

## Subdivided Module Catalogue for the Subject

# Biology

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

> Examination regulations version: 2007 Responsible: Faculty of Biology

JMU Würzburg • generated 11-Jan-2023 • exam. reg. data record 82|026|-|-|H|2007



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

No translation available.

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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:

#### ASPO2007

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

#### 09-Mar-2009 (2008-33) except for new versions of some modules

#### 22-Dec-2009 (2009-98)

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	pag
Compulsory Courses (91 E	CTS credits)			
General Biology I (13 EC	S credits)			
07-1A1ZO-072-m01	From cells to organisms	13	NUM	40
General Biology II (15 EC	TS credits)			
07-2A2PH-072-m01	Physiology of Organisms	9	NUM	44
07-2A2GNV-072-m01	Genetics, Neurobiology, Behaviour	6	NUM	42
General Biology III (24 E	CTS credits)			
07-3A3BT-072-m01	Biotechnology	2	NUM	48
07-3A3EBIO-072-m01	Developmental Biology of Plants and Animals	10	NUM	49
07-3A3BI-072-m01	Bioinformatics	2	NUM	47
07-3A30E-072-m01	Ecology of plants and animals	6	NUM	51
07-3A3GE-072-m01	Genetics	2	NUM	50
07-3A3PB-072-m01	Pharmaceutical Biology	2	NUM	53
Mathematics/Quantitati	ve Biology (9 ECTS credits)			
07-2BM-072-m01	Mathematical Biology and Biostatistics	4	NUM	46
10-M-MCB-072-m01	Mathematics for students in Chemistry and Biology	5	NUM	14
Chemistry (20 ECTS cred	its)	-		
08-0C-Bio-072-m01	Organic Chemistry for students of biology	10	NUM	14
08-AC-Bio-072-m01	Inorganic Chemistry for Biology Majors	5	NUM	14
08-PC-Bio-072-m01	Physical Chemistry for Biology Majors	5	NUM	14
Physics (10 ECTS credits				<u> </u>
-	Introduction to Physics for Students of Non-physics-related Mi-			
11-EFNF-072-m01	nor Subjects	7	NUM	14
	Practical Course Physics for Students of Non-physics-related			
11-PFNF-072-m01	Minor Subjects	3	B/NB	15
Compulsory Electives (57	ECTS credits)			
General Biology IV (7 EC	rS credits)			
07-4A4FA-072-m01	Local Fauna	7	NUM	54
07-4A4FL-072-m01	Local Flora	7	NUM	5
Advanced Biology (10 EC	TS credits)			
07-4BFMZ1-092-m01	Developmental Biology for advanced students	5	NUM	58
07-4BFMZ2-092-m01	Cell Biology for advanced students	5	NUM	5
07-4BFMZ3-092-m01	Microbiology for advanced students	5	NUM	6
07-4BFMZ4-092-m01	Bioinformatics for advanced students	5	NUM	6
07-4BFMZ5-092-m01	Biotechnology I	5	NUM	6
07-4BFNV01-092-m01	Neurobiology for advanced students	5	NUM	6
	Behavioural physiology and sociobiology for advanced stu-	,		<u> </u>
07-4BFNVO2-092-m01	dents	5	NUM	64
07-4BFNVO3-092-m01	Ecology of Animals for advanced students	5	NUM	6
07-4BFPS1-092-m01	Specific Plant Physiology	5	NUM	66
07-4BFPS2-092-m01	Biophysics - Basic course	5	NUM	67
07-4BFPS3-092-m01	Biochemistry - Basic course	5	NUM	68

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07-4BFPS4-092-m01				
-/ 45 54 692 1101	Basics plant Ecophysiology	5	NUM	69
07-4BFPS5-092-m01	Pharmaceutical bio analytics	5	NUM	70
Special Biosciences I (5 I	ECTS credits)			
03-4S1HG-092-m01	Human Genetics	5	NUM	8
03-4S1IM-092-m01	Immunology I	5	NUM	10
03-4S1PC-092-m01	Physiological Chemistry I	5	NUM	12
03-4S1VL-092-m01	Virology I	5	NUM	13
07-4S1MZ1-092-m01	Advanced Light- and Electron-Microscopy	3	NUM	71
07-4S1MZ2-092-m01	Analysis of Chromosomes	3	NUM	72
07-4S1MZ3-092-m01	Ecology and Developmental Biology of marine organisms	5	NUM	73
07-4S1MZ4-092-m01	Methods in Biotechnology	2	NUM	75
07-4S1MZ5-092-m01	Aspects of modern Biotechnology	2	NUM	76
07-4S1MZ6-092-m01	Special Bioinformatics I	5	NUM	77
07-4S1NV01-092-m01	Neurobiology I	5	NUM	78
07-4S1NVO2-092-m01	Aspects of Integrative Behavioural Biology	5	NUM	79
07-4S1NVO3-092-m01	Functional Morphology of arthropods	5	NUM	81
07-4S1NVO4-092-m01	Ecology of insects	5	NUM	83
07-4S1NV05-092-m01	Ecology of populations	5	NUM	84
07-4S1PS1-092-m01	Molecular modelling - From DNA to protein	5	NUM	85
07-4S1PS2-092-m01	Introduction Methods in Plant Ecophysiology	5	NUM	86
07-4S1PS3-092-m01	Pharmaceutical Drugs	5	NUM	87
07-4S1PS4-092-m01	Methods Pharmaceutical Biology - practical course	5	NUM	88
08-BCB-072-m01	Biochemistry for students of biological sciences	6	NUM	143
	Biochemistry for students of biological sciences (practical		B /11B	
08-BCPB-072-m01	Biochemistry for students of biological sciences (practical course)	5	B/NB	144
08-BCPB-072-m01 Special Biosciences II (20	course)	5	B/NB	144
	course)	5	B/NB NUM	144 96
Special Biosciences II (20	course) o ECTS credits)			
Special Biosciences II (20 07-5S2NVO1-092-m01	course) o ECTS credits) Neurobiology II	10	NUM	96
<b>Special Biosciences II (2</b> 07-5S2NVO1-092-m01 07-5S2NVO2-092-m01	course) o ECTS credits) Neurobiology II Integrative Behavioural Biology II	10 10	NUM	96 97
<b>Special Biosciences II (2</b> 07-5S2NVO1-092-m01 07-5S2NVO2-092-m01 07-5S2NVO3-092-m01	course) <b>DECTS credits)</b> Neurobiology II Integrative Behavioural Biology II Ecology of animals II	10 10 10	NUM NUM NUM	96 97 98
<b>Special Biosciences II (2</b> 07-5S2NV01-092-m01 07-5S2NV02-092-m01 07-5S2NV03-092-m01 07-5S2MZ1-092-m01	course) <b>DECTS credits)</b> Neurobiology II Integrative Behavioural Biology II Ecology of animals II Methods in molecular cell - and developmental Biology	10 10 10 10	NUM NUM NUM	96 97 98 91
Special Biosciences II (20 07-5S2NV01-092-m01 07-5S2NV02-092-m01 07-5S2NV03-092-m01 07-5S2MZ1-092-m01 07-5S2MZ2-092-m01	course) <b>DECTS credits)</b> Neurobiology II Integrative Behavioural Biology II Ecology of animals II Methods in molecular cell - and developmental Biology Specific Microbiology II	10 10 10 10 10	NUM NUM NUM NUM	96 97 98 91 93 94
<b>Special Biosciences II (2</b> 07-552NV01-092-m01 07-552NV02-092-m01 07-552NV03-092-m01 07-552MZ1-092-m01 07-552MZ2-092-m01 07-552MZ3-092-m01	course) <b>ECTS credits)</b> Neurobiology II Integrative Behavioural Biology II Ecology of animals II Methods in molecular cell - and developmental Biology Specific Microbiology II Specific Bioinformatics II	10 10 10 10 10 10	NUM NUM NUM NUM NUM	96 97 98 91 93
Special Biosciences II (2) 07-5S2NV01-092-m01 07-5S2NV02-092-m01 07-5S2NV03-092-m01 07-5S2MZ1-092-m01 07-5S2MZ2-092-m01 07-5S2MZ3-092-m01 07-5S2MZ4-092-m01	course) <b>DECTS credits)</b> Neurobiology II Integrative Behavioural Biology II Ecology of animals II Methods in molecular cell - and developmental Biology Specific Microbiology II Specific Bioinformatics II Specific Biotechnology II	10 10 10 10 10 10 10	NUM NUM NUM NUM NUM NUM	96 97 98 91 93 94 95
<b>Special Biosciences II (2</b> 07-552NV01-092-m01 07-552NV02-092-m01 07-552NV03-092-m01 07-552MZ1-092-m01 07-552MZ2-092-m01 07-552MZ3-092-m01 07-552PS1-092-m01	course) <b>ECTS credits)</b> Neurobiology II Integrative Behavioural Biology II Ecology of animals II Methods in molecular cell - and developmental Biology Specific Microbiology II Specific Bioinformatics II Specific Biotechnology II Physiology of membrane transport mechanisms	10 10 10 10 10 10 10 10 10	NUM NUM NUM NUM NUM NUM NUM	96 97 98 91 93 93 94 95 100 101
<b>Special Biosciences II (2</b> 07-552NV01-092-m01 07-552NV03-092-m01 07-552NZ1-092-m01 07-552MZ2-092-m01 07-552MZ3-092-m01 07-552PS1-092-m01 07-552PS1-092-m01 07-552PS3-092-m01	course) <b>DECTS credits)</b> Neurobiology II Integrative Behavioural Biology II Ecology of animals II Methods in molecular cell - and developmental Biology Specific Microbiology II Specific Bioinformatics II Specific Biotechnology II Physiology of membrane transport mechanisms Molecular biology of plants Protein biochemistry and expression of recombinant proteins	10 10 10 10 10 10 10 10 10 10	NUM NUM NUM NUM NUM NUM NUM	96 97 98 91 93 94 95 100 101 102
Special Biosciences II (2) 07-5S2NV01-092-m01 07-5S2NV02-092-m01 07-5S2NV03-092-m01 07-5S2MZ1-092-m01 07-5S2MZ2-092-m01 07-5S2MZ3-092-m01 07-5S2PS1-092-m01 07-5S2PS2-092-m01	course) <b>ECTS credits)</b> Neurobiology II Integrative Behavioural Biology II Ecology of animals II Methods in molecular cell - and developmental Biology Specific Microbiology II Specific Bioinformatics II Specific Biotechnology II Physiology of membrane transport mechanisms Molecular biology of plants Protein biochemistry and expression of recombinant proteins Specific ecophysiology of plants	10 10 10 10 10 10 10 10 10 10 10	NUM NUM NUM NUM NUM NUM NUM NUM NUM	96 97 98 91 93 94 95 100 101 102 103
Special Biosciences II (2) 07-552NV01-092-m01 07-552NV03-092-m01 07-552NZ1-092-m01 07-552MZ2-092-m01 07-552MZ3-092-m01 07-552PS1-092-m01 07-552PS1-092-m01 07-552PS3-092-m01 07-552PS4-092-m01 07-552PS4-092-m01	course) <b>ECTS credits)</b> Neurobiology II Integrative Behavioural Biology II Ecology of animals II Methods in molecular cell - and developmental Biology Specific Microbiology II Specific Bioinformatics II Specific Biotechnology II Physiology of membrane transport mechanisms Molecular biology of plants Protein biochemistry and expression of recombinant proteins Specific ecophysiology of plants Molecular biological methods in pharmaceutical biology	10 10 10 10 10 10 10 10 10 10 10 10	NUM NUM NUM NUM NUM NUM NUM NUM NUM NUM	96 97 98 91 93 94 95 100 101 102 103 104
Special Biosciences II (2)           07-5S2NV01-092-m01           07-5S2NV03-092-m01           07-5S2NZ1-092-m01           07-5S2MZ2-092-m01           07-5S2MZ3-092-m01           07-5S2PS1-092-m01           07-5S2PS1-092-m01           07-5S2PS1-092-m01           07-5S2PS2-092-m01           07-5S2PS3-092-m01           07-5S2PS3-092-m01           07-5S2PS3-092-m01           07-5S2PS4-092-m01           07-5S2PS4-092-m01           07-5S2PS4-092-m01           07-5S2PS4-092-m01	course) <b>ECTS credits)</b> Neurobiology II Integrative Behavioural Biology II Ecology of animals II Methods in molecular cell - and developmental Biology Specific Microbiology II Specific Bioinformatics II Specific Biotechnology II Physiology of membrane transport mechanisms Molecular biology of plants Protein biochemistry and expression of recombinant proteins Specific ecophysiology of plants Molecular biological methods in pharmaceutical biology Biochemical methods in pharmaceutical Biology	10 10 10 10 10 10 10 10 10 10 10 10 10 1	NUM NUM NUM NUM NUM NUM NUM NUM NUM NUM	96 97 98 91 93 94 95 100 101 102 103 104 105
Special Biosciences II (2)           07-552NV01-092-m01           07-552NV03-092-m01           07-552NV03-092-m01           07-552NZ1-092-m01           07-552MZ2-092-m01           07-552NZ3-092-m01           07-552PS1-092-m01           07-552PS1-092-m01           07-552PS3-092-m01           07-552PS3-092-m01           07-552PS3-092-m01           07-552PS3-092-m01           07-552PS4-092-m01           07-552PS4-092-m01           07-552PS5-092-m01           07-552PS4-092-m01           07-552PS4-092-m01           07-552PS4-092-m01	course) <b>DECTS credits)</b> Neurobiology II Integrative Behavioural Biology II Ecology of animals II Methods in molecular cell - and developmental Biology Specific Microbiology II Specific Bioinformatics II Specific Biotechnology II Physiology of membrane transport mechanisms Molecular biology of plants Protein biochemistry and expression of recombinant proteins Specific ecophysiology of plants Molecular biological methods in pharmaceutical biology Biochemical methods in pharmaceutical Biology Immunology II	10 10 10 10 10 10 10 10 10 10 10 10 10 1	NUM NUM NUM NUM NUM NUM NUM NUM NUM NUM	96 97 98 91 93 94 95 100 101 102 103 104 105 15
Special Biosciences II (2)           07-552NV01-092-m01           07-552NV03-092-m01           07-552NV03-092-m01           07-552NZ1-092-m01           07-552MZ2-092-m01           07-552NZ3-092-m01           07-552NZ4-092-m01           07-552PS1-092-m01           07-552PS2-092-m01           07-552PS3-092-m01           07-552PS3-092-m01           07-552PS4-092-m01	course) <b>ECTS credits)</b> Neurobiology II Integrative Behavioural Biology II Ecology of animals II Methods in molecular cell - and developmental Biology Specific Microbiology II Specific Bioinformatics II Specific Biotechnology II Physiology of membrane transport mechanisms Molecular biology of plants Protein biochemistry and expression of recombinant proteins Specific ecophysiology of plants Molecular biological methods in pharmaceutical biology Biochemical methods in pharmaceutical Biology Immunology II	10 10 10 10 10 10 10 10 10 10 10 10 10 1	NUM NUM NUM NUM NUM NUM NUM NUM NUM NUM	96 97 98 91 93 94 95 100 101 102 103 104 105
Special Biosciences II (2)           07-552NV01-092-m01           07-552NV03-092-m01           07-552NV03-092-m01           07-552NZ1-092-m01           07-552MZ2-092-m01           07-552NZ3-092-m01           07-552PS1-092-m01           07-552PS1-092-m01           07-552PS3-092-m01           07-552PS3-092-m01           07-552PS3-092-m01           07-552PS3-092-m01           07-552PS4-092-m01           07-552PS5-092-m01           07-552PS4-092-m01           07-552PS4-092-m01           07-552PS4-092-m01           03-552IM-092-m01           03-552VL-092-m01           03-552PC-092-m01	course) <b>ECTS credits)</b> Neurobiology II Integrative Behavioural Biology II Ecology of animals II Methods in molecular cell - and developmental Biology Specific Microbiology II Specific Bioinformatics II Specific Biotechnology II Physiology of membrane transport mechanisms Molecular biology of plants Protein biochemistry and expression of recombinant proteins Specific ecophysiology of plants Molecular biological methods in pharmaceutical biology Biochemical methods in pharmaceutical Biology Immunology II Virology II Physiological Chemistry II	10 10 10 10 10 10 10 10 10 10 10 10 10 1	NUM NUM NUM NUM NUM NUM NUM NUM NUM NUM	96 97 98 91 93 94 95 100 101 102 103 104 105 15 23 20
Special Biosciences II (2)           07-552NV01-092-m01           07-552NV03-092-m01           07-552NV03-092-m01           07-552NZ1-092-m01           07-552MZ2-092-m01           07-552NZ3-092-m01           07-552NZ4-092-m01           07-552PS1-092-m01           07-552PS3-092-m01           07-552PS3-092-m01           07-552PS4-092-m01           07-552PS4-092-m01           07-552PS4-092-m01           07-552PS4-092-m01           07-552PS4-092-m01           07-552PS4-092-m01           07-552PS4-092-m01           03-552VL-092-m01           03-552PC-092-m01           03-552KB-092-m01	course) <b>ECTS credits)</b> Neurobiology II Integrative Behavioural Biology II Ecology of animals II Methods in molecular cell - and developmental Biology Specific Microbiology II Specific Bioinformatics II Specific Biotechnology II Physiology of membrane transport mechanisms Molecular biology of plants Protein biochemistry and expression of recombinant proteins Specific ecophysiology of plants Molecular biological methods in pharmaceutical biology Biochemical methods in pharmaceutical Biology Immunology II Virology II Physiological Chemistry II Clinical Biochemistry / Laboratory Medicine 1	10 10 10 10 10 10 10 10 10 10 10 10 10 1	NUM NUM NUM NUM NUM NUM NUM NUM NUM NUM	96 97 98 91 93 94 95 100 101 102 103 104 105 15 23 20 16
Special Biosciences II (2)           07-552NV01-092-m01           07-552NV03-092-m01           07-552NV03-092-m01           07-552NZ1-092-m01           07-552MZ2-092-m01           07-552NZ3-092-m01           07-552PS1-092-m01           07-552PS1-092-m01           07-552PS3-092-m01           07-552PS3-092-m01           07-552PS3-092-m01           07-552PS3-092-m01           07-552PS4-092-m01           07-552PS4-092-m01           07-552PS4-092-m01           03-552IM-092-m01           03-552VL-092-m01           03-552PS-092-m01           03-552PR-092-m01           03-552PR-092-m01           03-552PR-092-m01           03-552PR-092-m01           03-552PR-092-m01           03-552PR-092-m01	course) <b>ECTS credits)</b> Neurobiology II Integrative Behavioural Biology II Ecology of animals II Methods in molecular cell - and developmental Biology Specific Microbiology II Specific Bioinformatics II Specific Biotechnology II Physiology of membrane transport mechanisms Molecular biology of plants Protein biochemistry and expression of recombinant proteins Specific ecophysiology of plants Molecular biological methods in pharmaceutical biology Biochemical methods in pharmaceutical Biology Immunology II Virology II Physiological Chemistry II Clinical Biochemistry / Laboratory Medicine 1 Structural Biology 1	10 10 10 10 10 10 10 10 10 10 10 10 10 1	NUM NUM NUM NUM NUM NUM NUM NUM NUM NUM	96 97 98 91 93 94 95 100 101 102 103 104 105 15 23 20 16 22
Special Biosciences II (2)           07-552NV01-092-m01           07-552NV03-092-m01           07-552NV03-092-m01           07-552NZ1-092-m01           07-552MZ2-092-m01           07-552NZ3-092-m01           07-552NZ4-092-m01           07-552PS1-092-m01           07-552PS3-092-m01           07-552PS3-092-m01           07-552PS4-092-m01           07-552PS4-092-m01           07-552PS4-092-m01           07-552PS4-092-m01           07-552PS4-092-m01           07-552PS4-092-m01           07-552PS4-092-m01           03-552VL-092-m01           03-552PC-092-m01           03-552KB-092-m01	course) <b>ECTS credits)</b> Neurobiology II Integrative Behavioural Biology II Ecology of animals II Methods in molecular cell - and developmental Biology Specific Microbiology II Specific Bioinformatics II Specific Biotechnology II Physiology of membrane transport mechanisms Molecular biology of plants Protein biochemistry and expression of recombinant proteins Specific ecophysiology of plants Molecular biological methods in pharmaceutical biology Biochemical methods in pharmaceutical Biology Immunology II Virology II Physiological Chemistry II Clinical Biochemistry / Laboratory Medicine 1	10 10 10 10 10 10 10 10 10 10 10 10 10 1	NUM NUM NUM NUM NUM NUM NUM NUM NUM NUM	96 97 98 91 93 94 95 100 101 102 103 104 105 15 23 20 16

03-5S2KN-092-m01	Clinical Ne	urobiology 1	10	NUM	18
07-5EP-072-m01	External Pr	actical Course	10	NUM	90
07-5AP-072-m01	Practical C	ourse as exchange student	10	NUM	89
Special Biosciences III (1	5 ECTS cred	its)			
07-6S3NV01-092-m01	Neurobiolo	ogy III	15	NUM	113
07-6S3NVO2-092-m01	Integrative	Behavioural Biology III	15	NUM	114
07-6S3NVO3-092-m01	Ecology of	animals III	10	NUM	116
07-6S3NVO4-092-m01	Ecological	modelling	5	NUM	117
07-6S3NV05-092-m01	Tropical Bi	ology	5	NUM	118
07-6S3NVO6-092-m01	Biology of	nature conservation	5	NUM	119
07-6S3MZ1-092-m01	Molecular	Cell Biology for advanced students	15	NUM	108
07-6S3MZ-2-092-m01	Molecular	Developmental Biology for advanced students	15	NUM	109
07-6S3MZ-3-092-m01	Specific M	icrobiology III	15	NUM	110
	Research F	Project in Pharmaceutical Biology with Focus on Mo-			
07-6S3PS5-092-m01	lecular Bio	logy	15	NUM	128
	Research F	Project in Pharmaceutical Biology with Focus on Mo-	4-	NIL 144	
07-6S3PS6-092-m01	lecular Bio	chemistry	15	NUM	130
03-6S3IM-092-m01	Immunolo	3Y 3	15	NUM	28
03-6S3VL-092-m01	Virology 3		15	NUM	36
03-6S3KB-092-m01	Clinical Bio	ochemistry /Laboratory Medicine 2	15	NUM	29
03-6S3PC-092-m01	Physiologi	cal Chemistry 3	15	NUM	32
03-6S3ST-092-m01	Structural	Biology 2	15	NUM	34
03-S63ZT-092-m01	Cellular Tu	mour Biology 2	15	NUM	39
03-6S3ZM-092-m01	Cellular Mo	olecular Biology 2	15	NUM	37
03-6S3PH-092-m01	Physiology		15	NUM	33
03-6S3KN-092-m01	Clinical Ne	linical Neurobiology 2		NUM	30
07-6S3MZ4-092-m01	Specific Bi	pecific Biotechnology III		NUM	111
07-6S3MZ5-092-m01	Specific Bi	pecific Bioinformatics III		NUM	112
07-6S3PS1-092-m01	Specific As	pecific Aspects in Plant Molecular Biology		NUM	120
07-6S3PS2-092-m01	Protein Ch	emistry in Biosensorics	15	NUM	122
07-6S3PS3-092-m01	Experimen	tal biology of membrane transport mechanisms	15	NUM	124
07-6S3PS4-092-m01	Scientific e	experimental work in plant ecophysiology	15	NUM	126
Thesis (10 ECTS credits)		I			
07-6BT-072-m01	Bachelorth	esis Biology	12	NUM	107
Subject-specific Key Skill	5 (15 ECTS ci	redits)			
07-6BK-072-m01	Final oral e	xamination in Biology	3	NUM	106
07-SQF-BGA-092-m01	Biotechnol	ogy and Social Acceptance	3	NUM	132
07-SQF-DBP-092-m01	Data Proce	ssing in Plant Sciences	2	NUM	133
07-SQF-GHE-092-m01	Global Acti	ng in globally and locally linked decision processes	3	NUM	134
07-SQF-HVB-092-m01		ng Publications in Biology	2	NUM	135
07-SQF-PRB-092-m01	Patents in		2	NUM	136
07-SQF-SAL-092-m01		al Safety in ecophysiological Laboratories	1	NUM	137
07-SQF-TFB-072-m01	· ·	g Tutorial for Basic Courses	4	B/NB	138
07-SQF-TSB-072-m01		g Tutorial for Biology	3	B/NB	139
07-SQF-UBG-092-m01	· ·	ntal Education in the Botanical Garden of the Uni-	2	NUM	140
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07-SQF-WIP-092-m01	Publishing Scientific Data	3	NUM	141

07-SQF-WIP-092-mo1 Publishing Scientific Data	3	NUM	14
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Module title			Abbreviation			
Human Genetics 03-4S1HG-092-m01						
Module coordinator Module offered by						
holder	of the (	Chair of of Human Geneti	cs	Faculty of Medicine		
ECTS	Metho	od of grading	Only after succ. con			
5	1	rical grade				
Durati	on	Module level	Other prerequisites			
1 semesterundergraduateBy way of exception, additional prerequisites are listed in the sectionassessments.					isites are listed in the section on	
Conter	Its	<u> </u>	<u> </u>			
		of and analytical metho ype and chromosome ab			. Characterisation of the normal volution.	
Intend	ed lear	ning outcomes				
					actical experience in human cyto- critically interpret cytogenetic fin-	
Course	<b>s</b> (type	, number of weekly conta	ct hours, language –	- if other than Germa	ın)	
This m compo	odule c nent. 03-4S1H	omprises 2 module comp IG-1HZ-092: V + Ü (no info	oonents. Information ormation on SWS (we	on courses will be li ekly contact hours) a	sted separately for each module and course language available) course language available)	
				*	tion offered — if not every seme-	
		on on whether module ca				
low. U		ated otherwise, successf			e components as specified be- successful completion of all indi-	
<ul> <li>Assessment in module component o3-4S1HG-1HZ-092: Human Genetics (Lecture and Laboratory Practice) Human Genetics (Lecture and Laboratory Practice)</li> <li>3 ECTS, Method of grading: numerical grade</li> <li>2 written examinations (multiple choice): mid-semester examination (15 minutes), end-of-semester examination (20 minutes)</li> <li>Other prerequisites: A basic knowledge of genetics is recommended.</li> <li>Assessment in module component o3-4S1HG-2HZ-092: Human Genetics (Seminar)</li> <li>2 ECTS, Method of grading: (not) successfully completed</li> <li>presentation (approx. 20 to 30 minutes)</li> <li>Other prerequisites: A basic knowledge of genetics is recommended.</li> </ul>						
Alloca	ion of p	olaces				
Additio	onal inf	ormation				
Worklo	ad					
Referre	ed to in	LPOI (examination regu	lations for teaching-	degree programmes)		
Modul	e appea	nrs in				
	-	ree (1 major) Biology (200				
Bache	Bachelor' degree (1 major) Mathematics (2007)					

Bachelor's with 1 major Biology (2007)



Bachelor's degree (1 major, 1 minor) Biology (Minor, 2008)

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Module title Abbreviation						
Immunology I 03-4S1IM-092-m01						
Module coordinator Module offered by						
holder of the Professorship of Immunogenetics Faculty of Medicine						
ECTS Method of grading Only after succ. compl. of module(s)						
5	<u> </u>	rical grade				
Duratio	· · · · · · · · · · · · · · · · · · ·	Module level	Other prerequisites	i		
1 seme		undergraduate				
Conten						
dy reco ergies, on gen	ognise a autoim etic and	ives an introduction to nd eliminate pathoger munity)? Organs, cells I molecular mechanisn st important immunolog	s and tumour cells? He and molecules of the i is of recognition and e	ow can the immune s mmune system will b limination of foreign	ystem damage its ov be presented with an substances by the ir	wn body (all- emphasis
Intend	ed learr	ning outcomes				
system mune s	. The ar systems	acquire a practical know re familiar with the med . They acquire a funda ctions and molecules.	hanisms of self and no	on-self discrimination	n by the adaptive an	d innate im-
Course	<b>s</b> (type,	number of weekly con	tact hours, language –	- if other than Germa	n)	
compo • c	nent. 93-4S1I	omprises 2 module cor A-1IM-092: V + Ü (no in A-2IM-092: P (no inforr	formation on SWS (we	ekly contact hours) a	nd course language	available)
		essment (type, scope, on on whether module			tion offered — if not	every seme-
low. Ur		this module comprise ated otherwise, succes nents.				
<ul> <li>Assessment in module component o3-4S1IM-1IM-092: Introduction into Immunology (Lecture and Practice) Introduction into Immunology (Lecture and Practice)</li> <li>2 ECTS, Method of grading: numerical grade</li> <li>written examination (30 minutes)</li> <li>Language of assessment: German, English where required</li> <li>Assessment in module component o3-4S1IM-2IM-092: Immunology (Laboratory Course)</li> <li>3 ECTS, Method of grading: (not) successfully completed</li> <li>presentation (approx. 20 to 30 minutes)</li> <li>Language of assessment: German, English where required</li> </ul>						
Allocat	ion of p	laces				
Additio	onal info	ormation				
Workload						
Referre	ed to in	LPOI (examination reg	gulations for teaching-o	degree programmes)		
			,g			
Module	e appea	rs in				
		ree (1 major) Biology (2	007)			
		or Biology (2007)	JMU Würzburg	g • generated 11-Jan-2023 • e: Bachelor (180 ECTS) Biologie	-	page 10 / 151



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Module title			Abbreviation		
Physiological Chemistry I				03-4S1PC-092-m01	
Module coordinator			Module offered by		
holder	of the Chair of Physiological Che		Faculty of Medicine		
ECTS	Method of grading	Only after succ. com	pl. of module(s)		
5	numerical grade				
Duratio		Other prerequisites			
1 semes	ster undergraduate				
Conten	ts				
model s tion of I on of se detectio	DNA and RNA in single-cell emb	phophorus) for biome ryos. Fluorescent mic ral tissues, cartilage)	dical research. Phen roscopy-based bioin . In-situ hybridisatio	otyping of mutants. Microinjec- naging techniques. Visualisati- n of mRNA. Immunhistochemical	
Intende	ed learning outcomes				
tempora types of	ts are able to independently pro al and spatial RNA and protein o f developmental mutants. They specific questions.	expression in situ, ap	praise expression pa	atterns and recognise pheno-	
Courses	<b>s</b> (type, number of weekly conta	ct hours, language —	if other than Germa	n)	
V + Ü (n	o information on SWS (weekly	contact hours) and co	ourse language availa	able)	
	<b>l of assessment</b> (type, scope, la Formation on whether module ca			tion offered — if not every seme-	
written	examination (60 minutes)				
Allocati	ion of places				
Additio	nal information				
Worklo	ad				
Referre	d to in LPO I (examination regu	lations for teaching-o	legree programmes)		
Module appears in					
	or' degree (1 major) Biology (200	7)			
	or' degree (1 major) Mathematic				

Module title					Abbreviation	
Virolog					03-4S1VL-092-m01	
Module				Module offered by		
		Chair of Virology		Faculty of Medicine		
<b>ECTS</b> 5		o <b>d of grading</b> rical grade	Only after succ. com	ipi. of module(s)		
Duratio	<u> </u>	Module level	Other prerequisites			
1 seme		undergraduate				
Conten			<u> </u>			
		v in a BSL-2 laboratory; c a viral quasispecies.	ell culture; virus prod	uction; virus titratio	n; virus sequencing;	phylogene-
		ning outcomes	-			
Studen on of v	ts have iruses,	developed a fundament virus-host cell interaction olecular techniques of vi	ns and mechanisms o	of action of antiviral		
Course	<b>s</b> (type,	number of weekly conta	ct hours, language —	· if other than Germa	n)	
compo • c • c • c • c	<ul> <li>This module comprises 3 module components. Information on courses will be listed separately for each module component.</li> <li>03-4S1VL-1VL-092: V (no information on SWS (weekly contact hours) and course language available)</li> <li>03-4S1VL-3VL-092: P (no information on SWS (weekly contact hours) and course language available)</li> <li>03-4S1VL-2VL-092: S (no information on SWS (weekly contact hours) and course language available)</li> <li>03-4S1VL-2VL-092: S (no information on SWS (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> </ul>					
Assessment in this module comprises the assessments in the individual module components as specified be- low. Unless stated otherwise, successful completion of the module will require successful completion of all indi- vidual assessments.  Assessment in module component o3-451VL-1VL-o92: Basic Virology (Lecture and Practice)  1 ECTS, Method of grading: numerical grade written examination (20 minutes) Language of assessment: German, English where required Assessment in module component o3-451VL-3VL-o92: Virology (Laboratory Course) J ECTS, Method of grading: numerical grade written examination (20 minutes) or oral examination (20 minutes) Language of assessment: German, English Assessment in module component o3-451VL-2VL-o92: Seminar on General Virology I ECTS, Method of grading: (not) successfully completed presentation (approx. 20 to 30 minutes) Language of assessment: German, English where required Allocation of places Additional information						
Workload						
Referred to in LPO I (examination regulations for teaching-degree programmes)						
Module appears in						
		ree (1 major) Biology (20	07)			
	achelor's with 1 major Biology (2007) JMU Würzburg • generated 11-Jan-2023 • exam. reg. data record Bachelor (180 ECTS) Biologie - 2007 page 13 / 151					



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	data record Bachelor (180 ECTS) Biologie - 2007	

Module title			Abbreviation		
Immunology II				03-5S2IM-092-m01	
Module coordinator			Module offered by		
of the F	Professorship of Immuno	genetics	Faculty of Medicine		
		Only after succ. com	pl. of module(s)		
numei	rical grade				
n	Module level	Other prerequisites			
ster	undergraduate				
ts					
•		as immune modulat	ion, immunogenetics	s, infection immunology, signal	
ed learr	ning outcomes				
<b>s</b> (type,	number of weekly conta	ct hours, language —	if other than Germa	n)	
io infor	mation on SWS (weekly o	contact hours) and co	urse language availa	able)	
				tion offered — if not every seme-	
each (a	pprox. 30 minutes) or d)	oral examination in g			
ion of p	olaces				
nal info	ormation				
ad					
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)					
Module appears in					
		7)			
Bachelor' degree (1 major) Mathematics (2007)					
	ology II coordi of the F Metho numer ster ts c proble ction in ed to ple ed	ology II         coordinator         of the Professorship of Immuno;         Method of grading         numerical grade         n       Module level         ster       undergraduate         ts       c         c problems in immunology such         action in immune cells.         ed learning outcomes         dents acquire specific compete         ed to plan and perform experime         e.         s (type, number of weekly conta         ro information on SWS (weekly conta         o information on SWS (weekly conta         formation on whether module ca         en examination (approx. 60 min         each (approx. 30 minutes) or d)         or e) presentation (approx. 20 to         ion of places         nal information         ad         d to in LPO I (examination regulation         e appears in         or' degree (1 major) Biology (200)	ology II         e coordinator         of the Professorship of Immunogenetics         Method of grading       Only after succ. com         numerical grade          n       Module level       Other prerequisites         ster       undergraduate          ts           c problems in immunology such as immune modulat       iction in immune cells.          ed learning outcomes           dents acquire specific competence about the function or due to plan and perform experiments under supervisio es.          s (type, number of weekly contact hours, language           to information on SWS (weekly contact hours) and co           of assessment (type, scope, language            en examination (approx. 60 minutes) or b) log (approxeach (approx. 30 minutes) or d) oral examination in gor e) presentation (approx. 20 to 30 minutes)           ad	ology II       Module offered by         of the Professorship of Immunogenetics       Faculty of Medicine         Method of grading       Only after succ. compl. of module(s)         numerical grade          n       Module level       Other prerequisites         ster       undergraduate          ts           c problems in immunology such as immune modulation, immunogenetic          iction in immune cells.          ed learning outcomes          dents acquire specific competence about the functional mechanisms of red to plan and perform experiments under supervision and present the data on information on SWS (weekly contact hours, language — if other than German, examination information on SWS (weekly contact hours) and course language availed of assessment (type, scope, language — if other than German, examination on whether module can be chosen to earn a bonus)         en examination (approx. 60 minutes) or b) log (approx. 10 to 20 pages) or each (approx. 30 minutes) or d) oral examination in groups (groups of up or e) presentation (approx. 20 to 30 minutes)         ion of places	

Modul	e title	Abbreviation			
Clinica	al Biochemistry / Laboratory N	ledicine 1		03-5S2KB-092-m01	
Modul	e coordinator		Module offered by		
holder of the Chair of Biochemistry		Faculty of Medicine			
ECTS	Method of grading	Only after succ. con	npl. of module(s)		
10	numerical grade				
Durati		Other prerequisites	i		
1 seme	1 semester undergraduate				
Conte	nts				
Basic research practice and analytical approaches that are used in pathobiology and clinical biochemistry are presented by means of selected examples. Pathological mechanisms are compared to the respective regular physiological processes (e.g. thrombocyte function, cardiovascular transformation) and the underlying biochemical and genetic variations are discussed.					
Intend	ed learning outcomes				
moder proach	nts have developed a fundame in molecular biology and bioch n, analyse and interpret proble n, bench work, data analysis ar	emistry and have deve ms in clinical biochem	loped a fundamenta istry. They also have	l understanding of h developed skills in e	ow to ap- experimental
Course	<b>es</b> (type, number of weekly cor	tact hours, language –	- if other than Germa	n)	
Compo Metho ster, ir Assess	odule comprises 2 module con onent. 03-5S2KB-1KB-092: Ü (no infor 03-5S2KB-2KB-092: S (no infor 0 <b>d of assessment</b> (type, scope, nformation on whether module sment in this module comprise nless stated otherwise, succes	mation on SWS (weekl mation on SWS (weekl language — if other th can be chosen to earn s the assessments in t	y contact hours) and y contact hours) and an German, examina a bonus) he individual modul	course language av course language av tion offered — if not e components as sp	ailable) ailable) every seme- ecified be-
<ul> <li>vidual assessments.</li> <li>Assessment in module component o3-5S2KB-1KB-o92: Clinical biochemistry / laboratory medicine 1 (laboratory practice) <ul> <li>8 ECTS, Method of grading: numerical grade</li> <li>a) written examination (approx. 60 minutes) or b) log (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or d) oral examination in groups (groups of 2 or 3 candidates, approx. 60 minutes) or e) presentation (approx. 20 to 30 minutes)</li> <li>Language of assessment: German, English</li> </ul> </li> <li>Assessment in module component o3-5S2KB-2KB-o92: Clinical biochemistry / laboratory medicine 1 - Seminar clinical biochemistry</li> <li>2 ECTS, Method of grading: (not) successfully completed</li> <li>presentation (approx. 20 to 30 minutes)</li> <li>Language of assessment: German, English where required</li> </ul> <li>Allocation of places <ul> <li></li> </ul> </li> <li>Additional information</li>					
Workload					
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)					
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#### Module appears in

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	data record Bachelor (180 ECTS) Biologie - 2007	

Module title			Abbreviation		
		biology 1			03-5S2KN-092-m01
Module coordinator				Module offered by	
		Chair of Clinical Neurobio	<u> </u>	Faculty of Medicine	
ECTS	1	od of grading	Only after succ. con	npl. of module(s)	
10	L	rical grade			
Duratio		Module level	Other prerequisites		
1 seme		undergraduate			
Contents         Students who successfully completed this module will have acquired insights into the foundations of clinical neurobiology. In this module, the cellular and molecular mechanisms which are important for survival as well as the cell death of neurons and glial cells of vertebrates will be compared during development as well as under pathological conditions. The module will also focus on the function of neurons and glial cells, synaptic activity, plasticity as well as disturbances in these functions and diseases of the nervous system, comparison of physiological processes in pathological conditions of neurodegenerative disorders such as motoneuron disorders. Using distinct examples in neurobiology, molecular genetic and functional biochemical connections will be analysed.         Intended learning outcomes       Students who successfully complete this module will have a fair knowledge of the basic functions of the nervous system. Students will be able to independently work on a distinct project using techniques of modern neurobiology, to solve general problems and to understand the mechanisms of neurodegenerative disorders. They will be able to analyse data and to interpret it in the context of literature. They will also have developed skills in experimental design, bench work, data analysis and the presentation of scientific results both orally and in writing.         Courses (type, number of weekly contact hours, language — if other than German)         This module comprises 2 module components. Information on courses will be listed separately for each module component.         • 03-552KN-1KN-092: Ü (no information on SWS (weekly contact hours) and course language available)         • 03-552KN-1KN-092: S (no information on SWS (weekly contact hours) and course language available)					
<ul> <li>8 ECTS, Method of grading: numerical grade         <ul> <li>a) written examination (approx. 6o minutes) or b) log (approx. 1o to 2o pages) or c) oral examination of one candidate each (approx. 3o minutes) or d) oral examination in groups (groups of 2 or 3 candidates, approx. 6o minutes) or e) presentation (approx. 2o to 3o minutes)</li> <li>Language of assessment: German, English</li> </ul> </li> <li>Assessment in module component o3-552KN-2KN-o92: Clinical neurobiology 1 (seminar)         <ul> <li>2 ECTS, Method of grading: (not) successfully completed</li> <li>presentation (approx. 2o to 3o minutes)</li> <li>Language of assessment: German, English where required</li> </ul> </li> <li>Allocation of places</li> </ul>					
Additio	onal info	ormation			
Worklo	ad				
	-				
L					

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

#### Module appears in

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	data record Bachelor (180 ECTS) Biologie - 2007	

Module	title				Abbreviation	
Physio	logical	Chemistry II			03-5S2PC-092-m01	
Module	e coord	inator		Module offered by		
		Chairs of Physiological C emistry, Biochemistry and		Faculty of Medicine		
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
10		rical grade		• • • •		
Duratio	n	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
from hu lecular	ıman b genetio	iochemistry. Physiologica	al processes are com ical networks are pre	pared with examples	based on selected questions s of pathological aberrations. Mo- oles from developmental bioche-	
Intende	ed leari	ning outcomes				
mistry l They al scientif	oased o so have ic resu	on individually assigned e developed skills in exp lts.	tasks, using techniqu erimental design, ber	ues of modern molec nch work, data analy	problems in physiological che- ular biology and biochemistry. sis and the presentation of	
Course	<b>s</b> (type	, number of weekly conta	ct hours, language –	- if other than Germa	in)	
compoi • o	nent. 3-5S2F	PC-1HB1-092: Ü (no inform	nation on SWS (week	ly contact hours) and	sted separately for each module d course language available) course language available)	
		s <b>essment</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>Assessment in module component o3-5S2PC-1HB1-092: Physiological chemistry 2 - Human biochemistry (laboratory course)</li> <li>9 ECTS, Method of grading: numerical grade</li> <li>a) written examination (approx. 60 minutes) or b) log (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or d) oral examination in groups (groups of 2 or 3 candidates, approx. 60 minutes) or e) presentation (approx. 20 to 30 minutes)</li> <li>Language of assessment: German, English</li> <li>Assessment in module component o3-5S2PC-2HB-092: Physiological chemistry 2 - Seminar on human biochemistry 1</li> <li>1 ECTS, Method of grading: (not) successfully completed</li> <li>presentation (approx. 20 to 30 minutes)</li> </ul>						
· · ·						
Allocal	Allocation of places					
Additio	Additional information					
Worklo	ad					
Referre	d to in	LPOI (examination regu	lations for teaching-o	degree programmes)		

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#### Module appears in

Bachelor' degree (1 major) Biology (2007) Bachelor' degree (1 major) Mathematics (2007)

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Module title Abbreviation					Abbreviation	
Structural Biology 1					03-5S2ST-092-m01	
Module coordinator				Module offered by		
holder	of the (	Chair of Structural Biology	/	Faculty of Medicine		
ECTS		od of grading	Only after succ. com	pl. of module(s)		
10	L	rical grade				
Duratio		Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
as the f selecte molecu	undam d biolo le in si	iental principles of macro gical macromolecules are	molecular architectu e presented. In small ucture and biologica	res. Building on this groups, participants l function and will pr	d biophysical techniques as well , the structure and function of s will analyse one specific macro- resent their results in a talk. The l problems.	
Intende	ed learı	ning outcomes				
probler oral pre	ns in st esentat	ructural biology and to a ion of scientific results as	nalyse structure-func s well as in the in sili	tion relationships. T co analysis of biolog		
· · · · · · · · · · · · · · · · · · ·		, 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-	
didate	each (a		oral examination in §		r c) oral examination of one can- to 3 candidates, approx. 60 mi-	
Allocat	ion of p	olaces				
Additio	nal inf	ormation				
Workload						
Referre	d to in	LPO I (examination regu	lations for teaching-o	legree programmes)		
Module appears in						
	Bachelor' degree (1 major) Biochemistry (2009)					
Bachelo	or' deg	ree (1 major) Biology (200	(70			

Module	title				Abbreviation	
Virology II			03-5S2VL-092-m01			
Modulo	coordi	ator		Module offered by		
				Faculty of Medicine		
holder of the Chair of Virology     Faculty of Medicine       ECTS     Method of grading     Only after succ. compl. of module(s)						
10		cal grade				
Duratio	n l	Module level	Other prerequisites			
1 semes	ster	undergraduate				
Conten	Contents					
This module addresses special virological problems using selected examples such as viral pathogenesis, inter- action of viruses with host cells or the complete host, new developments in molecular virology, prevention and treatment of viral infections and the pathogenesis of prion diseases.						
Intende	ed learni	ing outcomes				
			c knowledge of molecu resent them, taking int			rform experi-
Courses	<b>s</b> (type,	number of weekly con	tact hours, language —	if other than Germa	n)	
compor	nent.		nponents. Information nation on SWS (weekly			
• 0	3-5S2VL	-2VL-092: S (no inform	nation on SWS (weekly nation on SWS (weekly nation on SWS (weekly	contact hours) and	course language ava	ilable)
			language — if other tha can be chosen to earn		tion offered — if not	every seme-
low. Un		ted otherwise, succes	s the assessments in t sful completion of the			
<ul> <li>Assessment in module component o3-5S2VL-1VL-092: Virology 2 (lecture) <ul> <li>1 ECTS, Method of grading: numerical grade</li> <li>written examination (30 minutes)</li> </ul> </li> <li>Language of assessment: German, English where required</li> <li>Assessment in module component o3-5S2VL-2VL-092: Virology 2 (seminar)</li> <li>1 ECTS, Method of grading: (not) successfully completed</li> <li>presentation (approx. 20 to 30 minutes)</li> <li>Language of assessment: German, English</li> </ul> Assessment in module component o3-5S2VL-3VL-092: Virology 2 (laboratory course) <ul> <li>8 ECTS, Method of grading: numerical grade</li> <li>written examination (20 minutes) or oral examination (20 minutes)</li> <li>Language of assessment: German, English where required</li> </ul>						
Allocati	ion of pl	aces				
Additional information						
Workload						
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)						
Module appears in						
Bachelo	or' degre	ee (1 major) Biology (2	007)			
Bachelor's \	with 1 majo	r Biology (2007)		• generated 11-Jan-2023 • ex Bachelor (180 ECTS) Biologie	-	page 23 / 151



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	data record Bachelor (180 ECTS) Biologie - 2007	

Module title				Abbreviation		
Cellular Molecular biology 1 03-5S2ZM-092-m01				L		
Module	e coord	inator		Module offered by		
Institute of Medical Radiology and Cell Research (MSZ)			ll Research (MSZ)	Faculty of Medicine		
ECTS		od of grading	Only after succ. con	npl. of module(s)		
10	<u> </u>	rical grade				
Duratio		Module level	Other prerequisites			
1 seme		undergraduate				
Conten						
cussed	In this module, current problems in the research areas of stem cell biology and cellular differentiation will be dis- cussed and specific solutions will be taught. With the help of selected examples, participants will acquire practi- cal molecular biological techniques.					
Intende	ed learr	ning outcomes				
molecu gy. The	ılar biol y also ł	e developed the ability ogy based on individu nave developed skills in Its both orally and in w	ally assigned tasks, us n experimental design,	ing techniques of mo	odern molecular and	cell biolo-
Course	<b>s</b> (type,	number of weekly con	tact hours, language –	- if other than Germa	n)	
compo • C	nent. 13-5S2Z	omprises 2 module cor M-1ZM-092: Ü (no info M-2ZM-092: S (no info	rmation on SWS (week	ly contact hours) and	l course language av	vailable)
Metho	d of ass	essment (type, scope, on on whether module	language — if other the	an German, examina		
	less st	this module comprise ated otherwise, succes nents.				
<ul> <li>Assessment in module component o3-5S2ZM-1ZM-o92: Cellular molecular biology 1 (laboratory course)</li> <li>8 ECTS, Method of grading: numerical grade</li> <li>a) written examination (approx. 60 minutes) or b) log (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or d) oral examination in groups (groups of 2 or 3 candidates, approx. 60 minutes) or e) presentation (approx. 20 to 30 minutes)</li> <li>Language of assessment: German, English</li> <li>Assessment in module component o3-5S2ZM-2ZM-o92: Cellular molecular biology 1 - Current topics in molecular biology (seminar)</li> <li>2 ECTS, Method of grading: (not) successfully completed</li> <li>presentation (approx. 20 to 30 minutes)</li> <li>Language of assessment: German, English where required</li> </ul>						
Allocat						
Additional information						
Workload						
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)						
Module						
		ree (1 major) Biology (2	007)			
Bachelor's	with 1 maj	or Biology (2007)		g • generated 11-Jan-2023 • e. Bachelor (180 ECTS) Biologie	_	page 25 / 151

Module title				Abbreviation		
Cellular tumour biology 1				03-5S2ZT-092-m01		
Module	e coord	inator		Module offered by	<u> </u>	
Chair o ne	f Rudol	f Virchow Center for Exp	perimental Biomedici-	Faculty of Medicine		
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
10	nume	rical grade				
Duratio		Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
dule wi approa	ll provi ches of	examples and applying de students with funda f cellular tumour biolog nships and approaches	mental insights into ce y. With the help of sele	ellular tumour biolog	y and will acquaint t	hem with the
Intende	ed learı	ning outcomes				
logy ba methoo	sed on ds. The	e developed the ability individually assigned t y also have developed s c results.	asks, using technique	s of modern cell biol	ogy and, in particula	ar, imaging
Course	<b>s</b> (type	, number of weekly con	tact hours, language –	- if other than Germa	ın)	
compo • 0	nent. 13-5S2Z	omprises 2 module cor T-1ZT-092: Ü (no inform T-2T-092: S (no informa	nation on SWS (weekly	contact hours) and	course language ava	ilable)
Method	d of ass	essment (type, scope, on on whether module	language — if other th	an German, examina		
	iless st	n this module comprise ated otherwise, succes ments.				
<ul> <li>Assessment in module component 03-5S2ZT-1ZT-092: Cellular tumour biology 1 (laboratory course)</li> <li>9 ECTS, Method of grading: numerical grade</li> <li>a) written examination (approx. 60 minutes) or b) log (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or d) oral examination in groups (groups of 2 or 3 candidates, approx. 60 minutes) or e) presentation (approx. 20 to 30 minutes)</li> <li>Language of assessment: German, English</li> <li>Assessment in module component 03-5S2ZT-2T-092: Cellular tumour biology 1 - Current topics in tumour biology (seminar)</li> </ul>						
• p	resenta	Method of grading: (not ation (approx. 20 to 30 ge of assessment: Germ	minutes)			
Allocation of places						
Additional information						
Werkland						
Workload						
Referre	d to in	LPOI (examination reg	gulations for teaching-o	legree programmes)		
Bachelor's	with 1 maj	or Biology (2007)		g • generated 11-Jan-2023 • e Bachelor (180 ECTS) Biologie	-	page 26 / 151

#### Module appears in

Bachelor's with 1 major Biology (2007)	JMU Würzburg • generated 11-Jan-2023 • exam. reg. data record Bachelor (180 ECTS) Biologie - 2007	page 27 / 151
	uala record Bachelor (180 ECTS) Biologie - 2007	

Module title				Abbreviation	
Immur	Immunology 3 03-6S3IM-092-m01				
Modul	e coord	inator		Module offered by	
holder of the Professorship of Immunogenetics		Faculty of Medicine			
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
15	nume	rical grade			
Durati	on	Module level	Other prerequisites		
1 seme	ester	undergraduate			
Conter	nts				
					ldress specific problems in im- , signal transduction in immune
Intend	ed lear	ning outcomes			
		acquire extended knowle experiments under superv			ctions. They are qualified to plan count current literature.
Course	<b>es</b> (type	, number of weekly conta	ct hours, language –	- if other than Germa	n)
compo • (	onent. 03-6S3I	M-1IM-092: P (no informa	ation on SWS (weekly	contact hours) and	sted separately for each module course language available) course language available)
ster, ir Assess	nformati sment i	ion on whether module can this module comprises	an be chosen to earn the assessments in t	a bonus) he individual module	tion offered — if not every seme-
<ul> <li>low. Unless stated otherwise, successful completion of the module will require successful completion of all individual assessments.</li> <li>Assessment in module component o3-6S3IM-1IM-092: Immunology 3 (laboratory course) <ul> <li>13 ECTS, Method of grading: numerical grade</li> <li>a) written examination (approx. 60 minutes) or b) log (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or d) oral examination in groups (groups of 2 or 3 candidates, approx. 60 minutes) or e) presentation (approx. 20 to 30 minutes)</li> <li>Language of assessment: English</li> </ul> </li> </ul>					
<ul> <li>Assessment in module component 03-653IM-2IM-092: Immunology 3 - Seminar on cellular and molecular immunology</li> <li>2 ECTS, Method of grading: (not) successfully completed</li> <li>presentation (approx. 20 to 30 minutes)</li> <li>Language of assessment: English</li> </ul>					
Allocation of places					
Additional information					
Workload					
Workload					
Referre	ed to in	LPOI (examination regu	lations for teaching-o	legree programmes)	
Modul	e appea	ars in			
Bachelor' degree (1 major) Biology (2007)					

Module title Abbreviation				Abbreviation		
Clinical Bio	chemistry /Laboratory Me	dicine 2		03-6S3KB-092-m01		
Module cod	rdinator		Module offered by			
	e Chair of Biochemistry		Faculty of Medicine			
	thod of grading	Only after succ. con	· ·			
	nerical grade		<u> </u>			
Duration	Module level	Other prerequisites	i i			
1 semester	undergraduate					
Contents						
means of s processes	elected examples. Patholog	gical mechanisms are , cardiovascular trans	compared to the rest formation). Molecul	hemistry II are presented by spective regular physiological ar genetic and functional bioche- ular biochemistry.		
Intended le	arning outcomes					
modern mo proach, and design, ber	lecular biology and bioche Ilyse and interpret problem ch work, data analysis and	mistry and have devens in clinical biochemi d the presentation of s	loped a fundamenta istry. They also have scientific results bot			
	pe, number of weekly cont					
	formation on SWS (weekly					
	<b>assessment</b> (type, scope, l ation on whether module o			ition offered — if not every seme-		
didate each		) oral examination in g		or c) oral examination of one can- to 3 candidates, approx. 60 mi-		
Allocation	of places					
Additional	nformation					
Workload						
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)						
-						
Module ap	ears in	Module appears in				
Bachelor' degree (1 major) Biology (2007)						

Module title				Abbreviation		
Clinical Neurobiology 2					03-6S3KN-092-m01	
Module	e coord	inator		Module offered by		
with th	e Instit	Chair of Clinical Neurobio ute of Medical Radiology ogy and Psychology		Faculty of Medicine		
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)		
15	nume	rical grade				
Duratio	on	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
the fun cesses ted exa	damen will be mples	tal principles of as well a compared with patholog	s analytical techniqu ical conditions (e.g.	es used in clinical n Parkinson's and Alz	dule will acquaint students with eurobiology. Physiological pro- heimer's disease). Using selec- unctional biochemical correlati-	
Intend	ed lear	ning outcomes				
dividua dents v	al tasks vill also	, using techniques of mo	dern neurobiology to nat will enable them	solve, analyse and i to plan and perform	t will enable them to work on in- interpret general problems. Stu- experiments as well as to inter-	
Course	<b>s</b> (type	, number of weekly conta	ct hours, language –	- if other than Germa	n)	
compo • c	nent. 03-6S3k	(N-1KN-092: Ü (no inform	ation on SWS (weekl	y contact hours) and	sted separately for each module course language available) l course language available)	
		essment (type, scope, la on on whether module ca			tion offered — if not every seme-	
	iless st	ated otherwise, successf			e components as specified be- successful completion of all indi-	
<ul> <li>Assessment in module component o3-6S3KN-1KN-092: Clinical neurobiology 2 (laboratory course)</li> <li>13 ECTS, Method of grading: numerical grade</li> <li>a) written examination (approx. 60 minutes) or b) log (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or d) oral examination in groups (groups of 2 or 3 candidates, approx. 60 minutes) or e) presentation (approx. 20 to 30 minutes)</li> </ul>						
Assess • 2 • p	<ul> <li>presentation (approx. 20 to 30 minutes)</li> <li>Assessment offered: once a year, winter semester</li> </ul>					
	Language of assessment: German, English where required					
Allocation of places						
Additional information						
Worklo	ad					
<u></u>						

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

#### Module appears in

Bachelor's with 1 major Biology (2007)	JMU Würzburg • generated 11-Jan-2023 • exam. reg.	page 31 / 151
	data record Bachelor (180 ECTS) Biologie - 2007	

Module title					Abbreviation
Physio	Physiological Chemistry 3				03-6S3PC-092-m01
Module	e coord	inator		Module offered by	
holder	of the (	Chair of Physiological Che	emistry	Faculty of Medicine	
ECTS		od of grading	Only after succ. com	pl. of module(s)	
15	nume	rical grade			
Duratio	n	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	ts				
questio erratior	ons fror ns. Mol	n human biochemistry. P	hysiological process onal biochemical net	es are compared with works are presented	stry are taught based on selected h examples of pathological ab- l using examples from develop-
Intende	ed learı	ning outcomes			
mistry l They al on of so	based o so have cientifie	on individually assigned e developed in-depth ski c results.	tasks, using techniqu Ils in experimental de	ies of modern molec esign, bench work, d	problems in physiological che- ular biology and biochemistry. ata analysis and the presentati-
		, number of weekly conta			
V + Ü (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-
didate	each (a		oral examination in §		r c) oral examination of one can- to 3 candidates, approx. 60 mi-
Allocat	ion of p	olaces			
Additio	nal inf	ormation			
Workload					
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)					
Module	appea	ars in			
	Bachelor' degree (1 major) Biology (2007)				

Module title				Abbreviation	
Physiology	03-6S3PH-092-m01				
Module coord	inator		Module offered by		
holder of the	Chair of Physiology I		Faculty of Medicine		
	od of grading	Only after succ. com	npl. of module(s)		
15 nume	rical grade				
Duration	Module level	Other prerequisites			
1 semester	undergraduate				
Contents					
res in physiol diovascular d	ogy. Physiological proces	ses will be compared examples of physiolo	l with pathological co ogical and pathophy	f as well as analytical procedu- onditions (e. g. hormonal or car- siological conditions, the module	
Intended lear	ning outcomes	,			
on individuall ped skills in e	y assigned tasks, using to xperimental design, benc	echniques of modern ch work, data analysi	physiology and bio s and the presentation		
	, number of weekly conta				
	rmation on SWS (weekly o				
	<b>sessment</b> (type, scope, la ion on whether module ca			tion offered — if not every seme-	
didate each (a		oral examination in §		r c) oral examination of one can- to 3 candidates, approx. 60 mi-	
Allocation of	places				
Additional inf	ormation				
Workload					
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)					
Module appea	ars in				
Bachelor' deg	ree (1 major) Biology (200	77)			

Module title				Abbreviation		
Structural Biology 2					03-6S3ST-092-m01	
Module	e coord	inator		Module offered by		
holder of the Chair of Structural Biology			y	Faculty of Medicine		
ECTS		od of grading	Only after succ. com	pl. of module(s)		
15	nume	rical grade				
Duratio	on	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	Its					
insight from th	s and t ne follo	o also illustrate the funda	amental concepts of s quitin-dependent pro	structural biology. So tein degradation, tra	o provide fundamental biological cientific projects may be selected ansport and anchoring of inhibito- Il agents.	
Intend	ed lear	ning outcomes				
employ also ac	/ing dif quire s	ferent techniques from th	e fields of molecular	biology, biochemist	s of individually assigned tasks, ry and crystallography. They will on as well as in the oral and writ-	
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)	
compo • c • c Metho	nent. 03-6S39 03-6S39 <b>d of as</b> 9	ST-1ST-092: S + P (no info ST-2ST-092: S (no informa sessment (type, scope, la	rmation on SWS (wee ation on SWS (weekly nguage — if other tha	ekly contact hours) a contact hours) and an German, examina	sted separately for each module nd course language available) course language available) tion offered — if not every seme-	
		ion on whether module ca		-		
	nless st	ated otherwise, successf			e components as specified be- successful completion of all indi-	
<ul> <li>Assessment in module component o3-6S3ST-1ST-o92: Structural biology 2 (seminar and laboratory course)</li> <li>13 ECTS, Method of grading: numerical grade</li> <li>a) written examination (approx. 60 minutes) or b) log (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or d) oral examination in groups (groups of 2 or 3 candidates, approx. 60 minutes) or e) presentation (approx. 20 to 30 minutes)</li> <li>Assessment offered: once a year, winter semester</li> <li>Language of assessment: English</li> <li>Assessment in module component o3-6S3ST-2ST-o92: Structural biology 2 (literature seminar)</li> <li>2 ECTS, Method of grading: (not) successfully completed</li> <li>presentation (approx. 20 to 30 minutes)</li> <li>Assessment offered: once a year, winter semester</li> <li>Language of assessment: English</li> </ul>						
Allocation of places						
Additio	onal inf	ormation				
Worklo	ad					

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

#### Module appears in

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	data record Bachelor (180 ECTS) Biologie - 2007	

Module title					Abbreviation		
Virology 3 03-6S3VL-092-m01							
Module coordinator				Module offered by			
holder of the Chair of Virology		Faculty of Medicine					
ECTS	-i	od of grading	Only after succ. compl. of module(s)				
15 numerical grade							
Duration Module level Other prerequisites							
	1 semester undergraduate						
Contents							
In 6-week lab courses that will be accompanied by seminars, the module will address specific and current pro- blems in virology and, in particular, questions of the viral pathogenesis of selected viruses and viral gene thera- py.							
Intended learning outcomes							
The students acquire an advanced knowledge of molecular and cellular virology including the application of viral vectors (retroviral, adenoviral or AAV-based vectors) for gene therapy of innate or acquired diseases. They also develop skills in experimental design, the performance and evaluation of experiments as well as in the oral and written presentation of scientific results, taking into account current literature.							
		, number of weekly conta					
<ul> <li>This module comprises 2 module components. Information on courses will be listed separately for each module component.</li> <li>03-6S3VL-1VL-092: P (no information on SWS (weekly contact hours) and course language available)</li> <li>03-6S3VL-2VL-092: S (no information on SWS (weekly contact hours) and course language available)</li> </ul>							
<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)							
Assessment in this module comprises the assessments in the individual module components as specified be- low. Unless stated otherwise, successful completion of the module will require successful completion of all indi- vidual assessments.							
<ul> <li>Assessment in module component o3-6S3VL-1VL-092: Virology 3 (laboratory course)</li> <li>13 ECTS, Method of grading: numerical grade</li> <li>a) written examination (approx. 60 minutes) or b) log (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or d) oral examination in groups (groups of 2 or 3 candidates, approx. 60 minutes) or e) presentation (approx. 20 to 30 minutes)</li> <li>Language of assessment: English</li> <li>Assessment in module component o3-6S3VL-2VL-092: Virology 3 (seminar)</li> <li>2 ECTS, Method of grading: (not) successfully completed</li> <li>presentation (approx. 20 to 30 minutes)</li> <li>Language of assessment: English</li> </ul>							
Allocation of places							
Additional information							
Workload							
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)							
Modul	e appea	urs in					
		ree (1 major) Biology (200	(70				

Bachelor's with 1 major Biology (2007)

Module title				Abbreviation		
Cellula	Cellular Molecular Biology 2 03-6S3ZM-092-m01					
Module	e coord	inator		Module offered by		
		dical Radiology and Ce	1	Faculty of Medicine		
ECTS	î	od of grading	Only after succ. con	npl. of module(s)		
15	· · · · ·	rical grade				
Duratio		Module level	Other prerequisites			
1 seme		undergraduate				
Conten						
cussed	In this module, current problems in the research areas of stem cell biology and cellular differentiation will be dis- cussed and specific solutions will be taught. With the help of selected examples, participants will acquire practi- cal molecular biological techniques.					
Intend	ed learr	ning outcomes				
molecu gy. The	ılar biol y also ł	e developed the ability ogy based on individu nave developed skills in Its both orally and in w	ally assigned tasks, us n experimental design,	ing techniques of mo	odern molecular and	cell biolo-
Course	<b>s</b> (type	number of weekly con	tact hours, language –	- if other than Germa	n)	
compo • c	nent. 13-6S3Z	omprises 2 module cor M-1ZM-092: Ü (no info M-2ZM-092: S (no info	rmation on SWS (week	ly contact hours) and	d course language av	/ailable)
		essment (type, scope, on on whether module			tion offered — if not	every seme-
	less st	this module comprise ated otherwise, succes nents.				
<ul> <li>Assessment in module component o3-6S3ZM-1ZM-o92: Cellular molecular biology 2 (laboratory course)</li> <li>13 ECTS, Method of grading: numerical grade</li> <li>a) written examination (approx. 60 minutes) or b) log (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or d) oral examination in groups (groups of 2 or 3 candidates, approx. 60 minutes) or e) presentation (approx. 20 to 30 minutes)</li> <li>Assessment offered: once a year, winter semester</li> <li>Language of assessment: German, English</li> <li>Assessment in module component o3-6S3ZM-2ZM-o92: Cellular molecular biology 2 (seminar)</li> <li>2 ECTS, Method of grading: (not) successfully completed</li> <li>presentation (approx. 20 to 30 minutes)</li> <li>Assessment offered: once a year, winter semester</li> <li>Language of assessment: German, English</li> </ul>						
Allocation of places						
Additional information						
Workload						
WUIKIUdu						
Referred to in LPO I (examination regulations for teaching-degree programmes)						
Module	e appea	rs in				
Bachelor's	with 1 maj	or Biology (2007)		g • generated 11-Jan-2023 • e. Bachelor (180 ECTS) Biologie	-	page 37 / 151

Bachelor' degree (1 major) Biology (2007)

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Module title				Abbreviation				
Cellular Tumour Biology 2 03-S63ZT-092-m01								
Module coo	rdinator		Module offered by					
Chair of Rud ne	lolf Virchow Center for Expe	rimental Biomedici-	Faculty of Medicine					
ECTS Met	hod of grading	Only after succ. com	pl. of module(s)					
15 num	nerical grade							
Duration	Module level	Other prerequisites						
1 semester	undergraduate							
Contents								
-	specific problems, this mod uaint them with approache	-	dents a more in-dep	th knowledge of tumour biology				
Intended lea	arning outcomes							
biology base	ed on individually assigned	l tasks, using moderr	techniques and, in	t specific problems in tumour particular, imaging methods. is and the presentation of scien-				
Courses (typ	oe, number of weekly conta	ct hours, language —	if other than Germa	n)				
component. • 03-S6		tion on SWS (weekly	contact hours) and o					
		• • • • • • • • • • • • • • • • • • •		tion offered — if not every seme-				
	ation on whether module ca			,				
	stated otherwise, successf			e components as specified be- successful completion of all indi-				
<ul> <li>Assessment in module component o3-S63ZT-1ZT-092: Cellular tumour biology 2 (laboratory course)</li> <li>11 ECTS, Method of grading: numerical grade</li> <li>a) written examination (approx. 60 minutes) or b) log (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or d) oral examination in groups (groups of 2 or 3 candidates, approx. 60 minutes) or e) presentation (approx. 20 to 30 minutes)</li> <li>Language of assessment: German or English</li> <li>Assessment in module component o3-S63ZT-2ZT-092: Cellular tumour biology 2 (seminar)</li> <li>4 ECTS, Method of grading: (not) successfully completed</li> <li>presentation (approx. 20 to 30 minutes)</li> </ul>								
	age of assessment: Germa	, , , , , , , , , , , , , , , , , , , ,						
Allocation of places								
Additional information								
Workload								
Referred to	Referred to in LPO I (examination regulations for teaching-degree programmes)							
Module app								
Bachelor' de	egree (1 major) Biology (200	(70	Bachelor' degree (1 major) Biology (2007)					

Bachelor's with 1 major Biology (2007)

Modul	Module title					
From c	ells to (	organisms			07-1A1ZO-072-m01	
Modul	e coord	inator		Module offered by	·	
Dean c	of Studi	es Biologie (Biology)		Faculty of Biology		
ECTS	Meth	od of grading	Only after succ. cor	npl. of module(s)		
13	nume	rical grade				
Duratio	on	Module level	Other prerequisites	;		
1 seme	ester	undergraduate		, additional prerequ	isites are listed in th	e section on
		_	assessments.			
Conter	nts	1				
		of the course will acqua	aint students with the e	lementary building b	locks of life as well	as hiologi.
			ledge, the course will t			
			efore moving on to its i			
			okaryotic cells (bacteri			
			s one of the central issu			
		•	nd students will be intro	•		
thods.	Using t	he examples of plants	and animals, the subs	equent module comp	ponents will introduc	ce students
			ryotes. At the level of g		•	
			dge necessary to unde			
	organisms, with morphology and cytology being discussed in an evolutionary and ecological context. The con-					
			piological disciplines a			
			fundamental preparati	on skills bioscientist	s are often required	to possess.
		ning outcomes				
			aryotic and eukaryotic			
			of the intracellular and			
			nise evolution as the d			
			etic relationships betw			
			sentatives of groups in			
			are most suitable for pa			
			es Fundamental skills undamental preparatio		i of macroscopic and	i nistologic
			ntact hours, language –		ın)	
			rmation on courses list			
			ormation on language			ilahle)
			ation on language and			
			formation on language			
			ormation on language			
			language — if other th		•	
			can be chosen to earn			
This m	odule h	as the following 4 asse	essment components.	Unless stated otherw	vise, students must r	pass all of
		•	ass the module as a wh			
			7-1A1ZO-1Z-072: Die Zo			
o7-1A1ZO-3P-o72: Das Pflanzenreich (The Plant Kingdom), and in module component o7-1A1ZO-4T-o72: Das Tier-						
reich (The Animal Kingdom):						
		credits, numerical grad examination (approx. 6	-			
			ssion prerequisite to a	scossmont, rogular a	ttondanco of and na	rticipation
			sful completion of the	_		
	of the co			respective exercises	as specified at the	~~5 <sup></sup>
			<b>7-1A1ZO-2E-102:</b> Evolu	tion		
		redit, pass / fail	, <u></u>			
		jor Biology (2007)	IMII Würzbur	g • generated 11-Jan-2023 • e	xam reg	page 40 / 151
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- written examination (approx. 30 minutes, including multiple choice questions)
- Additional prerequisites: admission prerequisite to assessment: regular attendance of exercises and successful completion of the respective exercises as specified at the beginning of the course.

### Allocation of places

#### Additional information

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Workload

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

## Module appears in

Bachelor' degree (1 major) Biology (2007)

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	data record Bachelor (180 ECTS) Biologie - 2007	1

Module title				Abbreviation		
Geneti	Genetics, Neurobiology, Behaviour 07-2A2GNV-072-m01					
Modul	e coord	inator		Module offered by	<u> </u>	
Dean o	of Studi	es Biologie (Biology)		Faculty of Biology		
ECTS		od of grading	Only after succ. con			
6	1	rical grade				
Durati	on	Module level	Other prerequisites			
1 seme	ester	undergraduate		, additional prerequ	isites are listed in th	e section on
			assessments.			
Conter	nts					
Funda	mental	principles of genetics, r	neurobiology and beha	vioural biology.		
Intend	ed lear	ning outcomes				
proces bases cal me	ses inv of inhe chanis	Idents will understand to olved in animal behavic ritance.] [Version 2: Stu ns and processes involute I formal bases of inherit	our and will be able to dents will understand ved in animal behavio	relate animal behavi that there are molec	iour to the molecular ular, cellular and sys	r and formal stem biologi-
Course	es (type	, number of weekly con	tact hours, language –	- if other than Germa	ın)	
compc • (	onent. 07-2A2( 07-2A2(	omprises 3 module con GNV-1G-072: V + Ü (no in GNV-2N-072: V + Ü (no ir GNV-3V-072: V + Ü (no ir	formation on SWS (we formation on SWS (we	ekly contact hours) a ekly contact hours) a	ind course language ind course language	available) available)
ster, ir	nformat	sessment (type, scope, ion on whether module	can be chosen to earn	a bonus)		
low. U		n this module comprise ated otherwise, succes ments.				
<ul> <li>Assessment in module component o7-2A2GNV-1G-072: Basic Genetics Basic Genetics</li> <li>2 ECTS, Method of grading: numerical grade</li> <li>written examination (approx. 30 minutes)</li> <li>Other prerequisites: Admission prerequisite to assessment: regular attendance of exercises and successful completion of the respective exercises as specified at the beginning of the course.</li> <li>Assessment in module component o7-2A2GNV-2N-072: Basic Neurobiology Basic Neurobiology</li> <li>2 ECTS, Method of grading: numerical grade</li> <li>written examination (approx. 30 minutes)</li> <li>Other prerequisites: Admission prerequisite to assessment: regular attendance of exercises and successful completion of the respective exercises as specified at the beginning of the course.</li> </ul>						
<ul> <li>Assessment in module component o7-2A2GNV-3V-072: Behavioural Biology Behavioural Biology</li> <li>2 ECTS, Method of grading: numerical grade</li> <li>written examination (approx. 30 minutes, word problems and/or multiple choice questions)</li> <li>Other prerequisites: Admission prerequisite to assessment: regular attendance of exercises and successful completion of the respective exercises as specified at the beginning of the course.</li> </ul>						
Allocation of places						
Only as part of "spezielles Studienangebot": 10 places.						
Additional information						
	_					
Workle	oad					
Bachelor's	s with 1 ma	jor Biology (2007)		g • generated 11-Jan-2023 • e Bachelor (180 ECTS) Biologie	-	page 42 / 151

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

### Module appears in

Bachelor' degree (1 major) Biology (2011)
Bachelor' degree (1 major) Biology (2007)
Bachelor' degree (1 major) Biology (2010)
Bachelor' degree (1 major) Mathematics (2008)
Bachelor' degree (1 major) Mathematics (2012)
Bachelor' degree (1 major) Mathematics (2013)
Bachelor' degree (1 major) Mathematics (2007)
Bachelor' degree (1 major) Computational Mathematics (2009)
Bachelor' degree (1 major) Computational Mathematics (2012)
Bachelor' degree (1 major) Computational Mathematics (2013)
Bachelor's degree (1 major, 1 minor) Biology (Minor, 2008)
Bachelor's degree (1 major, 1 minor) Biology (Minor, 2010)
No final examination (2010)

Bachelor's with 1 major Biology (2007)	JMU Würzburg • generated 11-Jan-2023 • exam. reg.	page 43 / 151
	data record Bachelor (180 ECTS) Biologie - 2007	

Module title			Abbreviation		
-	gy of Organisms			07-2A2PH-072-m01	
	oordinator		Module offered by		
	Studies Biologie (Biology)		Faculty of Biology		
	Nethod of grading	Only after succ. con	npl. of module(s)		
-	umerical grade				
Duration	Module level	Other prerequisites		icitor are listed in th	a castion on
1 semeste	er undergraduate	assessments.	, additional prerequi	isites are listed in th	e section on
Contents					
and will p ratory. Th metabolic	ule will acquaint students w provide them with an oppor le module will first address c diversity. Subsequently, t lent of multicellular organis	unity to develop the fu the biochemistry of the ne module will discuss	ndamental skills for cell and will then m the physiological pro	working in a physiol ove on to discuss pr	ogical labo- okaryotic
Intended	learning outcomes				
	have developed an unders ed fundamental knowledge				
Courses (	(type, number of weekly cor	itact hours, language –	- if other than Germa	n)	
<ul> <li>This module comprises 3 module components. Information on courses will be listed separately for each module component.</li> <li>o7-2A2PH-1PR-072: V + Ü (no information on SWS (weekly contact hours) and course language available)</li> <li>o7-2A2PH-2PF-072: V + Ü (no information on SWS (weekly contact hours) and course language available)</li> <li>o7-2A2PH-3TI-072: V + Ü (no information on SWS (weekly contact hours) and course language available)</li> </ul>					
	o <b>f assessment</b> (type, scope, rmation on whether module			tion offered — if not	every seme-
Assessment in this module comprises the assessments in the individual module components as specified be- low. Unless stated otherwise, successful completion of the module will require successful completion of all indi- vidual assessments.					
<ul> <li>Assessment in module component o7-2A2PH-1PR-072: Basic Physiology of Prokaryotes Basic Physiology of Prokaryotes</li> <li>3 ECTS, Method of grading: numerical grade</li> <li>written examination (approx. 60 minutes) including multiple choice questions</li> <li>Assessment in module component o7-2A2PH-2PF-072: Plant Physiology Plant Physiology</li> <li>3 ECTS, Method of grading: numerical grade</li> <li>written examination (approx. 45 minutes)</li> <li>Other prerequisites: Admission prerequisite to assessment: regular attendance of exercises and successful completion of the respective exercises as specified at the beginning of the course.</li> <li>Assessment in module component o7-2A2PH-3TI-072: Animal Physiology Animal Physiology</li> <li>3 ECTS, Method of grading: numerical grade</li> <li>written examination (approx. 60 minutes, word problems and/or multiple choice questions)</li> <li>Other prerequisites: Admission prerequisite to assessment: regular attendance of exercises and successful completion of the respective exercises as specified at the beginning of the course.</li> </ul>					
Allocation of places					
Additional information					
Workload					
Bachelor's wit	h 1 major Biology (2007)		g • generated 11-Jan-2023 • e. Bachelor (180 ECTS) Biologie	-	page 44 / 151

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

### Module appears in

Bachelor' degree (1 major) Biology (2011) Bachelor' degree (1 major) Biology (2007) Bachelor' degree (1 major) Biology (2010)

Bachelor's with 1 major Biology (2007)	JMU Würzburg • generated 11-Jan-2023 • exam. reg.	page 45 / 151
	data record Bachelor (180 ECTS) Biologie - 2007	

Module	e title				Abbreviation	
Mather	natical	<b>Biology and Biostatistic</b>	s		07-2BM-072-m01	
Module	coord	inator		Module offered by		
		Chair of Bioinformatics				
ECTS			Only offer cuce com	Faculty of Biology		
	î	od of grading rical grade	Only after succ. com			
4 Duratio		Module level	Other prerequisites			
1 seme		undergraduate		site to assessment.	regular attendance of exercises	
1 Seine	JICI	undergraduate			ctive exercises as specified at the	
			beginning of the cou		enve exercises as specified at the	
Conten	tc					
		principlos of the most im	nortant math	land statistical	hade in higher:	
		principles of the most im	portant mathematica	i and statistical met	nous in biology.	
		ning outcomes				
		have acquired fundamen as well as the mathemati		•	s, the interpretation of readings	
		, number of weekly conta	•	<u> </u>	n)	
		mation on SWS (weekly o				
		· · · · · · · · · · · · · · · · · · ·				
		on on whether module ca			tion offered — if not every seme-	
		nation (approx. 45 minut				
Allocat						
Only as	s part o	f "spezielles Studienange	ebot": 30 places.			
Additio	nal inf	ormation				
Worklo	ad					
Referre	d to in	LPOI (examination regu	lations for teaching-o	legree programmes)		
Module	e appea	irs in				
Bachel	or' deg	ree (1 major) Biochemistr	y (2011)			
Bachel	or' deg	ree (1 major) Biochemisti	y (2009)			
Bachel	or' deg	ree (1 major) Biology (20:	11)			
Bachel	Bachelor' degree (1 major) Biology (2007)					
Bachelor' degree (1 major) Biology (2010)						
Bachel	Bachelor' degree (1 major) Mathematics (2012)					
	-	ree (1 major) Mathematic	-			
Bachel	Bachelor' degree (1 major) Computational Mathematics (2012)					
Bachel	or' deg	ree (1 major) Computatio	nal Mathematics (20:	13)		
Bachel	or's de	gree (1 major, 1 minor) Bi	ology (Minor, 2008)			
		gree (1 major, 1 minor) Bi	ology (Minor, 2010)			
No fina	l exam	ination (2010)				

Module title				Abbreviation		
Bioinformatics				07-3A3BI-072-m01		
Module	e coord	inator		Module offered by		
holder	of the C	Chair of Bioinformatics		Faculty of Biology		
ECTS		od of grading	Only after succ. com	pl. of module(s)		
2	nume	rical grade				
Duratio	on	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
Fundar	nental j	principles of bioinformati	cs.			
Intend	ed learr	ning outcomes				
Studer	its are p	proficient in methods for	the analysis of DNA a	nd protein database	25.	
		, number of weekly conta				
-		•			sted separately for each module	
compo						
					ourse language available)	
• 0	07-3A3B	BI-2B-072: S (no informati	on on SWS (weekly c	ontact hours) and co	ourse language available)	
		s <b>essment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-	
low. Ur	iless st	ated otherwise, successf			e components as specified be- successful completion of all indi-	
vidual	assessi	ments.				
Assess	ment ir	n module component 07-:	3A3BI-1B-072: Bioinf	ormatics (Lecture)		
		Method of grading: nume				
		examination (approx. 20		· · · · · · · · · · · · · · · · · · ·		
		<b>n module component o7-</b> Method of grading: (not)				
		per (approx. 5 to 10 pages	<i>i i</i>	eu		
	ion of p		,			
	· · · ·	f Biochemistry Master's:	nlaces Places will l	he allocated by lot		
-	· ·	ormation				
Auditic						
Worklo						
workid	au					
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)						
Module appears in						
Bachelor' degree (1 major) Biochemistry (2011)						
	Bachelor' degree (1 major) Biochemistry (2009)					
	Bachelor' degree (1 major) Biology (2007) Bachelor' degree (1 major) Mathematics (2008)					
	Bachelor' degree (1 major) Mathematics (2008) Bachelor' degree (1 major) Mathematics (2007)					
	-					
		ree (1 major) Computation		99)		
	-	ee (1 major) Biochemistry gree (1 major, 1 minor) Bi				
Dachel	Bachelor's degree (1 major, 1 minor) Biology (Minor, 2008)					

Bachelor's with 1 major Biology (2007)	JMU Würzburg • generated 11-Jan-2023 • exam. reg.	page 47 / 151
	data record Bachelor (180 ECTS) Biologie - 2007	

Module	e title				Abbreviation
Biotec	nnolog	у			07-3A3BT-072-m01
Modul	e coord	inator		Module offered by	
holder	ofthe	Chair of Biotechnology a	nd Biophysics	Faculty of Biology	
ECTS Method of grading Only after succ. compl. of module(s)					
2	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	Its				
biotech	nnology				biosensors and environmental biotechnology, bioprocess engi-
Intend	ed lear	ning outcomes			
Studer	its have	e become familiar with th	e fundamental princi	ples of biotechnolog	gy.
Course	<b>s</b> (type	, number of weekly conta	act hours, language –	- if other than Germa	an)
V + S (1	no infoi	rmation on SWS (weekly	contact hours) and co	ourse language avail	able)
		s <b>essment</b> (type, scope, la ion on whether module c			ation offered — if not every seme-
written	exami	nation (30 minutes)			
Allocat	ion of <sub>l</sub>	places			
Additio	onal inf	ormation			
Worklo	ad				
Referre	ed to in	LPOI (examination regu	lations for teaching-	degree programmes)	)
Module	e appea	ars in			
		ree (1 major) Biology (20	07)		
		gree (1 major, 1 minor) B			

Bachelor's with 1 major Biology (2007)	JMU Würzburg • generated 11-Jan-2023 • exam. reg.	page 48 / 151
	data record Bachelor (180 ECTS) Biologie - 2007	

Developmental Biology of Plants and Animals       07-3A3EBI0-072-m01         Module cordinator       Module offered by         Dean of Studies Biologie (Biology)       Faculty of Biology         ECTS       Method of grading       Only after succ. compl. of module(s)         10       numerical grade          Duration       Module level       Other prerequisites         1 semester       undergraduate          Contents           In this module, students will acquire an overview of the theoretical and practical fundamentals of animal and plant developmental biology.          Intended learning outcomes           1. Fundamental concepts in developmental biology. 2. Developmental biology of selected model organisms. 3.       Selected molecular mechanisms that regulate determination and differentiation processes. 4. Establishment of embryonic axes. 5. Examples of mechanisms of morphogenesis and organogenesis. 6. Interrelations between ontogeny and evolution. 7. Physiological aspects of the developmental processes discussed.         Courses (type, number of weekly contact hours, language — if other than German)         This module comprises 2 module components. Information on courses will be listed separately for each module component.         • 07-3A3EBIO-1T-072: V + Ü (no information on SWS (weekly contact hours) and course language available)         • 07-3A3EBIO-2P-072: V + Ü (no information on SWS (weekly contact hours) a
Dean of Studies Biologie (Biology)       Faculty of Biology         ECTS       Method of grading       Only after succ. compl. of module(s)         10       numerical grade          Duration       Module level       Other prerequisites         1 semester       undergraduate          Contents       In this module, students will acquire an overview of the theoretical and practical fundamentals of animal and plant developmental biology.         Intended learning outcomes       Intended learning outcomes         1. Fundamental concepts in developmental biology. 2. Developmental biology of selected model organisms. 3.         Selected molecular mechanisms that regulate determination and differentiation processes. 4. Establishment of embryonic axes. 5. Examples of mechanisms of morphogenesis and organogenesis. 6. Interrelations between ontogeny and evolution. 7. Physiological aspects of the developmental processes discussed.         Courses (type, number of weekly contact hours, language — if other than German)         This module comprises 2 module components. Information on courses will be listed separately for each module component.         • o7-3A3EBIO-1T-072: V + Ü (no information on SWS (weekly contact hours) and course language available)         • o7-3A3EBIO-2P-072: V + Ü (no information on SWS (weekly contact hours) and course language available)         • o7-3A3EBIO-2P-072: V + Ü (no information on SWS (weekly contact hours) and course language available)         Method of assessment (type, scope, language
ECTS       Method of grading       Only after succ. compl. of module(s)         10       numerical grade          Duration       Module level       Other prerequisites         1 semester       undergraduate          Contents         In this module, students will acquire an overview of the theoretical and practical fundamentals of animal and plant developmental biology.         Intended learning outcomes         1. Fundamental concepts in developmental biology. 2. Developmental biology of selected model organisms. 3. Selected molecular mechanisms that regulate determination and differentiation processes. 4. Establishment of embryonic axes. 5. Examples of mechanisms of morphogenesis and organogenesis. 6. Interrelations between ontogeny and evolution. 7. Physiological aspects of the developmental processes discussed.         Courses (type, number of weekly contact hours, language — if other than German)         This module comprises 2 module components. Information on courses will be listed separately for each module component.         • 07-3A3EBIO-1T-072: V + Ü (no information on SWS (weekly contact hours) and course language available)         • 07-3A3EBIO-2P-072: V + Ü (no information on SWS (weekly contact hours) and course language available)         • 07-3A3EBIO-2P-072: V + Ü (no information on SWS (weekly contact hours) and course language available)         • 07-3A3EBIO-2P-072: V + Ü (no information on SWS (weekly contact hours) and course language available)
10       numerical grade          Duration       Module level       Other prerequisites         1 semester       undergraduate          Contents           In this module, students will acquire an overview of the theoretical and practical fundamentals of animal and plant developmental biology.          Intended learning outcomes           1. Fundamental concepts in developmental biology. 2. Developmental biology of selected model organisms. 3.       Selected molecular mechanisms that regulate determination and differentiation processes. 4. Establishment of embryonic axes. 5. Examples of mechanisms of morphogenesis and organogenesis. 6. Interrelations between ontogeny and evolution. 7. Physiological aspects of the developmental processes discussed.         Courses (type, number of weekly contact hours, language — if other than German)         This module comprises 2 module components. Information on courses will be listed separately for each module component.         • 07-3A3EBIO-1T-072: V + Ü (no information on SWS (weekly contact hours) and course language available)         • 07-3A3EBIO-2P-072: V + Ü (no information on SWS (weekly contact hours) and course language available)         • 07-3A3EBIO-2P-072: V + Ü (no information on SWS (weekly contact hours) and course language available)         • 07-3A3EBIO-2P-072: V + Ü (no information on SWS (weekly contact hours) and course language available)         • 07-3A3EBIO-2P-072: V + Ü (no information on SWS (weekly contact hours) and course l
Duration         Module level         Other prerequisites           1 semester         undergraduate            Contents             In this module, students will acquire an overview of the theoretical and practical fundamentals of animal and plant developmental biology.            Intended learning outcomes             1. Fundamental concepts in developmental biology. 2. Developmental biology of selected model organisms. 3.         Selected molecular mechanisms that regulate determination and differentiation processes. 4. Establishment of embryonic axes. 5. Examples of mechanisms of morphogenesis and organogenesis. 6. Interrelations between ontogeny and evolution. 7. Physiological aspects of the developmental processes discussed.           Courses (type, number of weekly contact hours, language — if other than German)         This module comprises 2 module components. Information on courses will be listed separately for each module component.           • 07-3A3EBI0-1T-072: V + Ü (no information on SWS (weekly contact hours) and course language available)         • 07-3A3EBI0-2P-072: V + Ü (no information on SWS (weekly contact hours) and course language available)           • 07-3A3EBI0-2P-072: V + Ü (no information on SWS (weekly contact hours) and course language available)         • 07-3A3EBI0-2P-072: V + Ü (no information on SWS (weekly contact hours) and course language available)           • 07-3A3EBI0-2P-072: V + Ü (no information on SWS (weekly contact hours) and course language available)         • 07-3A3EBI0-2P-072: V + Ü (no information on SWS (weekly contact
1 semester       undergraduate          Contents          In this module, students will acquire an overview of the theoretical and practical fundamentals of animal and plant developmental biology.         Intended learning outcomes         1. Fundamental concepts in developmental biology. 2. Developmental biology of selected model organisms. 3.         Selected molecular mechanisms that regulate determination and differentiation processes. 4. Establishment of embryonic axes. 5. Examples of mechanisms of morphogenesis and organogenesis. 6. Interrelations between ontogeny and evolution. 7. Physiological aspects of the developmental processes discussed.         Courses (type, number of weekly contact hours, language — if other than German)         This module comprises 2 module components. Information on courses will be listed separately for each module component.         • 07-3A3EBIO-1T-072: V + Ü (no information on SWS (weekly contact hours) and course language available)         • 07-3A3EBIO-2P-072: V + Ü (no information on SWS (weekly contact hours) and course language available)         • 07-3A3EBIO-2P-072: V + Ü (no information on SWS (weekly contact hours) and course language available)         • 07-3A3EBIO-2P-072: V + Ü (no information on SWS (weekly contact hours) and course language available)         • 07-3A3EBIO-2P-072: V + Ü (no information on SWS (weekly contact hours) and course language available)         • 07-3A3EBIO-2P-072: V + Ü (no information on SWS (weekly contact hours) and course language available)         • 07-3A3EBIO-2P-072: V + Ü (no information on SWS (wee
Contents         In this module, students will acquire an overview of the theoretical and practical fundamentals of animal and plant developmental biology.         Intended learning outcomes         1. Fundamental concepts in developmental biology. 2. Developmental biology of selected model organisms. 3.         Selected molecular mechanisms that regulate determination and differentiation processes. 4. Establishment of embryonic axes. 5. Examples of mechanisms of morphogenesis and organogenesis. 6. Interrelations between ontogeny and evolution. 7. Physiological aspects of the developmental processes discussed.         Courses (type, number of weekly contact hours, language — if other than German)         This module comprises 2 module components. Information on courses will be listed separately for each module component.         • 07-3A3EBIO-1T-072: V + Ü (no information on SWS (weekly contact hours) and course language available)         • 07-3A3EBIO-2P-072: V + Ü (no information on SWS (weekly contact hours) and course language available)         • 07-3A3EBIO-2P-072: V + Ü (no information on SWS (weekly contact hours) and course language available)         • 07-3A3EBIO-2P-072: V + Ü (no information on SWS (weekly contact hours) and course language available)         • 07-3A3EBIO-2P-072: V + Ü (no information on SWS (weekly contact hours) and course language available)         • 07-3A3EBIO-2P-072: V + Ü (no information on SWS (weekly contact hours) and course language available)         • 07-3A3EBIO-2P-072: V + Ü (no information on SWS (weekly contact hours) and course language available)         • 07-3A3EBIO-2P-072: V + Ü
In this module, students will acquire an overview of the theoretical and practical fundamentals of animal and plant developmental biology. Intended learning outcomes 1. Fundamental concepts in developmental biology. 2. Developmental biology of selected model organisms. 3. Selected molecular mechanisms that regulate determination and differentiation processes. 4. Establishment of embryonic axes. 5. Examples of mechanisms of morphogenesis and organogenesis. 6. Interrelations between ontogeny and evolution. 7. Physiological aspects of the developmental processes discussed. Courses (type, number of weekly contact hours, language — if other than German) This module comprises 2 module components. Information on courses will be listed separately for each module component.  • 07-3A3EBIO-1T-072: V + Ü (no information on SWS (weekly contact hours) and course language available) • 07-3A3EBIO-2P-072: V + Ü (no information on SWS (weekly contact hours) and course language available) Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus) Assessment in this module comprises the assessments in the individual module components as specified below. Unless stated otherwise, successful completion of the module will require successful completion of all individual assessments.
plant developmental biology.         Intended learning outcomes         1. Fundamental concepts in developmental biology. 2. Developmental biology of selected model organisms. 3.         Selected molecular mechanisms that regulate determination and differentiation processes. 4. Establishment of embryonic axes. 5. Examples of mechanisms of morphogenesis and organogenesis. 6. Interrelations between ontogeny and evolution. 7. Physiological aspects of the developmental processes discussed.         Courses (type, number of weekly contact hours, language — if other than German)         This module comprises 2 module components. Information on courses will be listed separately for each module component.         • 07-3A3EBIO-1T-072: V + Ü (no information on SWS (weekly contact hours) and course language available)         • 07-3A3EBIO-2P-072: V + Ü (no information on SWS (weekly contact hours) and course language available)         • 07-3A3EBIO-2P-072: V + Ü (no information on SWS (weekly contact hours) and course language available)         • 07-3A3EBIO-2P-072: V + Ü (no information on SWS (weekly contact hours) and course language available)         • 07-3A3EBIO-2P-072: V + Ü (no information on SWS (weekly contact hours) and course language available)         • Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)         Assessment in this module comprises the assessments in the individual module components as specified below. Unless stated otherwise, successful completion of the module will require successful completion of all individual assessments.
<ol> <li>Fundamental concepts in developmental biology. 2. Developmental biology of selected model organisms. 3.</li> <li>Selected molecular mechanisms that regulate determination and differentiation processes. 4. Establishment of embryonic axes. 5. Examples of mechanisms of morphogenesis and organogenesis. 6. Interrelations between ontogeny and evolution. 7. Physiological aspects of the developmental processes discussed.</li> <li>Courses (type, number of weekly contact hours, language — if other than German)</li> <li>This module comprises 2 module components. Information on courses will be listed separately for each module component.         <ul> <li>07-3A3EBIO-1T-072: V + Ü (no information on SWS (weekly contact hours) and course language available)</li> <li>07-3A3EBIO-2P-072: V + Ü (no information on SWS (weekly contact hours) and course language available)</li> <li>07-3A3EBIO-2P-072: V + Ü (no information on SWS (weekly contact hours) and course language available)</li> <li>07-3A3EBIO-2P-072: V + Ü (no information on SWS (weekly contact hours) and course language available)</li> <li>07-3A3EBIO-2P-072: V + Ü (no information on SWS (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> </ul> </li> <li>Assessment in this module comprises the assessments in the individual module components as specified below. Unless stated otherwise, successful completion of the module will require successful completion of all individual assessments.</li> </ol>
<ul> <li>Selected molecular mechanisms that regulate determination and differentiation processes. 4. Establishment of embryonic axes. 5. Examples of mechanisms of morphogenesis and organogenesis. 6. Interrelations between ontogeny and evolution. 7. Physiological aspects of the developmental processes discussed.</li> <li><b>Courses</b> (type, number of weekly contact hours, language — if other than German)</li> <li>This module comprises 2 module components. Information on courses will be listed separately for each module component.</li> <li>o7-3A3EBIO-1T-072: V + Ü (no information on SWS (weekly contact hours) and course language available)</li> <li>o7-3A3EBIO-2P-072: V + Ü (no information on SWS (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>Assessment in this module comprises the assessments in the individual module components as specified below. Unless stated otherwise, successful completion of the module will require successful completion of all individual assessments.</li> </ul>
<ul> <li>This module comprises 2 module components. Information on courses will be listed separately for each module component.</li> <li>o7-3A3EBIO-1T-072: V + Ü (no information on SWS (weekly contact hours) and course language available)</li> <li>o7-3A3EBIO-2P-072: V + Ü (no information on SWS (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>Assessment in this module comprises the assessments in the individual module components as specified below. Unless stated otherwise, successful completion of the module will require successful completion of all individual assessments.</li> </ul>
<ul> <li>component.         <ul> <li>o7-3A3EBIO-1T-072: V + Ü (no information on SWS (weekly contact hours) and course language available)</li> <li>o7-3A3EBIO-2P-072: V + Ü (no information on SWS (weekly contact hours) and course language available)</li> </ul> </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>Assessment in this module comprises the assessments in the individual module components as specified below. Unless stated otherwise, successful completion of the module will require successful completion of all individual assessments.</li> </ul>
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) Assessment in this module comprises the assessments in the individual module components as specified be- low. Unless stated otherwise, successful completion of the module will require successful completion of all indi- vidual assessments.
low. Unless stated otherwise, successful completion of the module will require successful completion of all indi- vidual assessments.
Accessment in module component of a ApERIO 4T and Developmental Pielogy of Animals (Lecture and Experi
<ul> <li>mental Course) Developmental Biology of Animals (Lecture and Experimental Course)</li> <li>5 ECTS, Method of grading: numerical grade</li> <li>written examination (60 minutes)</li> </ul>
Assessment in module component o7-3A3EBIO-2P-072: Developmental Biology of Plants (Lecture and experi-
<ul> <li>mental course) (Lecture and Experimental Course) Developmental Biology of Plants (Lecture and experimental course) (Lecture and Experimental Course)</li> <li>5 ECTS, Method of grading: numerical grade</li> <li>written examination (60 minutes)</li> </ul>
Allocation of places
Additional information
Workload
Referred to in LPO I (examination regulations for teaching-degree programmes)
Module appears in Bachelor' degree (1 major) Biology (2007)
Bachelor's degree (1 major, 1 minor) Biology (Minor, 2008)

Bachelor's with 1 major Biology (2007)

Modul	e title				Abbreviation
Geneti	CS				07-3A3GE-072-m01
Modul	e coord	inator		Module offered by	<u> </u>
holder	ofthe	Chair of Neurobiology and	d Genetics	Faculty of Biology	
ECTS Method of grading Only after suc		Only after succ. con	npl. of module(s)		
2	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ester	undergraduate			
Conter	nts				
Molecu	ular and	d classical genetics.			
Intend	ed lear	ning outcomes			
	nts are f y as a w		isms of inheritance th	nat are essential for o	developing an understanding of
Course	e <b>s</b> (type	, number of weekly conta	ict hours, language –	- if other than Germa	ın)
V + S (I	no infoi	rmation on SWS (weekly o	contact hours) and co	ourse language avail	able)
		sessment (type, scope, la ion on whether module c			tion offered — if not every seme-
written	exami	nation (30 minutes)			
Allocat	tion of	places			
Additio	onal inf	ormation			
	_		·		
Worklo	ad		-		
Referre	ed to in	LPOI (examination regu	lations for teaching-	degree programmes)	
Modul	e appea	ars in			
Bachel	or' deg	ree (1 major) Biology (20	07)		
	-	ree (1 major) Mathematic			
	-	ree (1 major) Mathematic			
Bachel	or' deg	ree (1 major) Computatio	nal Mathematics (20	09)	

Module	e title				Abbreviation	
			07-3A30E-072-m01			
				Module offered by		
		es Biologie (Biology)		Faculty of Biology		
ECTS		od of grading	Only after succ. con	npl. of module(s)		
6	<u> </u>	rical grade				
Duratio		Module level undergraduate	Other prerequisites			
Conten		undergraduate				
and bio as on tl model	otic env he struc concep	ironments. The module cture and dynamics of ts of ecology, will becc	th an overview of the in will focus on the func populations and ecosy me familiar with exam lop an understanding	tional adaptation to stems. Students will ples of research find	environmental cond be introduced to fur ings and will acquire	itions as well Idamental
Intende	ed learr	ing outcomes				
portant their er	t abiotio	and biotic factors tha ent. In addition, they u	nental principles of res t influence the distribu Inderstand the scientif	tion and frequency o	of occurrence of orga	nisms in
Course	<b>s</b> (type,	number of weekly cor	tact hours, language –	- if other than Germa	n)	
compo • 0	nent. 97-3A3C	1E-1T-072: V + Ü (no inf	nponents. Information ormation on SWS (wee formation on SWS (wee	kly contact hours) ar	nd course language a	available)
Metho	d of ass	essment (type, scope,	language — if other th can be chosen to earn	an German, examina		
	less st	ated otherwise, succes	s the assessments in t sful completion of the			
mals (L • 3 • w <b>Assess</b> (Lectur • 3	ecture ECTS, i vritten e <b>ment ir</b> e and P ECTS, i	and Practice) Method of grading: nu examination (45 minute	es) <b>7-3A3OE-2P-072:</b> Ecolo merical grade			
Allocat	ion of p	olaces				
Additio	nal info	ormation				
Worklo	ad					
Referre	d to in	LPOI (examination re	gulations for teaching-	degree programmes)		
Module	e appea	rs in				
		ree (1 major) Biology (2	007)			
	-	ree (1 major) Mathema				
Bachelor's	with 1 maj	or Biology (2007)		g • generated 11-Jan-2023 • e Bachelor (180 ECTS) Biologie	_	page 51 / 151



Bachelor' degree (1 major) Mathematics (2007) Bachelor' degree (1 major) Computational Mathematics (2009)

Bachelor's with 1 major Biology (2007)	JMU Würzburg • generated 11-Jan-2023 • exam. reg.	page 52 / 151
	data record Bachelor (180 ECTS) Biologie - 2007	

Modul	e title				Abbreviation
Pharm	aceutic	al Biology			07-3A3PB-072-m01
Modul	e coord	inator		Module offered by	<u> </u>
holder	of the (	Chair of Pharmaceutical E	Biology	Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
2	nume	rical grade			
Durati	on	Module level	Other prerequisites		
1 seme	ester	undergraduate			
Conter	nts				
	tion to o				. The module will include an in- ite of a drug or xenobiotic in an
Intend	ed lear	ning outcomes			
Studer	nts have	e become familiar with th	e fundamental princi	ples of pharmacokir	netics.
Course	<b>es</b> (type	, number of weekly conta	act hours, language –	- if other than Germa	in)
V + S (I	no infor	mation on SWS (weekly o	contact hours) and co	ourse language avail	able)
		sessment (type, scope, la ion on whether module c			tion offered — if not every seme-
written	exami	nation (30 minutes)			
Allocat	tion of p	olaces			
			-		
Additio	onal inf	ormation			
Worklo	bad				
Referre	ed to in	LPOI (examination regu	llations for teaching-o	degree programmes)	
Modul	e appea	ars in			
		ree (1 major) Biology (200	07)		
	-	gree (1 major, 1 minor) Bi			

Module					Abbreviation	
Local F					07-4A4FA-072-m01	
Module	e coord	inator		Module offered by		
		Chair of Animal Ecology		Faculty of Biology		
ECTS		od of grading	Only after succ. con	npl. of module(s)		
7		rical grade				
Duratio		Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
They wi cording will be provide	ill acqu g of bio taxon-s e stude	e, students will acquire ire a fundamental know diversity and will pract specific and will repres nts with an opportunity pecimens including the	vledge of the systemat se identifying species, ent specific habitats or to consolidate the kno	ics and taxonomy as , using specimens of lifestyles. Field exer owledge and skills th	well as on the quan animals. Selection c cises in a variety of l	titative re- of specimens nabitats will
Intende	ed learr	ning outcomes				
vertebr their fa the bio	ates) a unas a logy an	v how to taxonomically nd use identification k nd phenology. On the l d ecology of these spe f conservation concern	eys. They are familiar w basis of the morpholog cies as well as, where a	vith selected Central y and habitats of spe	European habitats a cies, students are a	s well as ble to predict
Course	<b>s</b> (type,	, number of weekly cor	tact hours, language –	- if other than Germa	n)	
compo • 0	nent. 7-4A4F	omprises 2 module con A-1FA-072: V + Ü (no in A-2FA-072: E (no inforr	formation on SWS (wee	ekly contact hours) a	nd course language	available)
		s <b>essment</b> (type, scope, on on whether module			tion offered — if not	every seme-
	less st	n this module comprise ated otherwise, succes ments.				
Practice • 4 • w <b>Assess</b> • 3	e on Sy ECTS, vritten e <b>ment ir</b> ECTS,	n module component o stematic) Method of grading: nu examination (45 minuto n module component o Method of grading: (no rox. 1 to 2 pages) and	nerical grade es) and practical identi <b>7-4A4FA-2FA-072:</b> Faur t) successfully comple	fication assignment ( na Field Excursions ted		
Allocat	ion of p	olaces				
Additio	nal info	ormation				
Worklo	ad					
Deferme	d to !~	IDOI (oversignation	rulations for to a him			
Kelerre		LPO I (examination re	sulations for teaching-	uegree programmes)		
Module	annea	ins in				
		ree (1 major) Biology (2	007)			
	-	for Biology (2007)		g • generated 11-Jan-2023 • ex	kam, reg.	page 54 / 151
				Bachelor (180 ECTS) Biologie	-	······



Bachelor's degree (1 major, 1 minor) Biology (Minor, 2008)

Bachelor's with 1 major Biology (2007)	JMU Würzburg ● generated 11-Jan-2023 ● exam. reg. data record Bachelor (180 ECTS) Biologie - 2007	page 55 / 151	
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Module	e title				Abbreviation	
Local F	lora				07-4A4FL-072-m01	
Module	e coord	inator		Module offered by		
holder gy	ofthe	Chair of Ecophysiology	and Vegetation Ecolo-	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	ester	undergraduate				
Conten	nts					
will acc gical ar will der using d racteris to typic commo cies-sp site. Ha cussed door fa <b>Intende</b> Studen floweri	quire and monstr dichoto stics ar cal hab on as w becific c abitat e d. The n acilities ed lear nts have	vill discuss the fundame n overview of the major nomic importance. Usin ate how dichotomous k mous keys. Identifying nd will become familiar itats in the Botanical Ga eell as scientific names characteristics of these cological, geobotanica nodule will also include and greenhouses to he ning outcomes e acquired knowledge a nts. They are familiar wi	flowering plants to be by the field guide <i>Flora</i> keys are used, and stuc- plants, students will le with the respective tern arden and the vicinity of of the plants found and plants. Students will p l, climatic as well as co sessions at the Botan elp students acquire sp	found in the tempera von Deutschland by lents will practise ide arn how to identify r minology. The modul of Würzburg. Student d will be introduced t ractise using field gu nservation-relevant ical Garden of the Ur ecies identification s	ate zone as well as t Schmeil-Fitschen, th entifying freshly-gath najor morphological le will also include fi ts will become famili to the family- as well uides and identificat characteristics will a hiversity of Würzburg skills.	heir ecolo- nered plants plant cha- eld trips ar with the as spe- ion keys on also be dis- g with its out-
		erbaria. , number of weekly con		- if other than Germa	n)	
This mo compo • c	odule conent.	comprises 2 module cor FL-1FL-072: V + Ü (no inf FL-2FL-072: E (no inform	nponents. Information	on courses will be li kly contact hours) ai	sted separately for e	available)
		s <b>essment</b> (type, scope, ion on whether module			tion offered — if not	every seme-
	nless st	n this module comprise ated otherwise, succes ments.				
tice on	Systen 4 ECTS, written 5 ment i 3 ECTS, og (app	Method of grading: nur examination (45 minute <b>n module component o</b> Method of grading: (no prox. 1 to 2 pages) and p	merical grade es) and practical identi <b>7-4A4FL-2FL-072:</b> Flora t) successfully comple	fication assignment Field Excursions ted		
Allocal		places				
Additio	onal inf	ormation				
Worklo	oad					
Bachelor's	with 1 ma	jor Biology (2007)		g • generated 11-Jan-2023 • e Bachelor (180 ECTS) Biologie	-	page 56 / 151

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

# Module appears in

Bachelor' degree (1 major) Biology (2007) Bachelor' degree (1 major) Geography (2008) Bachelor's degree (1 major, 1 minor) Biology (Minor, 2008)

Bachelor's with 1 major Biology (2007)	JMU Würzburg • generated 11-Jan-2023 • exam. reg.	page 57 / 151
	data record Bachelor (180 ECTS) Biologie - 2007	

Module	e title				Abbreviation
Develo	pment	al Biology for advanced s	tudents		07-4BFMZ1-092-m01
Module	e coord	linator		Module offered by	<u>,                                     </u>
holder	ofthe	Chair of Cell Biology and	Developmental Bio-	Faculty of Biology	
logy			r		
ECTS		od of grading	Only after succ. con	npl. of module(s)	
5		rical grade			
Duratio		Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	ts				
animal	s. Parti		aced on providing st	udents with an oppo	cular developmental biology of ortunity to become proficient in
Intend	ed lear	ning outcomes			
Studen	ts are	able to use fundamental	methods to approach	n simple problems in	animal developmental biology.
Course	<b>s</b> (type	, number of weekly conta	ict hours, language –	- if other than Germa	ın)
V + Ü (I	no info	rmation on SWS (weekly	contact hours) and co	ourse language avail	able)
		<b>sessment</b> (type, scope, la ion on whether module c			tion offered — if not every seme-
didate	each (a		oral examination in		r c) oral examination of one can- to 3 candidates, approx. 60 mi-
Allocat	ion of	places			
Additio	nal inf	ormation			
Worklo	ad				
Referre	ed to in	LPOI (examination regu	lations for teaching-	degree programmes)	
Module	e appea	ars in			
	-	ree (1 major) Biology (20 ree (1 major) Mathematic	• •		

Modul	e title				Abbreviation
Cell Bi	ology f	or advanced students			07-4BFMZ2-092-m01
Modul	e coord	inator		Module offered by	1
holder logy	ofthe	Chair of Cell Biology and	Developmental Bio-	Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
5		rical grade			
Durati	on	Module level	Other prerequisites	i	
1 seme	ester	undergraduate			
Conter	nts				
placed	l on pro		opportunity to becom	e proficient in funda	gy. Particular emphasis will be mental methods and applicati-
Intend	ed lear	ning outcomes			
Studer	nts are a	able to use fundamental	methods to approach	n simple problems in	cell biology.
Course	<b>es</b> (type	, number of weekly conta	act hours, language –	- if other than Germa	ın)
V + Ü (	no info	rmation on SWS (weekly	contact hours) and co	ourse language avail	able)
		s <b>essment</b> (type, scope, la ion on whether module c			tion offered — if not every seme-
writter	ı exami	nation (60 minutes)			
Alloca	tion of	places			
Additio	onal inf	ormation			
Worklo	bad				
	-				
Referre	ed to in	LPOI (examination regu	lations for teaching-	degree programmes)	
				<u> </u>	
Modul	e appea	ars in			
		ree (1 major) Biology (20	07)		
	-	ree (1 major) Mathematic			

Modul	e title				Abbreviation
Microb	oiology	for advanced students			07-4BFMZ3-092-m01
Modul	e coord	linator		Module offered by	,
holder	ofthe	Chair of Microbiology		Faculty of Biology	
ECTS	ï	od of grading	Only after succ. con	, ,	
5	nume	erical grade		•	
Durati	on	Module level	Other prerequisites		
1 seme	ester	undergraduate			
Conter	nts				
This m microo		•	th the fundamental p	rinciples of the phys	siology and molecular biology of
Intend	ed lear	ning outcomes			
		able to use fundamental microbiology.	methods to approach	n simple problems i	n microbiology. They are familiar
Course	es (type	e, number of weekly conta	act hours, language –	- if other than Germ	an)
V + P (I	no info	rmation on SWS (weekly	contact hours) and co	ourse language avai	lable)
		<b>sessment</b> (type, scope, la ion on whether module c			ation offered — if not every seme
written	exami	nation (60 minutes)			
Allocat	tion of	places			
Additio	onal in	formation			
Worklo	bad				
Referre	ed to in	LPOI (examination regu	lations for teaching-	degree programmes	;)
Modul	e appe	ars in			
Bachel	lor' deg	gree (1 major) Biology (20	07)		
Bachel	lor' deg	gree (1 major) Mathematio	cs (2007)		

Module	e title				Abbreviation
Bioinfo	rmatic	s for advanced students			07-4BFMZ4-092-m01
Module	e coord	inator		Module offered by	
holder	of the (	Chair of Bioinformatics		Faculty of Biology	
ECTS		od of grading	Only after succ. con	•	
5	-	rical grade		•	
Duratio	n	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	ts				
					ver the following topics: se- etworks as well as gene regulati-
Intend	ed lear	ning outcomes			
Studen their re		able to use appropriate b	ioinformatic algorith	ns to address simple	e problems as well as to interpret
Course	<b>s</b> (type	, number of weekly conta	act hours, language –	- if other than Germa	n)
V + Ü (r	no infoi	mation on SWS (weekly	contact hours) and co	ourse language avail	able)
		<b>sessment</b> (type, scope, la on on whether module c			tion offered — if not every seme-
log (ap	prox. 1	o to 20 pages)			
Allocat	ion of <b>j</b>	olaces			
Additio	nal inf	ormation			
Worklo	ad				
Poforro	d to in	LPOI (examination regu	lations for toaching	lagraa programmac)	
				active programmes)	
Modula		rc in			
Module		ree (1 major) Biology (20	07)		
		ree (1 major) Biology (20 ree (1 major) Mathematic			
	-	ree (1 major) Mathematic			
	·· ~~ 3				

Module	e title				Abbreviation			
Biotech	nology	/1			07-4BFMZ5-092-m01			
Module	e coord	inator		Module offered by				
holder	of the (	Chair of Biotechnology an	d Biophysics	Faculty of Biology				
ECTS		od of grading	Only after succ. com	pl. of module(s)				
5	L	rical grade						
Duratio		Module level	Other prerequisites					
1 seme		undergraduate						
Conten								
		actical course, students v	vill acquire an insight	into a variety of top	ics in biotechnology.			
		ning outcomes						
		able to apply advanced m						
		, number of weekly conta						
comport o o Method ster, int Assess	<ul> <li>This module comprises 2 module components. Information on courses will be listed separately for each module component.</li> <li>o7-4BFMZ5-1BT-092: P (no information on SWS (weekly contact hours) and course language available)</li> <li>o7-4BFMZ5-2BT-092: S (no information on SWS (weekly contact hours) and course language available)</li> </ul> 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) Assessment in this module comprises the assessments in the individual module components as specified be-							
vidual a Assess 4 6 6 4 6 7 4 6 7 7 7 7 7 7 7 7 7 7 7 7 7	<ul> <li>low. Unless stated otherwise, successful completion of the module will require successful completion of all individual assessments.</li> <li>Assessment in module component o7-4BFMZ5-1BT-o92: Biotechnology 1 (Lecture and Laboratory Practice) <ul> <li>4 ECTS, Method of grading: numerical grade</li> <li>log (approx. 10 to 20 pages)</li> <li>Assessment offered: once a year, summer semester</li> </ul> </li> <li>Assessment in module component o7-4BFMZ5-2BT-o92: Seminar to Advanced Biotechnology 1 <ul> <li>1 ECTS, Method of grading: (not) successfully completed</li> </ul> </li> </ul>							
Allocat	ion of p	olaces						
Additio	nal inf	ormation						
Worklo	ad							
Referre	d to in	LPOI (examination regu	lations for teaching-c	legree programmes)				
Module	e appea	in in						
Bachel	or' deg	ree (1 major) Biology (200	(70					
Bachel	or' deg	ree (1 major) Mathematic	s (2007)					

В	ac	he	lor'	s	wit	h	1	maj	jor	Bio	logy	(2	200	7)	

Modul	e title			· · · · · · · · · · · · · · · · · · ·	Abbreviation
Neurol	piology	for advanced students			07-4BFNVO1-092-m01
Modul	e coord	linator		Module offered by	
		Chair of Neurobiology and	d Genetics	Faculty of Biology	
ECTS	1	od of grading	Only after succ. con	, -,	
5		erical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conter	nts				
		principles of neurobiolog Indations of the function			control behaviour? Cellular and cations of neurobiology.
Intend	ed lear	ning outcomes			
		e acquired an advanced k in neurobiology have to r		a of neurobiology an	d recognise the relevance rese-
Course	<b>s</b> (type	e, number of weekly conta	ict hours, language –	- if other than Germa	an)
V + Ü (	no info	rmation on SWS (weekly	contact hours) and co	ourse language avail	able)
		<b>sessment</b> (type, scope, la ion on whether module c			tion offered — if not every seme-
written	exami	nation (60 minutes)			
Allocat	tion of	places			
Additio	onal inf	formation			
			-		
Worklo	ad				
Referre	ed to in	LPOI (examination regu	llations for teaching-o	degree programmes)	
Modul	e appe	ars in			
		ree (1 major) Biology (20			
Bachel	or' deg	gree (1 major) Mathematic	s (2007)		

Bachelor's with 1 major Biology (2007)	JMU Würzburg • generated 11-Jan-2023 • exam. reg.	page 63 / 151
	data record Bachelor (180 ECTS) Biologie - 2007	

Modul	e title				Abbreviation
Behavi	ioural p	physiology and sociobio	logy for advanced stu	dents	07-4BFNVO2-092-m01
Modul	e coord	linator		Module offered by	/
holder of the Chair of Neurobiology and Genetics			nd Genetics	Faculty of Biology	
ECTS		od of grading	Only after succ. con	npl. of module(s)	
5	nume	erical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ester	undergraduate			
Conter	nts				
Specifi physio		comparative animal phy	siology with a focus or	n neurophysiology a	as well as sensory and behavioura
Intend	ed lear	ning outcomes			
		e acquired knowledge a l are proficient in metho			ysiology. They are familiar with hy-
Course	es (type	e, number of weekly cont	act hours, language –	- if other than Germ	nan)
V + Ü (	no info	rmation on SWS (weekly	contact hours) and co	ourse language ava	ilable)
		<b>sessment</b> (type, scope, ion on whether module			nation offered — if not every seme-
written	exami	nation (60 minutes)			
Allocat	tion of	places			
Additio	onal in	formation			
Worklo	ad				
Referre	ed to in	LPOI (examination reg	ulations for teaching-	degree programme	s)
Modul	e appe	ars in			
		gree (1 major) Biology (20	007)		
Duchei					

Bachelor's with 1 major Biology (2007)	JMU Würzburg • generated 11-Jan-2023 • exam. reg. data record Bachelor (180 ECTS) Biologie - 2007	page 64 / 151
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Modul	e title				Abbreviation
Ecolog	y of An	imals for advanced stu	ıdents		07-4BFNV03-092-m01
Modul	e coord	linator		Module offered by	<u> </u>
holder	of the	Chair of Zoology III		Faculty of Biology	
ECTS	1	od of grading	Only after succ. cor		
5	nume	rical grade			
Durati	on	Module level	Other prerequisites		
1 seme	ester	undergraduate			
Conter	nts				
Selecto logy.	ed topi	cs in autecology and sy	necology; experimenta	l design, data collec	tion and analysis in animal eco-
Intend	ed lear	ning outcomes			
			d knowledge in the area as well as to interpret		They are able to design simple dings.
Course	<b>es</b> (type	, number of weekly co	ntact hours, language –	- if other than Germa	an)
V + Ü (	no info	rmation on SWS (week	ly contact hours) and co	ourse language avai	lable)
			, language — if other th e can be chosen to earn		ation offered — if not every seme-
writter	ı exami	nation (60 minutes)			
Alloca	tion of	places			
		<u>.</u>			
Additio	onal inf	ormation			
Worklo	bad				
Referre	ed to in	LPOI (examination re	gulations for teaching-	degree programmes	)
Modul	e appea	ars in			
Bache	lor' deg	ree (1 major) Biology (2	2007)		
	-	ree (1 major) Mathema			
Bache	lor' deg	ree (1 major) Mathema	tics (2007)		
Bache	lor' deg	ree (1 major) Computa	tional Mathematics (20	09)	

Bachelor's with 1 major Biology (2007)	JMU Würzburg • generated 11-Jan-2023 • exam. reg.	page 65 / 151
	data record Bachelor (180 ECTS) Biologie - 2007	

Modul	e title				Abbreviation
Specifi	ic Plant	Physiology			07-4BFPS1-092-m01
Modul	Module coordinator			Module offered by	
holder	ofthe	Chair of Plant Physiolo	gy and Biophysics	Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. cor	mpl. of module(s)	
5	nume	rical grade			
Duratio	on	Module level	Other prerequisites	5	
1 seme	ster	undergraduate			
Conter	nts				
trogen	and ca d the m	rbon metabolism. The	methodological approa	aches in experimenta	al processes in plants, such as ni- al plant physiology will be discus- s and other techniques) will be
Intend	ed lear	ning outcomes			
		e acquired fundament methods in experimer	<b>e</b> ,	nutrient cycles and a	re proficient in molecular and
Course	<b>s</b> (type	, number of weekly co	ntact hours, language -	– if other than Germa	an)
V + Ü (i	no info	rmation on SWS (week	kly contact hours) and c	ourse language avai	lable)
			e, language — if other th e can be chosen to earr		ation offered — if not every seme-
written	exami	nation (60 minutes)			
Allocat	tion of	places			
Additio	onal inf	ormation			
Worklo	ad				
Referre	ed to in	LPOI (examination re	egulations for teaching-	degree programmes	)
	_		<u> </u>		
Modul	e appea	ars in			
		ree (1 major) Biology (	2007)		
	-	ree (1 major) Mathema			

Modul	e title				Abbreviation
Biophy	/sics - E	Basic course			07-4BFPS2-092-m01
Modul	e coord	inator		Module offered by	
holder	ofthe	Chair of Plant Physiology	and Biophysics	Faculty of Biology	
ECTS		od of grading	Only after succ. con	,	
5		rical grade		•	
Durati	on	Module level	Other prerequisites		
1 seme	ester	undergraduate			
Conter	nts				
metho	ds with		rised. For this purpos	se, students will be i	ne transport and the biophysical ntroduced to modern methods of
Intend	ed lear	ning outcomes			
		erstand basic membrane tact plants, isolated plan			experimental methods in experi- ms.
Course	<b>es</b> (type	, number of weekly conta	act hours, language –	- if other than Germa	ın)
V + Ü (	no info	rmation on SWS (weekly	contact hours) and co	ourse language avail	able)
		sessment (type, scope, la ion on whether module c			tion offered — if not every seme-
writter	n exami	nation (60 minutes)			
Alloca	tion of	olaces	-		
Additio	onal inf	ormation			
Worklo	bad		-		
Referre	ed to in	LPOI (examination regu	lations for teaching.	degree programmes)	
Modul	e appea	ars in			
		ree (1 major) Biology (20	07)		
	-	ree (1 major) Mathematic			
	-	ree (1 major) Mathematic			
Bache	lor' deg	ree (1 major) Computatio	nal Mathematics (20	09)	

Modul	e title				Abbreviation	
Bioche	Biochemistry - Basic course 07-4BFPS3-092-m01					
Modul	Module coordinator			Module offered by	<u> </u>	
holder	ofthe	Chair of Plant Physiolog	y and Biophysics	Faculty of Biology	·	
ECTS	T T	od of grading	Only after succ. con			
5	nume	rical grade				
Duratio	on	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	Its					
recepto	ors and		ntal principles of the b	iochemical and mole	, biological and microbial photo- ecular biological methods for the n of receptors.	
Intend	ed lear	ning outcomes				
		familiar with the biocher the these using appropria		ogy and function of b	viological photoreceptors and are	
Course	<b>s</b> (type	, number of weekly cont	act hours, language –	- if other than Germa	ın)	
V + Ü (I	no info	rmation on SWS (weekly	contact hours) and co	ourse language avail	able)	
		sessment (type, scope, ion on whether module			tion offered — if not every seme-	
written	exami	nation (60 minutes)				
Allocat	ion of <sub>l</sub>	places				
Additio	onal inf	ormation				
Worklo	ad					
Referre	ed to in	LPOI (examination reg	ulations for teaching-	degree programmes)		
Module	e appea	ars in				
		ree (1 major) Biology (20	007)			
Bachel	or' deg	ree (1 major) Mathemati	ics (2007)			

Modul	e title				Abbreviation
Basics plant Ecophysiology 07-4BFPS4-092-m01					07-4BFPS4-092-m01
Modul	Module coordinator			Module offered by	<u> </u>
holder gy	ofthe	Chair of Ecophysiology ar	d Vegetation Ecolo-	Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
5		rical grade		• • • •	
Duratio	on	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	ts				
the inte	eractio		ir environment and w	vill make students fa	the theoretical fundamentals of miliar with the molecular biologi- stigate this interaction.
Intend	ed lear	ning outcomes			
		be able to recognise, des ble to perform basic expe			plants and their environment.
Course	<b>s</b> (type	, number of weekly conta	ct hours, language –	- if other than Germa	an)
V + Ü (I	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-
written	exami	nation (60 minutes)			
Allocat	ion of	places			
 Additic	onal inf	ormation			
Worklo	ad				
Referre	ed to in	LPO I (examination regu	lations for teaching-o	degree programmes)	
Modul					
		ree (1 major) Biology (200			
Bachel	or' deg	ree (1 major) Mathematic	s (2007)		

Module title					Abbreviation	
Pharma	aceutic	al bio analytics			07-4BFPS5-092-m01	
Module	e coord	inator		Module offered by		
holder	ofthe	Chair of Pharmaceutical B	liology	Faculty of Biology		
ECTS	1	od of grading	Only after succ. com	pl. of module(s)		
5	nume	rical grade				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
analysi comput med on	s. It wi tationa 1, for e>	ll include an introduction I chemistry. Qualitative a cample, complex drug, pl	to chromatographic nd quantitative analy	methods of analysis vses of active agents	nentals of drug and metabolite as well as modern methods in and metabolites will be perfor-	
Intende	ed lear	ning outcomes				
		e developed fundamental hromatographic methods		s in the area of drug	and metabolite analysis and are	
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)	
compoi • 0	nent. 7-4BFF	2S5-1BA-092: P (no inform	ation on SWS (weekl	y contact hours) and	sted separately for each module l course language available) d course language available)	
		sessment (type, scope, la ion on whether module ca			tion offered — if not every seme-	
	iless st	ated otherwise, successf			e components as specified be- successful completion of all indi-	
• 4 • w Assess • 1 • p						
Allocat	ion of I	olaces				
Additio	nal inf	ormation				
Additional information						
Workload						
Referre	d to in	LPOI (examination regu	lations for teaching-c	legree programmes)		
		•				
Module			>			
	-	ree (1 major) Biology (200				
Bachel	Bachelor' degree (1 major) Mathematics (2007)					

Module	Module title Abbreviation					
Advanc	dvanced Light- and Electron-Microscopy 07-4S1MZ1-092-m01					
Module coordinator Module offered by						
head o	f the D	epartment of Electronmic	roscopy	Faculty of Biology		
ECTS	Methe	od of grading	Only after succ. con	npl. of module(s)		
3	nume	rical grade				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
Fundan	nental	principles of confocal las	er scanning microsco	opy and electron mic	croscopy.	
Intende	ed lear	ning outcomes				
Studen	ts have	e acquired theoretical kno	owledge and practica	I skills in the area of	f light and electron microscopy.	
Course	<b>s</b> (type	, number of weekly conta	ct hours, language –	- if other than Germa	an)	
V + Ü (r	no info	rmation on SWS (weekly o	contact hours) and co	ourse language avail	lable)	
		sessment (type, scope, la ion on whether module ca			ation offered — if not every seme-	
written	exami	nation (45 minutes)				
Allocat	ion of <sub>l</sub>	places				
Additio	nal inf	ormation				
Worklo	ad					
Referre	d to in	LPOI (examination regu	lations for teaching-	degree programmes)		
				_ , _ ,		
Module	e appea	ars in				
		ree (1 major) Biology (200	07)			
		ree (1 major) Mathematic				
Bachel	or's de	gree (1 major, 1 minor) Bi	ology (Minor, 2008)			

Bachelor's with 1 major Biology (2007)	JMU Würzburg • generated 11-Jan-2023 • exam. reg.	page 71 / 151
	data record Bachelor (180 ECTS) Biologie - 2007	

Module	Module title Abbreviation						
Analys	is of Ch	iromosomes			07-4S1MZ2-092-m01		
Module	e coord	inator		Module offered by			
head o	f the De	epartment of Electronmic	roscopy	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	Other prerequisites			
1 seme	ster	undergraduate					
Conten	ts						
Overvie	ew of th	e structure of chromosor	nes of somatic and m	eiotic cells.			
Intende	ed learı	ning outcomes					
Studen	ts are a	able to analyse chromoso	mal structures.				
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)		
V + Ü (r	no infor	mation on SWS (weekly o	contact hours) and co	urse language avail	able)		
		<b>essment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-		
written	examiı	nation (45 minutes)					
Allocat	ion of p	olaces					
Additio	nal inf	ormation					
Worklo	ad						
Referre	d to in	LPOI (examination regu	lations for teaching-c	legree programmes)			
Module	e appea	ars in					
Bachel	or' deg	ree (1 major) Biology (200	07)				
	•	ree (1 major) Mathematic					
Bachel	or's de	gree (1 major, 1 minor) Bi	ology (Minor, 2008)				

Bachelor's with 1 major Biology (2007)	JMU Würzburg • generated 11-Jan-2023 • exam. reg.	page 72 / 151
	data record Bachelor (180 ECTS) Biologie - 2007	

Modul	e title				Abbreviation
Ecolog	y and [	evelopmental Biology	of marine organis	ms	07-4S1MZ3-092-m01
Module coordinator				Module offer	red by
head o	f the D	epartment of Electronn	nicroscopy	Faculty of Bi	ology
ECTS Method of grading 0		Only after succ	. compl. of module	e(s)	
5 numerical grade					
		Other prerequi			
			By way of except assessments.	otion, additional p	rerequisites are listed in the section on
Conter	nts				
					nts with an insight both into the organis l of the island of Helgoland in the North
Intend	ed lear	ning outcomes			
	nts are f e ecosys		nology, developme	ntal biology, physi	ology and ecology of organisms in a
Course	<b>s</b> (type	, number of weekly co	ntact hours, langua	ge — if other than	German)
Metho ster, in Assess low. Ui vidual Assess nisms 2 1 l 4 l	d of as: format ment in aless st assess ment i ECTS, og (app Assess	sessment (type, scope ion on whether module in this module comprise ated otherwise, succe ments. In module component of Method of grading: nu prox. 10 to 20 pages) nent offered: once a ye	, language — if oth e can be chosen to es the assessment ssful completion of <b>07-4S1MZ3-1MO-09</b> Imerical grade ear, summer semes	er than German, ex earn a bonus) s in the individual f the module will re <b>92:</b> Ecology and De	ours) and course language available) kamination offered — if not every seme module components as specified be- equire successful completion of all ind evelopmental Biology of Marine Orga-
0 Assess 1 • ۲ • ۴	essful sment i ECTS, present Assessr	completion of the resp n module component of Method of grading: (no ation (approx. 20 to 30 nent offered: once a ye	bective exercises as <b>57-4S1MZ3-2MO-0</b> pt) successfully cor p minutes)	s specified at the b 92: Seminar on Ma npleted	ar attendance of exercises and suc- eginning of the course. rrine Biology
	tion of				
• 0 a t 0 i i 0 a	07-4S1N availabl he Bac other su legree n total) credits Mather as pote quota e	e places, places will h helor's degree subject ubjects, there will be t subject Biologie (Biolo will be allocated to s and to students of the natics), each with 180 ntially to students of c	r of places: 18. Sho be allocated as fol t Biologie (Biology) wo quotas: 95% of gy) with 180 ECTS of tudents of the Bac Bachelor's degree ECTS credits, as p other 'importing' su	buld the number o lows: Places will p with 180 ECTS cre places will be all credits and 5% of p helor's degree sub subjects Computa art of the applicat ibjects). Should th	nodule component. f applications exceed the number of primarily be allocated to students of edits. Should the module be used in ocated to students of the Bachelor's places (a minimum of one participant oject Biologie (Biology) with 60 ECTS ational Mathematics and Mathematik ion-oriented subject Biology (as well be number of places available in one ll be allocated to applicants from the

Bachelor's with 1 major Biology (2007)	JMU Würzburg • generated 11-Jan-2023 • exam. reg.	page 73 / 151
	data record Bachelor (180 ECTS) Biologie - 2007	

places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in a standardised procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration. A waiting list will be maintained and places re-allocated as they become available. Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot. Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50% of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, places will be allocated according to the selection process of group 1.

• 07-4S1MZ3-2MO-092: --

## Additional information

UNIVERSITÄT

WÜRZBURG

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#### Workload

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

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## Module appears in

Bachelor' degree (1 major) Biology (2007) Bachelor' degree (1 major) Biology (2010) Bachelor' degree (1 major) Mathematics (2007) Bachelor's degree (1 major, 1 minor) Biology (Minor, 2008) First state examination for the teaching degree Grundschule Biology (2009) First state examination for the teaching degree Hauptschule Biology (2009) First state examination for the teaching degree Realschule Biology (2009) First state examination for the teaching degree Gymnasium Biology (2009) First state examination for the teaching degree Gymnasium Biology (2009) First state examination for the teaching degree Mittelschule Biology (2013)

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	data record Bachelor (180 ECTS) Biologie - 2007	

Module title					Abbreviation		
Metho	ds in Bi	otechnology			07-4S1MZ4-092-m01		
Module	e coord	inator		Module offered by			
holder	of the (	Chair of Biotechnology ar	d Biophysics	Faculty of Biology			
ECTS Method of grading			Only after succ. com	pl. of module(s)			
2	nume	rical grade					
Duratio	on	Module level	Other prerequisites				
1 seme	ster	undergraduate					
Conten	Contents						
dicine.	This module will provide students with an overview of instrument-based methods in biotechnology and biome- dicine. In particular, imaging methods as well as single-cell technologies will be discussed. Publications on the methodology of biotechnology will be analysed.						
Intend	ed lear	ning outcomes					
		able to select the instrum	ent-based method in	biotechnology and	biomedicine that is appropriate		
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	· if other than Germa	n)		
This mo compo • co • co • co • co • co • co • co • c	<ul> <li>o7-4S1MZ4-2AB-092: S (no information on SWS (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>Assessment in this module comprises the assessments in the individual module components as specified below. Unless stated otherwise, successful completion of the module will require successful completion of all individual assessments.</li> <li>Assessment in module component o7-4S1MZ4-1AB-092: Methods in Biotechnology (Lecture)         <ul> <li>1 ECTS, Method of grading: numerical grade</li> <li>written examination (20 minutes)</li> </ul> </li> <li>Assessment in module component o7-4S1MZ4-2AB-092: Seminar on Methods in Biotechnology         <ul> <li>1 ECTS, Method of grading: (not) successfully completed</li> </ul> </li> </ul>						
Allocat		· · · · · · · · · · · · · · · · · · ·					
Additional information							
Workload							
Referre	<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)						
Module	e appea	ars in					
		ree (1 major) Biology (200	07)				
	Bachelor' degree (1 major) Mathematics (2007)						

Module title		Abbreviation			
Aspects of mo	dern Biotechnology		07-4S1MZ5-092-m01		
Module coord	inator		Module offered by		
holder of the 0	Chair of Biotechnology an	d Biophysics	Faculty of Biology		
	od of grading	Only after succ. com	pl. of module(s)		
l	rical grade				
Duration	Module level	Other prerequisites			
1 semester	undergraduate				
Contents					
	pects of modern molecul	ar biotechnology.			
	ning outcomes				
	e acquired knowledge and				
	, number of weekly conta				
component. ● 07-4S1N	1Z5-1MB-092: V (no infor	mation on SWS (week	ly contact hours) an	sted separately for each module	
				nd course language available)	
	<b>cessment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-	
	ated otherwise, successf			e components as specified be- successful completion of all indi-	
<ul> <li>Assessment in module component o7-4S1MZ5-1MB-092: Aspects of Modern Biotechnology (Lecture)         <ul> <li>1 ECTS, Method of grading: numerical grade</li> <li>written examination (20 minutes)</li> </ul> </li> <li>Assessment in module component o7-4S1MZ5-2MB-092: Seminar on Molecular Biotechnology         <ul> <li>1 ECTS, Method of grading: (not) successfully completed</li> <li>presentation (approx. 20 to 30 minutes)</li> <li>Assessment offered: once a year, summer semester</li> </ul> </li> </ul>					
Allocation of	olaces				
Additional information					
Workload					
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)					
Module appea	urs in				
-	ree (1 major) Biology (200				
Bachelor' deg	ree (1 major) Mathematic	s (2007)			

Modul	le title			Abbreviation	
Specia	al Bioin	formatics I			07-4S1MZ6-092-m01
Modul	le coord	inator		Module offered by	<u> </u>
holder	r of the	Chair of Bioinformatics		Faculty of Biology	
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)	
5	nume	rical grade			
Durati	on	Module level	Other prerequisites		
1 seme	ester	undergraduate			
Conte	nts				
damer		ciples of evolutionary b			ics (methods and markers), fun- structure prediction, phylogene-
Intend	led lear	ning outcomes			
	nts are a reconstr		databases for seque	nce analysis, RNA st	ructure prediction and phyloge-
Course	<b>es</b> (type	, number of weekly cont	act hours, language –	- if other than Germa	ın)
V + Ü (	(no info	rmation on SWS (weekly	contact hours) and co	ourse language avail	able)
		sessment (type, scope, l ion on whether module o			tion offered — if not every seme-
log (ap	oprox. 1	o to 20 pages)			
Alloca	tion of	places			
Additi	onal inf	ormation			
Workle	oad				
 Workle	oad				
		IPOI (examination reg	ulations for teaching.	degree programmes	
		LPOI (examination reg	ulations for teaching-	degree programmes)	
 Referr	ed to in		ulations for teaching-	degree programmes)	
 Referr  Modul	ed to in le appea	ars in		degree programmes)	
 <b>Referr</b>  <b>Modul</b> Bache	ed to in le appea	a <b>rs in</b> ree (1 major) Biology (20	007)	degree programmes)	
 <b>Referr</b>  <b>Modul</b> Bache Bache	<b>ed to in</b> <b>le appe</b> a ·lor' deg ·lor' deg	a <b>rs in</b> ree (1 major) Biology (20 ree (1 major) Mathemati	007) cs (2008)	degree programmes)	
 Referr  Modul Bache Bache Bache	ed to in le appea lor' deg lor' deg lor' deg	a <b>rs in</b> ree (1 major) Biology (20	007) cs (2008) cs (2007)		

Modul	Module title Abbreviation					
Neurol	biology	1			07-4S1NVO1-092-m01	
Modul	e coord	linator		Module offered by	<u> </u>	
holder	of the	Chair of Neurobiology an	d Genetics	Faculty of Biology	·	
ECTS	1	od of grading	Only after succ. con			
5	nume	rical grade				
Durati	on	Module level	Other prerequisites			
1 seme	ester	undergraduate				
Conter	nts					
Neurol	oiology	and methods in neurobi	ology, using Drosoph	ila as a neurogenetio	c model system.	
Intend	ed lear	ning outcomes				
		e acquired an advanced nethods in neurobiology.		robiology of a mode	l organism and are able to apply	
Course	<b>es</b> (type	, number of weekly cont	act hours, language –	- if other than Germa	ın)	
P (no i	nforma	tion on SWS (weekly con	tact hours) and cours	e language available	e)	
		<b>sessment</b> (type, scope, l ion on whether module o			tion offered — if not every seme-	
log (ap	prox. 1	o to 20 pages)				
Alloca	tion of	places				
Additio	onal inf	ormation				
			<u>_</u> 1			
Worklo	bad					
Referre	ed to in	LPOI (examination reg	ulations for teaching-	degree programmes)		
Modul	e appea	ars in				
Bache	lor' deg	ree (1 major) Biology (20	07)			
	-	ree (1 major) Mathemati				
	-	ree (1 major) Mathemati				
	-	ree (1 major) Computatio	-	09)		
Bache	lor's de	gree (1 major, 1 minor) B	iology (Minor, 2008)			

Module title					Abbreviation	
-		egrative Behavioural B	iology		07-4S1NVO2-092-m	101
Module	coord	inator		Module offered by		
holder	of the C	Chair of Zoology II		Faculty of Biology		
ECTS		od of grading	Only after succ. con	pl. of module(s)		
5	r	rical grade				
Duratio		Module level	Other prerequisites			
1 semes	ster	undergraduate	By way of exception assessments.	, additional prerequi	sites are listed in th	e section on
Conten	ts					
sing of	olfacto	on in the animal kingdo ry signals, temporal or ehaviour, orientation m	ganisation of behaviou			
Intende	ed learr	ning outcomes				
		acquired an advancec current studies on rele		a of behavioural biol	ogy and are able to c	leliver pre-
Courses	<b>s</b> (type,	, number of weekly con	tact hours, language –	- if other than Germa	n)	
compor • o	nent. 7-4S1N	omprises 2 module cor VO2-1IV-092: V (no info VO2-2IV-092: S (no inf	ormation on SWS (wee	kly contact hours) an	id course language a	available)
		essment (type, scope,		-		
		on on whether module				every seme-
	less st	this module comprise ated otherwise, succes nents.				
<ul> <li>Assessment in module component o7-4S1NVO2-1IV-092: Aspects of Integrative Behavioural Biology 1 (Lecture and Practice) <ul> <li>2 ECTS, Method of grading: numerical grade</li> <li>written examination (30 minutes)</li> <li>Language of assessment: German or English</li> <li>Other prerequisites: A good command of the English language is recommended.</li> </ul> </li> <li>Assessment in module component o7-4S1NVO2-2IV-092: Current Topics in Behavioural Biology <ul> <li>3 ECTS, Method of grading: (not) successfully completed</li> <li>presentation (approx. 20 to 30 minutes)</li> <li>Assessment offered: once a year, summer semester</li> <li>Language of assessment: German or English</li> <li>Other prerequisites: A good command of the English language is recommended.</li> </ul> </li> </ul>						
Allocation of places						
Additional information						
Workload						
Referre	Referred to in LPO I (examination regulations for teaching-degree programmes)					
Module	annes	rs in				
		ree (1 major) Biology (2	007)			
	-	or Biology (2007)	JMU Würzburg	g • generated 11-Jan-2023 • e. Bachelor (180 ECTS) Biologie	_	page 79 / 151



Bachelor' degree (1 major) Mathematics (2007) Bachelor's degree (1 major, 1 minor) Biology (Minor, 2008)

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Module title					Abbreviation
Functional Morphology of arthropods					07-4S1NVO3-092-m01
Module coordinator				Module offered by	· · · · · · · · · · · · · · · · · · ·
holder of the Chair of Zoology III				Faculty of Biology	
ECTS	Methe	od of grading	Only after succ. compl. of module(s)		
5	nume	rical grade			
Duratio	on	Module level	Other prerequisites	tes	
1 semesterundergraduateAdmission prerequisite to assessment: regular attendance and successful completion of the respective exercises as s beginning of the course.			_		
Conten	ts				

Morphology, anatomy, phylogeny and ecology of arthropods.

## Intended learning outcomes

Students are able to explain arthropod radiations in a functional context as well as to explain the importance of arthropods to ecosystems.

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

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

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

term paper (approx. 5 to 10 pages)

#### Allocation of places

Number of places: 20. Should the number of applications exceed the number of available places, places will be allocated as follows: Places will primarily be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits. Should the module be used in other subjects, there will be two quotas: 95% of places will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits and 5% of places (a minimum of one participant in total) will be allocated to students of the Bachelor's degree subject Biologie (Biology) with 60 ECTS credits and to students of the Bachelor's degree subjects Computational Mathematics and Mathematik (Mathematics), each with 180 ECTS credits, as part of the application-oriented subject Biology (as well as potentially to students of other 'importing' subjects). Should the number of places available in one quota exceed the number of applications, the remaining places will be allocated to applicants from the other quota. Should there be, within one module component, several courses with a restricted number of places, there will be a uniform regulation for the courses of one module component. In this case, places on all courses of a module component that are concerned will be allocated in a standardised procedure. In this procedure, applicants who already have successfully completed at least one other module component of the respective module will be given preferential consideration. A waiting list will be maintained and places re-allocated as they become available. Selection process group 1 (95%): Places will primarily be allocated according to the applicants' previous academic achievements. For this purpose, applicants will be ranked according to the number of ECTS credits they have achieved and their average grade of all assessments taken during their studies or of all module components in the subject of Biologie (Biology) (excluding Chemie (Chemistry), Physik (Physics), Mathematik (Mathematics)) at the time of application. This will be done as follows: First, applicants will be ranked, firstly, according to their average grade weighted according to the number of ECTS credits (qualitative ranking) and, secondly, according to their total number of ECTS credits achieved (quantitative ranking). The applicants' position in a third ranking will be calculated as the sum of these two rankings, and places will be allocated according to this third ranking. Among applicants with the same ranking, places will be allocated according to the qualitative ranking or otherwise by lot. Selection process group 2 (5%): Places will be allocated according to the following quotas: Quota 1 (50% of places): total number of ECTS credits already achieved in modules/module components of the Faculty of Biology; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. Should the module be used only in the Bachelor's degree subject Biologie (Biology) with 180 ECTS credits, places will be allocated according to the selection process of group 1.

#### Additional information

Workload

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

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## Module appears in

Bachelor' degree (1 major) Biology (2011) Bachelor' degree (1 major) Biology (2007) Bachelor' degree (1 major) Biology (2010) Bachelor' degree (1 major) Mathematics (2012) Bachelor' degree (1 major) Mathematics (2013) Bachelor' degree (1 major) Mathematics (2007) Bachelor' degree (1 major) Computational Mathematics (2012) Bachelor' degree (1 major) Computational Mathematics (2013) Bachelor's degree (1 major, 1 minor) Biology (Minor, 2008) Bachelor's degree (1 major, 1 minor) Biology (Minor, 2010)

Bachelor's with 1 major Biology (2007)	JMU Würzburg • generated 11-Jan-2023 • exam. reg.	page 82 / 151
	data record Bachelor (180 ECTS) Biologie - 2007	

Module title Abbreviation					
Ecolog	y of ins	ects			07-4S1NVO4-092-m01
Modul	e coord	inator		Module offered by	
holder of the Chair of Zoology III				Faculty of Biology	
ECTS		od of grading	Only after succ. con		
5	nume	rical grade			
Durati	on	Module level	Other prerequisites		
1 seme	ester	undergraduate			
Conter	nts				
	omy, ec b work.	ology (synecology in part	icular) and behaviou	ral biology of insects	s, including experimental field
Intend	ed lear	ning outcomes			
		proficient in insect diagnound behavioural biology.	ostics and are able to	apply appropriate r	nethods for experiments on in-
Course	es (type	, number of weekly conta	ct hours, language –	- if other than Germa	ın)
V + Ü (	no info	rmation on SWS (weekly	contact hours) and co	ourse language avail	able)
		sessment (type, scope, la ion on whether module c			tion offered — if not every seme-
written	exami	nation (60 minutes)			
Allocat	tion of	places			
Additio	onal inf	ormation			
Worklo	bad				
Referre	ed to in	LPOI (examination regu	lations for teaching-	degree programmes)	
Modul	e appea	ars in			
		ree (1 major) Biology (200	07)		
	-	ree (1 major) Mathematic			
	-	gree (1 major, 1 minor) Bi			

Module title					Abbreviation	
		oulations			07-4S1NV05-092-m01	
Modul	e coord	inator		Module offered by		
holder	of the (	Chair of Zoology III		Faculty of Biology		
			Only after succ. com	pl. of module(s)		
5 numerical grade						
			Other prerequisites			
1 semester undergraduate						
Conter	its					
		discussion of the structuna nanagement.	ure and dynamics of I	numan and animal p	opulations; regulation of popula-	
Intend	ed lear	ning outcomes				
					etapopulations on the basis of quantitative analysis to these.	
Course	<b>s</b> (type	, number of weekly conta	ct hours, language –	if other than Germa	n)	
	odule c				sted separately for each module	
k	ole)				s) and course language availa-	
• (	07-4S1N	1V05-2P0-092: S (no info	rmation on SWS (wee	ekly contact hours) a	nd course language available)	
		s <b>essment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-	
low. Ui		ated otherwise, successf			e components as specified be- successful completion of all indi-	
Ecolog • 2 • V Assess • 1	y of Pop FECTS, written o Sment in ECTS,	n module component o7- bulations (Lecture, Practic Method of grading: nume examination (45 minutes) n module component o7- Method of grading: (not) ation (approx. 20 to 30 m	ce) erical grade ) <b>4S1NVO5-2PO-092:</b> E successfully complet	cology of Population	ulations (Lecture, Practice) Basic ns (Seminar)	
Allocat	tion of p	olaces				
Additio	onal inf	ormation				
	_					
Worklo	ad					
Referre	<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)					
Modul	e appea	irs in				
Bachel Bachel	or' deg or' deg	ree (1 major) Biology (200 ree (1 major) Mathematic ree (1 major) Mathematic	s (2008) s (2007)	)		
	-	ree (1 major) Computation		09)		
Dachel	Bachelor's degree (1 major, 1 minor) Biology (Minor, 2008)					

Bachelor's with 1 major Biology (2007)	JMU Würzburg • generated 11-Jan-2023 • exam. reg.	page 84 / 151
	data record Bachelor (180 ECTS) Biologie - 2007	

Module title					Abbreviation
Molecular modelling - From DNA to protein					07-4S1PS1-092-m01
Module coordinator				Module offered by	
holder of the Chair of Plant Physiology and Biophysics			and Biophysics	Faculty of Biology	
ECTS			, -,		
5	numerical grade				
Duration Module level Other prerequisite					
1 seme	ester	undergraduate			
Conter	nts				
proteir		ell as on the search for ar			function of nucleic acids and molecules using databases and
Intend	ed lear	ning outcomes			
		e acquired a specialist kn rk with relevant database		ture-function relation	nships of macromolecules and
Course	<b>es</b> (type	, number of weekly conta	ict hours, language –	- if other than Germa	ın)
V + Ü (	no info	mation on SWS (weekly o	contact hours) and co	ourse language avail	able)
		<b>sessment</b> (type, scope, la on on whether module ca			ition offered — if not every seme
compu	Iterised	practical examination (4	hours)		
Alloca	tion of <b>j</b>	olaces			
Additi	onal inf	ormation	·		
Worklo	oad				
Referr	ad to in	IPOL (examination room	lations for teaching	legree programmes	
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)					
Modul		ve in			
	e appea				
	-	ree (1 major) Biology (200 ree (1 major) Mathematic			
	-	ree (1 major) Mathematic			
	-	ree (1 major) Mathematic		00)	
	-	gree (1 major, 1 minor) Bi		- <del>-</del>	

Module	Module title Abbreviation					
Introdu	uction N	Aethods in Plant Ecophys	siology		07-4S1PS2-092-m01	
Module coordinator				Module offered by		
holder of the Chair of Plant Physiology and Biophysics				Faculty of Biology		
ECTS				npl. of module(s)		
5	numerical grade					
Duratio	on	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
		riments to introduce stud perimental findings in a c			lant ecophysiology as well as dis-	
Intend	ed lear	ning outcomes				
		able to use current metho in a scientific context.	ods in plant ecophysi	ology as well as to d	ocument experimental findings	
Course	<b>s</b> (type	, number of weekly conta	ict hours, language –	- if other than Germa	ın)	
V + Ü (I	no infoi	mation on SWS (weekly	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-	
log (ap	prox. 10	o to 20 pages)				
Allocat	ion of p	olaces				
Additio	onal inf	ormation				
Worklo	ad					
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)						
Module	e appea	irs in				
		ree (1 major) Biology (200	07)			
	-	ree (1 major) Mathematic				
Bachel	or's de	gree (1 major, 1 minor) Bi	ology (Minor, 2008)			

					Abbreviation		
Pharmaceutical Drugs Module coordinator					07-4S1PS3-092-m01		
Module	e coord	inator		Module offered by			
holder	ofthe	Chair of Pharmaceutical B	liology	Faculty of Biology			
			Only after succ. com	ucc. compl. of module(s)			
5 numerical grade							
			Other prerequisites				
1 seme	ster	undergraduate					
Conten	ts						
cals as	well as		narmacy. Microscopic	and phytochemical	al plants and phytopharmaceuti- analyses will be performed and ed.		
Intende	ed lear	ning outcomes					
		e acquired a specialist kn s on the requirements and			plants and phytopharmaceuti- ia.		
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)		
compo • o	nent. 7-4S1P	S3-1PD-092: Ü (no inform	nation on SWS (week	ly contact hours) and	sted separately for each module course language available)		
					d course language available)		
		<b>sessment</b> (type, scope, la ion 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-		
• 3 • W Assess • 2	ECTS, /ritten <b>ment i</b> ECTS,	n module component o7-4 Method of grading: nume examination (45 minutes) n module component o7-4 Method of grading: (not) ation (approx. 20 to 30 m	<b>4S1PS3-2PD-092:</b> Se successfully completed	minar on Pharmaceu			
Allocat	ion of <b>j</b>	olaces					
Additio	nal inf	ormation					
Worklo	ad						
Workto	uu						
Doforro	d to in	IPOL (ovamination reas	lations for toaching a	lagraa programmaa)			
Referre		LPO I (examination regu	iations for teaching-c				
		•					
Module			27)				
	-	ree (1 major) Biology (200 ree (1 major) Mathematic					
	-						
2001100	Bachelor's degree (1 major, 1 minor) Biology (Minor, 2008)						

holder of the Chair of Pharmaceutical BiologyECTSMethod of gradingOnly after succ. com5numerical gradeDurationModule levelOther prerequisites1 semesterundergraduateContents	07-4S1PS4-092-m01         Module offered by         Faculty of Biology         pl. of module(s)					
holder of the Chair of Pharmaceutical Biology         ECTS       Method of grading       Only after succ. com         5       numerical grade          Duration       Module level       Other prerequisites         1 semester       undergraduate          Contents	Faculty of Biology					
ECTS       Method of grading       Only after succ. com         5       numerical grade          Duration       Module level       Other prerequisites         1 semester       undergraduate          Contents	· _·					
5numerical gradeDurationModule levelOther prerequisites1 semesterundergraduateContents	pl. of module(s)					
DurationModule levelOther prerequisites1 semesterundergraduateContents						
1 semester undergraduate Contents						
Contents						
This was dealer will many data as a second	Contents					
in molecular biology and drug analysis.	thodological introduction to fundamental techniques					
Intended learning outcomes						
Students are able to analyse groups of drugs, using a variety	v of methods.					
<b>Courses</b> (type, number of weekly contact hours, language –						
This module comprises 2 module components. Information of						
<ul> <li>component.</li> <li>o7-4S1PS4-1PB-092: P (no information on SWS (weekly</li> <li>o7-4S1PS4-2PB-092: S (no information on SWS (weekly)</li> </ul>	y contact hours) and course language available)					
<b>Method of assessment</b> (type, scope, language — if other tha ster, information on whether module can be chosen to earn a						
<ul> <li>vidual assessments.</li> <li>Assessment in module component 07-4S1PS4-1PB-092: Ana Drugs (Laboratory Course) <ul> <li>4 ECTS, Method of grading: numerical grade</li> <li>written examination (45 minutes)</li> </ul> </li> <li>Assessment in module component 07-4S1PS4-2PB-092: Ser ceutical Drugs <ul> <li>1 ECTS, Method of grading: (not) successfully complete</li> <li>presentation (approx. 20 to 30 minutes)</li> <li>Assessment offered: once a year, winter semester</li> </ul> </li> </ul>	minar on Analytics and Molecular Biology of Pharma-					
Allocation of places						
Additional information						
Workload						
TUINUUU						
	legree programmes)					
Referred to in LPO I (examination regulations for teaching-d	legree programmes)					
<b>Referred to in LPO I</b> (examination regulations for teaching-d	legree programmes)					
 Referred to in LPO I (examination regulations for teaching-d  Module appears in	legree programmes)					
<b>Referred to in LPO I</b> (examination regulations for teaching-d	legree programmes)					

Module title					Abbreviation
Practio	cal Cour	rse as exchange student			07-5AP-072-m01
Module coordinator				Module offered by	
Coordinator BioCareers				Faculty of Biology	
ECTS	TS Method of grading Only after succ. com		npl. of module(s)		
10	numerical grade				
Durati	Duration Module level Other prerequisites				
1 seme	ester	undergraduate			
Conte	nts				
chang	e progra	ammes such as Erasmus	etc. Contents of the c	ourse should corres	e this course in the context of ex- pond to the contents of <i>Spezielle</i> ent coordinator in advance.
Intend	ed lear	ning outcomes			
		familiar with working met nal competencies as well			an Germany. They have develo-
Course	<b>es</b> (type	, number of weekly conta	ct hours, language –	- if other than Germa	n)
P (no i	nformat	tion on SWS (weekly cont	act hours) and cours	e language available	2)
		sessment (type, scope, la ion on whether module ca			tion offered — if not every seme-
didate	each (a		oral examination in §		r c) oral examination of one can- to 3 candidates, approx. 60 mi-
Alloca	tion of <sub>l</sub>	places			
Additi	onal inf	ormation			
Workle	oad				
Referr	ed to in	LPOI (examination regu	lations for teaching-	degree programmes)	
Modul	e appea	ars in			
Bache	lor' deg	ree (1 major) Biology (200 ree (1 major) Mathematic			

Modul	Module title Abbreviation					
Extern	al Prac	tical Course			07-5EP-072-m01	
Modul	e coord	linator		Module offered by		
Coordinator BioCareers				Faculty of Biology		
ECTS			npl. of module(s)			
10	numerical grade					
		Other prerequisites	i			
1 seme	ester	undergraduate				
Conte	nts					
		complete a placement ned by the respective i		university research in	nstitution or a business. Contents	
Intend	led lear	ning outcomes				
		familiar with the struct to work in their profess		ions and businesses	and have developed skills which	
Course	<b>es</b> (type	, number of weekly co	ntact hours, language –	- if other than Germa	an)	
P (no i	nforma	tion on SWS (weekly co	ontact hours) and cours	e language available	e)	
			, language — if other th e can be chosen to earn		tion offered — if not every seme-	
didate	each (a		d) oral examination in		or c) oral examination of one can- to 3 candidates, approx. 60 mi-	
	tion of					
Additi	onal inf	ormation				
Workl	oad					
Referr	ed to in	LPO I (examination re	egulations for teaching-	degree programmes		
Modul	e appea	ars in				
Bache	IUL, UEQ	ree (1 major) Biology (2	2007)			

	e title				Abbreviation
Metho	ds in m	olecular cell - and develo	opmental Biology	-	07-5S2MZ1-092-m01
Module coordinator holder of the Chair of Zoology I				Module offered by	
holder of the Chair of Zoology I				Faculty of Biology	
ECTS	TS Method of grading Only after succ. con		npl. of module(s)		
10     numerical grade        Duration     Madula local     Other processition					
Duration Module level Other prerequisite					
1 semester undergraduate					
Conter	nts				
In this logy.	module	e, students will acquire a	n in-depth insight int	o approaches and	methods in molecular and cell bic
Intend	ed lear	ning outcomes			
		e acquired knowledge ab endently perform scientif		s and methods of n	nolecular and cell biology. They ar
Course	<b>s</b> (type	, number of weekly conta	act hours, language –	- if other than Germ	nan)
compo • c • c	nent. 07-5S2N 07-5S2N	ЛZ1-1ZE-092: V + Ü (no inf ЛZ1-2ZE-092: Ü (no inforr	ormation on SWS (we nation on SWS (week	ekly contact hours) kly contact hours) a	listed separately for each module ) and course language available) nd course language available) nd course language available)
ster, in	format	ion on whether module c	an be chosen to earn	a bonus)	
ster, in Assess low. Ur vidual <b>Assess</b>	formati sment in nless st assess sment in	ion on whether module c n this module comprises ated otherwise, success ments. n module component 07-	an be chosen to earn the assessments in t ful completion of the 5 <b>S2MZ1-1ZE-092:</b> Me	a bonus) he individual modu module will require ethods in molecula	ule components as specified be- e successful completion of all ind r cell - and developmental Biology
ster, in Assess low. Ur vidual <b>Assess</b> Data p gy - Da gy - Da a c a	formati ment in nless st assess <b>sment i</b> n rocessi ta proc 3 ECTS, a) writte one can approx.	ion on whether module c n this module comprises rated otherwise, success ments. <b>n module component o7-</b> ng and computer skills (I essing and computer skills (I) essing and computer skills (I essing and computer skills (I) essing and computer	an be chosen to earn the assessments in t ful completion of the <b>5S2MZ1-1ZE-092:</b> Me ecture and practice) I lls (lecture and practi erical grade 60 minutes) or b) log minutes) or d) oral ex tation (approx. 20 to	a bonus) he individual modu module will require ethods in molecula Methods in molecu ce) (approx. 10 to 20 xamination in grou	ule components as specified be- e successful completion of all ind r cell - and developmental Biology
ster, in Assess low. Ur vidual Data p gy - Da • 3 • 4 • 4 • 4 • 4 • 4 • 6 • 6 • 6 • 6 • 6 • 6 • 6	formati ment in assess ment in rocessi ta proc ECTS, a) writte one can approx. anguag ment in atory co 5 ECTS, a) writte one can approx.	ion on whether module c in this module comprises tated otherwise, success ments. <b>n module component o7-</b> ng and computer skills (l essing and component o7- didate each (approx. 30 60 minutes) or e) preser ge of assessment: Germa <b>n module component o7-</b> urse) Method of grading: num en examination (approx. didate each (approx. 30 60 minutes) or e) preser	an be chosen to earn the assessments in t ful completion of the <b>5S2MZ1-1ZE-092:</b> Me ecture and practice) I lls (lecture and practice) for minutes) or d) oral ex- itation (approx. 20 to n or English <b>5S2MZ1-2ZE-092:</b> Me erical grade 60 minutes) or b) log minutes) or d) oral ex- itation (approx. 20 to the minutes) or d) oral ex- minutes) or d) oral ex- minutes) or d) oral ex- itation (approx. 20 to	a bonus) he individual modu module will require ethods in molecula Methods in molecu ce) (approx. 10 to 20 xamination in grou 30 minutes) ethods in molecula (approx. 10 to 20 xamination in grou	ule components as specified be- e successful completion of all ind r cell - and developmental Biolog lar cell - and developmental Biolo pages) or c) oral examination of ps (groups of 2 or 3 candidates,
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ster, in Assess low. Ur vidual Assess Data p gy - Da a a a c a c Assess Biolog 1 f Allocat	formati ment in hess st assess ment in rocessi ta proc ECTS, a) writte one can approx. anguag ment in atory co ECTS, a) writte one can approx. anguag ment in tory co ECTS, a) writte one can approx. anguag ment in tory co	ion on whether module c n this module comprises rated otherwise, success ments. <b>n module component 07-</b> ng and computer skills (I essing and computer skills (I essing and computer skills) Method of grading: nume en examination (approx. 30 60 minutes) or e) preser ge of assessment: Germa <b>n module component 07-</b> urse) Method of grading: nume en examination (approx. 30 60 minutes) or e) preser ge of assessment: Germa <b>n module component 07-</b> urse) Method of grading: nume en examination (approx. 30 60 minutes) or e) preser ge of assessment: Germa <b>n module component 07-</b> nar) Method of grading: (not) ation (approx. 20 to 30 m	an be chosen to earn the assessments in t ful completion of the <b>5S2MZ1-1ZE-092:</b> Me ecture and practice) <i>I</i> lls (lecture and practice) for minutes) or b) log minutes) or b) log minutes) or d) oral ex- tation (approx. 20 to n or English <b>5S2MZ1-2ZE-092:</b> Me erical grade 60 minutes) or b) log minutes) or d) oral ex- tation (approx. 20 to n, English <b>5S2MZ1-3ZE-092:</b> Cu successfully complet	a bonus) he individual modu module will require ethods in molecula Methods in molecula (approx. 10 to 20 xamination in grou 30 minutes) ethods in molecula (approx. 10 to 20 xamination in grou 30 minutes) arrent topics in mol	ule components as specified be- e successful completion of all ind r cell - and developmental Biology lar cell - and developmental Biolog pages) or c) oral examination of ps (groups of 2 or 3 candidates, r cell - and developmental Biolog pages) or c) oral examination of ps (groups of 2 or 3 candidates,

Bachelor's with	1 major Biology	(2007)
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# Workload

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

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### Module appears in

Bachelor' degree (1 major) Biology (2007) Bachelor' degree (1 major) Mathematics (2007)

Bachelor's with 1 major Biology (2007)	JMU Würzburg • generated 11-Jan-2023 • exam. reg.	page 92 / 151
	data record Bachelor (180 ECTS) Biologie - 2007	

					Abbreviation	
-		biology II			07-5S2MZ2-092-m01	
Module	e coord	inator		Module offered by		
holder of the Chair of Microbiology				Faculty of Biology		
ECTS			pl. of module(s)			
10 numerical grade						
			Other prerequisites			
1 semester undergraduate						
Conten	Contents					
In this module, students will acquire an in-depth insight into approaches and methods in microbiology.					ethods in microbiology.	
Intend	ed learı	ning outcomes				
		e acquired knowledge abo form scientific laboratory		s and methods of mi	crobiology. They are able to inde-	
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)	
compo • c	nent. 97-5S2N	۸Z2-1MI-092: V + Ü (no inf	ormation on SWS (we	ekly contact hours) a	sted separately for each module Ind course language available) d course language available)	
		<b>essment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-	
low. Ur vidual Assess ture an 7 a a b c a a L Assess biology 3 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ment in d labor ECTS, ) writte one can pprox. anguag ment in ECTS, cresent	ated otherwise, successf ments. <b>n module component 07-</b> atory course) Specific mi Method of grading: nume in examination (approx. 30 n 60 minutes) or e) presen ge of assessment: German <b>n module component 07-</b> Method of grading: (not) ation (approx. 20 to 30 m	ul completion of the <b>5S2MZ2-1MI-092:</b> Sp crobiology 2 - molecu- erical grade 50 minutes) or b) log minutes) or d) oral ex- tation (approx. 20 to n or English <b>5S2MZ2-2MI-092:</b> Ac successfully complet	module will require s pecific microbiology 2 ular microbiology (leo (approx. 10 to 20 pa amination in groups 30 minutes) dvanced microbiolog	e components as specified be- successful completion of all indi- 2 - molecular microbiology (lec- cture and laboratory course) ages) or c) oral examination of 5 (groups of 2 or 3 candidates, y 2 - Seminar in molecular micro-	
Allocat	ion of p	olaces				
Additio	onal inf	ormation				
Worklo	ad					
Referre	ed to in	LPOI (examination regu	lations for teaching-o	legree programmes)		
Module	annes	ors in				
		ree (1 major) Biology (200	(דע			
		ree (1 major) Mathematic				
	- 0					

Module title Abbreviation					Abbreviation
Specif	ic Bioin	formatics II			07-5S2MZ3-092-m01
Modul	e coord	inator		Module offered by	
		Chair of Bioinformatics		Faculty of Biology	
ECTS	1	od of grading	Only after succ. con		
10	nume	rical grade		-	
Durati	on	Module level	Other prerequisites		
1 seme	ester	undergraduate			
Conte	nts				
quenc	e analy	•	olution - gene expres		from the following list: - se- ein structure analysis - program-
Intend	led lear	ning outcomes			
		e acquired knowledge ab perform scientific laborate	-	s and methods of bio	oinformatics. They are able to in-
Course	<b>es</b> (type	, number of weekly conta	ct hours, language –	- if other than Germa	an)
V + Ü (	(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-
didate	each (a		oral examination in §		or c) oral examination of one can- to 3 candidates, approx. 60 mi-
Alloca	tion of <sub>l</sub>	places			
Additi	onal inf	ormation			
Workl	oad				
Referr	ed to in	LPOI (examination regu	lations for teaching-o	legree programmes)	
Module appears in					
Bache Bache Bache	lor' deg lor' deg lor' deg	ree (1 major) Biology (200 ree (1 major) Mathematic ree (1 major) Mathematic ree (1 major) Computatio	s (2008) s (2007)	09)	

Module title				Abbreviation			
					07-5S2MZ4-092-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. con	npl. of module(s)			
10	nume	rical grade					
Duratio		Module level	Other prerequisites				
1 seme	ster	undergraduate					
Conten	ts						
In this	module	e, students will acquire ar	n in-depth insight int	o approaches and m	ethods in biotechnology.		
Intend	ed lear	ning outcomes					
		e acquired knowledge abo perform scientific laborate		s and methods of bio	otechnology. They are able to in-		
Course	<b>s</b> (type	, number of weekly conta	ct hours, language –	- if other than Germa	n)		
<ul> <li>Courses (type, number of weekly contact hours, language — if other than German)</li> <li>This module comprises 2 module components. Information on courses will be listed separately for each module component. <ul> <li>07-552MZ4-1BT-092: P (no information on SWS (weekly contact hours) and course language available)</li> <li>07-552MZ4-2BT-092: S (no information on SWS (weekly contact hours) and course language available)</li> </ul> </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>Assessment in this module comprises the assessments in the individual module components as specified below. Unless stated otherwise, successful completion of the module will require successful completion of all individual assessments.</li> <li>Assessment in module component o7-552MZ4-1BT-092: Specific Biotechnology 2 - Practical Biotechnology 2 (laboratory course) <ul> <li>8 ECTS, Method of grading: numerical grade</li> <li>a) written examination (approx. 6 on minutes) or b) log (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or d) oral examination in groups (groups of 2 or 3 candidates, approx. 6 o minutes) or e) presentation (approx. 20 to 30 minutes)</li> <li>Language of assessment: German or English</li> </ul> </li> <li>Assessment in module component o7-552MZ4-2BT-092: Specific Biotechnology 2 - Seminar Biotechnology 2</li> </ul>							
Allocat		ation (approx. 20 to 30 m <b>places</b>					
Additio	onal inf	ormation					
Worklo	ad						
Referred to in LPO I (examination regulations for teaching-degree programmes)							
Module appears in Bachelor' degree (1 major) Biology (2007)							
	-	ree (1 major) Biology (200 ree (1 major) Mathematic					
Duchet	or ucg	ree (1 major) mathematic	3 (2007)				

Module title				Abbreviation		
Neurot	biology II	07-5S2NV01-092-m01				
Modul	e coordinator		Module offered by			
holder of the Chair of Neurobiology and Genetics			Faculty of Biology			
ECTS	Method of grading	Only after succ. con	· · · · ·			
10	numerical grade		•			
Duratio	on Module level	Other prerequisites	i			
1 seme	ester undergraduate					
Conter	its					
	odule will provide students with y systems, learning and memory	-	the following topics	: the neuronal bases of cognition,		
Intend	ed learning outcomes					
king in	to account current literature.	- -		vanced topics in neurobiology, ta-		
	<b>s</b> (type, number of weekly conta					
compo • c Ł	nent. 07-5S2NVO1-1NB-092: V + Ü (no ble)	information on SWS (	weekly contact hour			
	07-5S2NVO1-2NB-092: S (no info		•			
	<b>d of assessment</b> (type, scope, la formation on whether module c			tion offered — if not every seme-		
low. Ur	ment in this module comprises nless stated otherwise, success assessments.			e components as specified be- successful completion of all indi-		
<ul> <li>Assessment in module component o7-5S2NVO1-1NB-092: Neurobiology 2 (lecture and practical course) Neurobiology 2 (lecture and practical course)</li> <li>7 ECTS, Method of grading: numerical grade</li> <li>a) written examination (approx. 60 minutes) or b) log (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or d) oral examination in groups (groups of 2 or 3 candidates, approx. 60 minutes) or e) presentation (approx. 20 to 30 minutes)</li> <li>Language of assessment: German or English</li> <li>Assessment in module component 07-5S2NVO1-2NB-092: Neurobiology 2 (seminar)</li> <li>3 ECTS, Method of grading: (not) successfully completed</li> <li>presentation (approx. 20 to 30 minutes)</li> </ul>						
Allocat	tion of places					
Additio	onal information					
Worklo	Workload					
Referre	ed to in LPO I (examination regu	lations for teaching-	degree programmes)			
Modul	e appears in					
	or' degree (1 major) Biology (20	07)				
Bachel	Bachelor' degree (1 major) Mathematics (2007)					

Module title Abbreviation					Abbreviation				
Integra	Integrative Behavioural Biology II				07-5S2NVO2-092-m01				
Modul	e coord	inator		Module offered by	<u> </u>				
holder	ofthe	Chair of Zoology II		Faculty of Biology					
ECTS	Meth	od of grading	Only after succ. con	pl. of module(s)					
10	nume	rical grade							
Durati	on	Module level	Other prerequisites						
1 seme	ester	undergraduate							
Conter	nts								
		e, students will acquire a us on the biology of socia		o behavioural physic	ology and sociobiology with a				
Intend	ed lear	ning outcomes							
		e acquired knowledge an hypotheses and are profi			ology and sociobiology. They are ial insects.				
Course	<b>es</b> (type	, number of weekly conta	act hours, language –	- if other than Germa	an)				
V + P (I	no infoi	mation on SWS (weekly	contact hours) and co	ourse language avail	able)				
		s <b>essment</b> (type, scope, la ion on whether module c			tion offered — if not every seme-				
didate	each (a		oral examination in g		or c) oral examination of one can- to 3 candidates, approx. 60 mi-				
	tion of								
Additio	onal inf	ormation							
Worklo	bad								
-									
Referre	ed to in	LPOI (examination reg	llations for teaching-	degree programmes)					
Referred to in LPO I (examination regulations for teaching-degree programmes)									
Modul	e appea	ars in							
		ree (1 major) Biology (20	07)						
	-			Bachelor' degree (1 major) Biology (2007) Bachelor' degree (1 major) Mathematics (2007)					

Module title				Abbreviation						
Ecology	Ecology of animals II 07-5S2NV03-092-m01									
Module	coordinator		Module offered by							
holder	of the Chair of Zoology III		Faculty of Biology							
ECTS	Method of grading	Only after succ. cor	npl. of module(s)							
10	numerical grade									
Duratio		Other prerequisites								
1 semes										
Content										
	nodule, students will acquire animal ecology.	e an in-depth insight int	o experiment design	and the statistical a	nalysis of					
Intende	ed learning outcomes									
	ts are able to design approp erpret the results.	iate experiments to add	lress a scientific issu	e as well as to analy	/se, present					
Courses	<b>s</b> (type, number of weekly co	ntact hours, language –	- if other than Germa	n)						
compor • o b	odule comprises 2 module co nent. 7-5S2NVO3-1OE-092: V + Ü (1 le) 7-5S2NVO3-2OE-092: S (no i	no information on SWS (	weekly contact hour	s) and course langua	age availa-					
	of assessment (type, scope									
	formation on whether modul				every seme-					
low. Un vidual a	ment in this module compris less stated otherwise, succe assessments.	ssful completion of the	module will require s	successful completic	on of all indi-					
<ul> <li>Assessment in module component o7-5S2NVO3-10E-092: Ecology of Animals 2 - Planning of experiments and Statistics (lecture and practice) Ecology of Animals 2 - Planning of experiments and Statistics (lecture and practice)</li> <li>9 ECTS, Method of grading: numerical grade</li> <li>a) written examination (approx. 60 minutes) or b) log (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or d) oral examination in groups (groups of 2 or 3 candidates, approx. 60 minutes) or e) presentation (approx. 20 to 30 minutes)</li> <li>Language of assessment: German or English</li> <li>Assessment in module component 07-5S2NVO3-20E-092: Ecology of Animals 2 - Analysis of ecological data (seminar)</li> </ul>					e and practi- nination of andidates,					
	ECTS, Method of grading: (ne		ted							
	resentation (approx. 20 to 30 ssessment offered: once a ye									
	ion of places	,								
	•									
Additio	nal information									
Workload										
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)										
Module	appears in									
		2007)		Module appears in						
	achelor' degree (1 major) Biology (2007)									



Bachelor' degree (1 major) Mathematics (2007)

Bachelor's with 1 major Biology (2007)	JMU Würzburg • generated 11-Jan-2023 • exam. reg.	page 99 / 151
	data record Bachelor (180 ECTS) Biologie - 2007	

Module title			Abbreviation		
Physiology of membrane transport mechanisms		07-5S2PS1-092-m01			
Module coordinator	N	Nodule offered by			
holder of the Chair of Plant Physiology and Biophy		aculty of Biology			
		l. of module(s)			
10 numerical grade	•				
Duration Module level Other prer	requisites				
1 semester undergraduate					
Contents					
The module will address topics in contemporary re biological and biophysical methods. On the basis physiology will be presented and discussed in Eng	of current s				
Intended learning outcomes					
Students are familiar with current research in the fused. They are able to interpret and deliver preser					
Courses (type, number of weekly contact hours, la	inguage — il	other than Germa	in)		
This module comprises 2 module components. Inf component. • 07-5S2PS1-1MT-092: Ü (no information on S • 07-5S2PS1-2MT-092: S (no information on S	WS (weekly WS (weekly	contact hours) an contact hours) an	d course language available) d course language available)		
Method of assessment (type, scope, language $-i$ ster, information on whether module can be chose			tion offered — if not every seme-		
<ul> <li>Assessment in this module comprises the assessilow. Unless stated otherwise, successful completividual assessments.</li> <li>Assessment in module component o7-5S2PS1-1M tory course) <ul> <li>9 ECTS, Method of grading: numerical grade</li> <li>a) written examination (approx. 60 minutes) on candidate each (approx. 30 minutes) or approx. 60 minutes) or e) presentation (app</li> <li>Language of assessment: German or English</li> </ul></li></ul>	ion of the m <b>T-092:</b> Phys ) or b) log (a r d) oral exa rox. 20 to 30	odule will require iology of membran upprox. 10 to 20 pa mination in groups	successful completion of all indi- ne transport mechanisms (labora ages) or c) oral examination of		
Assessment in module component o7-5S2PS1-2M gress in plant physiology (seminar) <ul> <li>1 ECTS, Method of grading: (not) successfull</li> <li>presentation (approx. 20 to 30 minutes)</li> </ul>	<b>IT-092:</b> Phys		ne transport mechanisms - Pro-		
Allocation of places					
Additional information					
Workload					
Referred to in LPO I (examination regulations for teaching-degree programmes)					
Module appears in					
Bachelor' degree (1 major) Biology (2007)					
Bachelor' degree (1 major) Mathematics (2007)					

Module title			Abbreviation		
Molecula	Molecular biology of plants 07-5S2PS2-092-m01				
Module coordinator			Module offered by		
	the Chair of Plant Physiology		Faculty of Biology		
	Aethod of grading	Only after succ. con	npl. of module(s)		
	numerical grade				
Duration		Other prerequisites			
1 semest					
Contents	;				
stions of methods	plant physiology. Every stude	nt will perform a phy	siological experimen	ues of molecular biology for que- t that will be analysed using the f plant physiology will be presen-	
Intended	learning outcomes				
	are able to perform advanced as on scientific publications.	experiments in plan	t physiology as well	as to interpret and deliver pre-	
Courses	(type, number of weekly conta	ct hours, language –	- if other than Germa	n)	
		onents. Information	on courses will be li	sted separately for each module	
compone	ent. •5S2PS2-1MP-092: Ü (no inforr	nation on SWS (wool	(ly contact hours) an	d cource language available)	
	-5S2PS2-2MP-092: S (no information -5S2PS2-2MP-092: S (no information - 5S2PS2-2MP-092: S (no information - 5S2PS2-2MP-092))))				
Method o	- · · · · · · · · · · · · · · · · · · ·	nguage — if other th	an German, examina	tion offered — if not every seme-	
low. Unle				e components as specified be- successful completion of all indi-	
• 9 E • a) v one app		erical grade 60 minutes) or b) log minutes) or d) oral ex tation (approx. 20 to	(approx. 10 to 20 pa kamination in groups	lants (laboratory course) ages) or c) oral examination of s (groups of 2 or 3 candidates,	
logy (sem	ninar)	•		olants - Progress in plant physio-	
	CTS, Method of grading: (not) esentation (approx. 20 to 30 m		leu		
	n of places	/			
Addition	al information				
Workload					
Referred	to in LPO I (examination regu	lations for teaching-	degree programmes)		
Module a	appears in				
	' degree (1 major) Biology (200	7)			
	Bachelor' degree (1 major) Mathematics (2007)				

Modul					Abbreviation	
Protein biochemistry and expression of recombinant pr			n of recombinant prote	eins	07-5S2PS3-092-m	01
Module coordinator				Module offered by		
holder of the Chair of Plant Physiology and Biophysics			y and Biophysics	Faculty of Biology		
ECTS	1	od of grading	Only after succ. co	, , ,		
10	nume	rical grade		<b>1</b>		
Durati	on	Module level	Other prerequisite	S		
1 seme	ester	undergraduate				
Conte	nts					
tion ar	nd prote	e, students will acquire in purification as well a on these topics will be p	as the biophysical and	l biochemical analysi		
Intend	led lear	ning outcomes				
		e acquired knowledge a s well as protein analys				
Course	<b>es</b> (type	, number of weekly cor	itact hours, language	— if other than Germa	an)	
compo • (	onent. 07-5S2F	omprises 2 module co PS3-1PP-092: Ü (no info PS3-2PP-092: S (no info	rmation on SWS (wee	kly contact hours) an	d course language a	vailable)
		sessment (type, scope,		•		
		ion on whether module				, <b>,</b>
low. U vidual Assess protein	nless st assess sment i ns (labc 9 ECTS, a) writte one can approx.	n this module comprise ated otherwise, succes ments. <b>n module component o</b> ratory course) Method of grading: nu en examination (approx didate each (approx. 3 60 minutes) or e) pres ge of assessment: Gern	sful completion of the <b>7-5S2PS3-1PP-092:</b> P merical grade (. 60 minutes) or b) lo o minutes) or d) oral e entation (approx. 20 to	e module will require rotein biochemistry a g (approx. 10 to 20 p examination in group	successful completing of the second sec	on of all indi- combinant nination of
		n module component o	-	rotein biochemistry a	and expression of re	combinant
•	1 ECTS,	gress in plant physiolog Method of grading: (no ation (approx. 20 to 30	t) successfully comple	eted		
	tion of					
Additi	onal inf	ormation				
Workle	oad					
Referr	ed to in	LPOI (examination re	gulations for teaching	-degree programmes)		
Modul	e appea	ars in				
		ree (1 major) Biology (2	2007)			
	-	ree (1 major) Mathema				
		jor Biology (2007)		rg • generated 11-Jan-2023 • 6	exam. reg.	page 102 / 151
				d Bachelor (180 ECTS) Biologi		

Module title			Abbreviation			
Specific ecophysiology of plants 07-5S2PS4-092-m01					07-5S2PS4-092-m01	
Module coordinator				Module offered by		
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	on	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
ecolog	ical me				piological, chemical analytical or ocumented in the context of the	
Intend	ed lear	ning outcomes				
		able to independently per in the context of the curre			plant ecophysiology, to interpret ent these.	
Course	<b>s</b> (type	, number of weekly conta	ct hours, language –	- if other than Germa	n)	
compo • c	nent. 07-5S2F	254-10P-092: Ü (no inforn	nation on SWS (week	ly contact hours) and	sted separately for each module d course language available) d course language available)	
Metho	d of ass		nguage — if other tha	an German, examina	tion offered — if not every seme-	
low. Ur		ated otherwise, successf			e components as specified be- successful completion of all indi-	
<ul> <li>Assessment in module component o7-5S2PS4-1OP-o92: Advanced ecophysiology of plants (laboratory course)</li> <li>9 ECTS, Method of grading: numerical grade</li> <li>a) written examination (approx. 60 minutes) or b) log (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or d) oral examination in groups (groups of 2 or 3 candidates, approx. 60 minutes) or e) presentation (approx. 20 to 30 minutes)</li> <li>Language of assessment: German or English</li> <li>Assessment in module component o7-5S2PS4-2OP-o92: Specific ecophysiology of plants (seminar)</li> <li>1 ECTS, Method of grading: (not) successfully completed</li> <li>presentation (approx. 20 to 30 minutes)</li> </ul>						
Allocat	ion of p	olaces				
Additio	onal inf	ormation				
Workload						
WUIKUAU						
Defer		IDO I (oversidentier	lations for the shire			
Referre		LPOI (examination regu	lations for teaching-0	legree programmes)		
	e appea					
	-	ree (1 major) Biology (200				
Bachel	Bachelor' degree (1 major) Mathematics (2007)					

Module title				Abbreviation	
Molecular biological methods in pharmaceutical biology				07-5S2PS5-092-m01	
Module coordinator			Module offered by	<u> </u>	
holder of the Chair of Pharmaceutical Biology			Faculty of Biology		
	hod of grading	Only after succ. com			
10 num	erical grade				
Duration	Module level	Other prerequisites			
1 semester	undergraduate				
Contents					
	ed in a current research pr logy, molecular biology, b			advanced methods in molecular	
Intended lea	arning outcomes				
	e proficient in advanced m skills necessary for condu			ocus on molecular biology and projects.	
Courses (typ	e, number of weekly conta	ict hours, language —	if other than Germa	an)	
component. • 07-5S2 • 07-5S2 Method of a ster, informa Assessment low. Unless vidual asses Assessment gy (Laborato • 9 ECTS • a) writ one ca approx • Langu	2PS5-1MB-092: P (no inform 2PS5-2MB-092: S (no inform ssessment (type, scope, la ation on whether module c in this module comprises stated otherwise, success stated otherwise, success stated otherwise, success in module component o7- my course) S, Method of grading: number ten examination (approx. 1 andidate each (approx. 30 x. 60 minutes) or e) preservage of assessment: Germa	mation on SWS (week mation on SWS (week inguage — if other that an be chosen to earn the assessments in th ful completion of the f 5 <b>S2PS5-1MB-092:</b> Ma erical grade 60 minutes) or b) log minutes) or d) oral ex itation (approx. 20 to n or English	ly contact hours) an an German, examina a bonus) ne individual modul module will require blecular biological n (approx. 10 to 20 pa amination in groups 30 minutes)	sted separately for each module d course language available) d course language available) ation offered — if not every seme- e components as specified be- successful completion of all indi- nethods in pharmaceutical biolo- ages) or c) oral examination of s (groups of 2 or 3 candidates,	
Assessment gy (seminar)		5S2PS5-2 <b>MB-092:</b> M	olecular biological r	nethods in pharmaceutical biolo-	
• 1 ECTS	, Method of grading: (not) ntation (approx. 20 to 30 m		ed		
Allocation o	fplaces				
Additional in	nformation				
Workload					
Referred to i	<b>n LPO I</b> (examination regu	lations for teaching-c	legree programmes)		
Module app	ears in				
	gree (1 major) Biology (20				
Bachelor' de	egree (1 major) Mathematic	s (2007)			

Module	e title				Abbreviation
Biochemical methods in pharmaceutical Biology			al Biology		07-5S2PS6-092-m01
Module coordinator				Module offered by	
		Chair of Pharmaceutical E	Biology	Faculty of Biology	
ECTS	-	od of grading	Only after succ. com	· · · · · · · · · · · · · · · · · · ·	
10	nume	rical grade			
Duratio	on	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	ts				
		d in a current research pr protein chemistry or met		ecome proficient in a	advanced methods in molecular
Intend	ed lear	ning outcomes			
		proficient in advanced m he skills necessary for co			ocus on molecular biochemistry arch projects.
Course	<b>s</b> (type	, number of weekly conta	act hours, language –	· if other than Germa	an)
compo compo ster, in Assess low. Ur vidual Assess gy (Lab gy (Lab gy (Lab gy (Lab sec a compo compo a compo a compo a compo a compo a compo a compo a compo a compo a compo a compo a compo a compo a compo	nent. p7-5S2F p7-5S2F d of ass formati ment in less st assess ment in poratory ECTS, anguag ment in ECTS,	PS6-1BC-092: P (no inform PS6-2BC-092: S (no inform resesment (type, scope, late ion on whether module contrained on this module comprises ated otherwise, success ments. In module component o7- or course) Method of grading: num en examination (approx. didate each (approx. 30 60 minutes) or e) preserves ge of assessment: Germa	nation on SWS (week mation on SWS (week anguage — if other tha an be chosen to earn the assessments in th ful completion of the <b>c5S2PS6-1BC-092:</b> Mo erical grade 60 minutes) or b) log minutes) or d) oral ex tation (approx. 20 to on or English <b>c5S2PS6-2BC-092:</b> Bio successfully complet	ly contact hours) an an German, examina a bonus) he individual modul module will require plecular biological m (approx. 10 to 20 pa kamination in group 30 minutes)	sted separately for each module d course language available) d course language available) ation offered — if not every seme- e components as specified be- successful completion of all indi- nethods in pharmaceutical biolo- ages) or c) oral examination of s (groups of 2 or 3 candidates, in pharmaceutical Biology (semi-
Allocat					
Additio	onal inf	ormation			
Worklo	ad				
Referre	ed to in	LPOI (examination regu	llations for teaching-o	legree programmes)	
				,	
Module	e appea	ars in			
		ree (1 major) Biology (20	07)		
	-	ree (1 major) Mathematic			

Module	e title			Abbreviation				
Final oral examination in Biology     07-6BK-072-m01								
Module coordinator				Module offered by				
Dean o	f Studi	es Biologie (Biology)		Faculty of Biology				
ECTS		od of grading	Only after succ. compl. of module(s)					
3	nume	rical grade						
Duration Module level		Other prerequisites						
1 semester		undergraduate						
Conten	ts							
Using media aids, students will deliver an oral presentation of the results of their Bachelor's theses to an expert audience.								
Intend	ed lear	ning outcomes						
Students are able to present the findings of their theses in an appropriate way as well as to discuss these with an expert audience.								
Course	<b>s</b> (type	, number of weekly cont	tact hours, language –	- if other than Germa	an)			
K (no ir	forma	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-			
final co	lloqui	um (approx. 30 minutes)	)					
Allocat	ion of	places						
Additio	nal inf	ormation						
Worklo	ad							
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)								
Module appears in								
Bachelor' degree (1 major) Biology (2007)								

Modul	e title				Abbreviation			
Bache	lorthesi	is Biology		-	07-6BT-072-m01			
Modul	e coord	inator		Module offered by				
Dean c	of Studi	es Biologie (Biology)		Faculty of Biology				
ECTS		od of grading	Only after succ. con					
12	nume	rical grade						
Duration /		Module level	Other prerequisites					
1 seme	1 semester undergraduate		Registration for assessment: yes					
Conter	nts							
	ching a fic prac		problem within a give	n time frame and ad	hering to the principles of good			
Intend	ed lear	ning outcomes						
Students are able to conduct research on a defined topic, adhering to the principles of good scientific practice, and to present the results of their work in written form.								
Course	<b>es</b> (type	, number of weekly conta	ct hours, language –	- if other than Germa	ın)			
no cou	rses as	signed						
<b>Method of assessment</b> (type, scope, language — if other than German, examination offered — if not every seme- ster, information on whether module can be chosen to earn a bonus)								
written thesis Assessment offered: on a continuous basis after consultation with supervisor and after registration Language of assessment: German or English								
	tion of p							
Additio	onal inf	ormation						
Worklo	ad							
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)								
Module appears in								
Bachelor' degree (1 major) Biology (2007)								

Module title		Abbreviation					
Molecular Cel	l Biology for advanced st	07-6S3MZ1-092-m01					
Module coord	inator		Module offered by				
holder of the	Chair of Zoology I	Faculty of Biology					
ECTS Metho	od of grading	Only after succ. compl. of module(s)					
15 nume	rical grade						
Duration	Duration Module level Other prerequisites						
1 semester	undergraduate						
Contents							
	e, students will acquire an pply methods in cell biolo			ethods in cell biology. Students			
Intended lear	ning outcomes						
The students are able to independently address scientific issues in molecular cell biology, using appropriate me- thods. They are able to design the appropriate experiments as well as to analyse, present and interpret the re- sults.							
Courses (type	, number of weekly conta	ct hours, language —	if other than Germa	n)			
<ul> <li>Courses (type, number of weekly contact hours, language — if other than German)</li> <li>This module comprises 2 module components. Information on courses will be listed separately for each module component.         <ul> <li>07-6S3MZ1-1MZ-092: P (no information on SWS (weekly contact hours) and course language available)</li> <li>07-6S3MZ1-2MZ-092: S (no information on SWS (weekly contact hours) and course language available)</li> </ul> </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>Assessment in this module comprises the assessments in the individual module components as specified below. Unless stated otherwise, successful completion of the module will require successful completion of all individual assessments.</li> <li>Assessment in module component o7-6S3MZ1-1MZ-092: Advanced molecular cell biology (laboratory course)</li> <li>12 ECTS, Method of grading: numerical grade         <ul> <li>a) written examination (approx. 60 minutes) or b) log (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or d) oral examination in groups (groups of 2 or 3 candidates, approx. 60 minutes) or e) presentation (approx. 20 to 30 minutes)</li> <li>Language of assessment: German, English</li> </ul> </li> <li>Assessment in module component o7-6S3MZ1-2MZ-092: Current topics in molecular cell biology - (seminar)</li> <li>3 ECTS, Method of grading: (not) successfully completed</li> <ul> <li>presentation (approx. 20 to 30 minutes)</li> <li>Language of assessment: German, English</li> </ul> </ul>							
Allocation of places							
Additional information							
Workload							
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)							
Module appears in							
Module appears in							

Bachelor' degree (1 major) Biology (2007)

Module	e title				Abbreviation
Molecu	ular Dev	velopmental Biology for a	dvanced students		07-6S3MZ-2-092-m01
Module	e coord	inator		Module offered by	<u> </u>
		Chair of Zoology I		Faculty of Biology	
ECTS		od of grading	Only after succ. com	, ,,	
15		rical grade			
Duratio	on .	Module level	Other prerequisites		
1 seme	ster	undergraduate			
Conten	Its				
		perform their research wo y in a largely independen			ne topic of molecular develop- Il investigator.
Intend	ed lear	ning outcomes			
propria		hods. They are able to de			evelopmental biology, using ap- l as to analyse, present and inter-
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	an)
compo • c	nent. 07-6S3N	MZ2-1ME-092: P (no infor	mation on SWS (week	ly contact hours) ar	sted separately for each module nd course language available) nd course language available)
Metho	d of ass	sessment (type, scope, la	nguage — if other tha	in German, examina	ation offered — if not every seme-
-		ion on whether module ca		-	
	nless st	ated otherwise, successf			e components as specified be- successful completion of all indi-
ry cour • 1 • a	se) .2 ECTS a) writte	, Method of grading: num en examination (approx. (	erical grade 60 minutes) or b) log	(approx. 10 to 20 p	developmental biology (laborato- ages) or c) oral examination of s (groups of 2 or 3 candidates,
а	approx.	60 minutes) or e) presen ge of assessment: Germa	tation (approx. 20 to		s (groups of 2 of 3 candidates,
Assess minar)	ment i	n module component 07-	6 <b>S3MZ2-2ME-092:</b> C	·	ecular developmental biology (se
• p	oresent	Method of grading: (not) ation (approx. 20 to 30 m ge of assessment: Germa	inutes)	ed	
Allocat			,		
Additio	nal inf	ormation			
Autil	matim				
World	ad				
Worklo	ubdu				
Referre	ed to in	LPOI (examination regu	lations for teaching-d	legree programmes)	
	e appea				
Bachel	or' deg	ree (1 major) Biology (200	07)		

Bachelor's with 1 major Biology (2007)

Module title					Abbreviation		
Specific Microbiology III 07-6S3MZ-3-092-m01					07-6S3MZ-3-092-m01		
Module coordinator				Module offered by			
holder	ofthe	Chair of Microbiology		Faculty of Biology			
ECTS	<u>.</u>	od of grading	Only after succ. con	npl. of module(s)			
15	I	rical grade					
Duratio		Module level	Other prerequisites				
1 seme	ster	undergraduate					
Conten	ts						
		perform their research wo nt manner under supervis			e topic of microbiology in a large-		
Intend	ed lear	ning outcomes					
					y, using appropriate methods. ent and interpret the results.		
Course	<b>s</b> (type	, number of weekly conta	ct hours, language –	- if other than Germa	n)		
This mo compo • c	odule c nent. 07-6S31	omprises 2 module comp MZ3-1MI-092: P (no inforn	oonents. Information nation on SWS (week	on courses will be li	sted separately for each module d course language available) d course language available)		
Metho	d of as		nguage — if other th	an German, examina	tion offered — if not every seme-		
	nless st	ated otherwise, successf			e components as specified be- successful completion of all indi-		
• 1 • a 0 a • L <b>Assess</b>	o ECTS ) writte one can opprox. anguag	didate each (approx. 30 60 minutes) or e) presen ge of assessment: Germa n module component o7-	nerical grade 60 minutes) or b) log minutes) or d) oral ex tation (approx. 20 to n, English <b>6S3MZ3-2MI-092:</b> SJ	(approx. 10 to 20 pa kamination in groups 30 minutes) pecific microbiology	ages) or c) oral examination of s (groups of 2 or 3 candidates,		
		Method of grading: (not) ation (approx. 20 to 30 m		ted			
Allocat	ion of	places					
Additio	onal inf	ormation					
Workload							
Referre	ed to in	LPOI (examination regu	lations for teaching-	legree programmes)			
Module	anne	ars in					
			דר (דר				
Buchet	Bachelor' degree (1 major) Biology (2007)						

					Abbreviation		
Specific Biotechnology III 07-6S3MZ4-092-m01							
Module coordinator				Module offered by			
holder	of the (	Chair of Biotechnology an	d Biophysics	Faculty of Biology			
ECTS	Metho	od of grading	Only after succ. con	pl. of module(s)			
15	nume	rical grade					
Duratio	n	Module level	Other prerequisites				
1 seme	ster	undergraduate					
Conten	ts						
		perform their research wo ent manner under super			e topic of biotechnology in a lar-		
Intende	ed leari	ning outcomes					
					gy, using appropriate methods. ent and interpret the results.		
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	- if other than Germa	n)		
compo • 0	nent. 7-6S3N	NZ4-1BT-092: P (no inform	nation on SWS (week	ly contact hours) and	sted separately for each module d course language available) d course language available)		
Metho	d of ass		nguage — if other that	an German, examina	tion offered — if not every seme-		
	less st	ated otherwise, successf			e components as specified be- successful completion of all indi-		
<ul> <li>Assessment in module component o7-6S3MZ4-1BT-092: Specific biotechnology 3 (laboratory course)</li> <li>12 ECTS, Method of grading: numerical grade</li> <li>a) written examination (approx. 60 minutes) or b) log (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or d) oral examination in groups (groups of 2 or 3 candidates, approx. 60 minutes) or e) presentation (approx. 20 to 30 minutes)</li> <li>Assessment offered: once a year, summer semester</li> <li>Language of assessment: German, English</li> <li>Assessment in module component o7-6S3MZ4-2BT-092: Specific biotechnology 3 (seminar)</li> <li>3 ECTS, Method of grading: (not) successfully completed</li> <li>presentation (approx. 20 to 30 minutes)</li> <li>Assessment offered: once a year, summer semester</li> </ul>							
Allocat	ion of p	olaces					
,,							
Additional information							
Worklo	au						
Referre	d to in	LPO I (examination regu	lations for teaching-o	degree programmes)			
Module	Module appears in						

Module title					Abbreviation		
Specifi	c Bioin	formatics III			07-6S3MZ5-092-m01		
Module	coord	inator		Module offered by			
holder	of the (	Chair of Bioinformatics		Faculty of Biology			
ECTS		od of grading	Only after succ. con	pl. of module(s)			
15	nume	rical grade					
Duratio		Module level	Other prerequisites				
1 seme	ster	undergraduate					
Conten	ts						
		e, students will acquire an n to address a scientific			ethods in bioinformatics. Stu-		
Intende	ed learı	ning outcomes					
					cs, using appropriate methods. ent and interpret the results.		
Course	<b>s</b> (type	, number of weekly conta	ct hours, language –	- if other than Germa	n)		
V + Ü (r	no infor	mation on SWS (weekly o	contact hours) and co	ourse language avail	able)		
		s <b>essment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-		
didate	each (a		oral examination in §		r c) oral examination of one can- to 3 candidates, approx. 60 mi-		
Allocat	ion of p	olaces					
Additio	nal inf	ormation					
Worklo	ad						
Referre	<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)						
Module	appea	irs in					
Bachel	or' deg	ree (1 major) Biology (200	(70				

Module title					Abbreviation		
	Neurobiology III 07-6S3NV01-092-m01						
Module	e coord	inator		Module offered by			
holder	of the (	Chair of Neurobiology and	d Genetics	Faculty of Biology			
ECTS		od of grading	Only after succ. con	npl. of module(s)			
15	nume	rical grade					
Duratio		Module level	Other prerequisites				
1 seme	ster	undergraduate					
Conten	ts						
		e, students will acquire sp b be involved in current re		opics, approaches a	nd methods in neurobiology. Stu-		
Intende	ed lear	ning outcomes					
Studen	ts will			earch in the field of n	eurobiology and will have deve-		
Course	<b>s</b> (type	, number of weekly conta	ct hours, language –	- if other than Germa	n)		
This mo	odule c	omprises 2 module comp	onents. Information	on courses will be li	sted separately for each module		
compo				11 · · · · · · · · · · · · · · · · · ·			
					nd course language available) nd course language available)		
				•	tion offered — if not every seme-		
		ion on whether module ca			, , , , ,		
	iless st	ated otherwise, successf			e components as specified be- successful completion of all indi-		
Assess	ment in o ECTS ) writte ne can pprox. anguag ment in	n module component o7- , Method of grading: num en examination (approx. 6 didate each (approx. 30 f 60 minutes) or e) presen ge of assessment: Germa n module component o7-6	erical grade 60 minutes) or b) log minutes) or d) oral e: tation (approx. 20 to n, English <b>6S3NVO1-2NB-092:</b> l	(approx. 10 to 20 pa xamination in groups 30 minutes) Neurobiology 3 (sem	ages) or c) oral examination of s (groups of 2 or 3 candidates,		
-		Method of grading: (not)	, ,	ted			
• p		ation (approx. 20 to 30 m	mules)				
		10.03					
Additio	nal inf	ormation					
Workload							
Referre	d to in	LPOI (examination regu	lations for teaching-	degree programmes)			
		(channation regu					
Module	e appea	ars in					
	Module appears in Bachelor' degree (1 major) Biology (2007)						
	0						

Modul	e title				Abbreviation
Integrative Behavioural Biology III					07-6S3NV02-092-m01
Madula coordinator					
Module coordinator				Module offered by	
		Chair of Zoology II		Faculty of Biology	
<b>ECTS</b> 15		od of grading rical grade	Only after succ. com	ipi. of module(s)	
Duratio		Module level	Other prerequisites		
1 seme		undergraduate		additional prerequ	isites are listed in the section on
assessments.					
Conten	nts		1		
vioural	l biolog				nd methods in integrative beha- e area of experimental behaviou-
Intend	ed lear	ning outcomes			
		be proficient in the theor developed skills require			ntegrative behavioural biology
Course	<b>es</b> (type	, number of weekly conta	act hours, language —	if other than Germa	in)
compo • c	onent. 07-6S3N	IVO2-1IV-092: P (no info	mation on SWS (weel	kly contact hours) a	sted separately for each module nd course language available) nd course language available)
Metho	d of ass		anguage — if other tha	an German, examina	tion offered — if not every seme-
vidual Assess 1 a c a c a c a c a c a b c c a b b havi c c a c c a c c a c c a c c c c c c c c c c c c c	assess sment in 12 ECTS a) writte one can approx. Languag Other po sment in ioural b 3 ECTS, present. Languag Other po	ments. <b>n module component o7</b> - , Method of grading: nun en examination (approx. didate each (approx. 30 60 minutes) or e) preser ge of assessment: Germa rerequisites: A good com <b>n module component o7</b> - iology and socio-biology Method of grading: (not) ation (approx. 20 to 30 n ge of assessment: Germa rerequisites: A good com	6S3NVO2-1IV-092: In herical grade 60 minutes) or b) log minutes) or d) oral ex htation (approx. 20 to n, English mand of the English l 6S3NVO2-2IV-092: Ir (seminar)) successfully complet hinutes) n, English	tegrative behaviour (approx. 10 to 20 pa amination in group 30 minutes) anguage is recommentegrative behaviour	al biology 3 - Current topics in
Allocat	tion of <sub>l</sub>	Diaces	-		
			-		
 • • • • • • •	onel !=f				
 Additic	onal inf	ormation			
 Additic  Worklo	_	ormation			
 Worklo	oad	ormation LPOI (examination regu	llations for teaching-c	legree programmes)	
 Worklo  Referre	oad	LPOI (examination regu	lations for teaching-c	legree programmes)	
 Worklo  Referre  Module	oad ed to in e appea	LPOI (examination regu	JMU Würzburg	legree programmes) • generated 11-Jan-2023 • e Bachelor (180 ECTS) Biologie	xam. reg. page 114 / 151

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	data record Bachelor (180 ECTS) Biologie - 2007	

Module	e title				Abbreviation	
Ecology of animals III					07-6S3NVO3-092-m01	
Module	e coord	inator		Module offered by		
holder	of the (	Chair of Zoology III		Faculty of Biology		
ECTS	1	od of grading	Only after succ. com	pl. of module(s)		
10	nume	rical grade				
Duratio		Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
		e, students will acquire in also be involved in currer		proaches and metho	ods in special animal ecology.	
Intende	ed lear	ning outcomes				
	yse the				ial animal ecology. They are able ese in the context of current pu-	
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)	
compo • c	nent. 97-6S3N	IVO3-1TO-092: Ü (no info	rmation on SWS (wee	ekly contact hours) a	sted separately for each module nd course language available) nd course language available)	
Metho	d of ass	· · · · · · · · · · · · · · · · · · ·	nguage — if other tha	an German, examina	tion offered — if not every seme-	
	nless st	ated otherwise, successf			e components as specified be- successful completion of all indi-	
<ul> <li>Assessment in module component o7-6S3NVO3-1TO-o92: Ecology of animals 3 (practical course)</li> <li>8 ECTS, Method of grading: numerical grade</li> <li>a) written examination (approx. 60 minutes) or b) log (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or d) oral examination in groups (groups of 2 or 3 candidates, approx. 60 minutes) or e) presentation (approx. 20 to 30 minutes)</li> <li>Language of assessment: German or English</li> <li>Assessment in module component o7-6S3NVO3-2TO-o92: Ecology of animals 3 (seminar)</li> <li>2 ECTS, Method of grading: (not) successfully completed</li> <li>presentation (approx. 20 to 30 minutes)</li> </ul>						
Allocat			,			
Additio	nal inf	ormation				
Additional information						
Workload						
WUIKU	au					
			lationa fonte bi	\ \		
Keferre	a to in	LPOI (examination regu	lations for teaching-c	legree programmes)		
		•				
Module			````			
Bachelor' degree (1 major) Biology (2007)						

Ecological modelling       07-653NV04-092-m01         Module coordinator       Module offered by         holder of the Chair of Zoology III       Faculty of Biology         ECTS       Method of grading       Only after succ. compl. of module(s)         s       numerical grade          Duration       Module level       Other prerequisites         1 semester       undergraduate          Contents       Contents          On the basis of exemplary tasks in ecology, the students will learn about different simulation techniques and modelling methods. At the same time, they will develop their own simulation program to address demographical or evolutionary questions.         Intended learning outcomes          The students will expand their knowledge in the theory and practice of ecological modelling. They will be able to develop, apply and interpret adequate modelling techniques.         Courses (type, number of weekly contact hours, language — if other than German)         This module comprises 2 module components. Information on SWS (weekly contact hours) and course language available)         or-653NV04-2MO-092: S (no information on SWS (weekly contact hours) and course language available)         weit, information on whether module can be chosen to ean a bonus!         Assessment in this module component or-653NV04-1MO-092: Ecological modelling - Strategies of modelling in ecological science (lecture and practical course)	Module					Abbreviation
holder of the Chair of Zoology III       Faculty of Biology         ECTS       Method of grading       Only after succ. compl. of module(s)         5       numerical grade	Ecological modelling 07-6S3NVO4-092-mo1					07-6S3NVO4-092-m01
ECTS       Methew of grading       Only after succ. compl. of module(S)         5       num=trical grade          Duration       Module level       Other prerequisites         1 semester       undergraduate          On the basis of exemplary tasks in ecology, the students will learn about different simulation techniques and modelling methods. At the same time, they will develop their own simulation program to address demographical or evolutionary cuestions.         Intended learning outcomes       Intender outcomes         The students will expand their knowledge in the theory and practice of ecological modelling. They will be able to develop, apply and interpret adequate modelling techniques.         Courses:       (type, number of weekly contact hours, language — if other than German)         This module comprises 2 module components. Information on courses will be listed separately for each module component.         • o7-653WVQ+200-092: V + Ü (no information on SWS (weekly contact hours) and course language available)         Bethod of as=sessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to ear a bonus)         Assessment in this module comprises the assessments in the individual module component as specified below. Unless stated othenwise, successful completion of the module will require successful completion of all individual science (lecture and practical course) Ecological modelling - Strategies of modelling in ecological science (lecture and practical course)         A	Module coordinator				Module offered by	
5       numerical grade          Duration       Module level       Other prerequisites         1 semester       undergraduate          On the basis of exemplary tasks in ecology, the students will learn about different simulation techniques and modelling methods. At the same time, they will develop their own simulation program to address demographical or evolutionary questions.         Intended learning outcomes          The students will expand their knowledge in the theory and practice of ecological modelling. They will be able to develop, apply and interpret adequate modelling techniques.         Courses (type, number of weekly contact hours, language — if other than German)         This module comprises 2 module components. Information on courses will be listed separately for each module component.         • 07-653tWO4-1MO-092: V + Ü (no information on SWS (weekly contact hours) and course language available)         Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)         Assessment in this module component 07-653tWO4-1MO-092: Ecological modelling - Strategies of modelling in ecological science (lecture and practical course) Ecological modelling - Strategies of modelling in ecological science (lecture and practical course) to 010 (approx. to to 20 pages) or c) oral examination of on e candidate each (approx, 30 minutes) or d) oral examination in groups (groups of 2 or 3 candidates, approx. 60 minutes) or d) oral examination in groups (groups of 2 or 3 candidates, approx. 60 minutes) or d) oral examination in gro	holder	of the (	Chair of Zoology III		Faculty of Biology	
Duration         Module level         Other prerequisites           1 semester         undergraduate            Contents             On the basis of exemplary tasks in ecology, the students will learn about different simulation techniques and modelling methods. At the same time, they will develop their own simulation program to address demographical or evolutionary questions.           Intended learning outcomes            The students will expand their knowledge in the theory and practice of ecological modelling. They will be able to develop, apply and interpret adequate modelling techniques.           Courses (type, number of weekly contact hours, language — if other than German)           This module comprises a module components. Information on courses will be listed separately for each module component.           • 07-653NV04-1M0-092: V + Ü (no information on SWS (weekly contact hours) and course language available)           • 07-653NV04-2M0-092: S (no information on SWS (weekly contact hours) and course language available)           • 07-653NV04-2M0-092: S (no information on SWS (weekly contact hours) and course language available)           • 07-653NV04-2M0-092: 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 semester, information on whether module can be chosen to earn a bonus)           Assessment in module comprises the assessments in the individual module components as specified below. Unless stated oth	ECTS	;		Only after succ. con	npl. of module(s)	
1 semester undergraduate		L				
Contents         Contents           On the basis of exemplary tasks in ecology, the students will learn about different simulation techniques and modelling methods. At the same time, they will develop their own simulation program to address demographical or evolutionary questions.           Intended learning outcomes         Intended learning outcomes           The students will expand their knowledge in the theory and practice of ecological modelling. They will be able to develop, apply and interpret adequate modelling techniques.           Courses (type, number of weekly contact hours, language — if other than German)           This module comprises 2 module components. Information on courses will be listed separately for each module component.           • 07-653NV04-1M0-092: V + Ü (no information on SWS (weekly contact hours) and course language available)           Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)           Assessment in this module comprises the assessments in the individual module components as specified below. Unless stated otherwise, successful completion of the module will require successful completion of all individual assessments. Successful completion of the module will require soccessful completion of an abonus)           Assessment in module component or -653NVO4-1MO-092: Ecological modelling - Strategies of modelling in ecological science (lecture and practical course)           0 a ECTS, Method of grading: numerical grade           • a) written examination (approx. 20 to jon minutes) or b) log (approx. 10 to 20 pages) or c) oral examina						
On the basis of exemplary tasks in ecology, the students will learn about different simulation techniques and modelling methods. At the same time, they will develop their own simulation program to address demographical or evolutionary questions.         Intended learning outcomes       Intended learning outcomes         Courses (type, number of weekly contact hours, language — if other than German)       This module comprises 2 module components. Information on courses will be listed separately for each module component.         • o7-653NV04-1M0-092: V + Ü (no information on SWS (weekly contact hours) and course language available)         Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module can be chosen to earn a bonus)         Assessment in this module comprises the assessments in the individual module components as specified below. Unless stated otherwise, successful completion of the module will require successful completion of all individual assessments.         Assessment in module component o7-653NV04-1M0-092: Ecological modelling - Strategies of modelling in ecological science (lecture and practical course)         • 4 ECTS, Method of grading: numerical grade         • a) written examination (approx. 30 minutes) or d) oral examination in groups of 2 or 3 candidates, approx. 40 or 30 cances settion (approx. 20 to 30 minutes)         • Language of assessment. English         Assessment in module component or 53NV04-2MO-092: Ecological modelling (seminar)         • 1 ECTS, Method of grading: (not) successfully completed         • 2 ECTS, Method of grading: (not)			undergraduate			
The students will expand their knowledge in the theory and practice of ecological modelling. They will be able to develop, apply and interpret adequate modelling techniques. Courses (type, number of weekly contact hours, language — if other than German) This module comprises 2 module components. Information on courses will be listed separately for each module component. org-653NVO4-1MO-092: V + Ü (no information on SWS (weekly contact hours) and course language available) e 07-653NVO4-2MO-092: 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 semester, information on whether module can be chosen to earn a bonus) Assessment in this module comprises the assessments in the individual module components as specified below. Unless stated otherwise, successful completion of the module will require successful completion of all individual assessments. Assessment in module component o7-653NVO4-1MO-092: Ecological modelling - Strategies of modelling in ecological science (lecture and practical course) Ecological modelling - Strategies of modelling in ecological science (lecture and practical course) of 0) rol examination in groups (groups of 2 or 3 candidates, approx. 6 on minutes) or 0) prostation (approx. 20 to 30 minutes)         Language of assessment: German, English Assessment in module component o7-653NVO4-2MO-092: Ecological modelling (seminar)         Language of assessment: German, English Assessment in module component o7-653NVO4-2MO-092: Ecological modelling (seminar)         Language of assessment of y successful completed         presentation (approx. 20 to 30 minutes) Allocation of places	On the modell	basis c ing met	thods. At the same time,			
develop, apply and interpret adequate modelling techniques. Courses (type, number of weekly contact hours, language — if other than German) This module comprises 2 module components. Information on courses will be listed separately for each module component. or -653NV04-1M0-092: V + Ü (no information on SWS (weekly contact hours) and course language availa- ble) or -653NV04-2M0-092: S (no information on SWS (weekly contact hours) and course language availa- ble) 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) Assessment in this module comprises the assessments in the individual module components as specified be- low. Unless stated otherwise, successful completion of the module will require successful completion of all individual assessments. Assessment in module component or-653NV04-1M0-092: Ecological modelling - Strategies of modelling in eco- logical science (lecture and practical course) Ecological modelling - Strategies of modelling in eco- logical science (lecture and practical course) Ecological modelling - Strategies of modelling in eco- logical science (lecture and practical course) Ecological modelling - Strategies of modelling in eco- logical science (lecture and practical course) to 0) log (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or b) log (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or t) or al examination in groups (groups of 2 or 3 candidates, approx. 60 minutes) or e) presentation (approx. 20 to 30 minutes) Language of assessment: German, English Assessment in module component or-653NV04-2M0-092: Ecological modelling (seminar) i ECTS, Method of grading: (not) successfull completed presentation (approx. 20 to 30 minutes) Allocation of places	Intende	ed learı	ning outcomes			
This module comprises 2 module components. Information on courses will be listed separately for each module component.  • 07-653NVO4-1MO-092: V + Ü (no information on SWS (weekly contact hours) and course language available) • 07-653NVO4-2MO-092: 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 semester, information on whether module can be chosen to earn a bonus) Assessment in this module comprises the assessments in the individual module components as specified below. Unless stated otherwise, successful completion of the module will require successful completion of all individual assessments.  Assessment in module component 07-653NVO4-1MO-092: Ecological modelling - Strategies of modelling in ecological science (lecture and practical course) Ecological modelling - Strategies of modelling in ecological science (lecture and practical course) Ecological modelling - Strategies of modelling in ecological science (lecture and practical course) Ecological modelling - Strategies of modelling in ecological science (lecture and practical course) Ecological modelling - Strategies of modelling in ecological science (lecture and practical course) Ecological modelling - Strategies of or ol al examination of one candidate each (approx. 60 minutes) or b) log (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or d) oral examination in groups (groups of 2 or 3 candidates, approx. 60 minutes) or d) oral examination in groups (groups of 2 or 3 candidates, approx. 60 minutes) or d) oral examination in groups (groups of 2 or 3 candidates, approx. 60 minutes) or 0 oral examination in groups (groups of 2 or 3 candidates, approx. 60 minutes) or e) presentation (approx. 20 to 30 minutes)  • Language of assessment in module component 07-653NVO4-2MO-092: Ecological modelling (seminar)  • 1 ECTS, Method of grading: (not) successfully complete  • presentation (approx.			•	<b>e</b> ,		al modelling. They will be able to
component. • o7-653NV04-1MO-092: V + Ü (no information on SWS (weekly contact hours) and course language available) • o7-653NV04-2MO-092: 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) Assessment in this module comprises the assessments in the individual module components as specified be- low. Unless stated otherwise, successful completion of the module will require successful completion of all indi- vidual assessments. Assessment in module component o7-653NV04-1MO-092: Ecological modelling - Strategies of modelling in eco- logical science (lecture and practical course) Ecological modelling - Strategies of modelling in eco- logical science (lecture and practical course) Ecological modelling - Strategies of modelling in ecological science (lecture and practical course) Ecological modelling - Strategies of modelling in ecological science (lecture and practical course) Ecological modelling - Strategies of modelling in ecological science (lecture and practical course) Ecological modelling - Strategies of modelling in ecological science (lecture and practical course) Ecological modelling - Strategies of modelling in ecological science (lecture and practical course) Ecological modelling - Strategies of a complexitient of one candidate each (approx. 30 minutes) or d) oral examination in groups (groups of 2 or 3 candidates, approx. 60 minutes) or e) presentation (approx. 20 to 30 minutes) Language of assessment i module component o7-653NV04-2MO-092: Ecological modelling (seminar) 1 ECTS, Method of grading: (not) successfully completed be presentation (approx. 20 to 30 minutes) Allocation of places	Course	<b>s</b> (type	, number of weekly conta	ct hours, language –	if other than Germa	n)
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)         Assessment in this module comprises the assessments in the individual module components as specified be- low. Unless stated otherwise, successful completion of the module will require successful completion of all indi- vidual assessments.         Assessment in module component o7-653NVO4-1MO-092: Ecological modelling - Strategies of modelling in eco- logical science (lecture and practical course) Ecological modelling - Strategies of modelling in ecological science (lecture and practical course)         • 4 ECTS, Method of grading: numerical grade       • a) written examination (approx. 60 minutes) or b) log (approx. 10 to 20 pages) or c) oral examination of             one candidate each (approx. 30 minutes) or d) oral examination in groups (groups of 2 or 3 candidates,             approx. 60 minutes) or e) presentation (approx. 20 to 30 minutes)         • Language of assessment: German, English         Assessment in module component o7-653NVO4-2MO-092: Ecological modelling (seminar)         • 1 ECTS, Method of grading: (not) successfully completed         • presentation (approx. 20 to 30 minutes)         Additional information	compo • c b	nent. 97-6S3N 91e)	IVO4-1MO-092: V + Ü (no	information on SWS (	weekly contact hour	s) and course language availa-
ster, information on whether module can be chosen to earn a bonus) Assessment in this module comprises the assessments in the individual module components as specified be- low. Unless stated otherwise, successful completion of the module will require successful completion of all indi- vidual assessments. Assessment in module component o7-653NVO4-1MO-092: Ecological modelling - Strategies of modelling in eco- logical science (lecture and practical course) Ecological modelling - Strategies of modelling in ecological science (lecture and practical course) Ecological modelling - Strategies of modelling in ecological science (lecture and practical course) to blog (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or b) log (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or d) oral examination in groups (groups of 2 or 3 candidates, approx. 60 minutes) or e) presentation (approx. 20 to 30 minutes) Language of assessment: German, English Assessment in module component o7-653NVO4-2MO-092: Ecological modelling (seminar) 1 ECTS, Method of grading: (not) successfully completed presentation (approx. 20 to 30 minutes) Allocation of places 					•	
<ul> <li>low. Unless stated otherwise, successful completion of the module will require successful completion of all individual assessments.</li> <li>Assessment in module component o7-653NVO4-1MO-092: Ecological modelling - Strategies of modelling in ecological science (lecture and practical course) Ecological modelling - Strategies of modelling in ecological science (lecture and practical course)</li> <li>4 ECTS, Method of grading: numerical grade</li> <li>a) written examination (approx. 60 minutes) or b) log (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or d) oral examination in groups (groups of 2 or 3 candidates, approx. 60 minutes) or e) presentation (approx. 20 to 30 minutes)</li> <li>Language of assessment: German, English</li> <li>Assessment in module component o7-653NVO4-2MO-092: Ecological modelling (seminar)</li> <li>1 ECTS, Method of grading: (not) successfully completed</li> <li>presentation (approx. 20 to 30 minutes)</li> <li>Allocation of places</li> <li></li> <li>Additional information</li> <li></li> <li>Referred to in LPO 1 (examination regulations for teaching-degree programmes)</li> <li></li> <li>Module appears in</li> </ul>						tion offered — if not every seme-
<ul> <li>logical science (lecture and practical course) Ecological modelling - Strategies of modelling in ecological science (lecture and practical course)</li> <li>4 ECTS, Method of grading: numerical grade</li> <li>a) written examination (approx. 60 minutes) or b) log (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or d) oral examination in groups (groups of 2 or 3 candidates, approx. 60 minutes) or e) presentation (approx. 20 to 30 minutes)</li> <li>Language of assessment: German, English</li> <li>Assessment in module component 07-653NV04-2MO-092: Ecological modelling (seminar)</li> <li>1 ECTS, Method of grading: (not) successfully completed</li> <li>presentation (approx. 20 to 30 minutes)</li> </ul> Allocation of places Additional information Workload Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in	low. Ur	nless st	ated otherwise, successf			
Additional information Workload Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in	<ul> <li>logical science (lecture and practical course) Ecological modelling - Strategies of modelling in ecological science (lecture and practical course) <ul> <li>4 ECTS, Method of grading: numerical grade</li> <li>a) written examination (approx. 60 minutes) or b) log (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or d) oral examination in groups (groups of 2 or 3 candidates, approx. 60 minutes) or e) presentation (approx. 20 to 30 minutes)</li> <li>Language of assessment: German, English</li> </ul> </li> <li>Assessment in module component o7-653NVO4-2MO-092: Ecological modelling (seminar) <ul> <li>1 ECTS, Method of grading: (not) successfully completed</li> </ul> </li> </ul>					
Workload Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in				-		
Workload Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in						
Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in	Additional information					
Referred to in LPO I (examination regulations for teaching-degree programmes) Module appears in						
Module appears in	Workload					
Module appears in						
	Referre	ed to in	LPO I (examination regu	lations for teaching-o	legree programmes)	
Bachelor' degree (1 major) Biology (2007)	Module	e appea	ins in			
	Bachel	or' deg	ree (1 major) Biology (200	(70		

Bachelor's with 1	major Biology	(2007)
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Module title					Abbreviation	
Tropical Biology					07-6S3NVO5-092-m01	
Module	coord	inator		Module offered by		
holder	of the (	Chair of Zoology III		Faculty of Biology		
ECTS		od of grading	Only after succ. com	pl. of module(s)		
5	nume	rical grade				
Duratio		Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
This mo	odule p	rovides the fundamental	s of the biology of tro	pical habitats and tr	ropical communities.	
Intende	ed leari	ning outcomes				
the sigr	nificano		for the ecosystem. Th		n the biosphere and to explain scuss and deliver presentations	
Course	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)	
compor • 0	nent. 7-6S3N	IV05-1TB-092: V (no info	rmation on SWS (wee	kly contact hours) a	sted separately for each module nd course language available) nd course language available)	
		essment (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>Assessment in module component o7-6S3NVO5-1TB-092: Tropical biology (lecture)</li> <li>3 ECTS, Method of grading: numerical grade</li> <li>a) written examination (approx. 60 minutes) or b) log (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or d) oral examination in groups (groups of 2 or 3 candidates, approx. 60 minutes) or e) presentation (approx. 20 to 30 minutes)</li> <li>Language of assessment: German, English</li> <li>Assessment in module component 07-6S3NVO5-2TB-092: Tropical biology (seminar)</li> <li>2 ECTS, Method of grading: (not) successfully completed</li> </ul>						
• p	resenta	ation (approx. 20 to 30 m	inutes)			
Allocat	ion of p	olaces				
Additional information						
Workload						
Referre	d to in	LPO I (examination regu	lations for teaching-c	legree programmes)		
Module	annes	ors in				
			דע)			
Bachelor' degree (1 major) Biology (2007)						

Module title					Abbreviation	
	Biology of nature conservation 07-6S3NVO6-092-m01					
Module	e coordi	nator		Module offered by		
holder	of the C	hair of Zoology III	- <u>(</u>	Faculty of Biology		
ECTS		d of grading	Only after succ. con	npl. of module(s)		
5	numer	ical grade				
Duratio	·	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
	conserv	ll discuss biodiversity, vation. By way of exam				
Intende	ed learr	ing outcomes				
	evaluate	developed skills in the whether particular ste				
Course	<b>s</b> (type,	number of weekly con	tact hours, language –	- if other than Germa	n)	
compo • 0 • 0	nent. 7-6S3N 7-6S3N	omprises 3 module cor VO6-1NB-092: V (no in VO6-2NB-092: S (no in VO6-3NB-092: E (no in	formation on SWS (we formation on SWS (we	ekly contact hours) a ekly contact hours) a	nd course language nd course language	available) available)
		essment (type, scope,		•		
		on on whether module			tion onered — if not	every seme-
	less sta	this module comprise ated otherwise, succes nents.				
<ul> <li>Assessment in module component o7-6S3NVO6-1NB-092: Biology of nature conservation - Aspects of nature conservation and biodiversity (lecture) <ul> <li>1 ECTS, Method of grading: numerical grade</li> <li>written examination (20 minutes)</li> </ul> </li> <li>Assessment in module component o7-6S3NVO6-2NB-092: Biology of nature conservation - Seminar on nature conservation and biodiversity <ul> <li>2 ECTS, Method of grading: (not) successfully completed</li> <li>presentation (approx. 20 to 30 minutes)</li> </ul> </li> <li>Assessment in module component o7-6S3NVO6-3NB-092: Biology of nature conservation - Field excursion</li> <li>2 ECTS, Method of grading: (not) successfully completed</li> <li>bresentation (approx. 10 to 2 pages) and presentation (approx. 10 minutes)</li> </ul>						
Allocat	ion of p	laces				
Additio	nal info	ormation				
/luuritio						
Workla						
Workload						
				`		
Referre	d to in	LPOI (examination reg	gulations for teaching-	degree programmes)		
Module						
Bachel	or' degi	ee (1 major) Biology (2	007)			
Bachelor's	with 1 maj	or Biology (2007)		g • generated 11-Jan-2023 • e. Bachelor (180 ECTS) Biologie	_	page 119 / 151

Module	Nodule title Abbreviation					
-	Specific Aspects in Plant Molecular Biology 07-6S3PS1-092-m01					
Module	e coord	inator		Module offered by		
holder of the Chair of Plant Physiology and Biophysics Faculty of Biology						
ECTS	ECTS Method of grading Only after succ. compl. of module(s)					
15	nume	rical grade				
Duratio	Duration Module level Other prerequisites					
1 seme	ster	undergraduate				
Conten	Contents					
scientif ting and will be	ic prac d comn involve	tice, including planning r nunicating research findi ed in ongoing research an	esearch strategies, p ngs in the form of a p d will learn how to in	performing complex e presentation, a public dependently apply a	aced to the concepts of good experiments as well as documen- cation or a term paper. Students advanced methods in modern ecular basics of membrane trans-	
Intende	ed learr	ning outcomes				
	addres				iology. They are able to indepen- o the principles of good scientific	
Course	<b>s</b> (type,	, number of weekly conta	ct hours, language –	- if other than Germa	n)	
compo • 0	nent. 7-6S3P	2S1-1MB-092: Ü (no inforr	nation on SWS (week	dy contact hours) an	sted separately for each module d course language available) d course language available)	
		<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>Assessment in module component o7-6S3PS1-1MB-092: Specific aspects of plant molecular biology (laboratory course) <ul> <li>12 ECTS, Method of grading: numerical grade</li> <li>a) written examination (approx. 60 minutes) or b) log (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or d) oral examination in groups (groups of 2 or 3 candidates, approx. 60 minutes) or e) presentation (approx. 20 to 30 minutes)</li> <li>Assessment offered: once a year, summer semester</li> <li>Language of assessment: German or English</li> </ul> </li> <li>Assessment in module component o7-6S3PS1-2MB-092: Specific aspects of plant molecular biology (seminar)</li> <li>3 ECTS, Method of grading: (not) successfully completed</li> <li>presentation (approx. 20 to 30 minutes)</li> <li>Assessment offered: once a year, summer semester</li> </ul>						
Allocat						
Additio	nal info	ormation				
Worklo	ad					
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# Module appears in

Bachelor's with 1 major Biology (2007)	JMU Würzburg • generated 11-Jan-2023 • exam. reg.	page 121 / 151
	data record Bachelor (180 ECTS) Biologie - 2007	

Modul	Module title Abbreviation					
Protei	Protein Chemistry in Biosensorics 07-6S3PS2-092-m01					
Modul	e coord	inator		Module offered by		
holder	ofthe	Chair of Plant Physiology	and Biophysics	Faculty of Biology		
ECTS         Method of grading         Only after succ. compl. of module(s)						
15	nume	rical grade				
Durati		Module level	Other prerequisites	i		
1 seme	ester	undergraduate				
Conte	nts					
scienti ting ar will be protein on rela	fic prac id comr involve n chemi ationshi	tice, including planning r nunicating research findi ed in ongoing research an	research strategies, p ngs in the form of a p nd will learn to indep l acquire an advance	performing complex e presentation, a publi endently apply adva d knowledge of the r	aced to the concepts of good experiments as well as documen- cation or a term paper. Students nced methods in biophysics and mechanisms and structure-functi-	
le to ir	Idepend				istry of biosensors. They are ab- gy, adhering to the principles of	
Course	<b>es</b> (type	, number of weekly conta		- if other than Germa	ın)	
compo • d • d • d • d • d • d • d • d • d • d	<ul> <li>This module comprises 2 module components. Information on courses will be listed separately for each module component.</li> <li>o7-653PS2-1BS-092: Ü (no information on SWS (weekly contact hours) and course language available)</li> <li>o7-653PS2-2BS-092: S (no information on SWS (weekly contact hours) and course language available)</li> </ul> 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) Assessment in this module comprises the assessments in the individual module components as specified below. Unless stated otherwise, successful completion of the module will require successful completion of all indi-					
se)	<ul> <li>Assessment in module component o7-6S3PS2-1BS-o92: Protein biochemistry and biosensoric (laboratory course)</li> <li>12 ECTS, Method of grading: numerical grade</li> <li>a) written examination (approx. 60 minutes) or b) log (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or d) oral examination in groups (groups of 2 or 3 candidates, approx. 60 minutes) or e) presentation (approx. 20 to 30 minutes)</li> <li>Assessment offered: once a year, summer semester</li> <li>Language of assessment: German, English</li> <li>Assessment in module component o7-6S3PS2-2BS-o92: Protein biochemistry and biosensoric (seminar)</li> <li>3 ECTS, Method of grading: (not) successfully completed</li> <li>presentation (approx. 20 to 30 minutes)</li> </ul>					
Alloca	Allocation of places					
Additi	onal inf	ormation				
Workle	bad					

# Module appears in

Bachelor's with 1 major Biology (2007)	JMU Würzburg • generated 11-Jan-2023 • exam. reg.	page 123 / 151
	data record Bachelor (180 ECTS) Biologie - 2007	

Experimental biology of membrane transport mechanisms         07-653F           Module coordinator         Module offered by           holder of the Chair of Plant Physiology and Biophysics         Faculty of Biology           ECTS         Method of grading         Only after succ. compl. of module(s)           15         numerical grade            Duration         Module level         Other prerequisites           1 semester         undergraduate            Contents         Using the examples of topics in contemporary research, students will be introduced to th scientific practice, including planning research strategies, performing complex experimet ting and communicating research and will learn how to independently apply advanced biology and biophysics. In addition they will acquire an advanced knowledge of membra lar.           Intended learning outcomes         Students are able to independently use advanced methods in the experimental biology of membrane advanced methods in the field of plant bio principles of good scientific practice.           Courses (type, number of weekly contact hours, language — if other than German)           This module comprises 2 module components. Information on courses will be listed sept component.           • 07-653PS3-2MT-092: Ü (no information on SWS (weekly contact hours) and course e type, number of weekly contact hours) and course is the, information on whether module can be chosen to earn a bonus)           Assessment in this module comprises the assessments in the individual module compor low. Unless stat	previation
holder of the Chair of Plant Physiology and Biophysics       Faculty of Biology         ECTS       Method of grading       Only after succ. compl. of module(s)         15       numerical grade          Duration       Module level       Other prerequisites         1 semester       undergraduate          Contents           Using the examples of topics in contemporary research, students will be introduced to th scientific practice, including planning research strategies, performing complex experime ting and communicating research and will team how to independently apply advanced biology and biophysics. In addition they will acquire an advanced knowledge of membra lar.         Intended learning outcomes          Students are able to independently use advanced methods in the experimental biology of they are able to independently use advanced nethods in the field of plant bio principles of good scientific practice.         Courses (type, number of weekly contact hours, language — if other than German)         This module comprises 2 module components. Information on courses will be listed sepa component.         or-653PS3-1MT-092: Ü (no information on SWS (weekly contact hours) and course or-653PS3-1MT-092: Ü (no information on SWS (weekly contact hours) and course acting the module comprises the assessments in the individual module compore low. Unless stated otherwise, successful completion of the module will require successful vidual assessments.         Assessment in module component or-653PS3-1MT-092: Experimental biology of membr	6S3PS3-092-m01
holder of the Chair of Plant Physiology and Biophysics       Faculty of Biology         ECTS       Method of grading       Only after succ. compl. of module(s)         15       numerical grade          Duration       Module level       Other prerequisites         1 semester       undergraduate          Contents           Using the examples of topics in contemporary research, students will be introduced to th scientific practice, including planning research strategies, performing complex experime ting and communicating research and will team how to independently apply advanced biology and biophysics. In addition they will acquire an advanced knowledge of membra lar.         Intended learning outcomes          Students are able to independently use advanced methods in the experimental biology of they are able to independently use advanced nethods in the field of plant bio principles of good scientific practice.         Courses (type, number of weekly contact hours, language — if other than German)         This module comprises 2 module components. Information on courses will be listed sepa component.         ory-653P53-2MT-og2: Ü (no information on SWS (weekly contact hours) and course ory-653P53-2MT-og2: S (no information on SWS (weekly contact hours) and course ory-653P53-2MT-og2: U (no information on SWS (weekly contact hours) and course ory-653P53-2MT-og2: S (no information on SWS (weekly contact hours) and course ory-653P53-2MT-og2: S (no information on SWS (weekly contact hours) and course ory-653P53-2MT-og2: S (no information on SWS (weekly contact	
ECTS       Method of grading       Only after succ. compl. of module(s)         15       numerical grade          Duration       Module level       Other prerequisites         1 semester       undergraduate          Using the examples of topics in contemporary research, students will be introduced to th scientific practice, including planning research strategies, performing complex experime ting and communicating research and will learn how to independently apply advanced biology and biophysics. In addition they will acquire an advanced knowledge of membra lar.         Intended learning outcomes          Students are able to independently use advanced methods in the experimental biology of prior go god scientific practice.          Courses: (type, number of weekly contact hours, language — if other than German)       This module comprises 2 module components. Information on courses will be listed sepa component.         ory-653P53-2MT-og2: Ü (no information on SWS (weekly contact hours) and course ory-653P53-2MT-og2: Ü (no information on SWS (weekly contact hours) and course ory-653P53-2MT-og2: Ü (no information on SWS (weekly contact hours) and course dividual assessment in this module comprises the assessments in the individual module compore sets are able to other module can be chosen to earn a bonus)         Assessment in module component or-653P53-1MT-og2: Experimental biology of membr nisms (laboratory course)         1 2 ECTS, Method of grading: numerical grade       a) written examination (approx. 30 minutes) or b) log (approx. 10 to 20 pages) or con con candidate each (approx. 3	
15       numerical grade          Duration       Module level       Other prerequisites         1 semester       undergraduate          Contents           Using the examples of topics in contemporary research, students will be introduced to th scientific practice, including planning research strategies, performing complex experimenting and communicating research and will learn how to independently apply advanced biology and biophysics. In addition they will acquire an advanced knowledge of membra lar.         Intended learning outcomes          Students are able to independently use advanced methods in the experimental biology of they are able to independently address and document questions in the field of plant bio principles of good scientific practice.         Courses (type, number of weekly contact hours, language — if other than German)         This module comprises 2 module components. Information on courses will be listed sepa component.         • 07-653P53:1MT-092: Ü (no information on SWS (weekly contact hours) and course or;-653P53:2MT-092: S (no information on SWS (weekly contact hours) and course for, information on whether module can be chosen to earm a bonus)         Assessment in this module comprises the assessments in the individual module compore low. Unless stated otherwise, successful completion of the module will require successful vidual assessments.         Assessment in module component or; 653P53:1MT-092: Experimental biology of membra nisms (laboratory course)       1 a 2 CTS, Method of grading: numerical grade         •	
1 semester       undergraduate          Contents	
Contents         Using the examples of topics in contemporary research, students will be introduced to th         scientific practice, including planning research strategies, performing complex experiment         ting and communicating research findings in the form of a presentation, a publication or         will be involved in ongoing research and will learn how to independently apply advanced         biology and biophysics. In addition they will acquire an advanced knowledge of membra lar.         Intended learning outcomes         Students are able to independently address and document questions in the field of plant bio principles of good scientific practice.         Courses (type, number of weekly contact hours, language — if other than German)         This module comprises 2 module components. Information on courses will be listed sepaic component.         • 07-653P53:1MT-092: Ü (no information on SWS (weekly contact hours) and course or 7-653P53:2MT-092: S (no information on SWS (weekly contact hours) and course         Method of assessment (type, scope, language — if other than German, examination offer ster, information on whether module can be chosen to earn a bonus)         Assessment in this module component or-653PS3-1MT-092: Experimental biology of membr nisms (laboratory course)         • 12 ECTS, Method of grading: numerical grade         • a) written examination (approx. 60 minutes) or b) log (approx. 10 to 20 pages) or c one candidate each (approx. 30 minutes) or d) oral examination in groups (groups approx. 60 minutes) or e) presentation (approx. 20 to 30 minutes)         • Asses	
Using the examples of topics in contemporary research, students will be introduced to th scientific practice, including planning research strategies, performing complex experiment ting and communicating research findings in the form of a presentation, a publication or will be involved in ongoing research and will learn how to independently apply advanced biology and biophysics. In addition they will acquire an advanced knowledge of membra lar. Intended learning outcomes Students are able to independently use advanced methods in the experimental biology or They are able to independently address and document questions in the field of plant bio principles of good scientific practice. Courses (type, number of weekly contact hours, language — if other than German) This module comprises 2 module components. Information on courses will be listed sepa component. • o7-653P53:1MT-092: Ü (no information on SWS (weekly contact hours) and course or-653P53:2MT-092: S (no information on SWS (weekly contact hours) and course ster, information on whether module can be chosen to earn a bonus) Assessment in this module comprises the assessments in the individual module compor low. Unless stated otherwise, successful completion of the module will require successful vidual assessments. Assessment in module component o7-653PS3-1MT-092: Experimental biology of membr nisms (laboratory course) • 12 ECTS, Method of grading: numerical grade • a) written examination (approx. 30 minutes) or b) log (approx. 10 to 20 pages) or c one candidate each (approx. 30 minutes) or d) oral examination in groups (groups approx. 60 minutes) or c) presentation (approx. 20 to 30 minutes) • Assessment in module component o7-653PS3-2MT-092: Experimental biology of membr nisms (seminar) • 3 ECTS, Method of grading: (not) successfuly completed • presentation (approx. 20 to 30 minutes) • Assessment in module component o7-653PS3-2MT-092: Experimental biology of membr nisms (seminar) • 3 ECTS, Method of grading: (not) successfuly completed • presentation (approx.	
scientific practice, including planning research strategies, performing complex experime ting and communicating research findings in the form of a presentation, a publication or will be involved in ongoing research and will learn how to independently apply advanced lar. Intended learning outcomes Students are able to independently use advanced methods in the experimental biology of They are able to independently use advanced methods in the experimental biology of They are able to independently address and document questions in the field of plant bio principles of good scientific practice. Courses (type, number of weekly contact hours, language — if other than German) This module comprises 2 module components. Information on courses will be listed sept component. • 07-653P53-1MT-092: Ü (no information on SWS (weekly contact hours) and course • 07-653P53-2MT-092: S (no information on SWS (weekly contact hours) and course • 07-653P53-2MT-092: S (no information on SWS (weekly contact hours) and course • 07-653P53-2MT-092: S (no information on SWS (weekly contact hours) and course • 07-653P53-2MT-092: S (no information on SWS (weekly contact hours) and course • 07-653P53-2MT-092: S (no information on SWS (weekly contact hours) and course • 07-653P53-2MT-092: S (no information on SWS (weekly contact hours) and course • 07-653P53-2MT-092: S (no information on SWS (weekly contact hours) and course • 10************************************	
<ul> <li>Students are able to independently use advanced methods in the experimental biology of They are able to independently address and document questions in the field of plant bio principles of good scientific practice.</li> <li><b>Courses</b> (type, number of weekly contact hours, language — if other than German)</li> <li>This module comprises 2 module components. Information on courses will be listed sepa component.         <ul> <li>o7-653PS3-1MT-o92: Ü (no information on SWS (weekly contact hours) and course</li> <li>o7-653PS3-2MT-o92: S (no information on SWS (weekly contact hours) and course</li> <li>o7-653PS3-2MT-o92: S (no information on SWS (weekly contact hours) and course</li> <li><b>Method of assessment</b> (type, scope, language — if other than German, examination offer ster, information on whether module can be chosen to earn a bonus)</li> </ul> </li> <li>Assessment in this module comprises the assessments in the individual module compore low. Unless stated otherwise, successful completion of the module will require successfur vidual assessments.</li> <li><b>Assessment in module component o7-653PS3-1MT-o92:</b> Experimental biology of membr nisms (laboratory course)         <ul> <li>12 ECTS, Method of grading: numerical grade</li> <li>a) written examination (approx. 60 minutes) or b) log (approx. 10 to 20 pages) or cone candidate each (approx. 30 minutes) or b) log (approx. 10 to 20 pages) or cone candidate each (approx. 30 minutes) or cone so minutes)</li> <li>Assessment in module component o7-653PS3-2MT-o92: Experimental biology of membr nisms (seminar)</li> <li>3 ECTS, Method of grading: (not) successfully completed</li> <li>presentation (approx. 20 to 30 minutes)</li> <li>Assessment in module component o7-653PS3-2MT-o92: Experimental biology of membr nisms (seminar)</li> <li>3 ECTS, Method of grading: (not) successfully completed</li></ul></li></ul>	riments as well as documen- n or a term paper. Students nced methods in molecular
They are able to independently address and document questions in the field of plant bio principles of good scientific practice. <b>Courses</b> (type, number of weekly contact hours, language — if other than German) This module comprises 2 module components. Information on courses will be listed sepa component. • 07-653PS3-1MT-092: Ü (no information on SWS (weekly contact hours) and course • 07-633PS3-2MT-092: S (no information on SWS (weekly contact hours) and course <b>Method of assessment</b> (type, scope, language — if other than German, examination offer ster, information on whether module can be chosen to earn a bonus) Assessment in this module comprises the assessments in the individual module compor low. Unless stated otherwise, successful completion of the module will require successful vidual assessments. <b>Assessment in module component 07-653PS3-1MT-092:</b> Experimental biology of membr nisms (laboratory course) • 12 ECTS, Method of grading: numerical grade • a) written examination (approx. 60 minutes) or b) log (approx. 10 to 20 pages) or cone candidate each (approx. 30 minutes) or d) oral examination in groups (groups approx. 60 minutes) or e) presentation (approx. 20 to 30 minutes) • Assessment offered: once a year, summer semester • Language of assessment: German, English <b>Assessment in module component 07-653PS3-2MT-092:</b> Experimental biology of membr nisms (seminar) • 3 ECTS, Method of grading: (not) successfully completed • presentation (approx. 20 to 30 minutes) • Assessment offered: once a year, summer semester <b>Allocation of places</b>  <b>Additional information</b> 	
This module comprises 2 module components. Information on courses will be listed sepa component. • 07-653PS3-1MT-092: Ü (no information on SWS (weekly contact hours) and course • 07-653PS3-2MT-092: S (no information on SWS (weekly contact hours) and course <b>Method of assessment</b> (type, scope, language — if other than German, examination offer ster, information on whether module can be chosen to earn a bonus) Assessment in this module comprises the assessments in the individual module compor low. Unless stated otherwise, successful completion of the module will require successful vidual assessments. <b>Assessment in module component 07-653PS3-1MT-092:</b> Experimental biology of membr nisms (laboratory course) • 12 ECTS, Method of grading: numerical grade • a) written examination (approx. 60 minutes) or b) log (approx. 10 to 20 pages) or co one candidate each (approx. 30 minutes) or d) oral examination in groups (groups approx. 60 minutes) or e) presentation (approx. 20 to 30 minutes) • Assessment offered: once a year, summer semester • Language of assessment: German, English <b>Assessment</b> of grading: (not) successfully completed • presentation (approx. 20 to 30 minutes) • Assessment offered: once a year, summer semester <b>Allocation of places</b>  <b>Additional information</b> 	
<ul> <li>component.</li> <li>o7-6S3PS3-1MT-o92: Ü (no information on SWS (weekly contact hours) and course</li> <li>o7-6S3PS3-2MT-o92: S (no information on SWS (weekly contact hours) and course</li> <li>Method of assessment (type, scope, language — if other than German, examination offer</li> <li>ster, information on whether module can be chosen to earn a bonus)</li> <li>Assessment in this module comprises the assessments in the individual module compor</li> <li>low. Unless stated otherwise, successful completion of the module will require successfu</li> <li>vidual assessments.</li> <li>Assessment in module component o7-6S3PS3-1MT-o92: Experimental biology of membr</li> <li>nisms (laboratory course)</li> <li>12 ECTS, Method of grading: numerical grade</li> <li>a) written examination (approx. 60 minutes) or b) log (approx. 10 to 20 pages) or cone candidate each (approx. 30 minutes) or d) oral examination in groups (groups approx. 60 minutes) or e) presentation (approx. 20 to 30 minutes)</li> <li>Assessment in module component o7-6S3PS3-2MT-o92: Experimental biology of membr</li> <li>nisms (seminar)</li> <li>3 ECTS, Method of grading: (not) successfully completed</li> <li>presentation (approx. 20 to 30 minutes)</li> <li>Assessment offered: once a year, summer semester</li> <li>Language of assessment: (cont a year, summer semester</li> <li>Assessment offered: once a year, summer semester</li> <li>Additional information</li> </ul>	
<ul> <li>vidual assessments.</li> <li>Assessment in module component o7-6S3PS3-1MT-092: Experimental biology of membrinisms (laboratory course)         <ul> <li>12 ECTS, Method of grading: numerical grade</li> <li>a) written examination (approx. 60 minutes) or b) log (approx. 10 to 20 pages) or cone candidate each (approx. 30 minutes) or d) oral examination in groups (groups approx. 60 minutes) or e) presentation (approx. 20 to 30 minutes)</li> <li>Assessment offered: once a year, summer semester</li> <li>Language of assessment: German, English</li> </ul> </li> <li>Assessment in module component o7-6S3PS3-2MT-092: Experimental biology of membrinisms (seminar)         <ul> <li>3 ECTS, Method of grading: (not) successfully completed</li> <li>presentation (approx. 20 to 30 minutes)</li> <li>Assessment offered: once a year, summer semester</li> </ul> </li> <li>Allocation of places         <ul> <li></li> </ul> </li> </ul>	urse language available) offered — if not every seme- nponents as specified be-
WUINDAU	embrane transport mecha- ) or c) oral examination of pups of 2 or 3 candidates,

# Module appears in

Bachelor's with 1 major Biology (2007)	JMU Würzburg • generated 11-Jan-2023 • exam. reg.	page 125 / 151
	data record Bachelor (180 ECTS) Biologie - 2007	

Module title				Abbreviation
Scientific exp	erimental work in plant e	07-6S3PS4-092-m01		
Module coord	linator	Module offered by	l	
	Chair of Plant Physiology	and Biophysics	Faculty of Biology	
	od of grading	Only after succ. com	, _,	
	rical grade			
Duration	Module level	Other prerequisites		
1 semester	undergraduate			
Contents				
scientific prac ting and com will be involve logy, analytic	tice, including planning nunicating research find ed in ongoing research ar al chemistry or molecular	research strategies, p ings in the form of a p nd will learn how to in	erforming complex or resentation, a publi	uced to the concepts of good experiments as well as documen- cation or a term paper. Students advanced methods in ecophysio-
	ning outcomes			
				lants. They are able to indepen- o the principles of good scientific
Courses (type	, number of weekly conta	act hours, language —	if other than Germa	an)
• 07-653 <b>Method of as</b> ster, informat Assessment i	PS4-2SA-092: S (no infor sessment (type, scope, la ion on whether module c n this module comprises tated otherwise, success	mation on SWS (week anguage — if other tha an be chosen to earn the assessments in t	ly contact hours) an an German, examina a bonus) he individual modul	and course language available) ad course language available) ation offered — if not every seme- e components as specified be- successful completion of all indi-
<ul> <li>(practical and</li> <li>14 ECTS</li> <li>a) writte</li> <li>one car</li> <li>approx.</li> <li>Assessi</li> <li>Langua</li> <li>Assessment i</li> <li>(seminar)</li> <li>1 ECTS,</li> <li>present</li> </ul>	project work) Scientific of , Method of grading: nun en examination (approx. adidate each (approx. 30 60 minutes) or e) preser ment offered: once a year ge of assessment: Germa	experimental work in nerical grade 60 minutes) or b) log minutes) or d) oral ex ntation (approx. 20 to r, summer semester in, English •6 <b>S3PS4-2SA-092:</b> So successfully complet ninutes)	plant ecophysiology (approx. 10 to 20 pa amination in group 30 minutes) ientific experimenta	l work in plant ecophysiology - - (practical and project work) ages) or c) oral examination of s (groups of 2 or 3 candidates, al work in plant ecophysiology -
Allocation of	· · · · · · · · · · · · · · · · · · ·	_		
Additional inf	ormation			
		-		
Workload				
WUIKIUdu				

# Module appears in

Bachelor's with 1 major Biology (2007) JMU Würzburg • generated 11-Jan-2023 • exam. reg.		page 127 / 151
	data record Bachelor (180 ECTS) Biologie - 2007	

Module	Module title Abbreviation					
	Research Project in Pharmaceutical Biology with Focus on Molecular Biology 07-6S3PS5-092-mo1					
Module coordinator				Module offered by		
	of the C	Chair of Pharmaceutica		Faculty of Biology		
ECTS		od of grading	Only after succ. con	npl. of module(s)		
15	<u> </u>	rical grade				
Duratio	· · · · · · · · · · · · · · · · · · ·	Module level	Other prerequisites	i		
	1 semester undergraduate					
Conten						
scienti ting an will be	fic prac d comn involve	tice, including plannin nunicating research fin	emporary research, stu g research strategies, g dings in the form of a g and will learn how to ir r biology.	performing complex operforming complex operation, a publi	experiments as well a cation or a term paper	as documen- er. Students
Intende	ed learr	ning outcomes				
on mol	ecular b		oursue research project o independently addre od scientific practice.			
Course	<b>s</b> (type,	, number of weekly cor	tact hours, language –	- if other than Germa	n)	
compo • c	nent. 07-6S3P	25-1FM-092: P (no info	mponents. Information ormation on SWS (week ormation on SWS (weel	ly contact hours) an	d course language a	vailable)
			language — if other th can be chosen to earn		tion offered — if not	every seme-
low. Ur		ated otherwise, succes	es the assessments in t sful completion of the			
focus o 1 a o a L	<ul> <li>Assessment in module component o7-6S3PS5-1FM-092: Scientific project in pharmaceutical biology with main focus on molecular biology (laboratory course)</li> <li>13 ECTS, Method of grading: numerical grade</li> <li>a) written examination (approx. 60 minutes) or b) log (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or d) oral examination in groups (groups of 2 or 3 candidates, approx. 60 minutes) or e) presentation (approx. 20 to 30 minutes)</li> <li>Language of assessment: German, English</li> <li>Assessment in module component o7-6S3PS5-2FM-092: Research project in pharmaceutical biology with main</li> </ul>					
• 2	ECTS,		ot) successfully comple	ted		
		ation (approx. 20 to 30	minutes)			
Allocat	ion of p	naces				
Additio	onal info	ormation				
Worklo	ad					
Referre	ed to in	LPOI (examination re	gulations for teaching-	degree programmes)		
Module	e appea	rs in				
Bachelor's	with 1 maj	or Biology (2007)		g • generated 11-Jan-2023 • e Bachelor (180 ECTS) Biologie	-	page 128 / 151

Bachelor's with 1 major Biology (2007)	JMU Würzburg • generated 11-Jan-2023 • exam. reg.	
	data record Bachelor (180 ECTS) Biologie - 2007	

Module	Module title Abbreviation					
	Research Project in Pharmaceutical Biology with Focus on Molecular Bioche- 07-6S3PS6-092-m01					
mistry	e coordinator		As dula offered by			
		Module offered by				
ECTS	of the Chair of Pharmaceutica Method of grading	Only after succ. con	Faculty of Biology			
15	numerical grade					
-	Duration Module level Other prerequisites					
1 seme	ster undergraduate					
Conten	ts					
scientif ting and will be	he examples of topics in cont fic practice, including planning d communicating research fin involved in ongoing research logy with a focus on molecula	g research strategies, p dings in the form of a p and will learn how to ir	performing complex operforming complex operation, a publi	experiments as well cation or a term pap	as documen- er. Students	
Intende	ed learning outcomes					
on mol	ts are able to independently p ecular biochemistry. They are r, adhering to the principles of	able to independently	address and docum			
Course	<b>s</b> (type, number of weekly con	tact hours, language –	- if other than Germa	ın)		
compo • 0 • 0	odule comprises 2 module con nent. 7-6S3PS6-1FB-092: P (no info 7-6S3PS6-2FB-092: S (no info <b>1 of assessment</b> (type, scope,	rmation on SWS (week rmation on SWS (week	ly contact hours) and ly contact hours) an	d course language av d course language a	vailable) vailable)	
ster, in	formation on whether module	can be chosen to earn	a bonus)			
low. Un	Assessment in this module comprises the assessments in the individual module components as specified be- low. Unless stated otherwise, successful completion of the module will require successful completion of all indi- vidual assessments.					
on bioc 1 a o a L Assess focus o 2	<ul> <li>Assessment in module component o7-6S3PS6-1FB-092: Research project in pharmaceutical biology with focus on biochemistry (laboratory course) <ul> <li>13 ECTS, Method of grading: numerical grade</li> <li>a) written examination (approx. 60 minutes) or b) log (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or d) oral examination in groups (groups of 2 or 3 candidates, approx. 60 minutes) or e) presentation (approx. 20 to 30 minutes)</li> <li>Language of assessment: German, English</li> </ul> </li> <li>Assessment in module component o7-6S3PS6-2FB-092: Scientific project in pharmaceutical biology with main focus on biochemistry (seminar) <ul> <li>2 ECTS, Method of grading: (not) successfully completed</li> <li>presentation (approx. 20 to 30 minutes)</li> </ul> </li> </ul>					
Allocat	ion of places					
Additio	nal information					
Worklo	Workload					
Referre	d to in LPO I (examination reg	gulations for teaching-	degree programmes)			
Module	e appears in					
Bachelor's	with 1 major Biology (2007)		g • generated 11-Jan-2023 • e Bachelor (180 ECTS) Biologie	-	page 130 / 151	

Bachelor's with 1 major Biology (2007)	JMU Würzburg • generated 11-Jan-2023 • exam. reg.	page 131 / 151
	data record Bachelor (180 ECTS) Biologie - 2007	

Module title			Abbreviation		
Biotechnology and Social Acceptance				07-SQF-BGA-092-m01	
Module coordinator			Module offered by		
holder of the (	Chair of Plant Physiology	and Biophysics	Faculty of Biology		
ECTS         Method of grading         Only after succ. compl. of module(s)					
3 nume	numerical grade				
Duration					
1 semester	1 semester undergraduate				
Contents					
Applications of bility.	of green biotechnology; b	iological background	, economic interests	s, ecological risks, social accepta-	
Intended lear	ning outcomes				
enhanced the lected.	ir oral and written presen	tation skills and are	able to use these to	aised by society. Students have present the data they have col-	
Courses (type	, number of weekly conta	ct hours, language —	if other than Germa	n)	
V + S (no info	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-	
term paper or weighted 1:1	preparing educational m	aterials (5 to 10 page	s) and presentation	(approx. 20 to 30 minutes),	
Allocation of	olaces				
Additional inf	ormation				
Workload					
Referred to in	LPOI (examination regu	lations for teaching.	legree programmes)		
Module appea	ors in				
	ree (1 major) Biology (200	(בר			
Bachelor deg	ice (I major) biology (200	<i>,</i> ,,			

Bachelor's with 1 major Biology (2007)	JMU Würzburg • generated 11-Jan-2023 • exam. reg.	page 132 / 151
	data record Bachelor (180 ECTS) Biologie - 2007	

Module	e title				Abbreviation
Data Processing in Plant Sciences					07-SQF-DBP-092-m01
Module coordinator				Module offered by	<u> </u>
holder	of the (	Chair of Plant Physiology	and Biophysics	Faculty of Biology	
ECTS	Metho	od of grading	Only after succ. con	npl. of module(s)	
2	2 numerical grade				
Duration Module level Other prerequisites					
1 seme	ster	undergraduate			
Conten	Its				
se fund sented	dament and se	al methods of descriptive lected. The course will ex	and inferential stati plain what sample s	stics. Suitable methorize is appropriate for	, SigmaPlot), students will practi- ods of data analysis will be pre- r statistical analysis and what ed graphically and discussed.
Intend	ed lear	ning outcomes			
experir lop cor	ments. nclusive	They are able to select su e scientific arguments. St	itable software for pr udents are also able	ocessing the data of to graphically repres	-
		, number of weekly conta			
	-	mation on SWS (weekly o			
		<b>sessment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-
practic	e work	(approx. 45 minutes) and	l presentation (appro	x. 15 minutes)	
Allocat	ion of p	olaces			
Additio	onal inf	ormation			
Worklo	ad				
Referre	ed to in	LPOI (examination regu	lations for teaching-o	degree programmes)	
Module	e appea	urs in			
Bachel	or' deg	ree (1 major) Biology (200	07)		

Module t	itle			Abbreviation	
Global Acting in globally and locally linked decision processes			sses	07-SQF-GHE-092-m01	
Module coordinator		Module offered by	<u> </u>		
holder of	the Chair of Bioinformatics		Faculty of Biology		
ECTS N	Aethod of grading	Only after succ. con			
3 n	umerical grade				
Duration	Duration Module level Other prerequisites				
1 semest	er undergraduate				
Contents					
will reflec the right as an exa	ct the latest trends and devel decision Decision making a ample of "ecology vs. econom	opments. Topics that and disposal Decisio	might be covered in	cal relevance. Topics will vary and clude: - Global threats making s of social insects Ecosystems	
Intended	learning outcomes				
ecology, blems rel		l have acquainted stu approaches to soluti	dents with principle on.	cal examples from nature (e.g. s that may help understand pro- an)	
V (no info	ormation on SWS (weekly con	itact hours) and cours	e language availabl	e)	
	<b>of assessment</b> (type, scope, l rmation on whether module o			ation offered — if not every seme-	
log (appr	ox. 10 to 20 pages)				
Allocatio	n of places				
Additiona	al information				
Workload	1				
Referred	to in LPO I (examination reg	ulations for teaching-	degree programmes)	)	
Module a	ppears in				
Bachelor' degree (1 major) Biology (2007)					

	of biology, publications that are either of histo- nat discuss methods and techniques that helped ne in the natural sciences, using the example of eas and methods that opened up new horizons.					
holder of the Chair of BioinformaticsFacECTSMethod of gradingOnly after succ. compl. of2numerical gradeDurationModule levelOther prerequisites1 semesterundergraduateContentsStudents will discuss selected scientific publications in the fieldrical significance and therefore considered ground-breaking or tadvance research in the area of biology.Intended learning outcomesStudents are able to trace the development of a modern disciplibiology. They understand the importance of ground-breaking idedStudents are able to understand as well as to critically present atdings/publications. A retrospective review of these "key publications in science.Courses (type, number of weekly contact hours, language — if ofS (no information on SWS (weekly contact hours) and course landMethod of assessment (type, scope, language — if other than Gester, information on whether module can be chosen to earn a bother in science.	In the natural sciences, using the example of eas and methods that opened up new horizons.					
holder of the Chair of BioinformaticsFacECTSMethod of gradingOnly after succ. compl. of2numerical gradeDurationModule levelOther prerequisites1 semesterundergraduateContentsStudents will discuss selected scientific publications in the fieldrical significance and therefore considered ground-breaking or tadvance research in the area of biology.Intended learning outcomesStudents are able to trace the development of a modern disciplibiology. They understand the importance of ground-breaking idedStudents are able to understand as well as to critically present atdings/publications. A retrospective review of these "key publications in science.Courses (type, number of weekly contact hours, language — if ofS (no information on SWS (weekly contact hours) and course landMethod of assessment (type, scope, language — if other than Gester, information on whether module can be chosen to earn a bother in science.	In the natural sciences, using the example of eas and methods that opened up new horizons.					
ECTSMethod of gradingOnly after succ. compl. of2numerical gradeDurationModule levelOther prerequisites1 semesterundergraduateContentsStudents will discuss selected scientific publications in the fieldrical significance and therefore considered ground-breaking or tadvance research in the area of biology.Intended learning outcomesStudents are able to trace the development of a modern disciplibiology. They understand the importance of ground-breaking ideStudents are able to understand as well as to critically present adings/publications. A retrospective review of these "key publicationsevaluate new developments in science.Courses (type, number of weekly contact hours, language — if ofS (no information on SWS (weekly contact hours) and course landMethod of assessment (type, scope, language — if other than Gester, information on whether module can be chosen to earn a bot	of biology, publications that are either of histo- nat discuss methods and techniques that helped ne in the natural sciences, using the example of eas and methods that opened up new horizons.					
DurationModule levelOther prerequisites1 semesterundergraduateContentsStudents will discuss selected scientific publications in the field rical significance and therefore considered ground-breaking or t advance research in the area of biology.Intended learning outcomesStudents are able to trace the development of a modern discipli biology. They understand the importance of ground-breaking ided Students are able to understand as well as to critically present a dings/publications. A retrospective review of these "key publications evaluate new developments in science.Courses (type, number of weekly contact hours, language — if of ster, information on SWS (weekly contact hours) and course land Method of assessment (type, scope, language — if other than Gester, information on whether module can be chosen to earn a box	nat discuss methods and techniques that helped ne in the natural sciences, using the example of eas and methods that opened up new horizons.					
1 semester       undergraduate          Contents       Students will discuss selected scientific publications in the field rical significance and therefore considered ground-breaking or t advance research in the area of biology.         Intended learning outcomes         Students are able to trace the development of a modern discipli biology. They understand the importance of ground-breaking ide Students are able to understand as well as to critically present a dings/publications. A retrospective review of these "key publicate evaluate new developments in science.         Courses (type, number of weekly contact hours, language — if of S (no information on SWS (weekly contact hours) and course lan Method of assessment (type, scope, language — if other than G ster, information on whether module can be chosen to earn a border of the set of the	nat discuss methods and techniques that helped ne in the natural sciences, using the example of eas and methods that opened up new horizons.					
Contents Students will discuss selected scientific publications in the field rical significance and therefore considered ground-breaking or t advance research in the area of biology. Intended learning outcomes Students are able to trace the development of a modern discipli biology. They understand the importance of ground-breaking ide Students are able to understand as well as to critically present a dings/publications. A retrospective review of these "key publica evaluate new developments in science. Courses (type, number of weekly contact hours, language — if of S (no information on SWS (weekly contact hours) and course lan Method of assessment (type, scope, language — if other than Ge ster, information on whether module can be chosen to earn a bo	nat discuss methods and techniques that helped ne in the natural sciences, using the example of eas and methods that opened up new horizons.					
Students will discuss selected scientific publications in the field rical significance and therefore considered ground-breaking or t advance research in the area of biology. Intended learning outcomes Students are able to trace the development of a modern discipli biology. They understand the importance of ground-breaking ide Students are able to understand as well as to critically present a dings/publications. A retrospective review of these "key publica evaluate new developments in science. Courses (type, number of weekly contact hours, language — if of S (no information on SWS (weekly contact hours) and course lan Method of assessment (type, scope, language — if other than G ster, information on whether module can be chosen to earn a bo	nat discuss methods and techniques that helped ne in the natural sciences, using the example of eas and methods that opened up new horizons.					
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Students are able to trace the development of a modern discipli biology. They understand the importance of ground-breaking ide Students are able to understand as well as to critically present a dings/publications. A retrospective review of these "key publica evaluate new developments in science. <b>Courses</b> (type, number of weekly contact hours, language — if of S (no information on SWS (weekly contact hours) and course lan <b>Method of assessment</b> (type, scope, language — if other than Ge ster, information on whether module can be chosen to earn a bo	as and methods that opened up new horizons.					
biology. They understand the importance of ground-breaking ide Students are able to understand as well as to critically present a dings/publications. A retrospective review of these "key publica evaluate new developments in science. <b>Courses</b> (type, number of weekly contact hours, language — if of S (no information on SWS (weekly contact hours) and course lan <b>Method of assessment</b> (type, scope, language — if other than G ster, information on whether module can be chosen to earn a bo	as and methods that opened up new horizons.					
S (no information on SWS (weekly contact hours) and course lan <b>Method of assessment</b> (type, scope, language — if other than G ster, information on whether module can be chosen to earn a bo	tions" has given students a feeling for how to					
<b>Method of assessment</b> (type, scope, language — if other than G ster, information on whether module can be chosen to earn a bo						
presentation (approx. 45 minutes)	erman, examination offered — if not every seme-					
Allocation of places						
Additional information						
Workload						
Referred to in LPO I (examination regulations for teaching-degree	<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)					
Module appears in						
Bachelor' degree (1 major) Biology (2007)						

Module title			Abbreviation		
Patents in Biology					07-SQF-PRB-092-m01
Module	e coord	inator		Module offered by	
holder	of the C	hair of Biotechnology an	d Biophysics	Faculty of Biology	
ECTS		od of grading	Only after succ. com	pl. of module(s)	
2	L	rical grade			
Duratio		Module level	Other prerequisites		
1 seme	1 semester undergraduate				
Conten	ts				
Patents	s in bio	ogy: types, application,	specification, patent	rights, patent search	۱.
Intende	ed learr	ning outcomes			
Students have acquired a fundamental knowledge of the criteria that determine whether ideas, inventions and developments in the life sciences in general and in biotechnology in particular are patentable. They are familiar with patent authorities and relevant data sources. Students are able to judge whether ideas, developments and inventions are patentable and, where necessary, to consult with competent advisors at the University that will help them conduct a cost-benefit analysis prior to publishing their ideas.					
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	ourse language availa	able)
		<b>essment</b> (type, scope, la on on whether module ca			tion offered — if not every seme-
written	examir	nation (approx. 20 minut	es)		
Allocat	ion of p	olaces			
Additio	onal info	ormation			
Worklo	ad				
Referre	ed to in	LPOI (examination regu	lations for teaching-c	legree programmes)	
Module	e appea	rs in			
Bachel	or' deg	ree (1 major) Biology (200	70)		

Module title					Abbreviation		
Operational Safety in ecophysiological Laboratories			l Laboratories		07-SQF-SAL-092-m01		
Module coordinator				Module offered by	<u> </u>		
degree	e progra	mme coordinator Biolog	ie (Biology)	Faculty of Biology			
ECTS	Meth	od of grading	Only after succ. con	npl. of module(s)			
1	numerical grade						
Durati	on	Module level	Other prerequisites				
1 seme	ester	undergraduate					
Conte	nts						
this m	odule, s potent	students will become fam	niliar with the fundam	entals for recognisin	ytical chemistry laboratories. In ng, assessing, avoiding and elimi- lures in accordance with statutory		
Intend	led lear	ning outcomes					
zards i	in the la <b>es</b> (type	ab. , number of weekly conta	act hours, language –	- if other than Germa	•		
		rmation on SWS (weekly					
		<b>sessment</b> (type, scope, la ion on whether module c			ation offered — if not every seme-		
writter	n exami	nation (approx. 15 minut	es)				
Alloca	tion of	places					
Additi	onal inf	ormation					
Workl	oad						
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)							
Referr	ea to in	LPOI (examination regu	lations for teaching-	degree programmes)			
Referr		LPO I (examination regu	llations for teaching-	degree programmes)			
	ed to in le appea		llations for teaching-o	degree programmes)			

Module title			Abbreviation		
Supervising Tutorial for Basic Courses				07-SQF-TFB-072-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)	
4	(not) s	successfully completed			
Duration Module level Other prerequisites					
1 semes	1 semester   undergraduate				
Content	ts				
Working as tutors, students will mentor other students during the modules <i>Allgemeine Biologie</i> ( <i>General Biology</i> ) I through III in particular. Tutors will help students improve upon their understanding of material, consolidate their knowledge and prepare for assessments. They will correct exercises, will discuss these with students and will help them fill gaps in their knowledge. Tutors will support other students on their way towards academic success.					standing of material, consolida- l discuss these with students and
Intende	ed lear	ning outcomes			
ence su the tuto	ipervis ors hav	ing a group. Having prepa e also enhanced their ow	ared for answering sp n subject-specific sk	pecific questions and ills. They have enhar	way. They have gained experi- l explaining material in detail, nced their teaching skills.
· · · · · · · · · · · · · · · · · · ·		, number of weekly conta			
		ion on SWS (weekly cont			
		sessment (type, scope, la ion on whether module ca			tion offered — if not every seme-
stions i	preparing materials for exercises including solutions and suggestions for solutions (minimum 30 (complex) que- stions including answers and/or suggestions for solutions; questions must be formulated in such a way that they can be answered in approx. 0.5 pages each)				
Allocati	ion of p	olaces			
Additio	nal inf	ormation			
Worklo	ad				
Referre	d to in	LPO I (examination regu	lations for teaching-o	legree programmes)	
Module	appea	ars in			
Bachelo	Bachelor' degree (1 major) Biology (2007)				

Module title			Abbreviation		
Supervising Tutorial for Biology					07-SQF-TSB-072-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)	
3	(not) s	successfully completed			
Duratio		Module level	Other prerequisites		
1 semes	1 semester undergraduate				
Conten	ts				
<i>gy</i> ) I thr prove u with stu	ough l pon th dents,	II in particular. Tutors will eir understanding of mat	l help with organisati erial, consolidate the gies to detect and fill	onal and personal m ir knowledge and pr	emeine Biologie (General Biolo- natters and will help students im- epare for assessments. Together edge. Tutors will support other
Intende	d learn	ning outcomes			
ence su interpei ve learr	The tutors are able to communicate complex concepts in a clear and structured way. They have gained experi- ence supervising a group and helping students with personal matters. The tutors have thus enhanced their own interpersonal skills and know how to share their expertise in exploring complex topics. In addition, the tutors ha- ve learned to plan and organise key elements of their own university education and the university education of the students they mentor.				
Courses	<b>s</b> (type	, number of weekly conta	ct hours, language —	if other than Germa	n)
T (no in	format	ion on SWS (weekly cont	act hours) and course	e language available	)
		essment (type, scope, la on on whether module ca			tion offered — if not every seme-
preparation of materials for demonstrations and/or exercises to provide information on the degree programme, its focuses and possibilities (preparing a presentation with at least 20 individual slides and/or diagrams provi- ding information on important criteria in relation to the degree programme and the course of studies)					
Allocati	ion of p	olaces			
Additio	nal info	ormation			
Workloa	ad				
Referre	d to in	LPOI (examination regu	lations for teaching-c	legree programmes)	
			5		
Module	appea	irs in			
		ree (1 major) Biology (200	07)		
			-		

Module	e title				Abbreviation				
Enviror	nmenta	l Education in the Botani	cal Garden of the Un	iversity	07-SQF-UBG-092-m01				
Module	e coord	inator		Module offered by	·				
holder	ofthe	Chair of Plant Physiology	and Biophysics	Faculty of Biology					
ECTS	1	od of grading	Only after succ. con	npl. of module(s)					
2	nume	rical grade							
Duratio	on	Module level	Other prerequisites						
1 seme	ster	undergraduate							
Conten	ts								
botany parting and us lines) f plete th	, ecolo , in a c ing app or the o ne follo	gy and gardening. In this omprehensible way, spec propriate aids (informatio comprehensible presenta wing tasks: develop cont	module, students wi cialist knowledge to i n boards, leaflets etc tion of complex conc ents tailored to the n	Il develop appropria nterested layperson ) and applying met epts. Students will b eeds of selected tar	ublic about topics in the areas of te educational concepts for im- s. They will practise designing hodological approaches (guide- be organised into teams to com- get groups, acquire the specialist s for presenting these contents.				
		ning outcomes	ese contents, select		s for presenting these contents.				
red an vidual guide t	overvie section ours th	ew of the sectors of the Bo s. They will have develop	otanical Garden and v bed both botanical kn len, imparting knowle	will be able to prepa owledge and teachi edge in a way that is	niques. Students will have acqui- re information material on indi- ng skills that will enable them to tailored to their target audience.				
		mation on SWS (weekly o							
Metho	d of ass		nguage — if other tha	an German, examina	tion offered — if not every seme-				
term pa weight		preparing educational m	aterials (5 to 10 page	s) and presentation	(approx. 20 to 30 minutes),				
Allocat	ion of	places							
Additio	onal inf	ormation			Additional information				
Worklo	ad								
Worklo	ad								
		LPOI (examination regu	lations for teaching-o	degree programmes)					
		LPOI (examination regu	lations for teaching-o	degree programmes)					
	ed to in		lations for teaching-o	degree programmes)					

Bachelor's with 1 major Biology	(2007)	
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Module title			Abbreviation	
Publishing Scientific Data				07-SQF-WIP-092-m01
Module coordinator			Module offered by	
Coordinat	tor BioCareers		Faculty of Biology	
	Nethod of grading	Only after succ. com	pl. of module(s)	
-	umerical grade			
Duration	Module level	Other prerequisites		
1 semeste	er undergraduate			
Contents				
Either alone or in small groups of two or three persons, students will select several journal articles from the field of life sciences. These will serve as the basis for a review article to be prepared by students. With two or three "core publications" as a basis, students will search data bases (e. g. PubMed) for literature that is directly related to these articles. The most important current original publications will be summed up in a review article; where applicable, students may also use their own raw data. The structure of this review article will comply with the standards of the scientific community as defined in the instructions to authors of a scientific journal. The article will contain at least one figure, one table as well as one schematic representation of the contents and will be divided up into the following sections: title, abstract, introduction and/or hypothesis/problem to be investigated, summary of results as well as current developments and discussion thereof. The article will also contain citations in the specified format. Students will also deliver a presentation on the contents of the article. Intended learning outcomes Students will have learned to conduct a literature search on a specific topic. They will know how to get an overview of recent publications on a specific topic and will be familiar with basic rules for summing up original publications in a review article complying with the standards of the scientific community. Students will be familiar with the standards regarding the structure of reviews and will be able to properly cite sources. They will thus know what to keep in mind when writing scientific articles. In addition, students will be able to prepare and deliver an oral presentation on raw scientific data.				
	type, number of weekly conta rmation on SWS (weekly cont			
Method o		nguage — if other tha	an German, examina	tion offered — if not every seme-
term pape	er (approx. 5 to 10 pages) and	presentation (approx	x. 15 minutes), weigh	ited 2:1
Allocation	n of places			
Additiona	al information			
Workload				
Referred	to in LPO I (examination regu	lations for teaching-c	legree programmes)	
Module a	ppears in			
Bachelor'	degree (1 major) Biology (200	07)		

Module title					Abbreviation	
Inorgan	nic Che	mistry for Biology Major	S		08-AC-Bio-072-m01	
Module	e coord	inator		Module offered by		
lecturer of lecture "Allgemeine and Anorga mie für Studierende der Medizin, Zahnmed gie" (General and Inorganic Chemistry for dicine, Dentistry and Biology)			medizin and Biolo-	Institute of Inorganic Chemistry		
ECTS Method of grading Only after succ. compl. of module(s)						
5	nume	numerical grade				
Duratio	n	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conten	ts					
		rovides students with an he fundamental techniqu			inorganic chemistry. In addition,	
Intende	ed lear	ning outcomes				
Studen	ts have				emistry. They are able to identify	
		, number of weekly conta			n)	
This mo compo • 0	odule c nent. 8-AC-N	omprises 2 module comp IF-1-072: V (no informatio	oonents. Information n on SWS (weekly co	on courses will be li ntact hours) and cou	sted separately for each module	
Method	d of ass		nguage — if other th	an German, examina	tion offered — if not every seme-	
	less st	ated otherwise, successf			e components as specified be- successful completion of all indi-	
• 3 • w Assess • 2 • V a • C	<ul> <li>Assessment in module component o8-AC-NF-1-072: Inorganic Chemistry (lecture)</li> <li>3 ECTS, Method of grading: numerical grade</li> <li>written examination (60 minutes)</li> <li>Assessment in module component o8-AC-Bio-2-072: Chemistry Lab for Biology Majors</li> <li>2 ECTS, Method of grading: (not) successfully completed</li> <li>Vortestate (pre-experiment exams, approx. 15 minutes each), assessment of practical performance (log approx. 5 to 10 pages), Nachtestate (post-experiment exams, approx. 15 minutes each)</li> <li>Only after successful completion of module components: Successful completion of module component o8-AC-NF-1 is a prerequisite for participation in module component o8-AC-Bio-2.</li> </ul>					
Allocat	ion of p	olaces				
Additio	nal inf	ormation				
Worklo	ad					
WORKIO	au					
	با عد ان		lation o fonte le :			
Keferre	a to in	LPOI (examination regu	lations for teaching-	legree programmes)		
		•				
Module						
Bachel	or' deg	ree (1 major) Biology (200	07)			

Module	e title				Abbreviation	
Bioche	mistry	for students of biologica	l sciences	08-BCB-072-m01		
Module	e coord	inator		Module offered by		
holder	of the (	Chair of Biochemistry		Chair of Biochemistry		
ECTS	CTS Method of grading Only after suc		Only after succ. con	npl. of module(s)		
6	numerical grade					
Duration Module level Other pr		Other prerequisites				
2 seme	ster	undergraduate				
Conten	ts					
Compri mistry.	sing le	ctures and exercises, this	s module acquaints s	tudents with the fun	damental principles of bioche-	
Intend	ed lear	ning outcomes				
		e become familiar with th cal processes in cellular s	•	ples of biochemistry	. They are able to describe the	
Course	<b>s</b> (type	, number of weekly conta	ict hours, language –	- if other than Germa	in)	
V + Ü +	V + Ü (	no information on SWS (	weekly contact hours	) and course langua	ge available)	
		<b>sessment</b> (type, scope, la on on whether module c			tion offered — if not every seme-	
written	exami	nation (approx. 90 minut	es)			
Allocat						
Additio	nal inf	ormation				
			-			
Worklo	ad					
Referre	d to in	LPO I (examination regu	lations for teaching-	degree programmes)		
			- C	_ , _ /		
Module	e appea	ars in				
		ree (1 major) Biology (20:	11)			
	-	ree (1 major) Biology (20	-			
Bachel	or' deg	ree (1 major) Biology (20	10)			

Modul	e title				Abbreviation	
Bioche	emistry	for students of biologica	l sciences (practical	course)	08-BCPB-072-m01	
Modul	e coord	inator		Module offered by		
holder	ofthe	Chair of Biochemistry		Chair of Biochemis	try	
ECTS	TS Method of grading Only after succ. co		npl. of module(s)			
5	5 (not) successfully completed					
Duration Module level Other prerequisi		Other prerequisites				
1 seme	ester	undergraduate				
Conter	nts					
Practic experi		cises give students the o	oportunity to learn th	e fundamental princ	iples of conducting biochemical	
Intend	ed lear	ning outcomes				
Studer	nts have	e become proficient in es	sential methods in bi	iochemistry.		
Course	es (type	, number of weekly conta	ct hours, language –	- if other than Germa	an)	
		tion on SWS (weekly cont				
		sessment (type, scope, la ion on whether module ca			tion offered — if not every seme-	
to 10 p	ages),	e-experiment exams, app Nachtestate (post-experin Iffered: once a year, summ	ment exams, approx.		actical performance (log approx. 5	
	tion of					
Numbe	er of pla	aces: 25 per group.				
Additi	onal inf	ormation				
Workle	oad					
Referre	ed to in	LPOI (examination regu	lations for teaching-	degree programmes)		
Modul	e appea	ars in				
Bache	lor' deg	ree (1 major) Biology (20:	11)			
	-	ree (1 major) Biology (200				
	-	ree (1 major) Biology (20				
Bache	lor' deg	ree (1 major) Biology (20:	10)			

Organ	le title				Abbreviation
0	ic Chem	istry for students of biol	ogy		08-0C-Bio-072-m01
Modu	le coord	inator		Module offered by	<u> </u>
		ture "Organische Chemie		Institute of Organic	Chemistry
	in, Bion nschafte	nedizin, Zahnmedizin, Ing en"	genieur- and Natur-		
ECTS	-1	od of grading	Only after succ. con	npl. of module(s)	
10		rical grade			
Durati		Module level	Other prerequisites		
1 seme		undergraduate			
Conte					
		provides students with an e fundamental technique			organic chemistry. In addition, it
Intend	led lear	ning outcomes			
		e become familiar with th problems in chemistry an	•		nistry. They are able to identify
Cours	<b>es</b> (type	, number of weekly conta	ct hours, language –	- if other than Germa	an)
compo • d • d	onent. 08-10C- 08-0C-E 08-0C-E od of ass	1-072: V (no information o Bio-2-072: P (no informati Bio-3-072: P (no informati	on SWS (weekly cont on on SWS (weekly c on on SWS (weekly c nguage — if other th	act hours) and cours contact hours) and co contact hours) and co an German, examina	sted separately for each module se language available) ourse language available) ourse language available) ation offered — if not every seme-
A				-	
low. U vidual	nless st assess	ated otherwise, successf ments.	the assessments in t ful completion of the	he individual modul module will require	e components as specified be- successful completion of all indi- ts of medicine, biomedicine, den-
low. U vidual Assess tal me	nless st assess <b>sment i</b> dicine, 3 ECTS,	ated otherwise, successf ments.	the assessments in t ful completion of the <b>IOC-1-072:</b> Organic C science erical grade	he individual modul module will require	successful completion of all indi-
low. U vidual Asses: tal me Asses:	nless st assess sment i dicine, 3 ECTS, written 4 ECTS, written	ated otherwise, successf ments. n module component o8- engineering and natural s Method of grading: nume examination (approx. 60 n module component o8- Method of grading: nume examination (60 minutes)	the assessments in t ful completion of the <b>IOC-1-072:</b> Organic C science erical grade minutes) <b>OC-Bio-2-072:</b> Organ erical grade )	he individual modul module will require Chemistry for student	successful completion of all indi- ts of medicine, biomedicine, den- cudents of biology
low. U vidual Assess tal me Assess Assess gy	nless st assess sment in dicine, 3 ECTS, written 4 ECTS, written sment in sment in	ated otherwise, successf ments. n module component o8- engineering and natural s Method of grading: nume examination (approx. 60 n module component o8- Method of grading: nume examination (60 minutes n module component o8-	the assessments in t ful completion of the <b>IOC-1-072:</b> Organic C science erical grade minutes) <b>OC-Bio-2-072:</b> Organ erical grade ) <b>OC-Bio-3-072:</b> Organ	he individual modul module will require Chemistry for student nic Chemistry 2 for st	successful completion of all indi- ts of medicine, biomedicine, den- cudents of biology
low. U vidual Assess tal me Assess gy	nless st assess sment in dicine, 3 ECTS, written 4 ECTS, written 3 ECTS, Vortesta approx. Assessr Only aft	ated otherwise, successf ments. <b>n module component o8-</b> engineering and natural s Method of grading: nume examination (approx. 60 <b>n module component o8-</b> Method of grading: nume examination (60 minutes <b>n module component o8-</b> Method of grading: (not) ate (pre-experiment exam 5 to 10 pages), Nachtesta nent offered: once a year	the assessments in t ful completion of the <b>IOC-1-072:</b> Organic C science erical grade minutes) <b>OC-Bio-2-072:</b> Organ erical grade ) <b>OC-Bio-3-072:</b> Organ successfully comple is, approx. 15 minute ate (post-experiment , winter semester of module compone	he individual modul module will require themistry for student nic Chemistry 2 for st nic Chemistry - labora ted es each), assessmen exams, approx. 15 n	successful completion of all indi- ts of medicine, biomedicine, den- cudents of biology atory course for students of biolo- t of practical performance (log ninutes each)
low. U vidual Asses: tal me Asses: gy	nless st assess sment in dicine, 3 ECTS, written 4 ECTS, written 3 ECTS, Vortesta approx. Assessr Only aft	ated otherwise, success ments. <b>n module component o8-</b> engineering and natural s Method of grading: nume examination (approx. 60 <b>n module component o8-</b> Method of grading: nume examination (60 minutes <b>n module component o8-</b> Method of grading: (not) ate (pre-experiment examt 5 to 10 pages), Nachtesta nent offered: once a year er successful completion 1 is a prerequisite for par	the assessments in t ful completion of the <b>IOC-1-072:</b> Organic C science erical grade minutes) <b>OC-Bio-2-072:</b> Organ erical grade ) <b>OC-Bio-3-072:</b> Organ successfully comple is, approx. 15 minute ate (post-experiment , winter semester of module compone	he individual modul module will require themistry for student nic Chemistry 2 for st nic Chemistry - labora ted es each), assessmen exams, approx. 15 n	successful completion of all indi- ts of medicine, biomedicine, den- cudents of biology atory course for students of biolo- t of practical performance (log ninutes each)
low. U vidual Asses: tal me Asses: gy	nless st assess sment i dicine, 3 ECTS, written 4 ECTS, written 3 ECTS, Vortesta approx. Assessr Only aft o8-IOC-	ated otherwise, success ments. <b>n module component o8-</b> engineering and natural s Method of grading: nume examination (approx. 60 <b>n module component o8-</b> Method of grading: nume examination (60 minutes <b>n module component o8-</b> Method of grading: (not) ate (pre-experiment examt 5 to 10 pages), Nachtesta nent offered: once a year er successful completion 1 is a prerequisite for par	the assessments in t ful completion of the <b>IOC-1-072:</b> Organic C science erical grade minutes) <b>OC-Bio-2-072:</b> Organ erical grade ) <b>OC-Bio-3-072:</b> Organ successfully comple is, approx. 15 minute ate (post-experiment , winter semester of module compone	he individual modul module will require themistry for student nic Chemistry 2 for st nic Chemistry - labora ted es each), assessmen exams, approx. 15 n	successful completion of all indi- ts of medicine, biomedicine, den- cudents of biology atory course for students of biolo- t of practical performance (log ninutes each)
low. U vidual Asses: tal me Asses: gy Asses: gy Asses: dual Asses:	nless st assess sment in dicine, 3 ECTS, written 4 ECTS, written 3 ECTS, Vortesta approx. Assessr Only aft o8-IOC- tion of J	ated otherwise, success ments. <b>n module component o8-</b> engineering and natural s Method of grading: nume examination (approx. 60 <b>n module component o8-</b> Method of grading: nume examination (60 minutes <b>n module component o8-</b> Method of grading: (not) ate (pre-experiment examt 5 to 10 pages), Nachtesta nent offered: once a year er successful completion 1 is a prerequisite for par	the assessments in t ful completion of the <b>IOC-1-072:</b> Organic C science erical grade minutes) <b>OC-Bio-2-072:</b> Organ erical grade ) <b>OC-Bio-3-072:</b> Organ successfully comple is, approx. 15 minute ate (post-experiment , winter semester of module compone	he individual modul module will require themistry for student nic Chemistry 2 for st nic Chemistry - labora ted es each), assessmen exams, approx. 15 n	successful completion of all indi- ts of medicine, biomedicine, den- cudents of biology atory course for students of biolo- t of practical performance (log ninutes each)
low. U vidual Asses: tal me Asses: gy Asses: gy Asses: dual Asses:	nless st assess sment in dicine, 3 ECTS, written 4 ECTS, written 3 ECTS, Vortesta approx. Assessr Only aft o8-IOC- tion of J	ated otherwise, success ments. <b>n module component o8-</b> engineering and natural s Method of grading: nume examination (approx. 60 <b>n module component o8-</b> Method of grading: nume examination (60 minutes <b>n module component o8-</b> Method of grading: (not) ate (pre-experiment exam 5 to 10 pages), Nachtesta nent offered: once a year er successful completion 1 is a prerequisite for part <b>places</b>	the assessments in t ful completion of the <b>IOC-1-072:</b> Organic C science erical grade minutes) <b>OC-Bio-2-072:</b> Organ erical grade ) <b>OC-Bio-3-072:</b> Organ successfully comple is, approx. 15 minute ate (post-experiment , winter semester of module compone	he individual modul module will require themistry for student nic Chemistry 2 for st nic Chemistry - labora ted es each), assessmen exams, approx. 15 n	successful completion of all indi- ts of medicine, biomedicine, den- cudents of biology atory course for students of biolo- t of practical performance (log ninutes each)
low. U vidual Asses: tal me Asses: gy Asses: gy Asses: dual Asses:	nless st assess sment in dicine, 3 ECTS, written 4 ECTS, written 3 ECTS, Vortesta approx. Assessr Only aft 08-IOC- ition of j	ated otherwise, success ments. <b>n module component o8-</b> engineering and natural s Method of grading: nume examination (approx. 60 <b>n module component o8-</b> Method of grading: nume examination (60 minutes <b>n module component o8-</b> Method of grading: (not) ate (pre-experiment exam 5 to 10 pages), Nachtesta nent offered: once a year er successful completion 1 is a prerequisite for part <b>places</b>	the assessments in t ful completion of the <b>IOC-1-072:</b> Organic C science erical grade minutes) <b>OC-Bio-2-072:</b> Organ erical grade ) <b>OC-Bio-3-072:</b> Organ successfully comple is, approx. 15 minute ate (post-experiment , winter semester of module compone	he individual modul module will require themistry for student nic Chemistry 2 for st nic Chemistry - labora ted es each), assessmen exams, approx. 15 n	successful completion of all indi- ts of medicine, biomedicine, den- cudents of biology atory course for students of biolo- t of practical performance (log ninutes each)

Bachelor's with 1 major Biology (2007)
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# Module appears in

Bachelor's with 1 major Biology (2007)	JMU Würzburg • generated 11-Jan-2023 • exam. reg.	page 146 / 151
	data record Bachelor (180 ECTS) Biologie - 2007	

	le		Abbreviation			
Physical Ch	hemistry for Biology Majors			08-PC-Bio-072-m01		
Module coo	ordinator		Module offered by	<u> </u>		
	lecture "Thermodynamik, Ki ende der Biologie and Leber		Institute of Physica	l and Theoretical Chemistry		
	ethod of grading	Only after succ. con	npl. of module(s)			
5 nur	merical grade					
Duration	Module level	Other prerequisites	Other prerequisites			
1 semester	undergraduate					
Contents						
This modul	le discusses the fundamenta	al principles of therm	odynamics, kinetics	and electrochemistry.		
Intended le	earning outcomes					
	ave become familiar with th y are able to understand an			nics, kinetics and electroche- re and engineering.		
Courses (ty	pe, number of weekly conta	ict hours, language –	- if other than Germa	ın)		
component • o8-P0	t.	nation on SWS (week	ly contact hours) an	sted separately for each module d course language available) wrse language available)		
		· · · · · · · · · · · · · · · · · · ·		tion offered — if not every seme-		
	nation on whether module ca			lition onered — It not every serile-		
Assessmen	nt in this module comprises	the assessments in t				
				e components as specified be- successful completion of all indi		
low. Unless vidual asse Assessmen modynamic • 4 ECT • writte Assessmen • 1 ECT • Vorte appro	essments. <b>It in module component o8-</b> cs, Kinetics, Electrochemistr IS, Method of grading: nume en examination (60 minutes <b>It in module component o8-</b> IS, Method of grading: (not)	Ful completion of the <b>PC-Bio-1-062:</b> Therm by (lecture) erical grade <b>PC-Bio-2-072:</b> Physic successfully complet is, approx. 15 minute ate (post-experiment	module will require odynamics, Kinetics cal Chemistry (lectur ted s each), assessmen	successful completion of all indi , Electrochemistry (lecture) Ther e and lab) t of practical performance (log		
low. Unless vidual asse Assessmen modynamic • 4 ECT • writte Assessmen • 1 ECT • Vorte appro	essments. <b>It in module component o8-</b> cs, Kinetics, Electrochemistr IS, Method of grading: nume en examination (60 minutes) <b>It in module component o8-</b> IS, Method of grading: (not) estate (pre-experiment examox. 5 to 10 pages), Nachtesta ssment offered: once a year	Ful completion of the <b>PC-Bio-1-062:</b> Therm by (lecture) erical grade <b>PC-Bio-2-072:</b> Physic successfully complet is, approx. 15 minute ate (post-experiment	module will require odynamics, Kinetics cal Chemistry (lectur ted s each), assessmen	successful completion of all indi , Electrochemistry (lecture) Ther- e and lab) t of practical performance (log		
low. Unless vidual asse Assessmen modynamic • 4 ECT • writte Assessmen • 1 ECT • Vorte appro • Asses	essments. <b>It in module component o8-</b> cs, Kinetics, Electrochemistr IS, Method of grading: nume en examination (60 minutes) <b>It in module component o8-</b> IS, Method of grading: (not) estate (pre-experiment examox. 5 to 10 pages), Nachtesta ssment offered: once a year	Ful completion of the <b>PC-Bio-1-062:</b> Therm by (lecture) erical grade <b>PC-Bio-2-072:</b> Physic successfully complet is, approx. 15 minute ate (post-experiment	module will require odynamics, Kinetics cal Chemistry (lectur ted s each), assessmen	successful completion of all indi , Electrochemistry (lecture) Ther- e and lab) t of practical performance (log		
low. Unless vidual asse Assessmen modynamic 4 ECT writte Assessmen 1 ECT Vorte appro Asses Allocation	essments. <b>It in module component o8-</b> cs, Kinetics, Electrochemistr IS, Method of grading: nume en examination (60 minutes) <b>It in module component o8-</b> IS, Method of grading: (not) estate (pre-experiment examox. 5 to 10 pages), Nachtesta ssment offered: once a year	Ful completion of the <b>PC-Bio-1-062:</b> Therm by (lecture) erical grade <b>PC-Bio-2-072:</b> Physic successfully complet is, approx. 15 minute ate (post-experiment	module will require odynamics, Kinetics cal Chemistry (lectur ted s each), assessmen	successful completion of all indi , Electrochemistry (lecture) Ther e and lab) t of practical performance (log		
low. Unless vidual asse Assessmen modynamic 4 ECT writte Assessmen 1 ECT Vorte appro Asses Allocation	essments. <b>It in module component o8-</b> cs, Kinetics, Electrochemistr IS, Method of grading: nume en examination (60 minutes) <b>It in module component o8-</b> IS, Method of grading: (not) estate (pre-experiment examo ox. 5 to 10 pages), Nachtesta ssment offered: once a year <b>of places</b>	Ful completion of the <b>PC-Bio-1-062:</b> Therm by (lecture) erical grade <b>PC-Bio-2-072:</b> Physic successfully complet is, approx. 15 minute ate (post-experiment	module will require odynamics, Kinetics cal Chemistry (lectur ted s each), assessmen	successful completion of all indi , Electrochemistry (lecture) Ther- e and lab) t of practical performance (log		
low. Unless vidual asse Assessmen modynamic 4 ECT writte Assessmen 1 ECT Vorte appro Asses Allocation	essments. <b>It in module component o8-</b> cs, Kinetics, Electrochemistr IS, Method of grading: nume en examination (60 minutes) <b>It in module component o8-</b> IS, Method of grading: (not) estate (pre-experiment examo ox. 5 to 10 pages), Nachtesta ssment offered: once a year <b>of places</b>	Ful completion of the <b>PC-Bio-1-062:</b> Therm by (lecture) erical grade <b>PC-Bio-2-072:</b> Physic successfully complet is, approx. 15 minute ate (post-experiment	module will require odynamics, Kinetics cal Chemistry (lectur ted s each), assessmen	successful completion of all indi , Electrochemistry (lecture) Ther- e and lab) t of practical performance (log		
low. Unless vidual asse Assessmen modynamic • 4 ECT • writte Assessmen • 1 ECT • Vorte appro • Asses Allocation o  Additional	essments. <b>It in module component o8-</b> cs, Kinetics, Electrochemistr IS, Method of grading: nume en examination (60 minutes) <b>It in module component o8-</b> IS, Method of grading: (not) estate (pre-experiment examo ox. 5 to 10 pages), Nachtesta ssment offered: once a year <b>of places</b>	Ful completion of the <b>PC-Bio-1-062:</b> Therm by (lecture) erical grade <b>PC-Bio-2-072:</b> Physic successfully complet is, approx. 15 minute ate (post-experiment	module will require odynamics, Kinetics cal Chemistry (lectur ted s each), assessmen	successful completion of all indi , Electrochemistry (lecture) Ther- e and lab) t of practical performance (log		
low. Unless vidual asse Assessmen modynamic • 4 ECT • writte Assessmen • 1 ECT • Vorte appro • Asses Allocation o  Additional  Workload	essments. <b>It in module component o8-</b> cs, Kinetics, Electrochemistr IS, Method of grading: nume en examination (60 minutes) <b>It in module component o8-</b> IS, Method of grading: (not) estate (pre-experiment exam ox. 5 to 10 pages), Nachtesta ssment offered: once a year <b>of places</b> <b>information</b>	<b>PC-Bio-1-o62:</b> Therm <b>PC-Bio-1-o62:</b> Therm Ty (lecture) erical grade ) <b>PC-Bio-2-072:</b> Physic successfully complet is, approx. 15 minute ate (post-experiment , winter semester	module will require odynamics, Kinetics cal Chemistry (lectur ted s each), assessmen exams, approx. 15 n	successful completion of all indi , Electrochemistry (lecture) Ther- e and lab) t of practical performance (log ninutes each)		
low. Unless vidual asse Assessmen modynamic • 4 ECT • writte Assessmen • 1 ECT • Vorte appro • Asses Allocation o  Additional  Workload	essments. <b>It in module component o8-</b> cs, Kinetics, Electrochemistr IS, Method of grading: nume en examination (60 minutes) <b>It in module component o8-</b> IS, Method of grading: (not) estate (pre-experiment examo ox. 5 to 10 pages), Nachtesta ssment offered: once a year <b>of places</b>	<b>PC-Bio-1-o62:</b> Therm <b>PC-Bio-1-o62:</b> Therm Ty (lecture) erical grade ) <b>PC-Bio-2-072:</b> Physic successfully complet is, approx. 15 minute ate (post-experiment , winter semester	module will require odynamics, Kinetics cal Chemistry (lectur ted s each), assessmen exams, approx. 15 n	successful completion of all indi , Electrochemistry (lecture) Ther e and lab) t of practical performance (log ninutes each)		
low. Unless vidual asses Assessmen modynamic • 4 ECT • writte Assessmen • 1 ECT • Vorte appro • Asses Allocation o  Additional  Workload  Referred to 	essments. <b>It in module component o8-</b> cs, Kinetics, Electrochemistr IS, Method of grading: nume en examination (60 minutes <b>It in module component o8-</b> IS, Method of grading: (not) estate (pre-experiment exam ox. 5 to 10 pages), Nachtesta ssment offered: once a year <b>of places</b> <b>information</b> <b>o in LPO I</b> (examination regu	<b>PC-Bio-1-o62:</b> Therm <b>PC-Bio-1-o62:</b> Therm Ty (lecture) erical grade ) <b>PC-Bio-2-072:</b> Physic successfully complet is, approx. 15 minute ate (post-experiment , winter semester	module will require odynamics, Kinetics cal Chemistry (lectur ted s each), assessmen exams, approx. 15 n	successful completion of all indi , Electrochemistry (lecture) Ther- e and lab) t of practical performance (log ninutes each)		
low. Unless vidual asse Assessmen modynamic • 4 ECT • writte Assessmen • 1 ECT • Vorte appro • Asses Allocation o  Additional  Workload  Referred to  Module app	essments. <b>It in module component o8-</b> cs, Kinetics, Electrochemistr IS, Method of grading: nume en examination (60 minutes <b>It in module component o8-</b> IS, Method of grading: (not) estate (pre-experiment exam ox. 5 to 10 pages), Nachtesta ssment offered: once a year <b>of places</b> <b>information</b> <b>o in LPO I</b> (examination regu	PC-Bio-1-062: Therm (lecture) erical grade PC-Bio-2-072: Physic successfully complet is, approx. 15 minute ate (post-experiment , winter semester	module will require odynamics, Kinetics cal Chemistry (lectur ted s each), assessmen exams, approx. 15 n	successful completion of all indi , Electrochemistry (lecture) Ther- e and lab) t of practical performance (log ninutes each)		

Modul	e title				Abbreviation	
Mathe	matics	for students in Chemistry	/ and Biology		10-M-MCB-072-m01	
Modul	e coord	inator		Module offered by		
Dean o	of Studie	es Mathematik (Mathema	atics)	Institute of Mathematics		
ECTS	S Method of grading Only after succ		Only after succ. con	npl. of module(s)		
5	nume	rical grade				
Duratio	on	Module level	Other prerequisites			
1 seme	ster	undergraduate				
Conter	Its					
of func		n several variables, powe			, curve sketching, differentiation systems of linear equations, basic	
Intend	ed learı	ning outcomes				
		able to recognise and pl athematical methods to t			nces as mathematical problems,	
Course	<b>s</b> (type	, number of weekly conta	ct hours, language –	- if other than Germa	an)	
compo • 1	nent. .o-M-M(	CB-1-072: V (no informati	on on SWS (weekly c	ontact hours) and co	sted separately for each module ourse language available) ourse language available)	
Metho	d of ass		nguage — if other that	an German, examina	ation offered — if not every seme-	
low. Ur		ated otherwise, successf			e components as specified be- successful completion of all indi-	
• v • v Assess Biology	BECTS, vritten e s <b>ment i</b> V ECTS,	Method of grading: nume examination (120 minute	erical grade s) <b>M-MCB-2-072:</b> Exerci successfully comple	ses in Mathematics ted	in Chemistry and Biology for students in Chemistry and	
	ion of p	•		,		
Additio	nal inf	ormation				
Worklo	ad					
WUIKI	au					
 D-(				1		
Keferre	ea to in	LPOI (examination regu	lations for teaching-o	legree programmes)		
	e appea					
Bachel	or' deg	ree (1 major) Biology (200 ree (1 major) Chemistry (2 ree (1 major) Chemistry (2	2007)			

Introdu	le title				Abbreviation	
	uction to Physics	for Students o	of Non-physics-relate	d Minor Subjects	11-EFNF-072-m01	
Madul	le coordinator			Module offered by		
		- l	n n lin d Dhuning	· · · ·		
-	ging Director of th		· · · · · · · · · · · · · · · · · · ·	Faculty of Physics a	and Astronomy	
ECTS	Method of grad	-	Only after succ. co	npl. of module(s)		
7						
Duratio			Other prerequisites	5		
2 seme		uudle	]			
Conter						
			ynamics, optics, scie	nce of electricity, Ato	mic and Nuclear Phy	sics.
Intend	led learning outco	omes				
The stu	udents have knov	vledge of the p	rinciples of Physics.			
Course	<b>es</b> (type, number	of weekly cont	act hours, language -	– if other than Germa	an)	
V + V (	no information or	n SWS (weekly	contact hours) and c	ourse language avail	able)	
Metho	d of assessment	(type, scope, l	anguage — if other th	an German, examina	ation offered — if not	every seme-
			an be chosen to earr			,
writter	n examination (ap	prox. 120 mini	utes)			
	tion of places	•				
		eneral kev ski	lls (ASQ): 10 places. F	Places will be allocat	ed by lot	
	onal information	cheratikey ski	(150). 10 places. 1			
Additio			_			
Worklo	oad		_			
Referre	ed to in LPO I (ex	amination reg	ulations for teaching-	degree programmes)		
Modul	le appears in					
Bache	lor' degree (1 maj	or) Biochemist	ry (2011)			
Bache	lor' degree (1 maj	or) Biochemist	ry (2013)			
Bache	lor' degree (1 maj	or) Biochemist	ry (2009)			
	lor' degree (1 maj					
	lor' degree (1 maj	or) Biology (20	07)			
	lor' degree (1 mai		• •			
		or) Biology (20	010)			
Bachel	lor' degree (1 maj	or) Chemistry (	(2007)			
Bachel Bachel	lor' degree (1 maj lor' degree (1 maj	or) Chemistry ( or) Chemistry (	(2007) (2008)			
Bachel Bachel Bachel	lor' degree (1 maj lor' degree (1 maj lor' degree (1 maj	or) Chemistry ( or) Chemistry ( or) Chemistry (	(2007) (2008) (2010)			
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### Julius-Maximilians-UNIVERSITÄT WÜRZBURG

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

Bachelor's with 1 major Biology (2007)	JMU Würzburg • generated 11-Jan-2023 • exam. reg.	page 150 / 151
	data record Bachelor (180 ECTS) Biologie - 2007	

Module title				Abbreviation	
Practical Cou	rse Physics for Studen	ts of Non-physics-rela	ted Minor Subjects	11-PFNF-072-m01	
Module coord	linator		Module offered by	<u> </u>	
	ector of the Institute of	Applied Physics	Faculty of Physics and Astronomy		
	od of grading	Only after succ. co	1 7 7	and Astronomy	
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The students	have knowledge of the	principles of Physics.			
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Bachelor's with 1 ma	jor Biology (2007)	JMU Würzbu	irg • generated 11-Jan-2023 • e	xam. reg.	page 151 / 151