

Annex SFB

Studienfachbeschreibung (subject description, SFB) for the subject Mathematics as a Bachelor's with 1 major with the degree "Bachelor of Science" (180 ECTS credits)

Responsible: Institute of Mathematics

Examination regulations version: 2007

Abbreviations used: Course types: **E** = field trip, **K** = colloquium, **O** = conversatorium, **P** = placement/lab course, **R** = project, **S** = seminar, **T** = tutorial, **Ü** = exercise, **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 for the modules in this SFB: Unless otherwise stated, courses and assessments will be held in German, assessments will be offered every semester and modules are not creditable for bonus.

Information on assessment procedures: 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 a 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-Dec-2008 (2008-31)

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.

Every module will be described using the following form:

Abbreviation	Module title						
	ECTS		Duration	(in semesters)	Method of grading		Module level
	Courses		To be specified in the form X (y) with course type X abbreviated as specified above and number of weekly contact hours y				
	Method of assessment						
	Only after successful completion of		if applicable				
	Other prerequisites		if applicable				
	Participants and allocation of places		if applicable				
	Additional information		if applicable				
	Referred to in LPO I		if applicable (examination regulations for teaching-degree programmes)				

Compulsory Courses (95 ECTS credits)								
10-M-ANA-072-m01	Analysis							
	ECTS	18	Duration	2 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		This module comprises 3 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none"> • 10-M-ANA-1-072: V + Ü (no information on SWS (weekly contact hours) and course language available) • 10-M-ANA-2-072: V + Ü (no information on SWS (weekly contact hours) and course language available) • 10-M-ANA-P-072: M (no information on SWS (weekly contact hours) and course language available) 					
	Method of assessment		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 10-M-ANA-1-072: Analysis 1 Analysis 1 <ul style="list-style-type: none"> • 8 ECTS, Method of grading: (not) successfully completed • a) written examination (approx. 90 minutes; usually chosen) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes) • Language of assessment: German, English if agreed upon with the examiner • Other prerequisites: Modules 10-M-VKM and 10-M-PPM are recommended. Assessment in module component 10-M-ANA-2-072: Analysis 2 Analysis 2 <ul style="list-style-type: none"> • 8 ECTS, Method of grading: (not) successfully completed • a) written examination (approx. 90 minutes; usually chosen) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes) • Language of assessment: German, English if agreed upon with the examiner • Other prerequisites: Modules 10-M-VKM and 10-M-PPM are recommended; in addition, module component 10-M-ANA-1 is recommended for module component 10-M-ANA-2. Assessment in module component 10-M-ANA-P-072: Examination in Analysis <ul style="list-style-type: none"> • 2 ECTS, Method of grading: numerical grade • oral examination of one candidate each (approx. 30 minutes) • Language of assessment: German, English if agreed upon with the examiner • Only after successful completion of module components: 10-M-ANA-1 or 10-M-ANL-1 or 10-M-ANA-2 or 10-M-ANL-2 • Other prerequisites: Modules 10-M-VKM and 10-M-PPM are recommended. 					
	other prerequisites		By way of exception, additional prerequisites are listed in the section on assessments.					

10-M-LNA-072-mo1	Linear Algebra							
	ECTS	18	Duration	2 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		This module comprises 3 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">10-M-LNA-1-072: V + Ü (no information on SWS (weekly contact hours) and course language available)10-M-LNA-2-072: V + Ü (no information on SWS (weekly contact hours) and course language available)10-M-LNA-P-072: M (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		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 10-M-LNA-1-072: Linear Algebra 1 Linear Algebra 1 <ul style="list-style-type: none">8 ECTS, Method of grading: (not) successfully completeda) written examination (approx. 90 minutes; usually chosen) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes)Language of assessment: German, English if agreed upon with the examinerOther prerequisites: Module 10-M-VKM is recommended. Assessment in module component 10-M-LNA-2-072: Linear Algebra 2 Linear Algebra 2 <ul style="list-style-type: none">8 ECTS, Method of grading: (not) successfully completeda) written examination (approx. 90 minutes; usually chosen) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes)Language of assessment: German, English if agreed upon with the examinerOther prerequisites: Module 10-M-VKM is recommended; in addition, module component 10-M-LNA-1 is recommended for module component 10-M-LNA-2. Assessment in module component 10-M-LNA-P-072: Examination in Linear Algebra <ul style="list-style-type: none">2 ECTS, Method of grading: numerical gradeoral examination of one candidate each (approx. 30 minutes)Language of assessment: German, English if agreed upon with the examinerOnly after successful completion of module components: 10-M-LNA-1 or 10-M-LNA-2Other prerequisites: Module 10-M-VKM is recommended.					
	other prerequisites		By way of exception, additional prerequisites are listed in the section on assessments.					
10-M-VAN-072-mo1	Advanced Analysis							
	ECTS	7	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		V + Ü (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		a) written examination (approx. 90 minutes; usually chosen) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes)					

10-M-AGZ-072-m01	Algebra, Geometry and Number Theory							
	ECTS	22	Duration	3 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		This module has 4 components; information on courses listed separately for each component. <ul style="list-style-type: none">• 10-M-AGZ-1-072: V + Ü (no information on language and number of weekly contact hours available)• 10-M-AGZ-2-072: V + Ü + V + Ü (no information on language and number of weekly contact hours available)• 10-M-AGZ-3-072: V + Ü (no information on language and number of weekly contact hours available)• 10-M-AGZ-P-072: M (no information on language and number of weekly contact hours available)					
	Method of assessment		This module has the following 4 assessment components. Unless stated otherwise, students must pass all of these assessment components to pass the module as a whole. Assessment in module component 10-M-AGZ-1-072: Einführung in die Algebra (Introduction to Algebra) <ul style="list-style-type: none">• 7 ECTS credits, pass / fail• a) written examination (approx. 90 minutes, usually chosen) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups of 2 candidates (approx. 30 minutes)• Language of assessment: German; English if agreed upon with examiner(s)• Additional prerequisites: Module 10-M-LNA recommended. Assessment in module component 10-M-AGZ-2-072: Einführung in die Geometrie (Introduction to Geometry) <ul style="list-style-type: none">• 8 ECTS credits, pass / fail• a) written examination (approx. 90 minutes, usually chosen) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups of 2 candidates (approx. 30 minutes)• Language of assessment: German; English if agreed upon with examiner(s)• Additional prerequisites: Module 10-M-LNA recommended. Assessment in module component 10-M-AGZ-3-072: Elementare Zahlentheorie (Elementary Number Theory) <ul style="list-style-type: none">• 5 ECTS credits, pass / fail• a) written examination (approx. 90 minutes, usually chosen) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups of 2 candidates (approx. 30 minutes)• Language of assessment: German; English if agreed upon with examiner(s)• Additional prerequisites: Module 10-M-LNA recommended. Assessment in module component 10-M-AGZ-P-072: Prüfung Algebra, Geometrie und Zahlentheorie (Assessment Algebra, Geometry and Number Theory) <ul style="list-style-type: none">• 2 ECTS credits, numerical grading• oral examination of one candidate each (approx. 30 minutes)• Language of assessment: German; English if agreed upon with examiner(s)• Only after successful completion of module components: Two out of the following three module components: 10-M-AGZ-1, 10-M-AGZ-2, 10-M-AGZ-3.• Additional prerequisites: Module 10-M-LNA recommended.					
	other prerequisites		By way of exception, additional prerequisites are listed in the section on assessments.					

10-M-DFT-072-m01	Ordinary Differential Equations and Complex Analysis							
	ECTS	14	Duration	2 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		This module comprises 3 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">10-M-DFT-1-072: V + Ü (no information on SWS (weekly contact hours) and course language available)10-M-DFT-2-072: V + Ü (no information on SWS (weekly contact hours) and course language available)10-M-DFT-P-072: M (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		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 10-M-DFT-1-072: Ordinary Differential Equations Ordinary Differential Equations <ul style="list-style-type: none">5 ECTS, Method of grading: (not) successfully completeda) written examination (approx. 90 minutes; usually chosen) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes)Language of assessment: German, English if agreed upon with the examiner Assessment in module component 10-M-DFT-2-072: Introduction to Complex Analysis Introduction to Complex Analysis <ul style="list-style-type: none">7 ECTS, Method of grading: (not) successfully completeda) written examination (approx. 90 minutes; usually chosen) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes)Language of assessment: German, English if agreed upon with the examiner Assessment in module component 10-M-DFT-P-072: Examination in Ordinary Differential Equations and Complex Analysis <ul style="list-style-type: none">2 ECTS, Method of grading: numerical gradeoral examination of one candidate each (approx. 30 minutes)Language of assessment: German, English if agreed upon with the examinerOnly after successful completion of module components: 10-M-DFT-1 or 10-M-DFT-2					
10-M-NM1-072-m01	Numerical Mathematics 1							
	ECTS	8	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		V + Ü (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		a) written examination (90 minutes; usually chosen) or b) oral examination of one candidate each (20 minutes) or c) oral examination in groups (groups of 2, 30 minutes)					
10-M-ST1-072-m01	Stochastics 1							
	ECTS	8	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		V + Ü (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		a) written examination (90 minutes; usually chosen) or b) oral examination of one candidate each (20 minutes) or c) oral examination in groups (groups of 2, 30 minutes)					

Compulsory Electives (55 ECTS credits)								
Mathematics 1 (5 ECTS credits)								
10-M-NM2-072-m01	Numerical Mathematics 2							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	a) written examination (90 minutes) or b) oral examination of one candidate each (20 minutes) or c) oral examination in groups of 2 candidates (30 minutes)						
10-M-ST2-072-m01	Stochastics 2							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	a) written examination (approx. 90 minutes; usually chosen) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes)						
Mathematics 2 (5 ECTS credits)								
10-M-EDM-072-m01	Introduction to Discrete Mathematics							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 90 minutes); if announced by the lecturer, the written examination can be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups (groups of 2, approx. 30 minutes) Language of assessment: German, English if agreed upon with the examiner						
	other prerequisites	Certain prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment anew.						
	Referred to in LPO I	§ 73 (1) 2. Mathematik Lineare Algebra, Algebra und Elemente der Zahlentheorie						
10-M-FAN-072-m01	Introduction to Functional Analysis							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 90 minutes); if announced by the lecturer, the written examination can be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups (groups of 2, approx. 30 minutes) Language of assessment: German, English if agreed upon with the examiner						
	other prerequisites	Certain prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment anew.						
	Referred to in LPO I	§ 73 (1) 1. Mathematik Analysis						
Bachelor's with 1 major Mathematics (2007)					JMU Würzburg • generated 11-Jan-2023 • exam. reg. data record 82 105 - - H 2007		page 7 / 49	

10-M-ORS-072-m01	Operations Research							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 90 minutes); if announced by the lecturer, the written examination can be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups (groups of 2, approx. 30 minutes) Language of assessment: German, English if agreed upon with the examiner						
	other prerequisites	Certain prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment anew.						
	Referred to in LPO I	§ 73 (1) 5. Mathematik Angewandte Mathematik						
10-M-NLD-072-m01	Non-Linear Dynamics							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 90 minutes); if announced by the lecturer, the written examination can be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups (groups of 2, approx. 30 minutes) Language of assessment: German, English if agreed upon with the examiner						
	other prerequisites	Certain prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment anew.						
	Referred to in LPO I	§ 73 (1) 1. Mathematik Analysis						
Mathematics 3 (5 ECTS credits)								
10-M-RCN-072-m01	Reading Course Numerical Mathematics							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	A (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	a) talk (approx. 30 minutes) or b) written elaboration (approx. 5 to 10 pages)						
10-M-RCS-072-m01	Reading Course Stochastics							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	A (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	a) talk (approx. 30 minutes) or b) written elaboration (approx. 5 to 10 pages)						
10-M-RCD-072-m01	Reading Course Discrete Mathematics							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	A (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	a) talk (approx. 30 minutes) or b) written elaboration (approx. 5 to 10 pages)						
Bachelor's with 1 major Mathematics (2007)					JMU Würzburg • generated 11-Jan-2023 • exam. reg. data record 82 105 - - H 2007			page 8 / 49

10-M-RCF-072-m01	Reading Course Functional Analysis							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	A (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	a) talk (approx. 30 minutes) or b) written elaboration (approx. 5 to 10 pages)						
10-M-RCO-072-m01	Reading Course Operations Research							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	A (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	a) talk (approx. 30 minutes) or b) written elaboration (approx. 5 to 10 pages)						
10-M-RCY-072-m01	Reading Course Dynamical Systems							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	A (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	a) talk (approx. 30 minutes) or b) written elaboration (approx. 5 to 10 pages)						
10-M-RCP-072-m01	Reading Course Optimisation							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	A (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	a) talk (approx. 30 minutes) or b) written elaboration (approx. 5 to 10 pages)						
Mathematics 4 (5 ECTS credits)								
10-M-BSA-072-m01	Seminar in Analysis							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	S (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	talk (approx. 60 minutes) Assessment offered: in the semester in which the course is offered Language of assessment: German, English if agreed upon with the examiner						
	Referred to in LPO I	§ 73 (1) 1. Mathematik Analysis						
10-M-BSL-072-m01	Seminar in Linear Algebra							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	S (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	talk (approx. 60 minutes) Assessment offered: in the semester in which the course is offered Language of assessment: German, English if agreed upon with the examiner						
	Referred to in LPO I	§ 73 (1) 2. Mathematik Lineare Algebra, Algebra und Elemente der Zahlentheorie						

10-M-BSE-072-mo1	Seminar in Algebra							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	S (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	talk (approx. 60 minutes) Assessment offered: in the semester in which the course is offered Language of assessment: German, English if agreed upon with the examiner						
	Referred to in LPO I	§ 73 (1) 2. Mathematik Lineare Algebra, Algebra und Elemente der Zahlentheorie						
10-M-BSG-072-mo1	Seminar in Geometry							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	S (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	talk (approx. 60 minutes) Assessment offered: in the semester in which the course is offered Language of assessment: German, English if agreed upon with the examiner						
	Referred to in LPO I	§ 73 (1) 4. Mathematik Geometrie						
10-M-BSZ-072-mo1	Seminar in Number Theory							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	S (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	talk (approx. 60 minutes) Assessment offered: in the semester in which the course is offered Language of assessment: German, English if agreed upon with the examiner						
	Referred to in LPO I	§ 73 (1) 2. Mathematik Lineare Algebra, Algebra und Elemente der Zahlentheorie						
10-M-BSW-072-mo1	Seminar in Ordinary Differential Equations							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	S (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	talk (approx. 60 minutes) Assessment offered: in the semester in which the course is offered Language of assessment: German, English if agreed upon with the examiner						
	Referred to in LPO I	§ 73 (1) 1. Mathematik Analysis						
10-M-BSC-072-mo1	Seminar in Complex Analysis							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	S (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	talk (approx. 60 minutes) Assessment offered: in the semester in which the course is offered Language of assessment: German, English if agreed upon with the examiner						
	Referred to in LPO I	§ 73 (1) 1. Mathematik Analysis						

10-M-BSN-072-m01	Seminar in Numerical Mathematics							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	S (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	talk (approx. 60 minutes) Assessment offered: in the semester in which the course is offered Language of assessment: German, English if agreed upon with the examiner						
	Referred to in LPO I	§ 73 (1) 5. Mathematik Angewandte Mathematik						
10-M-BSS-072-m01	Seminar in Stochastics							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	S (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	talk (approx. 60 minutes) Assessment offered: in the semester in which the course is offered Language of assessment: German, English if agreed upon with the examiner						
	Referred to in LPO I	§ 73 (1) 3. Mathematik Stochastik						
10-M-BSF-072-m01	Seminar in Functional Analysis							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	S (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	talk (approx. 60 minutes)						
10-M-BSO-072-m01	Seminar in Operation Research							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	S (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	talk (approx. 60 minutes)						
10-M-BSD-072-m01	Seminar in Discrete Mathematics							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	S (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	talk (approx. 60 minutes)						

Application-oriented Subject (35 ECTS credits)								
Application-oriented Subject Biology (35 ECTS credits)								
Application-oriented Subject Biology Compulsory Courses (10 ECTS credits)								
07-2A2GN-V-072-m01	Genetics, Neurobiology, Behaviour							
	ECTS	6	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		This module comprises 3 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">07-2A2GNV-1G-072: V + Ü (no information on SWS (weekly contact hours) and course language available)07-2A2GNV-2N-072: V + Ü (no information on SWS (weekly contact hours) and course language available)07-2A2GNV-3V-072: V + Ü (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		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 07-2A2GNV-1G-072: Basic Genetics Basic Genetics <ul style="list-style-type: none">2 ECTS, Method of grading: numerical gradewritten examination (approx. 30 minutes)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. Assessment in module component 07-2A2GNV-2N-072: Basic Neurobiology Basic Neurobiology <ul style="list-style-type: none">2 ECTS, Method of grading: numerical gradewritten examination (approx. 30 minutes)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. Assessment in module component 07-2A2GNV-3V-072: Behavioural Biology Behavioural Biology <ul style="list-style-type: none">2 ECTS, Method of grading: numerical gradewritten examination (approx. 30 minutes, word problems and/or multiple choice questions)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.					
	other prerequisites		By way of exception, additional prerequisites are listed in the section on assessments.					
	Participants and allocation of places		Only as part of "spezielles Studienangebot": 10 places.					
07-1A1Z-072-m01	Structure and Function of Cells							
	ECTS	4	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		V + Ü (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		written examination (60 minutes)					
	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.					

Application-oriented Subject Biology Compulsory Electives (25 ECTS credits)								
07-3A3BI-072-m01	Bioinformatics							
	ECTS	2	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		This module comprises 2 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">07-3A3BI-1B-072: V (no information on SWS (weekly contact hours) and course language available)07-3A3BI-2B-072: S (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		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 07-3A3BI-1B-072: Bioinformatics (Lecture) <ul style="list-style-type: none">1 ECTS, Method of grading: numerical gradewritten examination (approx. 20 minutes) Assessment in module component 07-3A3BI-2B-072: Bioinformatics (Seminar) <ul style="list-style-type: none">1 ECTS, Method of grading: (not) successfully completedterm paper (approx. 5 to 10 pages)					
	Participants and allocation of places		Only as part of Biochemistry Master's: 5 places. Places will be allocated by lot.					
07-3A3OE-072-m01	Ecology of plants and animals							
	ECTS	6	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		This module comprises 2 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">07-3A3OE-1T-072: V + Ü (no information on SWS (weekly contact hours) and course language available)07-3A3OE-2P-072: V + Ü (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		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 07-3A3OE-1T-072: Ecology of Animals (Lecture and Practice) Ecology of Animals (Lecture and Practice) <ul style="list-style-type: none">3 ECTS, Method of grading: numerical gradewritten examination (45 minutes) Assessment in module component 07-3A3OE-2P-072: Ecology of Plant (Lecture and Practice) Ecology of Plant (Lecture and Practice) <ul style="list-style-type: none">3 ECTS, Method of grading: numerical gradewritten examination (60 minutes)					
	Participants and allocation of places							
07-4BFMZ1-092-m01	Developmental Biology for advanced students							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		V + Ü (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		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 up to 3 candidates, approx. 60 minutes) or e) presentation (approx. 20 to 30 minutes)					

07-4BFMZ2-092-m01	Cell Biology for advanced students							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (60 minutes)						
07-4BFMZ3-092-m01	Microbiology for advanced students							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + P (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (60 minutes)						
07-4BFMZ4-092-m01	Bioinformatics for advanced students							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	log (approx. 10 to 20 pages)						
07-4BFMZ5-092-m01	Biotechnology I							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	This module comprises 2 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">07-4BFMZ5-1BT-092: P (no information on SWS (weekly contact hours) and course language available)07-4BFMZ5-2BT-092: S (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	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 07-4BFMZ5-1BT-092: Biotechnology 1 (Lecture and Laboratory Practice) <ul style="list-style-type: none">4 ECTS, Method of grading: numerical gradelog (approx. 10 to 20 pages)Assessment offered: once a year, summer semester Assessment in module component 07-4BFMZ5-2BT-092: Seminar to Advanced Biotechnology 1 <ul style="list-style-type: none">1 ECTS, Method of grading: (not) successfully completedpresentation (approx. 20 to 30 minutes)Assessment offered: once a year, summer semester						
07-4BFN-VO1-092-m01	Neurobiology for advanced students							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (60 minutes)						
07-4BFN-VO2-092-m01	Behavioural physiology and sociobiology for advanced students							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (60 minutes)						

07-4BFN-VO3-092-m01	Ecology of Animals for advanced students							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		V + Ü (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		written examination (60 minutes)					
07-4BF-PS1-092-m01	Specific Plant Physiology							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		V + Ü (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		written examination (60 minutes)					
07-4BF-PS2-092-m01	Biophysics - Basic course							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		V + Ü (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		written examination (60 minutes)					
07-4BF-PS3-092-m01	Biochemistry - Basic course							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		V + Ü (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		written examination (60 minutes)					
07-4BF-PS4-092-m01	Basics plant Ecophysiology							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		V + Ü (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		written examination (60 minutes)					
07-4BF-PS5-092-m01	Pharmaceutical bio analytics							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		This module comprises 2 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">07-4BFPS5-1BA-092: P (no information on SWS (weekly contact hours) and course language available)07-4BFPS5-2BA-092: S (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		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 07-4BFPS5-1BA-092: Pharmaceutical Bioanalytics (practical course) <ul style="list-style-type: none">4 ECTS, Method of grading: numerical gradewritten examination (45 minutes) Assessment in module component 07-4BFPS5-2BA-092: Seminar Pharmaceutical Bio Analytics <ul style="list-style-type: none">1 ECTS, Method of grading: (not) successfully completedpresentation (approx. 20 to 30 minutes)Assessment offered: once a year, summer semester					

03-4S1H-G-092-m01	Human Genetics							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		This module comprises 2 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">03-4S1HG-1HZ-092: V + Ü (no information on SWS (weekly contact hours) and course language available)03-4S1HG-2HZ-092: S (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		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 03-4S1HG-1HZ-092: Human Genetics (Lecture and Laboratory Practice) Human Genetics (Lecture and Laboratory Practice) <ul style="list-style-type: none">3 ECTS, Method of grading: numerical grade2 written examinations (multiple choice): mid-semester examination (15 minutes), end-of-semester examination (20 minutes)Other prerequisites: A basic knowledge of genetics is recommended. Assessment in module component 03-4S1HG-2HZ-092: Human Genetics (Seminar) <ul style="list-style-type: none">2 ECTS, Method of grading: (not) successfully completedpresentation (approx. 20 to 30 minutes)Other prerequisites: A basic knowledge of genetics is recommended.					
	other prerequisites		By way of exception, additional prerequisites are listed in the section on assessments.					
03-4S1IM-092-m01	Immunology I							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		This module comprises 2 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">03-4S1IM-1IM-092: V + Ü (no information on SWS (weekly contact hours) and course language available)03-4S1IM-2IM-092: P (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		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 03-4S1IM-1IM-092: Introduction into Immunology (Lecture and Practice) Introduction into Immunology (Lecture and Practice) <ul style="list-style-type: none">2 ECTS, Method of grading: numerical gradewritten examination (30 minutes)Language of assessment: German, English where required Assessment in module component 03-4S1IM-2IM-092: Immunology (Laboratory Course) <ul style="list-style-type: none">3 ECTS, Method of grading: (not) successfully completedpresentation (approx. 20 to 30 minutes)Language of assessment: German, English where required					
03-4S1P-C-092-m01	Physiological Chemistry I							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		V + Ü (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		written examination (60 minutes)					

03-4S1VL-092-m01	Virology I							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		This module comprises 3 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">03-4S1VL-1VL-092: V (no information on SWS (weekly contact hours) and course language available)03-4S1VL-3VL-092: P (no information on SWS (weekly contact hours) and course language available)03-4S1VL-2VL-092: S (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		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 03-4S1VL-1VL-092: Basic Virology (Lecture and Practice) <ul style="list-style-type: none">1 ECTS, Method of grading: numerical gradewritten examination (20 minutes)Language of assessment: German, English where required Assessment in module component 03-4S1VL-3VL-092: Virology (Laboratory Course) <ul style="list-style-type: none">3 ECTS, Method of grading: numerical gradewritten examination (20 minutes) or oral examination (20 minutes)Language of assessment: German, English Assessment in module component 03-4S1VL-2VL-092: Seminar on General Virology <ul style="list-style-type: none">1 ECTS, Method of grading: (not) successfully completedpresentation (approx. 20 to 30 minutes)Language of assessment: German, English where required					
07-4S1M-Z1-092-m01	Advanced Light- and Electron-Microscopy							
	ECTS	3	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		V + Ü (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		written examination (45 minutes)					
07-4S1M-Z2-092-m01	Analysis of Chromosomes							
	ECTS	3	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		V + Ü (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		written examination (45 minutes)					

07-4S1M- Z3-092-m01	Ecology and Developmental Biology of marine organisms							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		This module comprises 2 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">07-4S1MZ3-1MO-092: Ü (no information on SWS (weekly contact hours) and course language available)07-4S1MZ3-2MO-092: S (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		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 07-4S1MZ3-1MO-092: Ecology and Developmental Biology of Marine Organisms <ul style="list-style-type: none">4 ECTS, Method of grading: numerical gradelog (approx. 10 to 20 pages)Assessment offered: once a year, summer semesterOther prerequisites: Admission prerequisite to assessment: regular attendance of exercises and successful completion of the respective exercises as specified at the beginning of the course. Assessment in module component 07-4S1MZ3-2MO-092: Seminar on Marine Biology <ul style="list-style-type: none">1 ECTS, Method of grading: (not) successfully completedpresentation (approx. 20 to 30 minutes)Assessment offered: once a year, summer semester					
	other prerequisites		By way of exception, additional prerequisites are listed in the section on assessments.					
	Participants and allocation of places		Information on the allocation of places will be listed separately for each module component. <ul style="list-style-type: none">07-4S1MZ3-1MO-092: Number of places: 18. 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					
Bachelor's with 1 major Mathematics (2007)					JMU Würzburg • generated 11-Jan-2023 • exam. reg. data record 821051- -H 2007			page 18 / 49
			plicant; 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. <ul style="list-style-type: none">07-4S1MZ3-2MO-092: --					

07-4S1M- Z4-092-m01	Methods in Biotechnology							
	ECTS	2	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		This module comprises 2 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">07-4S1MZ4-1AB-092: V (no information on SWS (weekly contact hours) and course language available)07-4S1MZ4-2AB-092: S (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		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 07-4S1MZ4-1AB-092: Methods in Biotechnology (Lecture) <ul style="list-style-type: none">1 ECTS, Method of grading: numerical gradewritten examination (20 minutes) Assessment in module component 07-4S1MZ4-2AB-092: Seminar on Methods in Biotechnology <ul style="list-style-type: none">1 ECTS, Method of grading: (not) successfully completedpresentation (approx. 20 to 30 minutes)Assessment offered: once a year, summer semester					
07-4S1M- Z5-092-m01	Aspects of modern Biotechnology							
	ECTS	2	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		This module comprises 2 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">07-4S1MZ5-1MB-092: V (no information on SWS (weekly contact hours) and course language available)07-4S1MZ5-2MB-092: S (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		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 07-4S1MZ5-1MB-092: Aspects of Modern Biotechnology (Lecture) <ul style="list-style-type: none">1 ECTS, Method of grading: numerical gradewritten examination (20 minutes) Assessment in module component 07-4S1MZ5-2MB-092: Seminar on Molecular Biotechnology <ul style="list-style-type: none">1 ECTS, Method of grading: (not) successfully completedpresentation (approx. 20 to 30 minutes)Assessment offered: once a year, summer semester					
07-4S1M- Z6-092-m01	Special Bioinformatics I							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		V + Ü (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		log (approx. 10 to 20 pages)					
07-4S1N- VO1-092-m01	Neurobiology I							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		P (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		log (approx. 10 to 20 pages)					

07-4S1N-VO2-092-mo1	Aspects of Integrative Behavioural Biology							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		This module comprises 2 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">07-4S1NVO2-1IV-092: V (no information on SWS (weekly contact hours) and course language available)07-4S1NVO2-2IV-092: S (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		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 07-4S1NVO2-1IV-092: Aspects of Integrative Behavioural Biology 1 (Lecture and Practice) <ul style="list-style-type: none">2 ECTS, Method of grading: numerical gradewritten examination (30 minutes)Language of assessment: German or EnglishOther prerequisites: A good command of the English language is recommended. Assessment in module component 07-4S1NVO2-2IV-092: Current Topics in Behavioural Biology <ul style="list-style-type: none">3 ECTS, Method of grading: (not) successfully completedpresentation (approx. 20 to 30 minutes)Assessment offered: once a year, summer semesterLanguage of assessment: German or EnglishOther prerequisites: A good command of the English language is recommended.					
	other prerequisites		By way of exception, additional prerequisites are listed in the section on assessments.					

07-4S1N-VO3-092-m01	Functional Morphology of arthropods							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	term paper (approx. 5 to 10 pages)						
	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.						
07-4S1N-VO4-092-m01	Participants and 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.						
	Ecology of insects							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (60 minutes)						

07-4S1N-VO5-092-m01	Ecology of populations							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		This module comprises 2 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">07-4S1NVO5-1PO-092: V + Ü (no information on SWS (weekly contact hours) and course language available)07-4S1NVO5-2PO-092: S (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		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 07-4S1NVO5-1PO-092: Basic Ecology of Populations (Lecture, Practice) Basic Ecology of Populations (Lecture, Practice) <ul style="list-style-type: none">4 ECTS, Method of grading: numerical gradewritten examination (45 minutes) Assessment in module component 07-4S1NVO5-2PO-092: Ecology of Populations (Seminar) <ul style="list-style-type: none">1 ECTS, Method of grading: (not) successfully completedpresentation (approx. 20 to 30 minutes)					
07-4S1PS1-092-m01	Molecular modelling - From DNA to protein							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		V + Ü (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		computerised practical examination (4 hours)					
07-4S1PS2-092-m01	Introduction Methods in Plant Ecophysiology							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		V + Ü (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		log (approx. 10 to 20 pages)					
07-4S1PS3-092-m01	Pharmaceutical Drugs							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		This module comprises 2 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">07-4S1PS3-1PD-092: Ü (no information on SWS (weekly contact hours) and course language available)07-4S1PS3-2PD-092: S (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		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 07-4S1PS3-1PD-092: Pharmaceutical Drugs (Laboratory Course) <ul style="list-style-type: none">3 ECTS, Method of grading: numerical gradewritten examination (45 minutes) Assessment in module component 07-4S1PS3-2PD-092: Seminar on Pharmaceutical Drugs <ul style="list-style-type: none">2 ECTS, Method of grading: (not) successfully completedpresentation (approx. 20 to 30 minutes)					

07-4S1PS4-092-m01	Methods Pharmaceutical Biology - practical course							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		This module comprises 2 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">07-4S1PS4-1PB-092: P (no information on SWS (weekly contact hours) and course language available)07-4S1PS4-2PB-092: S (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		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 07-4S1PS4-1PB-092: Analytics and Molecular Biology of Pharmaceutical Drugs (Laboratory Course) <ul style="list-style-type: none">4 ECTS, Method of grading: numerical gradewritten examination (45 minutes) Assessment in module component 07-4S1PS4-2PB-092: Seminar on Analytics and Molecular Biology of Pharmaceutical Drugs <ul style="list-style-type: none">1 ECTS, Method of grading: (not) successfully completedpresentation (approx. 20 to 30 minutes)Assessment offered: once a year, winter semester					
07-5S2N-VO1-092-m01	Neurobiology II							
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		This module comprises 2 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">07-5S2NVO1-1NB-092: V + Ü (no information on SWS (weekly contact hours) and course language available)07-5S2NVO1-2NB-092: S (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		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 07-5S2NVO1-1NB-092: Neurobiology 2 (lecture and practical course) Neurobiology 2 (lecture and practical course) <ul style="list-style-type: none">7 ECTS, Method of grading: numerical gradea) 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 or English Assessment in module component 07-5S2NVO1-2NB-092: Neurobiology 2 (seminar) <ul style="list-style-type: none">3 ECTS, Method of grading: (not) successfully completedpresentation (approx. 20 to 30 minutes)					
07-5S2N-VO2-092-m01	Integrative Behavioural Biology II							
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		V + P (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		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 up to 3 candidates, approx. 60 minutes) or e) presentation (approx. 20 to 30 minutes)					

07-5S2N- VO3-092-m01	Ecology of animals II						
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level
			undergraduate				
	Courses		<p>This module comprises 2 module components. Information on courses will be listed separately for each module component.</p> <ul style="list-style-type: none"> 07-5S2NVO3-1OE-092: V + Ü (no information on SWS (weekly contact hours) and course language available) 07-5S2NVO3-2OE-092: S (no information on SWS (weekly contact hours) and course language available) 				
	Method of assessment		<p>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.</p> <p>Assessment in module component 07-5S2NVO3-1OE-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)</p> <ul style="list-style-type: none"> 9 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 or English <p>Assessment in module component 07-5S2NVO3-2OE-092: Ecology of Animals 2 - Analysis of ecological data (seminar)</p> <ul style="list-style-type: none"> 1 ECTS, Method of grading: (not) successfully completed presentation (approx. 20 to 30 minutes) Assessment offered: once a year, winter semester 				

07-5S2M- Z1-092-m01	Methods in molecular cell - and developmental Biology							
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses			This module comprises 3 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">• 07-5S2MZ1-1ZE-092: V + Ü (no information on SWS (weekly contact hours) and course language available)• 07-5S2MZ1-2ZE-092: Ü (no information on SWS (weekly contact hours) and course language available)• 07-5S2MZ1-3ZE-092: S (no information on SWS (weekly contact hours) and course language available)				
	Method of assessment			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 07-5S2MZ1-1ZE-092: Methods in molecular cell - and developmental Biology - Data processing and computer skills (lecture and practice) Methods in molecular cell - and developmental Biology - Data processing and computer skills (lecture and practice) <ul style="list-style-type: none">• 3 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 or English Assessment in module component 07-5S2MZ1-2ZE-092: Methods in molecular cell - and developmental Biology (laboratory course) <ul style="list-style-type: none">• 6 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 07-5S2MZ1-3ZE-092: Current topics in molecular cell - and developmental Biology (seminar) <ul style="list-style-type: none">• 1 ECTS, Method of grading: (not) successfully completed• presentation (approx. 20 to 30 minutes)				

07-5S2PS1-092-m01	Physiology of membrane transport mechanisms							
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		This module comprises 2 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">07-5S2PS1-1MT-092: Ü (no information on SWS (weekly contact hours) and course language available)07-5S2PS1-2MT-092: S (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		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 07-5S2PS1-1MT-092: Physiology of membrane transport mechanisms (laboratory course) <ul style="list-style-type: none">9 ECTS, Method of grading: numerical gradea) 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 or English Assessment in module component 07-5S2PS1-2MT-092: Physiology of membrane transport mechanisms - Progress in plant physiology (seminar) <ul style="list-style-type: none">1 ECTS, Method of grading: (not) successfully completedpresentation (approx. 20 to 30 minutes)					
	07-5S2PS2-092-m01							
	Molecular biology of plants							
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		This module comprises 2 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">07-5S2PS2-1MP-092: Ü (no information on SWS (weekly contact hours) and course language available)07-5S2PS2-2MP-092: S (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		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 07-5S2PS2-1MP-092: Molecular Biology of plants (laboratory course) <ul style="list-style-type: none">9 ECTS, Method of grading: numerical gradea) 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 or English Assessment in module component 07-5S2PS2-2MP-092: Molecular Biology of plants - Progress in plant physiology (seminar) <ul style="list-style-type: none">1 ECTS, Method of grading: (not) successfully completedpresentation (approx. 20 to 30 minutes)					

07-5S2PS3-092-m01	Protein biochemistry and expression of recombinant proteins							
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		This module comprises 2 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">07-5S2PS3-1PP-092: Ü (no information on SWS (weekly contact hours) and course language available)07-5S2PS3-2PP-092: S (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		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 07-5S2PS3-1PP-092: Protein biochemistry and expression of recombinant proteins (laboratory course) <ul style="list-style-type: none">9 ECTS, Method of grading: numerical gradea) 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 or English Assessment in module component 07-5S2PS3-2PP-092: Protein biochemistry and expression of recombinant proteins - Progress in plant physiology (seminar) <ul style="list-style-type: none">1 ECTS, Method of grading: (not) successfully completedpresentation (approx. 20 to 30 minutes)					
	07-5S2PS4-092-m01							
	Specific ecophysiology of plants							
ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate	
Courses		This module comprises 2 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">07-5S2PS4-1OP-092: Ü (no information on SWS (weekly contact hours) and course language available)07-5S2PS4-2OP-092: S (no information on SWS (weekly contact hours) and course language available)						
Method of assessment		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 07-5S2PS4-1OP-092: Advanced ecophysiology of plants (laboratory course) <ul style="list-style-type: none">9 ECTS, Method of grading: numerical gradea) 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 or English Assessment in module component 07-5S2PS4-2OP-092: Specific ecophysiology of plants (seminar) <ul style="list-style-type: none">1 ECTS, Method of grading: (not) successfully completedpresentation (approx. 20 to 30 minutes)						

07-5S2PS5-092-m01	Molecular biological methods in pharmaceutical biology							
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	This module comprises 2 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">07-5S2PS5-1MB-092: P (no information on SWS (weekly contact hours) and course language available)07-5S2PS5-2MB-092: S (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	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 07-5S2PS5-1MB-092: Molecular biological methods in pharmaceutical biology (Laboratory course) <ul style="list-style-type: none">9 ECTS, Method of grading: numerical gradea) 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 or English Assessment in module component 07-5S2PS5-2MB-092: Molecular biological methods in pharmaceutical biology (seminar) <ul style="list-style-type: none">1 ECTS, Method of grading: (not) successfully completedpresentation (approx. 20 to 30 minutes)						
07-5S2PS6-092-m01	Biochemical methods in pharmaceutical Biology							
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	This module comprises 2 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">07-5S2PS6-1BC-092: P (no information on SWS (weekly contact hours) and course language available)07-5S2PS6-2BC-092: S (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	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 07-5S2PS6-1BC-092: Molecular biological methods in pharmaceutical biology (Laboratory course) <ul style="list-style-type: none">9 ECTS, Method of grading: numerical gradea) 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 or English Assessment in module component 07-5S2PS6-2BC-092: Biochemical methods in pharmaceutical Biology (seminar) <ul style="list-style-type: none">1 ECTS, Method of grading: (not) successfully completedpresentation (approx. 20 to 30 minutes)						
03-5S2IM-092-m01	Immunology II							
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + P (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	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 up to 3 candidates, approx. 60 minutes) or e) presentation (approx. 20 to 30 minutes)						

03-5S2V-L-092-m01	Virology II							
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		This module comprises 3 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">03-5S2VL-1VL-092: V (no information on SWS (weekly contact hours) and course language available)03-5S2VL-2VL-092: S (no information on SWS (weekly contact hours) and course language available)03-5S2VL-3VL-092: P (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		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 03-5S2VL-1VL-092: Virology 2 (lecture) <ul style="list-style-type: none">1 ECTS, Method of grading: numerical gradewritten examination (30 minutes)Language of assessment: German, English where required Assessment in module component 03-5S2VL-2VL-092: Virology 2 (seminar) <ul style="list-style-type: none">1 ECTS, Method of grading: (not) successfully completedpresentation (approx. 20 to 30 minutes)Language of assessment: German, English Assessment in module component 03-5S2VL-3VL-092: Virology 2 (laboratory course) <ul style="list-style-type: none">8 ECTS, Method of grading: numerical gradewritten examination (20 minutes) or oral examination (20 minutes)Language of assessment: German, English where required					
03-5S2P-C-092-m01	Physiological Chemistry II							
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		This module comprises 2 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">03-5S2PC-1HB1-092: Ü (no information on SWS (weekly contact hours) and course language available)03-5S2PC-2HB-092: S (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		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 03-5S2PC-1HB1-092: Physiological chemistry 2 - Human biochemistry (laboratory course) <ul style="list-style-type: none">9 ECTS, Method of grading: numerical gradea) 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 03-5S2PC-2HB-092: Physiological chemistry 2 - Seminar on human biochemistry 1 <ul style="list-style-type: none">1 ECTS, Method of grading: (not) successfully completedpresentation (approx. 20 to 30 minutes)					

07-5EP-072-m01	External Practical Course							
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	P (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	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 up to 3 candidates, approx. 60 minutes) or e) presentation (approx. 20 to 30 minutes)						
07-5AP-072-m01	Practical Course as exchange student							
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	P (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	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 up to 3 candidates, approx. 60 minutes) or e) presentation (approx. 20 to 30 minutes)						
07-1A1E-072-m01	Evolution - Basics and Principles (Lecture and Practice)							
	ECTS	1	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (30 minutes)						
07-1A1T-072-m01	The Animal Kingdom							
	ECTS	4	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 60 minutes)						
	other prerequisites	Admission prerequisite to assessment: regular attendance of and participation in exercises as well as successful completion of the respective exercises as specified at the beginning of the course.						
07-1A1P-072-m01	The Plant Kingdom							
	ECTS	4	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 60 minutes)						
	other prerequisites	Admission prerequisite to assessment: regular attendance of exercises as well as successful completion of the respective exercises.						
07-3A3GE-072-m01	Genetics							
	ECTS	2	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + S (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (30 minutes)						
08-BC-072-m01	Biochemistry							
	ECTS	6	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü + V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (90 minutes)						
	other prerequisites	Registration for assessment: Yes, as specified.						

Application-oriented Subject Chemistry (35 ECTS credits)							
Application-oriented Subject Chemistry Compulsory Courses (26 ECTS credits)							
o8-OC1-072-m01	Organic Chemistry 1						
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment	written examination (90 minutes)					
	other prerequisites	Registration for assessment: Yes, as specified.					
o8-PC1-072-m01	Principles of quantum mechanics and spectroscopy						
	ECTS	8	Duration	1 semester	Method of grading	numerical grade	Modul level undergraduate
	Courses	V + Ü + V + Ü (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment	a) 1 to 3 written examinations (1 written examination: 90 minutes; 2 written examinations: 60 or 90 minutes each; 3 written examinations: 60 minutes each) or b) oral examination in groups (groups of 2, approx. 30 minutes)					
11-EFNF-072-m01	Introduction to Physics for Students of Non-physics-related Minor Subjects						
	ECTS	7	Duration	2 semester	Method of grading	numerical grade	Modul level undergraduate
	Courses	V + V (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment	written examination (approx. 120 minutes)					
	Participants and allo- cation of places	Only as part of pool of general key skills (ASQ): 10 places. Places will be allocated by lot.					
o8-CM1-072-m01	General Chemistry for Mathematics Majors						
	ECTS	6	Duration	1 semester	Method of grading	numerical grade	Modul level undergraduate
	Courses	V (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment	written examination (approx. 60 minutes)					
Application-oriented Subject Chemisty Compulsory Electives (9 ECTS credits)							
o8-OC2-072-m01	Organic Chemistry 2						
	ECTS	9	Duration	1 semester	Method of grading	numerical grade	Modul level undergraduate
	Courses	V + Ü + V (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment	a) 1 to 3 written examinations (1 written examination: 90 minutes; 2 written examinations: 60 or 90 minutes each; 3 written examinations: 60 minutes each) or b) oral examination in groups (groups of 2, approx. 30 minutes)					
o8-PC3-072-m01	Physical and Theoretical Chemistry 3: Symmetry and Quantum Chemistry						
	ECTS	6	Duration	1 semester	Method of grading	numerical grade	Modul level undergraduate
	Courses	V + Ü + V + Ü (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment	written examination (90 minutes)					
	other prerequisites	Registration for assessment: Yes, as specified.					

o8-TC-072-m01	Theoretical Models in Chemistry							
	ECTS	3	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		V + Ü (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		a) 1 to 3 written examinations (1 written examination: 90 minutes; 2 written examinations: 60 or 90 minutes each; 3 written examinations: 60 minutes each) or b) oral examination in groups (groups of 2, approx. 30 minutes)					
Application-oriented Subject Geography (35 ECTS credits)								
Application-oriented Subject Geography Compulsory Electives 1 (15 ECTS credits)								
09-HG1-072-m01	General Human Geography							
	ECTS	15	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		This module comprises 3 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">• 09-HG1-1-072: V + T (no information on SWS (weekly contact hours) and course language available)• 09-HG1-2-072: V + T (no information on SWS (weekly contact hours) and course language available)• 09-HG1-3-072: V + T (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		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 09-HG1-1-072: Introduction to the Geography of cities, towns and villages Introduction to the Geography of cities, towns and villages <ul style="list-style-type: none">• 5 ECTS, Method of grading: numerical grade• written examination (45 minutes) Assessment in module component 09-HG1-2-072: Introduction to Economic Geography Introduction to Economic Geography <ul style="list-style-type: none">• 5 ECTS, Method of grading: numerical grade• written examination (45 minutes) Assessment in module component 09-HG1-3-072: Introduction to Social and Population Geography Introduction to Social and Population Geography <ul style="list-style-type: none">• 5 ECTS, Method of grading: numerical grade• written examination (45 minutes)					

09-PG1-072-m01	General Physical Geography							
	ECTS	15	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		This module comprises 3 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">09-PG1-1-072: V + T (no information on SWS (weekly contact hours) and course language available)09-PG1-2-072: V + T (no information on SWS (weekly contact hours) and course language available)09-PG1-3-072: V + T (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		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 09-PG1-1-072: General Physical Geography 1 (Earth System: Endogenic Dynamics) General Physical Geography 1 (Earth System: Endogenic Dynamics) <ul style="list-style-type: none">5 ECTS, Method of grading: numerical gradewritten examination (45 minutes) Assessment in module component 09-PG1-2-072: General Physical Geography 2 (Earth System: Climate System) General Physical Geography 2 (Earth System: Climate System) <ul style="list-style-type: none">5 ECTS, Method of grading: numerical gradewritten examination (45 minutes)Other prerequisites: Registration for assessment: Yes, as specified. Assessment in module component 09-PG1-3-072: General Physical Geography 3 (Earth System: Endogenic Dynamics) General Physical Geography 3 (Earth System: Endogenic Dynamics) <ul style="list-style-type: none">5 ECTS, Method of grading: numerical gradewritten examination (45 minutes)Other prerequisites: Registration for assessment: Yes, as specified.					
	other prerequisites		By way of exception, additional prerequisites are listed in the section on assessments.					
Application-oriented Subject Geography Compulsory Electives 2 (10 ECTS credits)								
09-KART-072-m01	Cartography and Geoinformation							
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		This module comprises 2 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">09-KART-1-072: V + T (no information on SWS (weekly contact hours) and course language available)09-KART-2-072: Ü (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		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 09-KART-1-072: Cartography and Geodata Cartography and Geodata <ul style="list-style-type: none">5 ECTS, Method of grading: numerical gradewritten examination (approx. 75 minutes) or practice work (creating approx. 3 maps or diagrams, approx. 30 hours total), weighted 1:1 Assessment in module component 09-KART-2-072: Geographical Information Systems (GIS) <ul style="list-style-type: none">5 ECTS, Method of grading: numerical gradepractice work (approx. 5 pieces of practice work to be completed in approx. 30 hours)					

09-FERN-072-m01	Remote Sensing							
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		This module comprises 2 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">09-FERN-1-072: V + T (no information on SWS (weekly contact hours) and course language available)09-FERN-2-072: V + T (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		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 09-FERN-1-072: Introduction to Geographical Remote Sensing Introduction to Geographical Remote Sensing <ul style="list-style-type: none">5 ECTS, Method of grading: numerical gradewritten examination (45 minutes) Assessment in module component 09-FERN-2-072: Application of Remote Sensing in Geography Application of Remote Sensing in Geography <ul style="list-style-type: none">5 ECTS, Method of grading: numerical gradewritten examination (45 minutes)					
Application-oriented Subject Geography Compulsory Electives 3 (10 ECTS credits)								
09-PG2-072-m01	Special Problems of Physical Geography							
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		This module comprises 2 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">09-PG2-1-072: V (no information on SWS (weekly contact hours) and course language available)09-PG2-2-072: S (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		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 09-PG2-1-072: Special Problems of Physical Geography 1 (Earth System: Man and environment) <ul style="list-style-type: none">5 ECTS, Method of grading: numerical gradewritten examination (approx. 45 minutes) Assessment in module component 09-PG2-2-072: Special Problems of Physical Geography 2 (Earth System: Man and environment) <ul style="list-style-type: none">5 ECTS, Method of grading: numerical gradepresentation (approx. 30 minutes) with written elaboration (approx. 20 pages), weighted 1:1					
	Modules successfully completed		two module components of 09-PG1, 09-KART, 09-FERN, 09-STAT					

09-PG3-072-m01	Applied Physical Geography							
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		This module comprises 2 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">09-PG3-1-072: S (no information on SWS (weekly contact hours) and course language available)09-PG3-2-072: S (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		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 09-PG3-1-072: Project Seminar: Establishing Current Status and Data Acquisition <ul style="list-style-type: none">5 ECTS, Method of grading: numerical gradepresentation (30 minutes) with written elaboration (20 pages), weighted 1:1 Assessment in module component 09-PG3-2-072: Project Seminar: Data Evaluation, Data Visualisation and Presentation <ul style="list-style-type: none">5 ECTS, Method of grading: numerical gradeproject report (20 pages)					
09-MT1-072-m01	Data Acquisition and Processing in Physical Geography							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		S (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		presentation (15 minutes) with written elaboration (15 pages), weighted 1:1					
09-MT3-072-m01	Working Methods: Solid Earth System							
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		This module comprises 2 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">09-MT3-1-072: S (no information on SWS (weekly contact hours) and course language available)09-MT3-2-072: Ü (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		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 09-MT3-1-072: Mineral an Rock Identification <ul style="list-style-type: none">5 ECTS, Method of grading: numerical gradewritten or oral examination of one candidate each (30 minutes each) Assessment in module component 09-MT3-2-072: Geological Maps and Structures <ul style="list-style-type: none">5 ECTS, Method of grading: numerical gradewritten or oral examination of one candidate each (30 minutes each) or term paper (approx. 20 pages)					

09-MT5-072-m01	Working Methods of Physical Geography							
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		This module comprises 2 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">09-MT5-1-072: P (no information on SWS (weekly contact hours) and course language available)09-MT5-2-072: S (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		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 09-MT5-1-072: Introduction to physiogeographical Fieldwork Skills, Field Mapping and Measuring <ul style="list-style-type: none">5 ECTS, Method of grading: numerical gradeplacement report / fieldwork report / report on practical training / report on practical course / project report / report on technical course (approx. 15 pages)Other prerequisites: A basic knowledge of inorganic chemistry and physics is recommended. Assessment in module component 09-MT5-2-072: Data management, -analysis and -interpretation <ul style="list-style-type: none">5 ECTS, Method of grading: numerical gradepresentation of project (approx. 30 minutes) and written elaboration (approx. 20 pages); weighted 1:1Other prerequisites: A basic knowledge of inorganic chemistry and physics is recommended.					
	other prerequisites		By way of exception, additional prerequisites are listed in the section on assessments.					
09-HG2-072-m01	Special Issues of Human Geography							
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		This module comprises 2 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">09-HG2-1-072: S (no information on SWS (weekly contact hours) and course language available)09-HG2-2-072: S (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		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 09-HG2-1-072: Special issues of Human Geography 1 <ul style="list-style-type: none">5 ECTS, Method of grading: numerical gradepresentation (approx. 30 minutes) with written elaboration (approx. 20 pages), weighted 1:1 Assessment in module component 09-HG2-2-072: Special issues of Human Geography 2 <ul style="list-style-type: none">5 ECTS, Method of grading: numerical gradepresentation (approx. 30 minutes) with written elaboration (approx. 20 pages), weighted 1:1					
	Modules successfully completed		two module components of 09-HG1					

09-HG3-072-m01	Applied Human Geography							
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		This module comprises 2 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">09-HG3-1-072: S (no information on SWS (weekly contact hours) and course language available)09-HG3-2-072: S (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		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 09-HG3-1-072: Project oriented Seminar 1 for Applied Human Geography <ul style="list-style-type: none">5 ECTS, Method of grading: numerical gradepresentation (approx. 30 minutes) with written elaboration (approx. 20 pages), weighted 1:1 Assessment in module component 09-HG3-2-072: Project oriented Seminar 2 for Applied Human Geography <ul style="list-style-type: none">5 ECTS, Method of grading: numerical gradepresentation (approx. 30 minutes) with written elaboration (approx. 20 pages), weighted 1:1					
09-MT2-072-m01	Theories and Methodology in Human Geography							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		S (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		written examination (45 minutes) and presentation (approx. 20 minutes), weighted 1:1					
09-MT4-072-m01	Quantitative and Qualitative Regional Analysis							
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		This module comprises 2 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">09-MT4-1-072: S (no information on SWS (weekly contact hours) and course language available)09-MT4-2-072: S (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		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 09-MT4-1-072: Quantitative Regional Analysis <ul style="list-style-type: none">5 ECTS, Method of grading: numerical gradepresentation (30 minutes) with written elaboration (approx. 20 pages), weighted 1:1 Assessment in module component 09-MT4-2-072: Qualitative Regional Analysis <ul style="list-style-type: none">5 ECTS, Method of grading: numerical gradepresentation (30 minutes) with written elaboration (approx. 20 pages), weighted 1:1					
	Modules successfully completed		09-MT2 as well as one module component of modules 09-KART and 09-STAT each					

09-MT6-072-m01	Methods of Planning in Human Geography							
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		This module comprises 2 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">09-MT6-1-072: S (no information on SWS (weekly contact hours) and course language available)09-MT6-2-072: S (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		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 09-MT6-1-072: Methods of Planning in Human Geography 1 <ul style="list-style-type: none">5 ECTS, Method of grading: numerical gradea) presentation (approx. 25 minutes) with written elaboration (approx. 12 pages), weighted 1:1 or b) term paper (approx. 20 pages) or c) several small assessments (total length/expenditure of time comparable to a) and/or b)), weighted 1:1 Assessment in module component 09-MT6-2-072: Methods of Planning in Human Geography 2 <ul style="list-style-type: none">5 ECTS, Method of grading: numerical gradea) presentation (approx. 25 minutes) with written elaboration (approx. 12 pages), weighted 1:1 or b) term paper (approx. 20 pages) or c) several small assessments (total length/expenditure of time comparable to a) and/or b)), weighted 1:1					
	Modules successfully completed		09-MT2 as well as one module component of modules 09-KART and 09-STAT each					
Application-oriented Subject Computer Science (35 ECTS credits)								
Application-oriented Subject Computer Science Compulsory Electives (35 ECTS credits)								
10-I-IÜ-072-m01	Information transmission							
	ECTS	8	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		V + Ü (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		written examination (80 minutes) or oral examination (one candidate each: 20 minutes, groups of 2: 30 minutes, groups of 3: 40 minutes)					
10-I-RAL-072-m01	Digital computer systems							
	ECTS	8	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		V + Ü (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		written examination (80 minutes) or oral examination (one candidate each: 20 minutes, groups of 2: 30 minutes, groups of 3: 40 minutes)					
10-I-TI-072-m01	Theoretical informatics							
	ECTS	8	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		V + Ü (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		written examination (80 minutes) or oral examination (one candidate each: 20 minutes, groups of 2: 30 minutes, groups of 3: 40 minutes)					

10-I-ADS-072-m01	Algorithm and data structures							
	ECTS	8	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (80 minutes) or oral examination (one candidate each: 20 minutes, groups of 2: 30 minutes, groups of 3: 40 minutes)						
10-I-AR-072-m01	Automation and control technology							
	ECTS	8	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (80 minutes)						
10-I-DB-072-m01	Data bases							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (50 minutes) or oral examination (one candidate each: 15 minutes, groups of 2: 20 minutes, groups of 3: 25 minutes)						
10-I-GT-072-m01	Graphtheoretical concepts and algorithms							
	ECTS	8	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (80 minutes) or oral examination (one candidate each: 20 minutes, groups of 2: 30 minutes, groups of 3: 40 minutes)						
10-I-KT-072-m01	Theory of complexity							
	ECTS	8	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (80 minutes) or oral examination (one candidate each: 20 minutes, groups of 2: 30 minutes, groups of 3: 40 minutes)						
10-I-LOG-072-m01	Logic for informatics							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (50 minutes) or oral examination (one candidate each: 15 minutes, groups of 2: 20 minutes, groups of 3: 25 minutes)						
10-I-OOP-072-m01	Object oriented programming							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (50 minutes) or oral examination (one candidate each: 15 minutes, groups of 2: 20 minutes, groups of 3: 25 minutes)						

10-I-PP-072-m01	Practical course in programming							
	ECTS	9	Duration	1 semester	Method of grading	(not) successfully completed	Modul level	undergraduate
	Courses	P (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	completion of programming exercises (expenditure of time as specified) and final examination: written examination (60 to 90 minutes) or oral examination (one candidate each: 10 to 15 minutes, groups of 2: 20 minutes, groups of 3: 30 minutes)						
10-I-RAK-072-m01	Computer architecture							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (80 minutes) or oral examination (one candidate each: 20 minutes, groups of 2: 30 minutes, groups of 3: 40 minutes)						
10-I-RK-072-m01	Computer networks and communication systems							
	ECTS	8	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (80 minutes) or oral examination (one candidate each: 20 minutes, groups of 2: 30 minutes, groups of 3: 40 minutes)						
10-I-ST-072-m01	Software technology							
	ECTS	8	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (80 minutes) or oral examination (one candidate each: 20 minutes, groups of 2: 30 minutes, groups of 3: 40 minutes)						
10-I-SWP-072-m01	Practical course in software							
	ECTS	10	Duration	1 semester	Method of grading	(not) successfully completed	Modul level	undergraduate
	Courses	P (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	periodic presentations on project progress with regard to detailing problem specifications, the corresponding solution components (software) and the documentation of these; if project is completed in groups, proof of contributions made by the individual student required; software and project documentation as specified in assignment, final presentation (10 to 15 minutes per group)						
10-I-WMS-072-m01	Knowledge management systems and data mining							
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (80 minutes) or oral examination (one candidate each: 20 minutes, groups of 2: 30 minutes, groups of 3: 40 minutes)						

Application-oriented Subject Philosophy (35 ECTS credits)								
Application-oriented Subject Philosophy Compulsory Courses (20 ECTS credits)								
06-B-P1-072-m01	Principles of Philosophy							
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		This module comprises 3 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">• 06-B-P1-1-072: Ü (no information on SWS (weekly contact hours) and course language available)• 06-B-P1-2-072: Ü (no information on SWS (weekly contact hours) and course language available)• 06-B-P1-3-072: Ü + Ü (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		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 06-B-P1-1-072: Introduction to academic working techniques <ul style="list-style-type: none">• 2 ECTS, Method of grading: (not) successfully completed• 2 to 3 written assessments (approx. 1 page each) and/or oral assessments (approx. 5 minutes each) Assessment in module component 06-B-P1-2-072: Formal Logic <ul style="list-style-type: none">• 3 ECTS, Method of grading: (not) successfully completed• written examination (90 minutes) Assessment in module component 06-B-P1-3-072: Principles of Philosophy: historical epochs, main works, authors Principles of Philosophy: historical epochs, main works, authors <ul style="list-style-type: none">• 5 ECTS, Method of grading: numerical grade• oral examination (approx. 25 minutes)					
06-B-P2-072-m01	Philosophy and the sciences							
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		This module comprises 2 module components. Information on courses will be listed separately for each module component. <ul style="list-style-type: none">• 06-B-P2-1-072: S (no information on SWS (weekly contact hours) and course language available)• 06-B-P2-2-072: S (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		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 06-B-P2-1-072: Philosophical principles of arts and humanities <ul style="list-style-type: none">• 5 ECTS, Method of grading: numerical grade• written examination (approx. 120 minutes) Assessment in module component 06-B-P2-2-072: Philosophical principles of natural sciences and technology <ul style="list-style-type: none">• 5 ECTS, Method of grading: numerical grade• written examination (approx. 120 minutes)					
Application-oriented Subject Philosophy Compulsory Electives (15 ECTS credits)								
06-B-P3-072-m01	Theoretical philosophy							
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		Ü + Ü + S + S (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		written examination (approx. 180 minutes)					

o6-B-P4-072-m01	Practical Philosophy							
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		Ü + Ü + S + S (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		written examination (approx. 180 minutes)					
o6-B-P5-072-m01	History of philosophy							
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		Ü + Ü + S + S (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		written examination (approx. 180 minutes)					
o6-B-P6-072-m01	Issue of research in philosophy							
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		V + S + S (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		term paper (approx. 12 pages)					
o6-B-W1-072-m01	Text analysis: Ancient Philosophy							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		S (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		term paper (approx. 12 pages)					
o6-B-W2-072-m01	Text Analysis: Medieval Philosophy							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		S (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		term paper (approx. 12 pages)					
o6-B-W3-072-m01	Text analysis: modern philosophy							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		S (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		term paper (approx. 12 pages)					
o6-B-W4-072-m01	Text analysis: contemporary philosophy							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		S (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		term paper (approx. 12 pages)					
o6-B-W5-072-m01	Basic disciplines of theoretical philosophy: metaphysics and epistemology							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		S (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		term paper (approx. 12 pages)					
o6-B-W6-072-m01	Specific disciplines of theoretical philosophy							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		S (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		term paper (approx. 12 pages)					

06-B-W7-072-m01	Basic disciplines of practical philosophy: ethics and theory of action							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	S (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	term paper (approx. 12 pages)						
06-B-W8-072-m01	Specific disciplines of practical philosophy							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	S (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	term paper (approx. 12 pages)						
06-B-W9-072-m01	Problems of Older Philosophy: Ancient/Medieval							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	S (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	oral examination (approx. 25 minutes)						
06-B-W10-072-m01	Problems of Modern/Contemporary Philosophy							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	S (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	oral examination (approx. 25 minutes)						
06-B-W11-072-m01	Problems of Theoretical Philosophy							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	S (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	oral examination (approx. 25 minutes)						
06-B-W12-072-m01	Problems of Practical Philosophy							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	S (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	oral examination (approx. 25 minutes)						
Application-oriented Subject Physics (35 ECTS credits)								
Application-oriented Subject Physics Compulsory Courses (16 ECTS credits)								
11-ENNF1-062-m01	Introduction to Physics Part 1 for students of Physics Related Minor Subjects							
	ECTS	7	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 120 minutes)						
	Participants and allocation of places	Only as part of pool of general key skills (ASQ): 20 places. Places will be allocated by lot.						

11-ENNF2-062-m01	Introduction to Physics Part 2 for students of Physics Related Minor Subjects							
	ECTS	7	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		V + Ü (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		written examination (approx. 120 minutes)					
	Participants and allo- cation of places		Only as part of pool of general key skills (ASQ): 20 places. Places will be allocated by lot.					
11-PFR-072-m01	Measurements and Data Analysis							
	ECTS	2	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		V + Ü (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		written examination (approx. 120 minutes)					
Application-oriented Subject Physics Compulsory Electives 1 (3 ECTS credits)								
11-PNNF-062-m01	Physics Laboratory Course for students of Physics Related Minor Subjects							
	ECTS	3	Duration	1 semester	Method of grading	(not) successfully completed	Modul level	undergraduate
	Courses		P (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		a) oral test (approx. 15 minutes) during experiment and b) ungraded written examination (approx. 90 minutes)					
	Participants and allo- cation of places		Only as part of pool of general key skills (ASQ): 15 places. Places will be allocated by lot.					

11-PG-IAF-072-m01	Practical Course							
	ECTS	4	Duration	1 semester	Method of grading	(not) successfully completed	Modul level	undergraduate
	Courses		Beispiele aus Mechanik, Wärmelehre und Elektrik (Examples from Mechanics, Thermodynamics and Electricity, BAM): P (2 weekly contact hours) Klassische Physik (Classical Physics, KLP): P (2 weekly contact hours) Elektrizitätslehre und Schaltungen (Electricity and Circuits, ELS): P (2 weekly contact hours) Wellenoptik (Physical Optics, WOP): P (2 weekly contact hours) Atom- und Kernphysik (Atomic and Nuclear Physics, AKP): P (2 weekly contact hours) Computer und Messtechnik (Computers and Measurement Technology, CMT): P (2 weekly contact hours)					
	Method of assessment		This module has the following assessment components 1. Lab course in part 1: a) Preparing, performing and evaluating the experiments will be considered successfully completed if a Testat (exam) is passed. b) Talk (with discussion) to test the students' understanding of the physics-related contents of the course (approx. 30 minutes). 2. Lab course in part 2: a) Preparing, performing and evaluating the experiments will be considered successfully completed if a Testat (exam) is passed. b) Talk (with discussion) to test the students' understanding of the physics-related contents of the course (approx. 30 minutes). Students must register for assessment components 1 and 2 online (registration deadline to be announced). Students will be offered one opportunity to retake element a) and/or element b). To pass an assessment component, they must pass both elements a) and b). To pass this module, students must successfully complete two out of the six courses. Students must attend BAM, KLP or ELS courses prior to attending WOP, AKP or CMT courses. To pass this module, students must pass both assessment component 1 and assessment component 2.					
	other prerequisites		Module 11-PFR recommended.					
Application-oriented Subject Physics Compulsory Electives 2 (16 ECTS credits)								
11-E3-072-m01	Experimental Physics 3 (Optics, Quantum Phenomena, Introduction Atomic Physics)							
	ECTS	8	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		V + Ü (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		written examination (approx. 120 minutes)					
11-E4-072-m01	Experimental Physics 4 (Introduction to Solid State Physics)							
	ECTS	8	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		V + Ü (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		written examination (approx. 120 minutes)					
11-T1-072-m01	Theoretical Physics 1 (Theoretical Mechanics)							
	ECTS	8	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		V + Ü (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		written examination (approx. 120 minutes)					

11-T2-072-m01	Theoretical Physics 2 (Theoretical Electrostatics and Electrodynamics)							
	ECTS	8	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 120 minutes)						
11-T3-072-m01	Theoretical Physics 3 (Theoretical Quantum Mechanics)							
	ECTS	8	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 120 minutes)						
11-T4-072-m01	Theoretical Physics 4 (Theoretical Thermodynamics and Statistics)							
	ECTS	8	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 120 minutes)						
Application-oriented Subject Business Management and Economics (35 ECTS credits)								
Application-oriented Subject Business Management and Economics Compulsory Courses (30 ECTS credits)								
12-IntUR-G-072-m01	Managerial Accounting							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 60 minutes)						
12-ExtUR-G-072-m01	Financial Accounting							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 60 minutes)						
12-EBWL-G-072-m01	Introduction to Business Administration							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 60 minutes)						
12-EVWL-G-072-m01	Introduction to Economics							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 60 minutes)						
12-Mak1-G-072-m01	Macroeconomics 1							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 60 minutes)						

12-Mik1-G-072-m01	Microeconomics 1							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 60 minutes)						
Application-oriented Subject Business Management and Economics Compulsory Electives (5 ECTS credits)								
12-Mark-G-072-m01	Introduction to Market-Oriented Management							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 60 minutes)						
12-BPL-G-072-m01	Supply, Production and Operations Management. An Introduction							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 60 minutes)						
12-l&F-G-072-m01	Investment and Finance. An Introduction							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 60 minutes)						
12-Mak2-G-072-m01	Macroeconomics 2							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 60 minutes)						
12-Mik2-G-072-m01	Microeconomics 2							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 60 minutes)						
12-WiPo-G-072-m01	Introduction to Economic Policy							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 60 minutes)						
Thesis (10 ECTS credits)								
10-M-BAM-072-m01	Thesis Mathematics (Bachelor Thesis)							
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	no courses assigned						
	Method of assessment	written thesis Language of assessment: German, English if agreed upon with the examiner						
	other prerequisites	Registration for assessment: as specified.						
Bachelor's with 1 major Mathematics (2007)					JMU Würzburg • generated 11-Jan-2023 • exam. reg. data record 82 105 - - H 2007			page 48 / 49

Subject-specific Key Skills (15 ECTS credits)								
10-M-VKM-072-m01	Preparatory Course Mathematics							
	ECTS	2	Duration	1 semester	Method of grading	(not) successfully completed	Modul level	undergraduate
	Courses		V + T (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		completion of project assignments (to be specified at the beginning of the course)					
10-M-PRG-072-m01	Programming Course for Mathematics and other students							
	ECTS	3	Duration	1 semester	Method of grading	(not) successfully completed	Modul level	undergraduate
	Courses		P (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		project in the form of programming exercises (expenditure of time as specified at the beginning of the course)					
10-M-COM-072-m01	Computeroriented Mathematics							
	ECTS	3	Duration	1 semester	Method of grading	(not) successfully completed	Modul level	undergraduate
	Courses		V + Ü (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		project in the form of programming exercises (expenditure of time as specified at the beginning of the course)					
10-M-BAK-072-m01	Defense of Bachelor Thesis in Mathematics							
	ECTS	2	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses		A (no information on SWS (weekly contact hours) and course language available)					
	Method of assessment		talk (approx. 15 minutes) with subsequent discussion (approx. 15 minutes)					