	l Ecolog	y and Tropical Biology 2	В		07-MTÖ2B-121-m01
Module	e coord	inator		Module offered by	
holder	of the (	Chair of Animal Ecology a	nd Tropical Biology	Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. com	pl. of module(s)	
5	(not) s	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ester	graduate			
Conten	nts				
focus i	s on the		opical systems (ecos	ystem goods and ec	ropical communities. A special osystem services), but the biolo-
Intend	ed lear	ning outcomes			
tropica	l ecolo	• •	to interpret scientific	•	research issues in the field of knowledge they have acquired to
Course	<b>es</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)
V (no ii	nformat	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-
	each (a				or b) oral examination of one can- 3 candidates (approx. 30 to 60
Allocat	tion of p	olaces			
	_				
Additio	onal inf	ormation			
Worklo	bad				
Teachi	ng cycl	9			
Referre	ed to in	LPOI (examination regu	lations for teaching-c	legree programmes)	
		· · · · · ·		,	
Modul	e appea	irs in			
		ee (1 major) Biology (201	1)		
	0	ee (1 major) Biology (201	·		

Master's with 1 major Biology (2011)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 137 / 153
	reg. data record Master (120 ECTS) Biologie - 2011	

Module					Abbreviation
Animal	Ecolog	y and Tropical Biology			07-MTÖB-121-m01
Module coordinator				Module offered by	
holder	of the (	Chair of Animal Ecology a	nd Tropical Biology	Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con		
5	(not) s	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate			
Conten	ts				
current	issues nd food	in animal ecology. Focus	s will be on biodivers	ity and ecosystem fu	of the theoretical foundations and nctions, multi-trophic interac- gricultural ecology, and global
Intend	ed lear	ning outcomes			
of anim	nal ecol		interpret scientific pu		rrent research issues in the field y the acquired knowledge to the
Course	<b>s</b> (type	, number of weekly conta	ict hours, language –	- if other than Germa	n)
V (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-
	each (a				or b) oral examination of one can- 3 candidates (approx. 30 to 60
Allocat	ion of <b>j</b>	olaces			
Additio	onal inf	ormation			
Worklo	ad				
Teachi	ng cvcl	e			
	<u> </u>				
Referre	ed to in	LPOI (examination regu	lations for teaching-	degree programmes)	
Module	e appez	ars in			
		ee (1 major) Biology (201	1)		
	-	ee (1 major) Biology (201 ee (1 major) Biology (201			
		. , , , , , , , , , , , , , , , , , , ,			

Master's with 1 major Biology (2011)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 138 / 153
	reg. data record Master (120 ECTS) Biologie - 2011	

Module coordinator       Module offered b         Module coordinator       Module offered b         holder of the Chair of Animal Ecology and Tropical Biology       Faculty of Biology         ECTS       Method of grading       Only after succ. compl. of module(s)         5       numerical grade        Duration       Module level       Other prerequisites       1         1 semester       graduate         Contents          Contents         Small projects on ecological or nature conservation-related issues will be imp         Students should become familiar with different project stages from experimer         ta analysis through to data presentation. In evening seminars, recent publicat         Will learn about various tropical ecosystems and will acquire advand nature conservation-related research in the tropics. They will learn field e tative detection of insects and their biotic interactions and will acquire statist analysis.         Courses (type, number of weekly contact hours, language — if other than Germa is ther, information on SWS (weekly contact hours, and course language availal         Method of assessment (type, scope, language — if other than Germa, exami ster, information on whether module can be chosen to earn a bonus)         a) written examination (approx. 30	Abbreviation
holder of the Chair of Animal Ecology and Tropical 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       graduate          Contents           Small projects on ecological or nature conservation-related issues will be imp       Students should become familiar with different project stages from experimer         ta analysis through to data presentation. In evening seminars, recent publicat will be presented and discussed.       Intended learning outcomes         The students will learn about various tropical ecosystems and will acquire advand nature conservation-related research in the tropics. They will learn field e tative detection of insects and their biotic interactions and will acquire statist analysis.         Courses (type, number of weekly contact hours, language — if other than Gerr U (no information on SWS (weekly contact hours) and course language availal         Method of assessment (type, scope, language — if other than Gerran, examister, information of one candidate each (approx. 30 to 60 minutes) or d) a candidates (approx. 30 to 60 minutes) or e) presentation (approx. 20 to 45 r         Allocation of places	07-MTROP-121-m01
holder of the Chair of Animal Ecology and Tropical 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       graduate          Contents           Small projects on ecological or nature conservation-related issues will be imp       Students should become familiar with different project stages from experimer         ta analysis through to data presentation. In evening seminars, recent publicat       will be presented and discussed.         Intended learning outcomes          The students will learn about various tropical ecosystems and will acquire advand nature conservation-related research in the tropics. They will learn field e tative detection of insects and their biotic interactions and will acquire statist analysis.         Courses (type, number of weekly contact hours, language — if other than Gerr         Ü (no information on SWS (weekly contact hours) and course language availal         Method of assessment (type, scope, language — if other than Gerran, exami ster, information on whether module can be chosen to earn a bonus)         a) written examination (approx. 30 to 60 minutes) or d) or al examination of one candidate each (approx. 30 to 60 minutes) or d) or al candidates (approx. 30 to 60 minutes) or d) or al candidates (approx. 30 to 60 minutes) or e) presentation (approx. 20 to 45 r	 /
ECTS       Method of grading       Only after succ. compl. of module(s)         5       numerical grade          Duration       Module level       Other prerequisites         1 semester       graduate          Contents         Small projects on ecological or nature conservation-related issues will be imply Students should become familiar with different project stages from experimer ta analysis through to data presentation. In evening seminars, recent publicat will be presented and discussed.         Intended learning outcomes       The students will learn about various tropical ecosystems and will acquire advand nature conservation-related research in the tropics. They will learn field e tative detection of insects and their biotic interactions and will acquire statist analysis.         Courses (type, number of weekly contact hours, language — if other than Gerr U (no information on SWS (weekly contact hours) and course language availal         Method of assessment (type, scope, language — if other than German, exami ster, information of one candidate each (approx. 30 to 60 minutes) or d) 3 candidates (approx. 30 to 60 minutes) or e) presentation (approx. 20 to 45 r         Allocation of places              Workload              The students upper server              Additional information	
5       numerical grade          Duration       Module level       Other prerequisites         1 semester       graduate          Contents           Small projects on ecological or nature conservation-related issues will be imp Students should become familiar with different project stages from experimer ta analysis through to data presentation. In evening seminars, recent publicat will be presented and discussed.         Intended learning outcomes          The students will learn about various tropical ecosystems and will acquire adv and nature conservation-related research in the tropics. They will learn field e tative detection of insects and their biotic interactions and will acquire statist analysis.         Courses (type, number of weekly contact hours, language — if other than Gerr Ü (no information on SWS (weekly contact hours) and course language availal         Method of assessment (type, scope, language — if other than German, exami ster, information on whether module can be chosen to earn a bonus)         a) written examination (approx. 30 to 60 minutes, including multiple choice q or c) oral examination of one candidate each (approx. 30 to 60 minutes) or d) 3 candidates (approx. 30 to 60 minutes) or e) presentation (approx. 20 to 45 r         Additional information	
1 semester       graduate          Contents         Small projects on ecological or nature conservation-related issues will be imp         Students should become familiar with different project stages from experimer         ta analysis through to data presentation. In evening seminars, recent publicat         will be presented and discussed.         Intended learning outcomes         The students will learn about various tropical ecosystems and will acquire advand nature conservation-related research in the tropics. They will learn field e         tative detection of insects and their biotic interactions and will acquire statist         analysis.         Courses (type, number of weekly contact hours, language — if other than Gerr         Ü (no information on SWS (weekly contact hours) and course language availal         Method of assessment (type, scope, language — if other than German, exami         ster, information on whether module can be chosen to earn a bonus)         a) written examination (approx. 30 to 60 minutes, including multiple choice q         or or o) are axamination of one candidate each (approx. 30 to 60 minutes) or d)         3 candidates (approx. 30 to 60 minutes) or e) presentation (approx. 20 to 45 r         Allocation of places            Teaching cycle	
1 semester       graduate          Contents         Small projects on ecological or nature conservation-related issues will be imp Students should become familiar with different project stages from experimer ta analysis through to data presentation. In evening seminars, recent publicat will be presented and discussed.         Intended learning outcomes         The students will learn about various tropical ecosystems and will acquire add and nature conservation-related research in the tropics. They will learn field e tative detection of insects and their biotic interactions and will acquire statist analysis.         Courses (type, number of weekly contact hours, language — if other than Gerr Ü (no information on SWS (weekly contact hours) and course language availad Method of assessment (type, scope, language — if other than German, exami ster, information on whether module can be chosen to earn a bonus)         a) written examination (approx. 30 to 60 minutes, including multiple choice q or c) oral examination of one candidate each (approx. 30 to 60 minutes) or d) 3 candidates (approx. 30 to 60 minutes) or e) presentation (approx. 20 to 45 r Allocation of places	
Small projects on ecological or nature conservation-related issues will be imp Students should become familiar with different project stages from experimer ta analysis through to data presentation. In evening seminars, recent publicat will be presented and discussed. Intended learning outcomes The students will learn about various tropical ecosystems and will acquire adv and nature conservation-related research in the tropics. They will learn field e tative detection of insects and their biotic interactions and will acquire statist analysis. Courses (type, number of weekly contact hours, language — if other than Gerr Ü (no information on SWS (weekly contact hours) and course language availal Method of assessment (type, scope, language — if other than Gerran, exami ster, information on whether module can be chosen to earn a bonus) a) written examination (approx. 30 to 60 minutes, including multiple choice q or c) oral examination of one candidate each (approx. 30 to 60 minutes) or d) 3 candidates (approx. 30 to 60 minutes) or e) presentation (approx. 20 to 45 r Allocation of places  Workload  Teaching cycle 	
Students should become familiar with different project stages from experimer ta analysis through to data presentation. In evening seminars, recent publicat will be presented and discussed. Intended learning outcomes The students will learn about various tropical ecosystems and will acquire adv and nature conservation-related research in the tropics. They will learn field e tative detection of insects and their biotic interactions and will acquire statist analysis. Courses (type, number of weekly contact hours, language — if other than Gerr Ü (no information on SWS (weekly contact hours) and course language availal Method of assessment (type, scope, language — if other than German, exami ster, information on whether module can be chosen to earn a bonus) a) written examination (approx. 30 to 60 minutes, including multiple choice q or c) oral examination of one candidate each (approx. 30 to 60 minutes) or d) 3 candidates (approx. 30 to 60 minutes) or e) presentation (approx. 20 to 45 r Allocation of places  Morkload  Teaching cycle 	
Intended learning outcomes The students will learn about various tropical ecosystems and will acquire adv and nature conservation-related research in the tropics. They will learn field e tative detection of insects and their biotic interactions and will acquire statist analysis. Courses (type, number of weekly contact hours, language — if other than Gerrr Ü (no information on SWS (weekly contact hours) and course language availal Method of assessment (type, scope, language — if other than German, exami ster, information on whether module can be chosen to earn a bonus) a) written examination (approx. 30 to 60 minutes, including multiple choice q or c) oral examination of one candidate each (approx. 30 to 60 minutes) or d) 3 candidates (approx. 30 to 60 minutes) or e) presentation (approx. 20 to 45 r Allocation of places Workload Teaching cycle	t design, implementation and da-
The students will learn about various tropical ecosystems and will acquire adv and nature conservation-related research in the tropics. They will learn field e tative detection of insects and their biotic interactions and will acquire statist analysis. <b>Courses</b> (type, number of weekly contact hours, language — if other than Gerr Ü (no information on SWS (weekly contact hours) and course language availal <b>Method of assessment</b> (type, scope, language — if other than German, exami ster, information on whether module can be chosen to earn a bonus) a) written examination (approx. 30 to 60 minutes, including multiple choice q or c) oral examination of one candidate each (approx. 30 to 60 minutes) or d) 3 candidates (approx. 30 to 60 minutes) or e) presentation (approx. 20 to 45 r <b>Allocation of places</b>  <b>Morkload</b>  <b>Teaching cycle</b> 	
Ü (no information on SWS (weekly contact hours) and course language availal Method of assessment (type, scope, language — if other than German, exami ster, information on whether module can be chosen to earn a bonus) a) written examination (approx. 30 to 60 minutes, including multiple choice q or c) oral examination of one candidate each (approx. 30 to 60 minutes) or d) 3 candidates (approx. 30 to 60 minutes) or e) presentation (approx. 20 to 45 r Allocation of places Morkload Teaching cycle	ological methods for the quanti-
Method of assessment (type, scope, language — if other than German, exami ster, information on whether module can be chosen to earn a bonus) a) written examination (approx. 30 to 60 minutes, including multiple choice q or c) oral examination of one candidate each (approx. 30 to 60 minutes) or d) 3 candidates (approx. 30 to 60 minutes) or e) presentation (approx. 20 to 45 r Allocation of places  Additional information  Workload 	ian)
ster, information on whether module can be chosen to earn a bonus) a) written examination (approx. 30 to 60 minutes, including multiple choice q or c) oral examination of one candidate each (approx. 30 to 60 minutes) or d) 3 candidates (approx. 30 to 60 minutes) or e) presentation (approx. 20 to 45 r Allocation of places Additional information Workload Teaching cycle	le)
or c) oral examination of one candidate each (approx. 30 to 60 minutes) or d) 3 candidates (approx. 30 to 60 minutes) or e) presentation (approx. 20 to 45 r Allocation of places  Additional information  Workload  Teaching cycle	ation offered — if not every seme-
Allocation of places Additional information Workload Teaching cycle	oral examination in groups of up to
Additional information Workload Teaching cycle	
Workload Teaching cycle	
 Teaching cycle	
 Teaching cycle 	
 Teaching cycle 	
Referred to in LPO I (examination regulations for teaching-degree programme	
	5)
Module appears in	
Master's degree (1 major) Biology (2011) Master's degree (1 major) Biology (2014)	

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Module title Abbreviation							
Entrep	Entrepreneurial Spirit in Biosciences 07-MUDB-102-m01						
Modul	e coord	inator		Module offered by			
Coordi	Coordinator BioCareers			Faculty of Biology			
ECTS		od of grading	Only after succ. compl. of module(s)				
5		successfully completed					
Duratio		Module level	Other prerequisites				
1 seme		graduate					
Conter	_						
with th	e proce		s opt. together with coo companies in the biot				
Intend	ed lear	ning outcomes					
	-	ed an insight into the b and development.	ousiness plans and ma	rket of companies. T	hey gained an insigh	ıt into indu-	
Course	<b>s</b> (type	, number of weekly cor	itact hours, language –	- if other than Germa	ın)		
			rmation on courses list				
			tion on language and n tion on language and n				
			language — if other th				
			can be chosen to earn			every seme-	
This m	odule h	as the following 2 asse	essment components. l	Jnless stated otherw	vise, students must p	bass all of	
these a	assessn	nent components to pa	ss the module as a wh	ole			
• 5 • 5 • 5 • 5	5 ECTS of Student Jsually, (e) or b) Examina Sment c 5 ECTS of Student Jsually, pages) of	redits, method of grad s will be informed abo the following option w log (approx. 10-30 pag ation in groups up to the <b>omponent to module c</b> redits, method of grad s will be informed abo the following option w or c) oral examination of	but the method, length will be chosen: a) writter ges) or c) oral examinat gee candidates (approx. omponent o7-MUDB-2-	and scope of the as n examination (30-60 ion of on candidate e 30-60 minutes) or e) - <b>102:</b> Interdisziplinär and scope of the as n examination (30-12 20-30-60 minutes) or	sessment prior to th o minutes, auch Mul- each (30-60 minutes) presentation (20-45 re Projektarbeit sessment prior to th 20 minutes) or b) log d) oral examination	he course. tiple Choi- ) or d) oral minutes). he course. g (ca.10-30	
Allocat	tion of p	olaces		· · · · · · · · · · · · · · · · · · ·			
Additio	onal inf	ormation					
Worklo	ad						
Teachi	ng cycl	e					
Referre	ed to in	LPOI (examination re	gulations for teaching-	degree programmes)			
Modul	e appea	ars in					
Master	's degr	ee (1 major) Biology (20	011)				
Master's w	ith 1 majo	r Biology (2011)		rg • generated 26-Aug-2024 ord Master (120 ECTS) Biolog		page 140 / 153	



Master's degree (1 major) Biology (2010) Master's degree (1 major) Biology (2014)

Master's with 1 major Biology (2011)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 141 / 153
	reg. data record Master (120 ECTS) Biologie - 2011	

Modul					Abbreviation
Extrac	urricula	ar Activities Outside of Na	tural Sciences 1		07-MV1-102-m01
Modul	e coord	linator		Module offered by	<u>,                                     </u>
Coordi	inator E	BioCareers		Faculty of Biology	
ECTS		od of grading	Only after succ. con	npl. of module(s)	
2	(not)	successfully completed			
Durati	on	Module level	Other prerequisites		
1 seme	ester	graduate	Please consult with	course advisory serv	/ice.
Conter	nts				
scienc dule co	es. Ass oordina	essment ungraded, pass	required (2 ECTS cree	dits); decision on cre	ner than biology or the natural edit transfer to be made by mo- ges, social studies, psychology,
Intend	ed lear	ning outcomes			
Specif	ic skills	and knowledge on a spe	cific subject in an are	ea other than biology	y or the natural sciences.
Course	es (type	e, number of weekly conta	ict hours, language –	- if other than Germa	in)
V (no i	nforma	tion on SWS (weekly cont	act hours) and cours	e language available	e)
		<b>sessment</b> (type, scope, la ion on whether module ca			tion offered — if not every seme-
regula	r attend	dance as certified by the l	ecturer		
Alloca	tion of	places			
Additi	onal in	formation			
Worklo	oad				
Teachi	ing cyc	le			
Referr	ed to in	LPOI (examination regu	lations for teaching-	degree programmes)	
Modul	e appe	ars in			
		ree (1 major) Biology (201	1)		
Maste	r's degi	ree (1 major) Biology (201	0)		
Maste	r's degi	ree (1 major) Biology (201	4)		

Master's with 1 major Biology (2011)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 142 / 153
	reg. data record Master (120 ECTS) Biologie - 2011	

Modul				-	Abbreviation
Extrac	urricula	r Activities Outside of I	latural Sciences 2		07-MV2-102-m01
Module coordinator				Module offered by	<u>I</u>
Coordi	nator B	ioCareers		Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
3	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ester	graduate	Please consult with	course advisory ser	vice.
Conter	nts				
science dule co econor Intend Specifi Course V (no in Metho ster, in Studer followi or b) lo	es. Asse bordina mics, ar ed learn ic skills es (type nformati of of asse iformati nts will ng opti og (app	essment ungraded, pastors. Possible subjects and law. <b>ning outcomes</b> and knowledge on a sp , number of weekly con ion on SWS (weekly co <b>sessment</b> (type, scope, on on whether module be informed about the l ons will be chosen: a) w rox. 10 to 30 pages) or co	s required (3 ECTS creater are philosophy, pedage eccific subject in an are tact hours, language – ntact hours) and cours language — if other th can be chosen to earn ength and scope of th vritten examination (30 ) oral examination of c	dits); decision on cre gogy, history, langua ea other than biolog - if other than Germa e language available an German, examina a bonus) e assessment prior t o to 60 minutes, incl one candidate each	· ·
Allocat	tion of <sub>l</sub>	olaces			
Additio	onal inf	ormation			
Worklo	oad				
Teachi	ng cycl	e			
Referre	ed to in	LPO I (examination reg	ulations for teaching-	degree programmes	)
			0		
Modul	e appea	urs in			
Master Master	r's degr r's degr	ee (1 major) Biology (20 ee (1 major) Biology (20 ee (1 major) Biology (20	10)		

Master's with 1 major Biology (2011)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 143 / 153
	reg. data record Master (120 ECTS) Biologie - 2011	

Modul					Abbreviation
Extrac	urricula	ar Activities Outside of Na	atural Sciences 3		07-MV3-102-m01
Modul	Module coordinator			Module offered by	<u> </u>
Coordi	nator E	BioCareers		Faculty of Biology	
ECTS	Meth			npl. of module(s)	
4	(not) successfully completed				
Durati	on	Module level	Other prerequisites		
1 seme	ester	graduate	Please consult with	course advisory serv	vice.
Conter	nts				
scienc dule co	es. Ass oordina	essment ungraded, pass	required (4 ECTS crea	dits); decision on cre	er than biology or the natural edit transfer to be made by mo- ges, social studies, psychology,
Intend	ed lear	ning outcomes			
Specif	ic skills	s and knowledge on a spe	cific subject in an are	ea other than biology	y or the natural sciences.
Course	es (type	e, number of weekly conta	ict hours, language –	- if other than Germa	ın)
V (no i	nforma	tion on SWS (weekly cont	act hours) and cours	e language available	2)
		<b>sessment</b> (type, scope, la ion on whether module ca			tion offered — if not every seme
regula	r attend	dance as certified by the l	ecturer		
Alloca	tion of	places			
Additi	onal in	formation			
Worklo	oad				
Teachi	ing cyc	le			
Referre	ed to in	LPOI (examination regu	lations for teaching-	degree programmes)	
Modul	e appe	ars in			
Maste	r's degi	ree (1 major) Biology (201	1)		
	-	ree (1 major) Biology (201	•		
Maste	r's degi	ree (1 major) Biology (201	4)		

Master's with 1 major Biology (2011)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 144 / 153
	reg. data record Master (120 ECTS) Biologie - 2011	

Modul					Abbreviation
Extrac	urricula	r Activities Outside of N	latural Sciences 4		07-MV4-102-m01
Modul	e coord	inator		Module offered by	
Coordinator BioCareers				Faculty of Biology	
ECTS	Method of grading Only after succ. compl. of module(s)				
5	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ester	graduate	Please consult with	course advisory ser	vice.
Conter	nts				
science dule co econor	es. Ass pordina mics, ai	essment ungraded, pas tors. Possible subjects nd law.	s required (5 ECTS cree	dits); decision on cre	ner than biology or the natural edit transfer to be made by mo- ges, social studies, psychology,
	-	ning outcomes			
		, number of weekly cont	·	-	y or the natural sciences.
	-	tion on SWS (weekly cor			
		ion on whether module			ation offered — if not every seme-
followi or b) lo	ing opti og (appi	ons will be chosen: a) w rox. 10 to 30 pages) or c	ritten examination (30 ) oral examination of c	o to 60 minutes, incl one candidate each	o the course. Usually, one of the uding multiple choice questions) (30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)
Allocat	tion of j	olaces		· · ·	
Additio	onal inf	ormation			
Worklo	bad				
Teachi	ng cycl	e			
Referre	ed to in	LPOI (examination reg	ulations for teaching-	degree programmes)	)
Modul	e appea	ars in			
Master	r's degr	ee (1 major) Biology (20	11)		
	-	ee (1 major) Biology (20			
Master	r's degr	ee (1 major) Biology (20	14)		

Master's with 1 major Biology (2011)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 145 / 153
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Modul	e title				Abbreviation
Specif	ic Curri	cular Activities in Biologi	cal Sciences 1		07-MVMINT1-102-m01
Module coordinator				Module offered by	
Coordi	inator B	ioCareers		Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. con		
2	(not)	successfully completed			
Durati	on	Module level	Other prerequisites		
1 seme	ester	graduate	Please consult with	course advisory serv	vice.
Conte	nts				
	ar speci ass req		weekly contact hou	) in biological or nat	ural sciences; assessment ungra
Intend	led lear	ning outcomes			
Specif	ic skills	and knowledge on an in	terdisciplinary subject	t in the biological o	r natural sciences.
		, number of weekly conta		-	
		tion on SWS (weekly cont			
Metho	d of as	sessment (type, scope, la	nguage — if other th	an German, examina	tion offered — if not every seme-
,		ion on whether module c		a bonus)	
		lance as certified by the l	ecturer		
Alloca	tion of	places			
Additi	onal inf	ormation			
Workl	oad				
Teachi	ing cycl	e			
Referr	ed to in	LPO I (examination regu	lations for teaching-	degree programmes)	
Modul	le appea	ars in			
	-	ee (1 major) Biology (201			
	-	ee (1 major) Biology (201			
Maste	r's degr	ee (1 major) Biology (201	4)		

Master's with 1 major Biology (2011)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 146 / 153
	reg. data record Master (120 ECTS) Biologie - 2011	

	e title			_	Abbreviation
Specifi	ic Curri	cular Activities in Biolog	ical Sciences 2		07-MVMINT2-102-m01
Modul	e coord	inator		Module offered by	
Coordi	inator B	ioCareers		Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. cor	mpl. of module(s)	
3	numerical grade				
Duratio	ration Module level Other prerequisites				
1 seme	ester	graduate	Please consult with	course advisory ser	vice.
Conter	nts				
		fic lecture, seminar, worl ces with a graded assess		tical course (1 week	y contact hour) in biological or
Intend	ed lear	ning outcomes			
Specifi	ic skills	and knowledge on an in	terdisciplinary subje	ct in the biological o	r natural sciences.
Course	<b>es</b> (type	, number of weekly conta	act hours, language –	– if other than Germa	an)
V (no i	nforma	tion on SWS (weekly con	tact hours) and cours	se language availabl	e)
		s <b>essment</b> (type, scope, la ion on whether module c			ation offered — if not every seme
followi	ing opti			e assessment prior t	to the course. Usually, one of the
		rox. 10 to 30 pages) or c)	oral examination of o	o to 60 minutes, incl one candidate each	
aminat		rox. 10 to 30 pages) or c) groups of up to 3 candida	oral examination of o	o to 60 minutes, incl one candidate each	uding multiple choice questions (30 to 60 minutes) or d) oral ex-
aminat	tion in §	rox. 10 to 30 pages) or c) groups of up to 3 candida	oral examination of o	o to 60 minutes, incl one candidate each	uding multiple choice questions (30 to 60 minutes) or d) oral ex-
aminat Allocat 	tion in §	rox. 10 to 30 pages) or c) groups of up to 3 candida	oral examination of o	o to 60 minutes, incl one candidate each	uding multiple choice questions (30 to 60 minutes) or d) oral ex-
aminat Allocat 	tion in §	rox. 10 to 30 pages) or c) groups of up to 3 candida <b>places</b>	oral examination of o	o to 60 minutes, incl one candidate each	uding multiple choice questions (30 to 60 minutes) or d) oral ex-
aminat Allocat  Additic	tion in s tion of p onal inf	rox. 10 to 30 pages) or c) groups of up to 3 candida <b>places</b>	oral examination of o	o to 60 minutes, incl one candidate each	uding multiple choice questions (30 to 60 minutes) or d) oral ex-
aminat Allocat  Additic	tion in s tion of p onal inf	rox. 10 to 30 pages) or c) groups of up to 3 candida <b>places</b>	oral examination of o	o to 60 minutes, incl one candidate each	uding multiple choice questions (30 to 60 minutes) or d) oral ex-
aminat Allocat  Additic  Worklc 	tion in s tion of p onal inf	rox. 10 to 30 pages) or c) groups of up to 3 candida places formation	oral examination of o	o to 60 minutes, incl one candidate each	uding multiple choice questions (30 to 60 minutes) or d) oral ex-
aminat Allocat  Additic  Worklc 	tion in g tion of p onal inf	rox. 10 to 30 pages) or c) groups of up to 3 candida places formation	oral examination of o	o to 60 minutes, incl one candidate each	uding multiple choice questions (30 to 60 minutes) or d) oral ex-
aminat Allocat  Additio  Worklo  Teachi 	tion in s tion of p onal inf oad	rox. 10 to 30 pages) or c) groups of up to 3 candida places formation	oral examination of c ates (approx. 30 to 60	o to 60 minutes, incl one candidate each o minutes) or e) pres	uding multiple choice questions (30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)
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aminat Allocat  Additio  Worklo  Teachi  Referre	tion in s tion of p onal inf oad	rox. 10 to 30 pages) or c) groups of up to 3 candida places formation e LPOI (examination regu	oral examination of c ates (approx. 30 to 60	o to 60 minutes, incl one candidate each o minutes) or e) pres	uding multiple choice questions (30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)
aminat Allocat  Additic  Worklo  Teachi  Referre  Modulo	tion in s tion of p onal inf oad ing cycl ed to in e appea	rox. 10 to 30 pages) or c) groups of up to 3 candida places formation e LPOI (examination regu	oral examination of o ates (approx. 30 to 60	o to 60 minutes, incl one candidate each o minutes) or e) pres	uding multiple choice questions (30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)
aminat Allocat  Additio  Worklo  Teachi  Referre  Module	tion in s tion of p onal inf oad ed to in e appea r's degr	rox. 10 to 30 pages) or c) groups of up to 3 candida places formation e LPOI (examination regulars in	oral examination of o ates (approx. 30 to 60 ulations for teaching-	o to 60 minutes, incl one candidate each o minutes) or e) pres	uding multiple choice questions (30 to 60 minutes) or d) oral ex- entation (20 to 45 minutes)

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Modul	e title				Abbreviation
Specif	ic Curri	cular Activities in Biologi	cal Sciences 3		07-MVMINT3-102-m01
Module coordinator				Module offered by	
Coordi	Coordinator BioCareers		Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
4	(not) successfully completed				
Durati	on	Module level	Other prerequisites		
1 seme	ester	graduate	Please consult with	course advisory serv	vice.
Conte	nts				
		fic lecture, seminar, work es; assessment ungrade		tical course (2 weekl	y contact hours) in biological or
Intend	ed lear	ning outcomes			
Specif	ic skills	and knowledge on an int	terdisciplinary subject	t in the biological or	natural sciences.
Course	es (type	, number of weekly conta	ct hours, language –	- if other than Germa	n)
		tion on SWS (weekly cont			
ster, ir	nformat	sessment (type, scope, la ion on whether module ca lance as certified by the l	an be chosen to earn		tion offered — if not every seme-
Alloca	tion of	places			
Additi	onal inf	ormation			
Workle	oad				
Teachi	ing cycl	e			
Referr	ed to in	LPOI (examination regu	lations for teaching-	degree programmes)	
	e appea				
	-	ee (1 major) Biology (201			
	-	ee (1 major) Biology (201	-		
Maste	r's degr	ee (1 major) Biology (201	4)		

Master's with 1 major Biology (2011)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 148 / 153
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	e title			_	Abbreviation
Specifi	ic Curri	cular Activities in Biolog	ical Sciences 4		07-MVMINT4-102-m01
Modul	Module coordinator			Module offered by	,
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	ration Module level Other prerequisites				
1 seme	ester	graduate	Please consult with	course advisory se	vice.
Conter	nts				
		fic lecture, seminar, work		tical course (2 week	ly contact hours) in biological or
Intend	ed lear	ning outcomes			
Specifi	ic skills	and knowledge on an in	terdisciplinary subje	ct in the biological o	or natural sciences.
Course	<b>es</b> (type	, number of weekly conta	act hours, language –	- if other than Germ	an)
V (no i	nforma	tion on SWS (weekly con	tact hours) and cours	e language availab	e)
			anguage — if other th	an German, examin	ation offered — if not every seme
ster, in	iformat	ion on whether module c	an be chosen to earn		,
Studer followi or b) lo	nts will ing opti og (app	be informed about the le ons will be chosen: a) wi rox. 10 to 30 pages) or c)	ength and scope of th ritten examination (30 oral examination of c	a bonus) e assessment prior o to 60 minutes, inc one candidate each	to the course. Usually, one of the
Studer followi or b) lc aminat	nts will ing opti og (app	be informed about the le ons will be chosen: a) wi rox. 10 to 30 pages) or c) groups of up to 3 candida	ength and scope of th ritten examination (30 oral examination of c	a bonus) e assessment prior o to 60 minutes, inc one candidate each	to the course. Usually, one of the luding multiple choice questions (30 to 60 minutes) or d) oral ex-
Studer followi or b) lc aminat	nts will ing opti og (app tion in g	be informed about the le ons will be chosen: a) wi rox. 10 to 30 pages) or c) groups of up to 3 candida	ength and scope of th ritten examination (30 oral examination of c	a bonus) e assessment prior o to 60 minutes, inc one candidate each	to the course. Usually, one of the luding multiple choice questions (30 to 60 minutes) or d) oral ex-
Studer followi or b) lo aminat Allocat	nts will ing opti og (app tion in s t <b>ion of</b> [	be informed about the le ons will be chosen: a) wi rox. 10 to 30 pages) or c) groups of up to 3 candida	ength and scope of th ritten examination (30 oral examination of c	a bonus) e assessment prior o to 60 minutes, inc one candidate each	to the course. Usually, one of the luding multiple choice questions (30 to 60 minutes) or d) oral ex-
Studer followi or b) lo aminat Allocat	nts will ing opti og (app tion in s t <b>ion of</b> [	be informed about the le ons will be chosen: a) wi rox. 10 to 30 pages) or c) groups of up to 3 candida <b>places</b>	ength and scope of th ritten examination (30 oral examination of c	a bonus) e assessment prior o to 60 minutes, inc one candidate each	to the course. Usually, one of the luding multiple choice questions (30 to 60 minutes) or d) oral ex-
Studer followi or b) lo aminat Allocat  Additio	nts will ing opti og (app tion in s tion of p onal inf	be informed about the le ons will be chosen: a) wi rox. 10 to 30 pages) or c) groups of up to 3 candida <b>places</b>	ength and scope of th ritten examination (30 oral examination of c	a bonus) e assessment prior o to 60 minutes, inc one candidate each	to the course. Usually, one of the luding multiple choice questions (30 to 60 minutes) or d) oral ex-
Studer followi or b) lo aminat Allocat  Additio	nts will ing opti og (app tion in s tion of p onal inf	be informed about the le ons will be chosen: a) wi rox. 10 to 30 pages) or c) groups of up to 3 candida <b>places</b>	ength and scope of th ritten examination (30 oral examination of c	a bonus) e assessment prior o to 60 minutes, inc one candidate each	to the course. Usually, one of the luding multiple choice questions (30 to 60 minutes) or d) oral ex-
Studer followi or b) lo aminat Allocat  Additio  Worklo	nts will ing opti og (app tion in s tion of p onal inf	be informed about the le ons will be chosen: a) wi rox. 10 to 30 pages) or c) groups of up to 3 candida places	ength and scope of th ritten examination (30 oral examination of c	a bonus) e assessment prior o to 60 minutes, inc one candidate each	to the course. Usually, one of the luding multiple choice questions (30 to 60 minutes) or d) oral ex-
Studer followi or b) lo aminat Allocat  Additio  Worklo	nts will ing opti og (app tion in § tion of   onal inf	be informed about the le ons will be chosen: a) wi rox. 10 to 30 pages) or c) groups of up to 3 candida places	ength and scope of th ritten examination (30 oral examination of c	a bonus) e assessment prior o to 60 minutes, inc one candidate each	to the course. Usually, one of the luding multiple choice questions (30 to 60 minutes) or d) oral ex-
Studer followi or b) lo aminat Allocat  Additio  Worklo  Teachi	nts will ing opti og (app tion in § tion of pnal inf pad	be informed about the le ons will be chosen: a) wi rox. 10 to 30 pages) or c) groups of up to 3 candida places	ength and scope of th ritten examination (30 oral examination of o ates (approx. 30 to 60	a bonus) e assessment prior o to 60 minutes, inc one candidate each o minutes) or e) pres	to the course. Usually, one of the luding multiple choice questions (30 to 60 minutes) or d) oral ex- sentation (20 to 45 minutes)
Studer followi or b) lo aminat Allocat  Additio  Worklo  Teachi	nts will ing opti og (app tion in § tion of pnal inf pad	be informed about the le ons will be chosen: a) wi rox. 10 to 30 pages) or c) groups of up to 3 candida places formation	ength and scope of th ritten examination (30 oral examination of o ates (approx. 30 to 60	a bonus) e assessment prior o to 60 minutes, inc one candidate each o minutes) or e) pres	to the course. Usually, one of the luding multiple choice questions (30 to 60 minutes) or d) oral ex- sentation (20 to 45 minutes)
Studer followi or b) lo aminat Allocat  Additio  Worklo  Teachi  Referro	nts will ing opti og (app tion in § tion of pnal inf pad	be informed about the le ons will be chosen: a) wi rox. 10 to 30 pages) or c) groups of up to 3 candida places formation	ength and scope of th ritten examination (30 oral examination of o ates (approx. 30 to 60	a bonus) e assessment prior o to 60 minutes, inc one candidate each o minutes) or e) pres	to the course. Usually, one of the luding multiple choice questions (30 to 60 minutes) or d) oral ex- sentation (20 to 45 minutes)
Studer followi or b) lc aminat Allocat  Additic  Worklc  Teachi  Referre  Module	nts will ing opti og (app tion in s tion of p onal inf onal inf oad ng cycl ed to in e appea	be informed about the le ons will be chosen: a) wi rox. 10 to 30 pages) or c) groups of up to 3 candida places formation	ength and scope of th ritten examination (30 oral examination of o ates (approx. 30 to 60 ulations for teaching-	a bonus) e assessment prior o to 60 minutes, inc one candidate each o minutes) or e) pres	to the course. Usually, one of the luding multiple choice questions (30 to 60 minutes) or d) oral ex- sentation (20 to 45 minutes)
Studer followi or b) lc aminat Allocat  Additic  Worklc  Teachi  Referre  Module	nts will ing opti og (app tion in s tion of p onal inf oad ng cycl ed to in e appea	be informed about the le ons will be chosen: a) wi rox. 10 to 30 pages) or c) groups of up to 3 candida places formation e LPO I (examination regu	ength and scope of th ritten examination (30 oral examination of o ates (approx. 30 to 60 ulations for teaching-	a bonus) e assessment prior o to 60 minutes, inc one candidate each o minutes) or e) pres	to the course. Usually, one of the luding multiple choice questions (30 to 60 minutes) or d) oral ex- sentation (20 to 45 minutes)

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Module title				Abbreviation	
Specific Curricular Activities in Biological Sciences 5				07-MVMINT5-112-m01	
Module coordinator				Module offered by	
Coordi	nator B	ioCareers		Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
6	(not)	successfully completed			
Durati	on	Module level	Other prerequisites		
1 seme	ester	graduate	Please consult with	course advisory serv	vice.
Conter	nts				
		fic lecture, seminar, work es; assessment ungrade		tical course (3 weekl	y contact hours) in biological or
		ning outcomes			
		and knowledge on an in	terdisciplinary subject	ct in the biological or	natural sciences.
-		, number of weekly conta			
		tion on SWS (weekly cont			
Metho	d of as		anguage — if other th	an German, examina	tion offered — if not every seme-
succes	sful co	mpletion as certified by t	he lecturer		
Alloca	tion of	places			
Additi	onal inf	ormation			
Workle	oad				
Teachi	ing cycl	e	-		
			-		
Referre	ed to in	LPOI (examination regu	lations for teaching-	degree programmes)	
Modul	e appea	ars in			
		ee (1 major) Biology (201	1)		
Master	r's degr	ee (1 major) Biology (201	4)		

Master's with 1 major Biology (2011)	JMU Würzburg • generated 26-Aug-2024 • exam.	page 150 / 153
	reg. data record Master (120 ECTS) Biologie - 2011	

Module title				Abbreviation		
Episten	nology	and History of Science			07-MWIG-112-m01	
Module coordinator				Module offered by		
Coordinator BioCareers				Faculty of Biology		
ECTS		od of grading	Only after succ. com	pl. of module(s)		
3	· · · · · ·	successfully completed				
Duratio		Module level	Other prerequisites			
1 seme		graduate				
Conten	ts					
sion ma	aking a				human memory, intentional deci- Fundamental terms and princip-	
Intende	ed leari	ning outcomes				
awaren	ess of		terms and definitions		hey have developed an increased and concerns arising with know-	
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	· if other than Germa	n)	
S (no in	format	tion 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-	
followin or b) log	ng optio g (appr	ons will be chosen: a) wr ox. 10 to 30 pages) or c)	itten examination (30 oral examination of o	to 60 minutes, incluine candidate each (	o the course. Usually, one of the uding multiple choice questions) 30 to 60 minutes) or d) oral ex- entation (20 to 45 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	e appea	ars in				
Master	's degr	ee (1 major) Biology (201	1)			
Master	Master's degree (1 major) Biology (2014)					

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	reg. data record Master (120 ECTS) Biologie - 2011	

Modul	e title				Abbreviation
Cell- and Development-Biology Master 1 B			r 1 B		07-MZE1-B-121-m01
Module coordinator				Module offered by	
holder of the Chair of Cell Biology and I logy		Developmental Bio-	Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
3	(not)	successfully completed			
Durati	on	Module level	Other prerequisites		
1 seme	ester	graduate			
Conter	nts				
		ellpathologie (Cytopatholo onsequences, such as inf			cell and unravels their biological c disorders and cancer.
		ning outcomes	· · ·		
		oossess scientific backgro l biology research.	ound knowledge on c	ytopathology and are	e able to put this into the broade
Course	es (type	, number of weekly conta	act hours, language –	- if other than Germa	n)
	-	tion on language and nur			·
		<b>sessment</b> (type, scope, la ion on whether module c			tion offered — if not every seme-
#REF!	_				
Alloca	tion of	places			
Additio	onal inf	ormation			
Worklo	bad				
Teachi	ng cyc	e			
	- /				
Referre	ed to in	LPOI (examination regu	lations for teaching-	degree programmes)	
Modul	e appe	ars in			
		ree (1 major) Biology (201	1)		
	-	ree (1 major) Biology (201			
Master's degree (1 major) Biomedicine (2013)					
Master	r's degi	ee (1 major) Biomedicine	(2012)		

Module	e title				Abbreviation
Cell- and Development-Biology Master 2 B			2 B		07-MZE2-B-121-m01
Module coordinator Module offered by					
	holder of the Chair of Cell Biology and Developmental Bio-			Faculty of Biology	
logy		than of cell blotogy and		i actuary of Diology	
ECTS		od of grading	Only after succ. con	pl. of module(s)	
3	(not) s	successfully completed			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	graduate			
Conten	Its				
lopmer quence ders?: genera genetic	ntal bio es of mu Opportu te Dis cs Me Develo	logy. Topics covered in th ulticellularity Sex: More unities and limitations of sasters: What do we actu taorganisms: We are nev	ne lecture (subject to than just ? + ? = O stem cell research ally know about meta er alone Developm	change): - Cooperat n the move: Morpho Growing new hearts morphoses? - Alway ent in changing envi	ng and current topics in deve- ion: Development and conse- genetic migration All-roun- i?: Animals and their ability to re- i/s the same?: Plasticity and epi- ronments: Ecology and polyphe- Evo-devo: A fad? No, been around
-		ning outcomes			
			e theoretical and mo	lecular biological pr	inciples underlying developmen-
		d are able to put this into			
Course	<b>s</b> (type	, number of weekly conta	ct hours, language –	if other than Germa	in)
V (no ir	nformat	ion on language and nur	nber of weekly conta	ct hours available)	
		s <b>essment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-
#REF!					
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-o	legree programmes)	
Module	e appea	irs in			
Master Master	's degro	ee (1 major) Biology (201 ee (1 major) Biology (201 ee (1 major) Biomedicine ee (1 major) Biomedicine	4) (2013)		

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